



Faculty of Economics and Business

Fostering Employees' Innovative Behavior in the Malaysian Telecommunication Industry: The Role of Inclusive Leadership and Organizational Innovation Culture

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A dissertation submitted

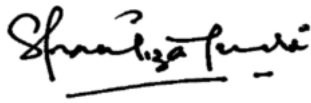
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DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The dissertation has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.



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ABSTRACT

This study investigates the dynamics of inclusive leadership and organizational innovation culture within the Malaysian mobile telecommunication industry, as well as their impact on employees' innovative behavior. Anchored in self-determination theory and social exchange theory, the research aims to investigate the direct effects of inclusive leadership on employees' innovative behavior and examine the potential moderating role of organizational innovation culture. Using a quantitative approach, data were collected from employees across Malaysia's four leading telecommunication companies. The analysis employed structural equation modeling to test the proposed hypotheses. The findings indicate that inclusive leadership exerts a minimal positive influence on employees' innovative behavior. Additionally, there is a significantly positive relationship between organizational innovation culture and inclusive leadership, as well as between organizational innovation culture and employees' innovative behavior. Contrary to expectations, organizational innovation culture does not moderate the relationship between inclusive leadership and employees' innovative behavior. This study contributes to the existing literature by providing empirical evidence of the relationships between inclusive leadership, organizational innovation culture, and employee innovation behavior in the Malaysian telecommunication industry. It offers practical insights for industry leaders and managers aiming to foster innovation through inclusive leadership practices and a supportive organizational culture. The limitations and directions for future research are also discussed.

Keywords: Inclusive Leadership, Employees' Innovative Behavior, Organizational Innovation Culture

Kesan Kepimpinan Inklusif Terhadap Tingkah Laku Inovatif Pekerja dalam Industri Telekomunikasi Mudah Alih Malaysia: Peranan Pengantaraan Budaya Inovasi Organisasi

ABSTRAK

Kajian ini meneroka dinamik kepimpinan inklusif dan budaya inovasi organisasi dalam industri telekomunikasi mudah alih Malaysia dan kesan mereka terhadap tingkah laku inovatif pekerja. Berlandaskan Teori Penentuan Kendiri dan Teori Pertukaran Sosial, penyelidikan ini bertujuan untuk menjelaskan kesan langsung kepimpinan inklusif terhadap tingkah laku inovatif pekerja dan mengkaji peranan pengantaraan yang mungkin dimainkan oleh budaya inovasi organisasi. Dengan menggunakan pendekatan kuantitatif, data dikumpulkan daripada pekerja di lima syarikat telekomunikasi terkemuka di Malaysia. Analisis menggunakan pemodelan persamaan struktural untuk menguji hipotesis yang dicadangkan. Dapatan kajian menunjukkan bahawa kepimpinan inklusif memberikan pengaruh positif yang minimum terhadap tingkah laku inovatif pekerja. Tambahan pula, terdapat hubungan positif yang signifikan antara budaya inovasi organisasi dan kepimpinan inklusif, serta antara budaya inovasi organisasi dan tingkah laku inovatif pekerja. Bertentangan dengan jangkaan, budaya inovasi organisasi tidak memoderasi hubungan antara kepimpinan inklusif dan tingkah laku inovatif pekerja. Kajian ini menyumbang kepada literatur sedia ada dengan menyediakan bukti empirikal tentang hubungan antara kepimpinan inklusif, budaya inovasi organisasi, dan tingkah laku inovasi pekerja dalam industri telekomunikasi Malaysia. Ia menawarkan pandangan praktikal untuk pemimpin industri dan pengurus yang bertujuan untuk memupuk inovasi melalui amalan kepimpinan inklusif dan budaya organisasi yang menyokong. Had dan arah untuk penyelidikan masa depan juga dibincangkan.

Kata kunci: *Kepimpinan Inklusif, Tingkah Laku Inovatif Pekerja, Budaya Inovasi Organisasi*

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LIST OF ABBREVIATIONS

B2B	Business to Business
CAPEX	Capital Expenditure
DC	Dynamic Capabilities
EIB	Employees' Innovative Behavior
ICT	Information and Communications Technology
IL	Inclusive Leadership
IMF	International Monetary Fund
IWB	Innovative Work Behavior
IWII	Innovative Work Inhibitors and Interdependencies
IWLL	Innovative Work Learning and Leadership
IWPP	Innovative Work Processes and Performance
JENDELA	Jalanan Digital Negara
MCMC	Malaysian Communications and Multimedia Commission
MOSTI	Ministry of Science, Technology and Innovation
OECD	Organization for Economic Co-operation and Development
OIC	Organizational Innovative Culture
OTT	Over The Top
R&D	Research And Development
SDT	Self Determination Theory
SET	Social Exchange Theory
VAS	Value Added Services

CHAPTER 1

INTRODUCTION

1.1 Introduction

Developed economies rely heavily on the services sector. The service sector, encompassing a broad range of industries, including telecommunications and ICT, is a cornerstone of economic stability and growth. The OECD Economic Outlook highlights the sector's resilience, its impact on labor markets, and the persistent inflation dynamics within services. Telecommunications, as a critical component of the service sector, plays a vital role in enhancing productivity, supporting global trade, and driving digital transformation. The OECD report emphasizes the need for investments in digital infrastructure and innovation, even amidst fiscal consolidation efforts. These investments are vital for enhancing productivity, skills development, and overall economic growth (OECD, 2023). The report also emphasizes the importance of structural reforms to address challenges posed by digitalization. Such reforms include efforts to reduce barriers in labor and product markets, enhance skills development, and improve productivity prospects. Telecommunications and ICT are at the forefront of these efforts, providing the technological foundation for digital transformation.

Recent studies have highlighted that the service sector, particularly in developing economies, has seen notable productivity growth. This growth is largely driven by digitalization and the adoption of new management practices. For example, in the United States, ICT-based technologies have allowed service firms to scale and standardize their offerings across different locations, leading to substantial productivity gains, especially in smaller markets. This contradicts the earlier belief that manufacturing was the primary driver

of economic catch-up for developing economies (UNCTAD, 2023). Compared to manufacturing, innovations within services seem to be primarily non-technical and arise from minor, gradual adjustments in operational methods and protocols. These adjustments typically do not demand extensive formal research and development (R&D) efforts. The Bain and Company report from 2023 discusses how service sectors like telecommunications and IT services focus on leveraging existing technologies and enhancing service models. The report notes that these sectors prioritize practical applications and operational tweaks over large-scale, technical R&D projects, further supporting the notion that service sector innovations are often non-technical and gradual (Crawford, 2023).

The present study investigates the dynamics of inclusive leadership and organizational innovation culture within the Malaysian mobile telecommunication industry as well as their role in fostering employees' innovative behavior. This study emphasizes the significance of inclusive leadership and organizational innovation culture within the Malaysian mobile telecommunication industry. It highlights that inclusive leadership enhances leadership practices by fostering a supportive environment that values diversity and encourages open communication. This empowers employees, boosting their engagement, creativity, job satisfaction, and professional growth. Embracing inclusive leadership and cultivating an innovative culture fosters sustainable growth, a competitive advantage, and continuous innovation.

1.1.1 Importance of ICT and Innovation

By increasing productivity across various sectors, ICT contributes significantly to economic growth. According to a study by the International Monetary Fund (IMF), countries that have invested heavily in ICT infrastructure have experienced accelerated economic

growth due to improved efficiency and reduced transaction costs (IMF, 2020). Additionally, ICT enhances access to information and essential services such as education, healthcare, and financial services. This accessibility helps bridge the digital divide and promote inclusive development. The World Bank (2021) highlights how ICT-enabled platforms have democratized information, allowing marginalized communities to access resources previously out of reach.

With seamless communication and collaboration facilitated by ICT, connectivity is crucial for fostering innovation, as it allows for the sharing of ideas, knowledge, and best practices. According to Pradhan et al., (2020), the networked nature of ICT fosters a collaborative environment conducive to innovation. ICT has also revolutionized public administration through e-government initiatives, improving service delivery and citizen engagement. E-government platforms enhance transparency, reduce corruption, and make public services more accessible and efficient (United Nations E-Government Survey, 2022).

Innovation, driven by ICT, is central to organizational and economic advancement. It encompasses the creation of new products, services, and processes that improve efficiency, productivity, and competitiveness. Organizations that innovate are better positioned to gain a competitive advantage in the marketplace. Innovation leads to the development of unique products and services that meet evolving consumer needs, thereby enhancing market position (Belton, 2017). Moreover, innovation contributes to economic resilience by diversifying economies and creating new industries and job opportunities. According to the OECD (2020), innovative economies are better equipped to adapt to global changes and recover from economic downturns.

The synergy between ICT and innovation creates a virtuous cycle that propels both organizational and economic development. ICT is a key enabler of digital transformation,

which involves leveraging digital technologies to innovate and transform business processes. This transformation leads to enhanced operational efficiency, improved customer experiences, and the creation of new business models (Vial, 2019). Additionally, ICT facilitates the creation of innovation ecosystems, where diverse stakeholders such as businesses, government, academia, and civil society collaborate to drive innovation. These ecosystems foster knowledge exchange, co-creation, and the development of innovative solutions (Thomas & Autio, 2019).

1.1.2 The Synergy of ICT and Innovation in Telecommunication

The synergy of Information and Communication Technology (ICT) and innovation within the telecommunication industry represents a transformative force reshaping the landscape of business processes and service delivery. The telecommunication sector serves as a prime illustration of the critical importance of the service industry in fostering economic growth and driving innovation. The telecommunication industry serves as a prime exemplar of the service sector's critical role in fostering economic growth and driving innovation. As an integral component of information and communications technology (ICT) services, the telecommunication sector has been at the forefront of the digital revolution, enabling the seamless flow of information and fostering connectivity on a global scale (Veligura et al., 2019).

The telco industry's role in innovation extends beyond technological advancements. It encompasses process innovations and the development of new business models that leverage digital connectivity to meet evolving consumer demands. For instance, the emergence of cloud-based services and the Internet of Things (IoT) has transformed how

businesses and consumers interact, leading to more personalized and efficient service delivery (Insights, 2024).

This distinctive innovation landscape gains even more significance when examining the trajectory of the global telecommunication industry. Since the 1960s, innovation has been a driving force in the global telecommunication industry's development and expansion. The infusion of innovation into this sector was largely facilitated by extensive research and development (R&D) initiatives aimed at pushing technological boundaries and addressing sector-specific challenges. As telecommunications R&D projects advanced, integrating administrative elements became essential to improve quality, profitability, and efficiency. The competitive telecommunications market prompted companies to leverage innovation to gain a competitive edge by introducing novel concepts, products, and services to attract and retain customers. This emphasis on innovation was shaped by trends, including heightened global competition, complex markets, and rapid technological evolution (Letangule et al., 2012). Innovation has become a critical driver for growth and survival, particularly within telecommunications services. Its role has evolved from being optional to becoming a necessity for firms in this sector.

The dynamics of globalization, liberalization, and privatization have emphasized the importance of innovation for the viability of telecommunications enterprises. Companies have been able to improve their innovation capacities by sharing information and experiences via global collaborative efforts. The evolution of mobile technology from 3G to 4G and now 5G has heralded a transformative era for telecommunications. With features like high-speed data transmission and expanded bandwidth, the industry has transcended basic communication, embracing advanced media and diverse internet services. These groundbreaking innovations have empowered telecommunications companies to diversify

their revenue streams, incorporating sources such as business-to-business (B2B) services and value-added services (VAS) (Birudavolu & Nag, 2011).

The ongoing digital transformation in the telecommunication industry involves adopting advanced digital tools and platforms to enhance service delivery, improve customer interactions, and optimize internal processes. As noted by McKinsey (2021), telecommunications companies are at the forefront of this digital revolution, driving changes that lead to more efficient and effective operations. A critical aspect of this synergy is the creation of innovation ecosystems. Telecommunications companies play a central role in these ecosystems, collaborating with technology firms, startups, academia, and governments. These collaborative networks are essential for fostering innovation, as they facilitate the development of new technologies, applications, and business models. The Boston Consulting Group (2020) highlights that these ecosystems enable the pooling of resources and expertise, which accelerates the innovation process and leads to the creation of groundbreaking solutions that meet the evolving demands of the market.

Moreover, the vast amounts of data generated by telecommunication networks are a goldmine for driving innovation. Through the use of big data analytics and machine learning, telecommunication companies can gain profound insights into customer behavior, preferences, and usage patterns. This data-driven approach allows companies to optimize network performance, develop targeted marketing strategies, and enhance overall service quality. IBM (2020) emphasizes that the ability to analyze and act upon these insights is crucial for maintaining a competitive edge in the rapidly evolving telecommunications sector.

The integration of ICT and innovation within telecommunications is not just about technological advancements but also about creating a culture that embraces change and

fosters continuous improvement. By leveraging digital transformation, creating robust innovation ecosystems, and utilizing data-driven insights, telecommunications companies can drive significant advancements in service delivery and operational efficiency. This synergy ultimately leads to enhanced customer satisfaction, greater market responsiveness, and sustained competitive advantage.

1.2 Background of the Study

The Malaysian telecommunications sector, an integral part of the service industry, stands out in a fast-paced, fiercely competitive economy due to its crucial reliance on innovation for ongoing success and expansion. Notably, the sector has witnessed a significant surge in broadband subscriptions since the 2000s (MOSTI, 2020) while also earning recognition for its innovative practices within the mobile telecommunications domain (Hajar et al., 2020). Understanding that innovation stems from individuals' original thinking, necessitates a deeper understanding of how personal traits impact the outcomes of inventive efforts (Purc & Laguna, 2019). This is particularly vital during challenging times such as the COVID-19 pandemic, where the ability to think creatively and act swiftly is essential for organizational success (Choi, Kang & Choi, 2021).

Consequently, it is no surprise that employees constitute an organization's primary source of innovation (Iqbal et al., 2020). In a sector acutely aware of the pivotal role of innovation in its future accomplishments, the telecommunication industry acknowledges the necessity of differentiation through disruptive innovation. Faced with the intensified competition due to market liberalization, privatization, and globalization, companies must innovate to expand their customer base, enhance sales, and bolster profits. Achieving this

entails providing high-quality, state-of-the-art services that attract and retain clients (Hajar et al., 2022).

However, promoting innovative behavior at the organizational level presents challenges that necessitate a supportive and inclusive culture. Leaders have a critical role in fostering an environment conducive to innovation (Nadolna, 2020), and inclusive leaders who are committed to diversity and inclusion may do wonders for the creative process in their organizations. Inclusive leadership values, promotes diversity of opinion, and fosters an atmosphere conducive to creativity. To do this successfully, leaders must encourage an atmosphere of open dialogue and cooperation among team members, and by embracing inclusive leadership practices, leaders can tap into the full potential of their team, driving creativity and innovation throughout the organization.

Fostering a work environment that encourages and rewards creative problem-solving and the generation of new ideas among employees stands as a pivotal strategy for enhancing an organization's strength and competitiveness (M. Hazem & Zehou, 2019). To ensure sustainability and competitiveness in the present and future, organizations must cultivate an innovation culture, a mandate applicable across industries and business scales.

Contrary to these popular findings, how inclusive leadership might foster an employee's innovative behavior has not been discussed thoroughly in research. Inclusive leadership has emerged as a potential strategy to boost creativity, and leaders have a vital role in defining organizational culture and employee behavior. Given the expansion and transformation of Malaysia's mobile telecommunications business in recent years due to rising consumer demand and technological developments, fostering a culture of innovation has become crucial in today's competitive business environment, and inclusive leadership might be the key to achieving this.

1.3 Problem Statement

In the era of globalization, fierce competition, and the constant need for innovation, the Malaysian telecommunication industry faces challenges in maintaining its competitive edge and driving sustained growth (Hajar et al., 2020). The industry's rapid evolution, fueled by technical advancements, changing consumer preferences, and emerging market trends, creates a dynamic and ever-shifting competitive environment for organizations in the telecommunications sector. The Malaysian telecommunication (telco) industry is undergoing a significant transformation driven by rapid technological advancements, substantial capital expenditure (CAPEX) requirements, and intense competition.

This dynamic environment presents both opportunities and challenges unique to the sector. Understanding these trends and addressing the challenges by encouraging employees to innovate is critical for long-term growth and competitiveness. One of the most prominent trends in the Malaysian telco industry is the deployment of 5G technology. The total investment required for 5G deployment is estimated to be between RM7 billion and RM10 billion over the next few years, with the goal of achieving 80% nationwide coverage by the end of 2024 (Fitch Solutions, 2021; Newman, 2024). This new technology promises to significantly enhance data speeds, connectivity, and the overall digital experience for users. However, the substantial CAPEX required for this deployment poses a significant challenge for telco companies.

With the expansion of broadband infrastructure under the Jalanan Digital Negara (JENDELA) initiative, 4G coverage now reaches 96.92% of the population, and 7.74 million premises have been connected with fiber. This achievement, surpassing the initial targets set by the Malaysian Communications and Multimedia Commission (MCMC) in 2023, is expected to lead to a significant increase in the number of mobile subscribers in Malaysia.

Research and Markets 2023 forecasts 40 million 5g subscribers by 2031, emphasizing telco companies' significant challenge. High CAPEX requirements for infrastructure development, particularly for 5G and broadband expansion, necessitate efficient resource management. Navigating the complex regulatory landscape, ensuring digital inclusion, and managing competition from over-the-top (OTT) services such as WhatsApp and Netflix also pose significant challenges. Furthermore, cybersecurity and data privacy concerns are paramount as telco companies handle vast amounts of sensitive data.

In this context, fostering employee innovative behavior is critical for addressing these challenges and capitalizing on opportunities. Inclusive leadership plays a pivotal role in promoting a culture of innovation, where employees feel valued and empowered to contribute their ideas. This approach can lead to more efficient resource utilization, essential for managing high CAPEX. For example, employee-driven process improvements can significantly enhance operational efficiencies and reduce costs. Research indicates that continuous improvement initiatives can reduce costs by up to 20% (McKinsey, 2021). Small process improvements and ideas are an example of a part of innovation that does not need big CAPEX.

Encouraging employees to suggest incremental changes can lead to significant improvements in workflow and operational efficiency over time. By implementing suggestion programs or innovation workshops, organizations can harness the collective creativity of their workforce without incurring substantial costs. Companies that implement employee suggestion programs see an average of 6% improvement in their bottom line due to the adoption of small, impactful ideas (Vuong & Nguyen, 2022). Leveraging technology for process automation and optimization can result in substantial gains in efficiency and effectiveness, even with minimal investment.

To succeed in this environment, digitalization has become crucial for the industry to meet customer needs, fuel innovation, and maintain a competitive advantage. Amidst these challenges, inclusive leadership emerges as a critical factor in promoting innovative behaviors among employees within Malaysian telecommunications organizations (Fang et al., 2019). Inclusive leadership, characterized by prioritizing diversity and understanding individual team member's unique needs and talents, is believed to foster a positive work environment that encourages creative risk-taking and enhances employee self-efficacy (Fu et al., 2022). In consumer service-oriented businesses, such as mobile telecommunications, where the customers' needs and wants are constantly evolving, employees' innovative behavior is indeed critical, and employees are encouraged to use their knowledge, experience, and imagination to develop new ways to improve customer service quality (Afsar & Badir, 2017; Chou & Walker-Price, 2018).

Organizational innovation culture (OIC) plays a crucial role in fostering this culture of innovation within organizations, particularly in dynamic and technologically advanced industries such as telecommunications. The challenge, however, revolves around fostering an environment where employees are empowered to contribute fresh ideas and innovative solutions. Nurturing a culture of innovation that empowers employees to contribute novel ideas and solutions is a challenge (Nadolna, 2020) and is not unique to any single organization; it permeates industries and underscores the essence of fostering innovative behavior. Drawing on the researcher's experiential observations in the middle management role, this challenge becomes evident, as it has been observed that stimulating participation in innovation activities is a persistent hurdle. Despite the significant potential benefits, there is a lack of comprehensive understanding of how OIC interacts with inclusive leadership to impact employee innovation in the Malaysian telco industry. This gap strengthens the need

to investigate OIC both as an independent variable and as a moderating variable in the relationship between inclusive leadership and employee innovative behavior.

Defining and measuring organizational innovation culture is complex and subjective, which can lead to inconsistencies in various studies and organizations (Veli et al., 2022). Therefore, there is a need for a more comprehensive approach to understand how OIC impacts other organizational outcomes, such as employee innovative behavior. The organizational innovation culture is dynamic and can change due to internal and external factors (Veli et al., 2022). This constantly changing nature makes it challenging to develop a one-size-fits-all framework for measuring innovative culture. By examining OIC as both an independent variable and a moderator, the research can reveal how it interacts with other variables in specific contexts, such as the Malaysian telecommunication industry. Analyzing OIC within this particular industry can provide insights that are directly applicable and relevant to this dynamic and technology-driven sector.

The Malaysian service industry, including telecommunications, exhibits an evolving trend towards transformational leadership styles, as evidenced by studies in various sectors such as hospitality and healthcare. These studies highlight the significance of leadership styles like transformational leadership in enhancing job performance and satisfaction (Khoo, 2019; Teoh et al., 2022; Choi et al., 2016; Ahmad et al., 2020). However, this prevailing focus on transformational leadership overshadows the potential unique contributions of inclusive leadership. Inclusive leadership, characterized by its emphasis on openness, accessibility, and support for diverse perspectives, might offer additional, distinct benefits in fostering a more diverse, innovative, and inclusive workplace, driving innovation and performance in ways that transformational leadership alone may not capture.

The present study uses organizational innovation culture as an independent variable (IV) as well as the moderating variable. Despite the acknowledged importance of innovation, there is a notable lack of comprehensive understanding regarding the specific mechanisms through which organizational innovation culture (OIC) influences employee innovative behavior. This study aims to address this gap by exploring the dual role of OIC as both an independent variable and a moderating variable, particularly focusing on the impact of various reward systems, contextual factors, and leadership styles.

The first gap is on the types of reward systems that are most effective in fostering innovative behavior within organizations. While financial incentives have been extensively studied, the impact of non-financial rewards, such as recognition, career development opportunities, and intrinsic rewards like job satisfaction and a sense of achievement, remains underexplored (Halim et al., 2020). The second gap is the effectiveness of reward systems which are not uniform across different organizational contexts. Factors such as organizational size, industry type, and cultural context significantly shape how rewards are perceived and their subsequent impact on innovative behavior (Jena & Goyal, 2022). High-growth service sectors, with their unique characteristics and challenges, may require tailored reward strategies. However, existing research has not sufficiently addressed these contextual variations, highlighting a need for more focused studies that consider these factors.

While the direct relationship between OIC and employee innovative behavior is well-documented, there is limited research on the moderating effects of OIC on other critical relationships, such as the link between inclusive leadership and innovative behavior. Investigating OIC as a moderating variable can uncover how a supportive organizational culture can amplify or mitigate the effects of leadership styles on innovation (Asfar et al.,

2019). This understanding can provide valuable insights into creating environments that nurture innovation through a combination of cultural and leadership initiatives.

Although previous research has delved into the role of inclusive leadership in service sectors using mediators such as perceived organizational support (Qi et al., 2019), psychological distress, organizational climate and social intelligence (Abdul Rajun et al., 2022), there exists a notable gap in the literature concerning its influence on organizational innovation culture. This gap was highlighted in a systematic review conducted by Veli et al. (2022), which pointed out the scarcity of research in this area. Veli et al. (2022) emphasized the importance of understanding how leaders and employees perceive inclusive leadership, suggesting that such an investigation can provide a more representative conceptualization and deeper insights into the study of inclusive leadership in the telecommunications sector.

This study aims to fill this gap, contributing to the broader understanding of leadership dynamics and their implications on organizational success in a rapidly evolving industry. This study also seeks to contribute valuable insights into managerial behavior and leadership studies. Its findings are significant as they extend the current knowledge on the dynamics of inclusive leadership into the broader context of organizational culture, specifically focusing on its applicability and impact in the service sector, particularly the telco industry.

1.4 Research Questions

Based on the arguments presented in the problem statement, this study must address the following questions:

RQ1: What is the impact of inclusive leadership on employee innovative behavior?

RQ2: How does organizational innovation culture influence inclusive leadership?

RQ3: How does organizational innovation culture influence employee innovative behavior?

RQ4: Does organizational innovation culture moderate the relationship between inclusive leadership and employee innovative behavior?

1.5 Research Objectives

Building upon the specified research questions, the fundamental objective of this study is to uncover the direct influence of inclusive leadership on employee innovative behavior, shedding light on how leaders shape and drive innovation within their teams. Additionally, the study delves into the extent to which inclusive leadership practices influence the overall culture of innovation within the organization, highlighting the role of leadership in cultivating an environment that fosters creative thinking and novel solutions. Specifically, the present study attempts:

RO1: To determine the impact of inclusive leadership on employee innovative behavior.

RO2: To examine the relationship between organizational innovation culture and inclusive leadership.

RO3: To investigate the influence of organizational innovation culture on employee innovative behavior.

RO4: To assess the moderating effect of organizational innovation culture on the relationship between inclusive leadership and employee innovative behavior.

1.6 Significance of the Study

The study's significance lies in its contribution to theoretical understanding and practical implications within the Malaysian telecommunication industry. Below are the key aspects:

1.6.1 Theoretical Significance

This study makes significant theoretical contributions to the fields of leadership, organizational behavior, and innovation by examining the nuanced relationships between inclusive leadership, employees' innovative behavior, and organizational innovation culture (OIC) within the Malaysian mobile telecommunication industry. It addresses several gaps in the existing literature and offers new insights, particularly within this unique context.

This study expands existing theories in several ways. For inclusive leadership theory, it builds on the foundational work of Javed et al. (2017) by empirically validating and expanding its dimensions. It highlights how inclusive leadership practices, such as promoting diversity, ensuring equity, and fostering a sense of belonging, directly influence employees' innovative behaviors.

This study underscores the importance of cultural and industrial contexts in shaping the effectiveness of inclusive leadership practices, enriching the global applicability of the theory. In the field of organizational behavior and innovation, this study investigates how organizational innovation culture moderates the relationship between inclusive leadership and employee innovative behavior. This examination adds a new layer to the understanding of how OIC can enhance or inhibit the positive impacts of inclusive leadership on innovation. By integrating Self-Determination Theory and Social Exchange Theory, the study clarifies the mechanisms through which inclusive leadership fosters a culture of innovation. It

provides empirical evidence showing how inclusive leadership enhances psychological safety, encourages diverse perspectives, and empowers employees to take innovative risks.

This study, which addresses gaps in the literature, focuses on the underexplored context of the Malaysian telecommunication industry. Much of the existing research has centered on Western contexts or generalized service sectors (Veli et al., 2022), but this study specifically examines the Malaysian mobile telecommunication industry, providing insights relevant to a rapidly evolving, technology-driven sector. Furthermore, it considers the cultural dynamics unique to Malaysia, characterized by its multicultural workforce. Understanding how inclusive leadership operates in such a diverse setting contributes to a more nuanced understanding of leadership practices in multicultural environments (Qi et al., 2019).

The study offers new insights, including identifying specific inclusive leadership practices that are most effective in promoting innovation. These practices, which foster employee uniqueness, build a sense of community, and show appreciation for employee contributions, have been shown to lead to operational efficiencies and cost reductions (McKinsey, 2021). This is particularly crucial for managing the high capital expenditure requirements in the telecommunication industry. The research also explores the challenges and opportunities associated with fostering innovative behavior through inclusive leadership and OIC, providing practical insights for industry leaders. It highlights strategies for overcoming barriers to innovation and leveraging inclusive leadership to drive organizational success.

1.6.2 Practical Significance

The findings of this study hold practical significance for leaders, managers, and organizations operating within the Malaysian telecommunication industry. By recognizing the importance of inclusive leadership in fostering inventive employee behavior, organizations can enhance their leadership practices (Younas et al., 2020) and cultivate an innovative culture. Fostering a culture of innovation and promoting employees' innovative behaviors are key factors driving organizational performance and growth (Zhang et al., 2023). Implementing policies that encourage workers to contribute their full creative potential while valuing their unique experiences and viewpoints can help organizations enhance their ability to adapt, differentiate themselves, and seize growth opportunities in an ever-changing industry.

As the telecommunications sector continues to play a pivotal role in Malaysia's economic growth, the findings of the present study may contribute to industry advancement. Promoting inclusive leadership and a culture of innovation can generate industry-wide improvements, stimulate technical innovation, and establish Malaysia as a hub for cutting-edge telecommunications services and solutions. This aligns with Malaysia's intention to gain economic benefits from advanced technological developments and promote equitable development while assisting lagging sectors in making greater use of technology (MOSTI, 2020). Policymakers, industry partners, and key stakeholders can use the findings to guide the development of policies and programs that advance the industry (Bank Negara Malaysia, 2020).

1.7 Scope of the Study

This study is focused on examining the influence of inclusive leadership on employees' innovative behavior, specifically within the context of the Malaysian mobile telecommunication industry, in order to accomplish the research objectives. The telecommunication industry is selected for its emphasis on customer-centricity. Due to its direct connection with end-users, the Malaysian telecommunications sector places a significant emphasis on customer experiences. Inclusive leadership, which emphasizes understanding and catering to individual needs, aligns with the industry's customer-centric approach (Imbug et al., 2018). This alignment can lead to innovative solutions that enhance customer satisfaction. Furthermore, the industry comprises a diverse workforce, encompassing individuals from various cultural backgrounds and skill sets. Inclusive leadership, which emphasizes valuing individual uniqueness and perspectives, can play a critical role in harnessing the diverse talents within the sector to drive innovative thinking and behavior (Ashikali et al., 2020).

This study's sample were limited to employees from the four largest telecommunication companies in Malaysia, consisting of CelcomDigi, Maxis, Umobile, and Unifi Mobile/TM Point. The research only narrows the study's sample size to these four main players due to their leading current position in the industry. The main objective of this study is to test the relationships between inclusive leadership and employees' innovative behavior in the four companies. It also aims to identify the specific aspects of inclusive leadership that directly influence employees' ability to generate innovative ideas and contribute to the organization's overall innovation. This study also explored the elements of innovative behavior that are influenced by the organizational innovation culture as well as

the specific categories of innovative culture that can positively enhance employees' innovative behavior.

1.8 Definition of Terms

The following definitions offer further explanation of key terms used in this study:

1.8.1 Inclusive Leadership

Inclusive leadership is defined as the practice of ensuring that all team members feel respected, valued, included, and inspired with confidence. Inclusive leaders are characterized by their openness, accessibility, and appreciation for diverse perspectives, fostering an environment where all members feel valued and empowered to contribute (Randel et al., 2020; Nishii et al., 2021)

1.8.2 Employees' Innovative Behavior

Employees' innovative behavior is the intentional creation, introduction, and application of new ideas within a work role, group, or organization to benefit role performance, the group, or the organization. It encompasses activities that include idea generation, idea promotion, and idea realization for new technologies, processes, techniques, or products (Hughes et al., 2021; Aiessa & Durugbo.,2021).

1.8.3 Organizational Innovation Culture

An organizational innovation culture (OIC) is defined as a set of shared beliefs, values, and practices within an organization that supports and encourages innovation. It includes elements such as risk-taking, experimentation, and creative problem-solving, which

are essential for fostering an innovative environment (Zhang et al., 2023; Caro-Gonzalez, 2023).

1.8.4 Mobile Telecommunication Industry

The sector encompasses companies and organizations providing mobile communication services, including voice, data, and multimedia transmission over mobile networks (Okowa et al., 2024; Anawar et al., 2022).

1.9 Organization of the Study

The present study is structured as follows: Chapter 1 provides a general introduction to the study, highlighting the significance of ICT and its integration within the telecommunication industry. It also presented the problem statement, research objectives, and research questions. Chapter 2 offered a comprehensive literature review, focusing on the key constructs of the study: inclusive leadership, employee innovative behavior, and organizational innovation culture, along with the relevant supporting theories. Chapter 3 detailed the study's methodology, including data collection procedures, the unit of analysis, and the various tests employed. Chapter 4 presented the results and findings from the survey, with an in-depth discussion of the tests conducted to obtain these results. Finally, Chapter 5 concluded the study by discussing the conclusions drawn, acknowledging the limitations, and providing recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter will begin with a literature review of the three constructs used in the study. The three constructs are inclusive leadership, employees' behavior, and organizational innovation culture. These constructs will be supported by the underlying self-determination and social exchange.

2.2 Inclusive Leadership

Inclusive leadership was not popular in the 1990s, as many studies conducted during that period focused on transformative leadership (Qi et al., 2019), mirroring the prevailing leadership emphasis of the time. With only a few studies covering inclusive leadership and referencing it as a construct, it is difficult to analyze the concept thoroughly. The groundwork for what would officially be called "inclusive leadership" was first laid in social psychology, where theorists explored concepts such as social identity and intergroup relations.

Early research in this field highlighted the importance of recognizing and valuing diversity within groups as well as the role of leaders in creating an environment where all members feel included and valued. In the early 1990s, social psychologists increasingly prioritized an individual's sense of self above their social identity (Brewer, 1991). It has been suggested that Brewer was the first to provide a suitable model for explaining why some identification behaviors are not restricted to individualistic inclinations.

Many different definitions of inclusion may be found in the available literature today. Numerous proposed definitions converge on the notion of respecting variety and

individuality while also recognizing the intersecting nature of individuals' multiple identities. In recent years, the concept of inclusive leadership has gained traction. Originally, it was defined as the words and actions of a leader or leaders that show an invitation and appreciation for the contributions of others (Nembhard & Edmondson, 2006). Later, it was refined to include leaders who demonstrate visibility, accessibility, and availability in their interactions with followers (Carmeli et al., 2010).

A recent study by Randel et al. (2018) defines inclusive leadership as leadership that focuses on supporting employees as group members by assuring justice and equality, giving shared decision-making opportunities, and fostering different contributions. Carmeli et al. (2010) emphasized leaders' accessibility, openness, and availability, whereas Nembhard and Edmondson (2006) emphasized recognizing workers' contributions. Other scholars have defined inclusive leadership as a style that actively resolves prejudices (Amin et al., 2018) or emphasizes high-quality connections with workers (Ye et al., 2019).

A growing body of literature on leadership has seen studies emphasizing the importance of leaders' interpersonal skills (e.g., Hoch et al., 2018). The concepts of ethical leadership (Lei et al., 2019), servant leadership (Iqbal et al., 2020), authentic leadership (Blanch et al., 2021), empowering leadership (Tian & Zhang, 2020), shared and distributed leadership (Vandavasi et al., 2020; Modeste, 2022), as well as humble leadership (Yang, 2022), not only stress the significance of leaders' relationships with their teams but also examine how such leaders foster growth and encourage individuals to bring their whole selves to work. These leadership styles share a commonality in their emphasis on creating an environment where employees feel valued and supported, which is crucial for fostering innovation and creativity.

Similarly, transformational leadership aligns with these principles, as it focuses on inspiring and motivating employees to achieve their full potential. Transformational leaders prioritize their employees' needs (Kumar et al., 2022; Alnajjar & Hashim, 2020; Mahmood et al., 2019) and inspire them to tap into their originality through their imagination and creativity (Nguyen et al., 2021). This approach not only enhances individual performance but also contributes to the overall success and competitiveness of the organization.

Therefore, it is anticipated that the phrase “inclusive leadership” will emerge in the literature as an umbrella term for various leadership styles prioritizing interpersonal connections. This notion is supported by the growing body of research that explores the multifaceted nature of leadership and its impact on organizational dynamics.

In this context, Veli et al. (2022) conducted a comprehensive literature study on inclusive leadership with 107 journals (24 conceptual papers, 18 qualitative studies, 58 quantitative studies, and 7 mixed method studies) published in the Web of Science before April 2021. Their analysis emphasizes the increasing recognition of inclusive leadership as a key driver in fostering inclusive work environments that leverage diversity and promote innovation.

Inclusive leadership has been shown to significantly enhance innovative work behavior in high-growth knowledge-intensive sectors. A study by Guo, Zhu, and Zhang (2022) published in *Current Psychology* highlights the positive impact of inclusive leadership on innovation in the technology industry. The research found that inclusive leaders who promote diversity and involve employees in decision-making processes create a supportive and trustful environment conducive to innovation. The study emphasized the mediating role of psychological safety, demonstrating that when employees feel safe and valued, they are more likely to engage in innovative activities. This underscores the

importance of creating an inclusive culture where employees feel empowered to share their ideas without fear of negative repercussions (Naseer et al., 2023).

Similarly, Zeng et al. (2020), in their study examined the role of psychological safety in the relationship between inclusive leadership and employees' innovative behavior in the tech industry. The study found a positive correlation between inclusive leadership and innovative behavior, with psychological safety fully mediating this relationship. This suggests that inclusive leaders who foster an environment of trust and open communication significantly enhance their employees' willingness to innovate. The findings highlight the critical role of psychological safety in translating inclusive leadership into tangible innovative outcomes.

In the healthcare sector, the impact of inclusive leadership on employee innovative behavior has also been extensively studied. Umrani et al. (2023), in their study published in the "Leadership and Organization Development Journal", explored the effects of inclusive leadership on employee performance and innovative behavior. The study identified psychological capital as a key mediating factor, demonstrating that inclusive leadership positively affects innovative behavior by enhancing employees' psychological resources. Likewise, the present study underscores the comprehensive benefits of inclusive leadership, highlighting its role in boosting innovation and overall employee satisfaction and productivity.

Despite these significant findings, there are notable gaps in the literature, particularly concerning the telecommunications (telco) industry. The unique dynamics of the telco sector, characterized by rapid technological advancements and intense competition, have not been extensively explored in the context of inclusive leadership and innovation. This presents an opportunity for further research to investigate how inclusive leadership practices can be

tailored to the specific challenges and opportunities within the telco industry. Understanding these industry-specific details is essential for developing successful inclusive leadership approaches that foster innovation and boost employee engagement in the telecommunications sector. The study's objectives encompassed two main aspects. First, it sought to shed light on the meaning of inclusive leadership (IL) behavior while also delving into its theoretical evolution. Secondly, the review aimed to synthesize the diverse definitions of inclusive leadership, ultimately culminating in the proposal of a comprehensive, multilevel model of IL behavior that spanned across employee, team, and organizational levels.

The consolidated concepts of inclusive leadership are identified based on themes, categories, and dimensions. Four dimensions are identified: fostering employee uniqueness (e.g., by promoting diversity), supporting the company's purpose of inclusiveness, strengthening company-wide activities, developing a sense of community within teams (for example, by building connections), and displaying appreciation (for example, by recognizing efforts and achievements). Each of the four dimensions represented specific characteristics of inclusive leadership. The first two dimensions are broadly consistent with the earlier model proposed by Randel et al. (2018), and the analysis by Val et al. (2022) adds to the current model by further distilling the dimension of encouraging employees to embrace their individuality.

When examining the dimensions in detail, the first dimension, fostering employee uniqueness, is where leaders are said to encourage individuals to be themselves while promoting diversity, employee autonomy, and professional growth. Leaders should take the first step in encouraging workers' individuality by supporting employees as individuals. In addition to motivating employees, inclusive leaders go a step further by promoting diversity

(Ashikali et al., 2020) and empowering employees which may contribute to an increased sense of motivation (Javed et al., 2018; Younas et al., 2020). Finally, contributing to employees' learning and development (L&D) is essential for actualizing uniqueness since Learning and Development fortifies employees' distinctive qualities.

The second factor focuses on enhancing a sense of belonging within the team. Fostering a sense of community within teams highlights the significance of ensuring equality, creating connections, and sharing decision-making. In addition to ensuring equity and sharing decision-making, building relationships is considered a vital area for fostering a sense of community within a team. Leadership is seen as a collaborative activity by and among individuals (Van Zyl & Hofmeyr, 2021); therefore, relationship building is about more than just the team's connection to its leader.

Based on the synthesis of the definitions, the previous studies conclude that inclusive leadership involves more than just celebrating individuality and promoting a sense of community among the team members. An additional component, showing appreciation, was found to be used by some authors, and demonstrating gratitude/showing appreciation refers to a leader acknowledging an individual's or group's efforts and achievements (Veli et al., 2022). An asset in the workplace, appreciation is a means to fulfilling fundamental human needs (Nadkarni et al., 2021; Pfister et al., 2020). Appreciating efforts and contributions may be categorized into three distinct components: observing employees' endeavors, acknowledging their valuable input, and commending their accomplishments.

The fourth component, bolstering company-wide initiatives/supporting organizational support, highlights leaders' receptivity to organizational change and advocacy for the organization's inclusive purpose. In addition to other organizational initiatives,

organizations should prioritize fairness and decrease discrimination by encouraging top management to advocate for these ideas (Roberson, 2020).

Van Knippenberg and Van Ginkel (2021) note that leaders should be held accountable for achieving diversity objectives and that when it comes to inclusion, the actions of HRM and company executives must be in sync. This means that the success of diversity and inclusion programs may be hindered or improved depending on the level of support from top management (Yadav & Lenka, 2020). Thus, promoting the organization's inclusion mission and being open to organizational change are necessary for inclusive leadership. Figure 2.1 better illustrates the conceptualization of inclusive leadership explained in the systematic review.

In order to chart the current state of research on inclusive leadership, Veli et al. (2022) thoroughly examined empirically supported connections between inclusive leadership and its factors, effects, and moderating or mediating factors. The underlying theories employed by researchers in the studies are also analyzed. The study's findings are presented as nomological networks shown in Figure 2.2 below, categorizing variables according to whether the leader's behavior is directed toward the individual employee, the team, or the whole organization. The findings served as a reference for this study when deciding which moderator to use.

According to the review, limited attention has been given to the antecedents of inclusive leadership, creating a knowledge gap in understanding how to encourage leaders to engage in inclusive behaviors and how to identify and promote leaders who currently do so. Even though the effects of inclusive leadership on individuals, groups, and companies have been examined extensively, the research has paid less attention to organizational results and the impact of inclusive leadership on leaders (Ye et al., 2018; Xu et al., 2023).

Mediating mechanisms have been identified at various levels, such as the influence of inclusive leadership on employees' motivation through their employee adaptability to organizational change and the mediating role of organizational justice on the relationship between inclusive leadership and organizational citizenship behavior (Fatima et al., 2021). While research on moderators has primarily focused on team-related factors like performance pressure and employee variables such as innovative work behavior, there is a need for more attention to mechanisms operating at the team level. Veli et al. (2022) also explore the research model using multiple underlying theories. It was discovered that several different philosophies guide the idea of inclusive leadership. The literature is dominated by both social exchange theory and leader-member exchange theory. Both Jiang et al. (2020) and Fatima et al. (2021) contribute to understanding inclusive leadership's impact on employee-related aspects such as employee voice and readiness for organizational change.

Additionally, Hanh Tran and Choi (2019), as well as Fang, Dai and Zhang (2021), shed light on inclusive leadership's influence on organization-related factors such as organizational learning culture and business model innovation. The relationships explored in the literature are also underpinned by social identity theory, which serves as a crucial theoretical foundation. Scholars have primarily utilized social identity theory to explain how inclusive leadership, by fostering identification with the team or organization, yields employee-related outcomes, for example, affective commitment, as indicated by Wang et al. (2020), and job embeddedness, as highlighted by Elsaied (2020).

In addition to these prominent theories, the analysis revealed over 20 other theories showcasing a significant diversity in interpreting inclusive leadership and encompassing various themes.

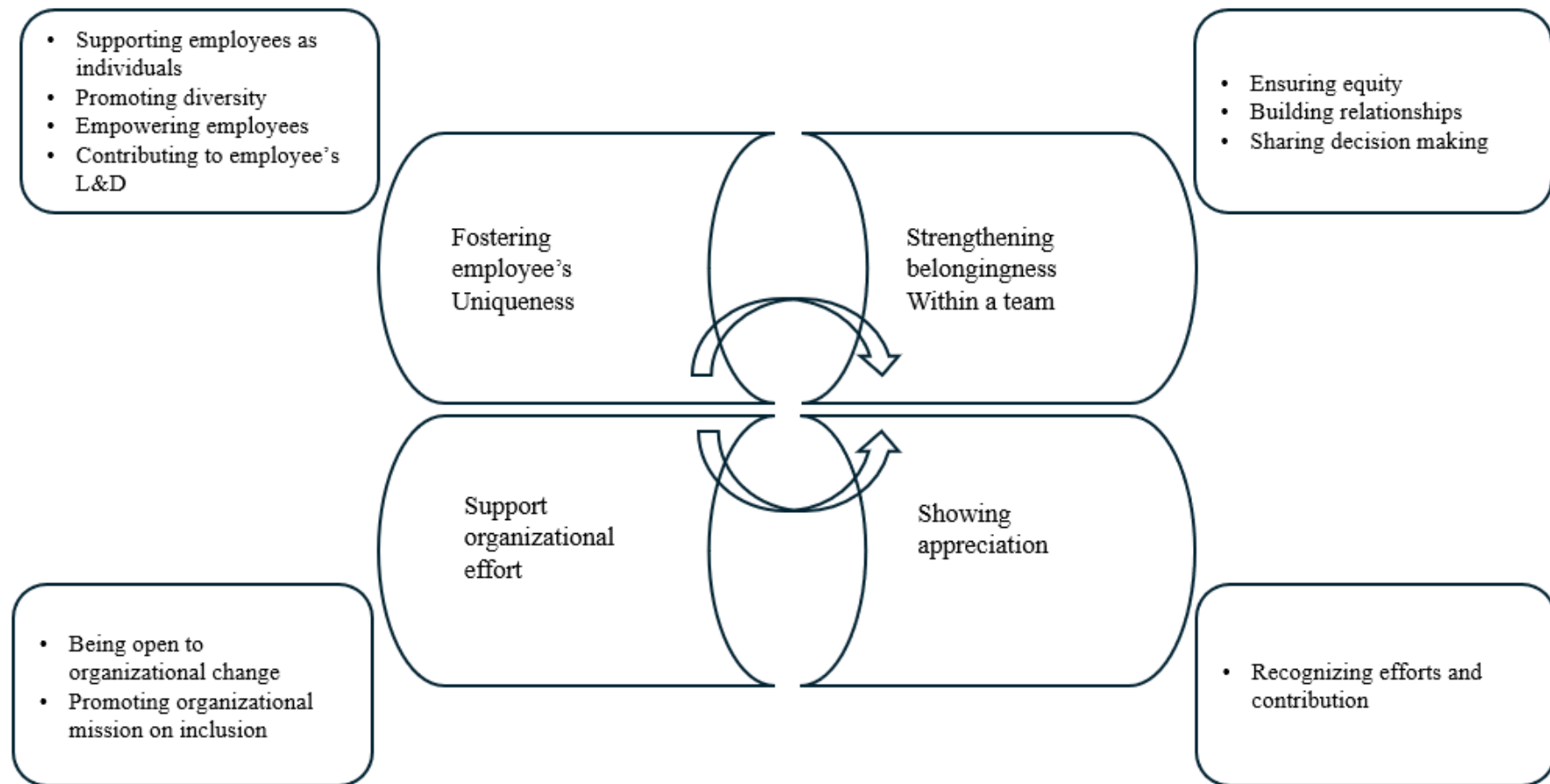


Figure 2. 1: Consolidated Conceptualization of Inclusive Leadership
Source: Adapted from Veli et al. (2022)

For instance, social exchange theory highlights the importance of reciprocity in interpersonal interactions, while intrinsic motivation theory underscores the significance of motivation and resources. A subsequent review of the literature published after April 2021 is also done to examine and identify any novel insights and contributions regarding the concept of inclusive leadership. By analyzing the most recent research, the review seeks to uncover any advancements, emerging perspectives, or empirical evidence that may have surfaced since the initial systematic review, enriching the current understanding of inclusive leadership and its potential implications for organizational and societal contexts.

The literature review discovered that the research studies continue to revolve around the mediators and moderators mentioned in the systematic review conducted by Veli et al. (2022). For example, Gomez et al. (2022) emphasize the significance of collaborative leadership and internal/external collaboration in their study addressing school cultural diversity. Their study specifically highlights the importance of strengthening belongingness within a team, showing appreciation, and supporting organizations' efforts, which align with the dimensions explored in inclusive leadership research. Similarly, the present study supports the idea that fostering a sense of belonging among team members is crucial for promoting inclusivity within an organization.

Additionally, the study by Vieira et al. (2022) emphasizes the relevance of gender issues and gender equality within inclusive leadership and organizational commitment. Their discussion primarily centers on the importance of gender equality in driving respect, commitment, and goal achievement within organizations. Equally, the present study reinforces the notion that embracing gender equality contributes to organizational efforts toward building an inclusive leadership environment. In the context of inclusive leadership

and its impact on organizational learning behavior, Nejati and Shafaei's (2023) study highlights the pivotal role of leaders in fostering a culture of learning within organizations.

Another study emphasizes that leaders can influence organizational learning by affecting employees' learning behaviors (Carmeli et al., 2010). Understanding the relationship between inclusive leadership and organizational learning behavior becomes crucial, given the significance of organizational learning for maintaining a competitive edge and ensuring sustained growth. To enhance the understanding of inclusive leadership, Fagan et al. (2022) suggest updating measurements of inclusive leadership to capture its attributes more accurately and create a stronger connection to inclusion literature. Their work highlights the potential of grounded theory research to further explore inclusive leader attributes as well as their implications for inclusive leadership education, businesses, and community work. These discussions contribute to a deeper comprehension of inclusive leadership and underscore the necessity for more comprehensive assessments that align with the attributes identified in the literature review.

Such assessments offer valuable insights into the impact of inclusive leadership in diverse settings. Gupta et al.'s (2022) study brings employees' perspectives into the investigation by examining the mediating role of employee innovation behavior in the relationship between inclusive leadership and innovation performance. Their research significantly contributes to understanding inclusive leadership by exploring its role in fostering innovation performance, particularly during the challenging period of the COVID-19 outbreak. By mediating employees' innovation behavior, the study sheds light on the indirect association between inclusive leadership and innovation performance.

Moreover, it confirms the moderating role of psychological empowerment (PE) on

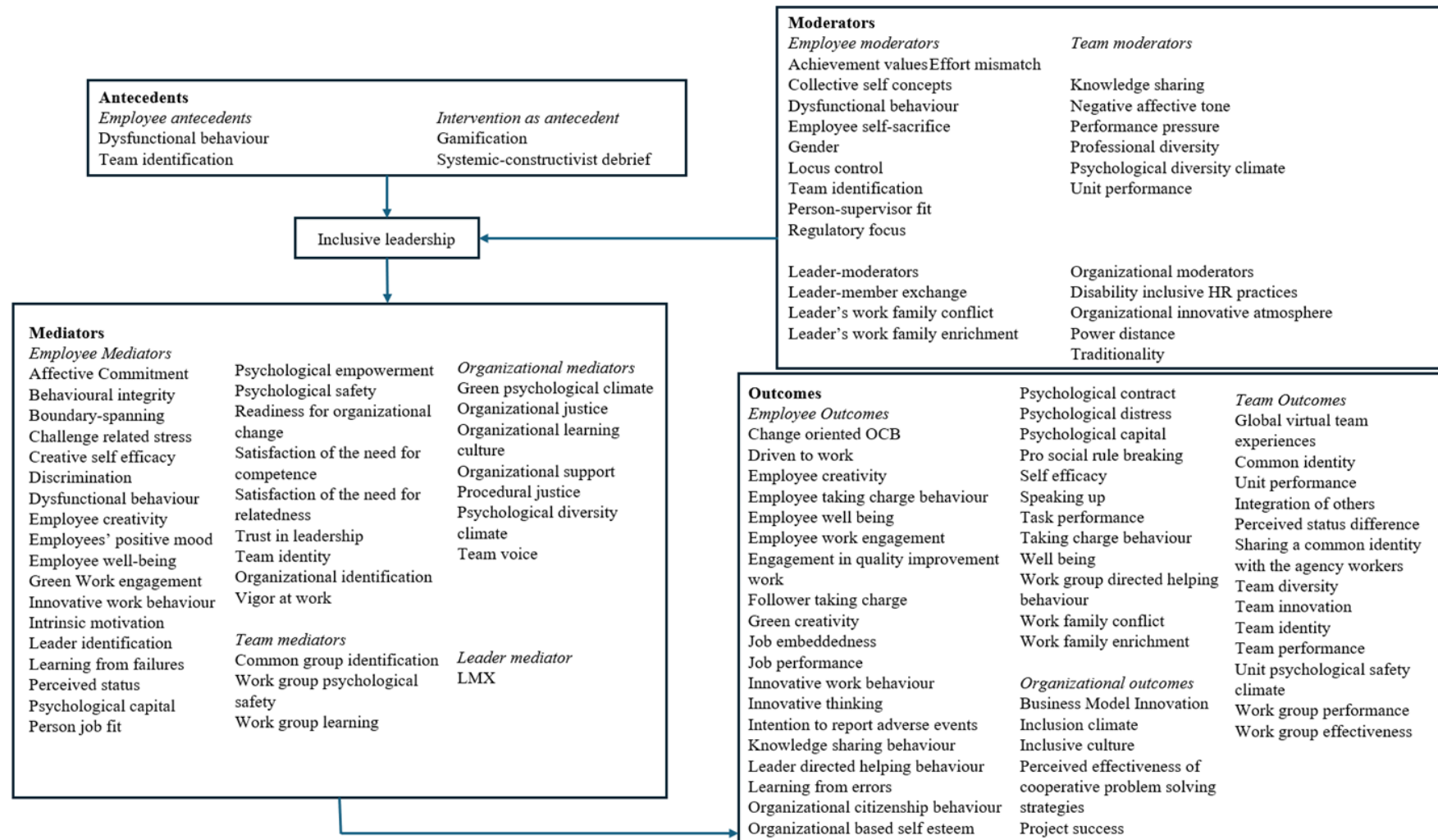


Figure 2.2: Summary of Variables Researched on the Topic of Inclusive Leadership

Source: Adopted from Veli Korkmaz et al. (2022)

the relationship between inclusive leadership and innovation performance. Psychological empowerment resonates with the first category of the concept of fostering employee uniqueness, and Gupta's study answers the suggestion by Veli et al. (2022) that the first dimensions of the inclusive leadership concept place a greater emphasis during crises like COVID-19.

Roberson and Perry's (2022) thematic analysis reveals key themes in inclusive leadership, such as the recognition and application of team diversity, fostering unity, and encouraging teamwork. A significant aspect of their findings was the role of leaders in forming trusting relationships, genuinely engaging with team members, and valuing their input. The study highlighted the practice of inclusive leadership through attentiveness to the diverse needs and contributions of individuals, promoting open idea exchange, and incorporating these varied perspectives into decision-making. Recognizing the scope of their research, the authors suggest further exploration in this field for theoretical expansion and practical implementation.

The significance of inclusive leadership reaches beyond national borders, as evidenced by Catalyst's research highlighting its applicability and impact across six distinct countries. The research aims to define the concept of inclusion from six different countries: Australia, China (Shanghai), Germany, India, Mexico, and the United States (Prime & Salib, 2014). It was discovered that a shared definition of inclusion applies universally, and leaders do not necessarily require distinct strategies for each country they work in to promote inclusivity. Their analysis also revealed that inclusion was associated with both employees' self-reported innovation and their demonstration of team citizenship, belongingness, and engagement, especially for those in China, 78% of them are more innovative when they feel

included. These behaviors significantly influence overall team productivity and the development of innovative products (Prime & Salib, 2014).

In Malaysia, inclusive leadership has garnered significant popularity, as evidenced by a growing body of research and organizational initiatives highlighting its importance. This leadership approach is increasingly recognized for its potential to leverage the country's diverse cultural landscape, enhance employee engagement, and drive innovation within organizations. The study by Qi et al. (2019) provides significant insights into the relationship between inclusive leadership, employees' innovative behavior, and perceived organizational support (POS) in the Malaysian service sector. It highlights that inclusive leadership positively influences employees' innovative behavior and that this relationship is mediated by POS, suggesting that a supportive organizational environment is crucial for fostering innovation.

The study's methodological rigor, including the use of established scales and a two-stage survey, adds to the reliability of its findings, which hold valuable implications for practitioners aiming to enhance innovation through inclusive leadership. However, its sample size and geographical focus limit the study's generalizability, and its cross-sectional design restricts the ability to establish causal relationships. Future research could address these limitations by employing a longitudinal approach and expanding the sample to include diverse geographical locations and sectors. Additionally, exploring other potential mediators and incorporating qualitative methods could provide a more comprehensive understanding of the mechanisms underlying the relationship between inclusive leadership and employees' innovative behavior.

Another relevant study on inclusive leadership by Abdul Rajun et al. (2022) delves into the intricate relationship between inclusive leadership and its impact on psychological

distress, organizational climate, and social intelligence within the Malaysian educational context. The study presents a novel theoretical framework grounded in social exchange and relational leadership theory, proposing that inclusive leadership can alleviate psychological distress among school teachers by fostering a positive organizational climate and enhancing social intelligence. This framework is particularly relevant in the post-pandemic era, where the mental well-being of educators is paramount for sustaining a healthy educational environment. The study's theoretical contribution lies in its comprehensive approach to understanding educational leadership dynamics. It provides a basis for future research to develop evidence-based leadership practices that address the challenges of psychological distress in academic settings.

Nevertheless, the study has limitations, including the lack of empirical evidence to support the proposed framework and the potential limited generalizability of its findings beyond the Malaysian educational context. The complexity of the relationships among the constructs in the framework may also pose challenges for empirical testing. Future studies should empirically validate the framework in diverse cultural and organizational contexts and consider longitudinal designs to capture the temporal dynamics of inclusive leadership. Such research can contribute to a deeper understanding of how inclusive leadership practices can effectively manage psychological distress and promote a positive organizational climate and social intelligence in educational institutions and beyond.

Research on inclusive leadership is advancing in Malaysia's diverse culture. Future studies could explore effective leadership practices for promoting harmony among different cultural groups. Investigating the impact of inclusive leadership on employee engagement, job satisfaction, and team collaboration could provide valuable insights. Additionally, it

would be beneficial to examine its role in enhancing innovation and reducing workplace conflicts in multicultural teams.

2.3 Innovative Work Behavior

Various scholars have attempted to define innovative work behavior (IWB) through their respective studies (Bawuro et al., 2019a; Siregar et al., 2019). Axtell et al. (2000) define IWB as the capability of improving job-related ideas within organizations; while De Jong and Den Hartog (2007) describe it as a series of actions aimed at bringing novel, high-value ideas to improve the efficiency and effectiveness of both the employees and the organization as a whole. Yuan and Woodman (2010) further defined IWB as the process by which employees create, adapt, and use novel concepts for products, technologies, and methods of doing work.

In contrast, Kessel et al. (2012) and Kanter (1988b) define IWB as a complex and non-routine behavior in which employees argue with superiors and speak up for fresh ideas. Dhar (2015) defines IWB as the capacity to proactively create new products, investigate uncharted markets, design novel processes, and envision novel combinations. Additionally, Thurlings et al. (2015) conceptualize IWB as the procedure through which employees come up with, develop, apply, promote, realize, and change new ideas to carry out their roles in organizations better.

IWB as described by Escriba-Carda et al. (2017), refers to the ability of individuals to produce original ideas and viewpoints that may be further developed into innovative forms. IWB, as described by Siregar et al. (2019), refers to the deliberate measures taken by an individual to bring about significant organizational changes by introducing innovative and beneficial ideas, work processes, products, and procedures. Finally, Bawuro et al.

(2019a) define the term IWB as a deliberate approach by employees towards realizing organizational goals and objectives through developing, administering, and implementing radically new ideas, which gives the company an edge in the market and ensures its long-term viability.

With these different types of definitions, Aiessa and Durugbo (2021) propose a definition that would be comprehensive and integrate all the previous definitions from past studies. They defined IWB as a “complex, self-initiated, multi-dimensional behavior in which employees proactively generate, introduce, and apply innovative ideas by engaging in critical thinking, identifying potential and existing problems, exploring opportunities and solutions, identifying performance gaps, and seeking new methods and procedures to improve organizational performance internally and externally in order to create value, attain a competitive advantage, and ensure sustainability”.

The analysis of the literature on innovative behavior reveals geographical diversity in the regions studied. Most publications on Innovative Work Behavior (IWB) originate from Europe and Central Asia (31%), primarily focusing on industries such as education, healthcare, and manufacturing. Nevertheless, many studies adopt a broader approach involving multiple sectors to compare and contrast findings across a wider range of industries (Pandey et al., 2019).

A systematic review of innovative work behavior by Aiessa & Durugbo (2021) can be seen as the most comprehensive review, and it stands out due to its emphasis on Innovative Work Behavior (IWB) as a convergence of innovation, creativity, and work behavior. 211 articles published between 2000 and 2019 were gathered to analyze the IWB literature and develop multidimensional frameworks by integrating IWB concepts. Based on the synthesis, four clusters of management concepts are identified, namely: innovative work learning and

leadership (IWLL), innovative work processes and performances (IWPPs), innovative work characteristics and conditions (IWCCs), and innovative work inhibitors and interdependencies (IWIIs).

The phrase “innovative work learning and leadership” (IWLL) refers to a broad concept that incorporates formal and informal training programs designed to equip employees with the specific set of skills and mindsets the organization has established necessary to successfully implement new ideas. The concept highlights the need for a creative and safe work environment fostered by company leaders (Caniels & Veld, 2019). The review also identifies various leadership styles examined in relation to IWB, such as entrepreneurial leadership, servant leadership, and Islamic leadership (Sarwoko, 2020; Faraz et al., 2019; Supriyanto, 2019). However, inclusive leadership stands out, as it emphasizes collaboration and the value of each individual (e.g., Wang et al., 2020; Fu et al., 2022).

Knowledge transfer in IWLL also takes into account the learner’s attitude and actions (Asfar & Umrani, 2019); and leader-member exchange is also found to be a significant factor influencing growth, depending on the quality of leader-associate relationships (Yusof, 2020; Jung et al., 2021). Several sub concepts on work design, performance, and HR management practices make up the second concept, Innovative Work Processes and Performances (IWPPs), which in turn contribute to Innovative Work Behavior (IWB). These ideas define the traits fundamental to the creative behaviors that boost organizational productivity. Autonomy, ambidextrous tasks, and task features influenced by HR management practices are just a few examples of the process characteristics that have been the focus of research. (Caniels & Veld, 2019; Suseno et al., 2020; Theurer et al., 2018). Job design is central in this context, focusing on flexibility and reflective performance (Afsar & Umrani, 2019).

In the context of IWB, performance refers to actualizing actions that produce desired results. According to Muchiri et al. (2020) workers must anticipate favorable performance in order to adopt IWB. However, IWB is distinct from traditional job performance (Bhattacharjee & Sarkar, 2023) in that it requires a blend of skill, flexibility, and initiative in one's particular work roles (Nurjaman, 2019). It is undeniable that organizations have increasingly focused on endeavors that enhance innovative performance (Caniels & Veld, 2019). This shift presents a challenge for researchers, who must now examine performance not just at the organizational level, taking into account work systems, management support, and the kind of organization, but also at the process level, concentrating on activities and slack (Wynen et al., 2019; Hugel & Kreutzer, 2020). Research on performance also extends to the individual level, with studies showing interest in employee performance, team performance, and appraisals (Schuh et al., 2018; Curzi et al., 2019).

Meanwhile, innovative work characteristics and conditions (IWCCs), focus on the individual characteristics, as well as the environments or climates that would foster IWB. It forms the foundation for a blend of motivation, personality, and competencies, stimulating organizational creativity and innovation. Employee personality has been the subject of numerous studies, highlighting its significance in the workplace (Woods et al., 2018). The focus is on how personalities impact job performance, leading to positive enhancements in productivity and efficiency. However, it is also crucial to recognize that there may be potential negative consequences, such as inhibiting growth and creating slack in the work environment.

IWCCs also take into account the competencies needed for success with IWB. Tri et al. (2019) highlight that IWB researchers are interested in a wide range of employee competencies, including thinking creatively, taking the initiative, navigating complex

political environments, and having a healthy sense of self-worth. The internal drive that drives workers towards IWB is what makes motivation so crucial to the development of these abilities. As a result, researchers have been looking at how things like promotions, high levels of commitment, and meaningful work affect employee motivation (Ahmed et al., 2018; Bawuro et al., 2019a).

Employees' innovative behavior (EIB) plays a crucial role in the high-tech, dynamic, and knowledge-intensive service sector. This sector, characterized by rapid technological advancements and a high degree of complexity, necessitates continuous innovation to maintain competitiveness and adapt to changing market demands. Recent research has highlighted several factors that significantly impact EIB in this sector. For instance, a study by Malik (2022) demonstrated that emotional intelligence directly influences EIB by enhancing tacit knowledge sharing among employees. The findings suggest that organizations should invest in developing the emotional competencies of their employees and foster a culture of knowledge sharing to boost innovative behavior. This is particularly relevant in high-tech environments where the exchange of tacit knowledge is vital for generating new ideas and solutions.

Leadership behavior is another important aspect. A study by de Jong and Den Hartog (2022) identified specific leadership behaviors that stimulate EIB in knowledge-intensive service firms. The study found that leaders who actively encourage idea generation and provide support for implementing new ideas significantly enhance their employees' innovative behaviors. This underscores the need for leaders in high-tech sectors to adopt practices that foster creativity and innovation. Additionally, organizational justice has been shown to play a critical role in promoting EIB. Tran Pham (2023) explored the relationship between organizational justice, knowledge sharing, and EIB in the IT industry. The study

revealed that perceived fairness in organizational processes and interactions encourages knowledge sharing, which in turn enhances EIB. This highlights the importance of fair and transparent organizational practices in fostering an innovative work environment.

Human Resource Management (HRM) practices are crucial for fostering EIB. High-performance work systems (HPWS) and specific HR practices that enhance employees' skills, motivation, and opportunities are particularly effective. However, the literature still lacks comprehensive models that integrate various HR practices and their collective impact on EIB in the high-tech sector. Easa and Orra (2020) called for more research on sophisticated HRM systems that induce product and technological innovation. Despite the company's best efforts, a number of barriers to employee motivation will always arise.

The negative and positive elements that would facilitate IWB are explored in IWII (Innovative Work Inhibitors and Interdependencies). Several recent studies have highlighted negative aspects of the workplace (Van Hootegeem et al., 2019; Vander Elst et al., 2016), including stress, discrimination, and a lack of stability in the employment market. The positive aspects of the workplace include reliance on one another in accomplishing challenging tasks, organizational interventions, and empowerment (Rahman et al., 2019). Since IWB occurs in professional environments, there is a need for research that specifically examines recent advancements in the workplace; however, such studies are currently lacking. Pot (2017) emphasizes that workplace innovation can contribute to both organizations' prosperity and individuals' well-being. It serves as both a method and a goal, hinges on imaginative thinking, and aims to enhance organizational effectiveness.

Even with considerable evidence on the factors affecting employees' innovative behavior (EIB) in the high-tech sector, there are still several gaps in the literature. There is a lack of longitudinal studies that examine the long-term effects of various factors on EIB,

limiting the understanding of how EIB evolves and its sustained impact on organizational performance. Additionally, there is a need for more interdisciplinary research that integrates insights from psychology, organizational behavior, and technology management to provide a more holistic view of how to foster innovation in high-tech sectors. Moreover, while the impact of leadership styles and organizational justice on EIB is well-documented, more research is needed to explore the specific mechanisms through which these factors influence EIB.

The article identifies six critical topics for further study on innovative work behavior, based on the insights provided by the review. This includes an examination of the leadership style required for the integration of IWB and the flow of information, with a particular focus on understanding the exchange of knowledge across various levels within organizations. The significance of work value proposition and recognition in relation to value and motivation for IWB is another important area. The intersection of behavioral risk and HR policies, recognizing IWB as potentially risky behavior, understanding how workplaces enable or inhibit workplace innovation, its reciprocal relationship with IWB, and finally, environmental sustainability orientation for IWB would also be valuable to enhance the understanding of IWB (Aiessa & Durugbo, 2021).

The future recommendations in their review have largely materialized through subsequent research endeavors after 2019. As an illustration, one of their suggestions involved exploring distinct leadership styles within diverse industries and geographic contexts. Notably, a substantial portion of recent research has been conducted in various Asian countries spanning multiple sectors. For instance, the investigation conducted by Surucu et al. (2020) focuses on transformational leadership's implications within the hospitality sector, examining the interplay of leader-member exchange and its influence on

innovative behavior. Similarly, Iqbal et al. (2020) delve into the impact of entrepreneurial leadership. Moreover, distinct leadership styles such as constructive leadership (Arasli et al., 2020), servant leadership (Su et al., 2020), ethical leadership (Hoang et al., 2022), and inclusive leadership (Cetinkaya & Yesilada, 2022) are all examined across various industries, spanning from hospitality and tourism to the dynamic high-tech sector.

It is important to highlight that past studies encompass multiple strategies outlined in the review by Aiessa and Durugbo (2021). For instance, the study conducted by Iqbal et al. (2020) examines how affective commitment, creative self-efficacy, and psychological safety mediate the connection between entrepreneurial leadership and innovative behavior. The study also underscores the significance of managerial efforts to enhance affective commitment, creative self-efficacy, and psychological safety, aligning well with the work value proposition strategy.

In contrast, the study conducted by Farrukh et al. (2021) explores how high-performance work practices foster innovative work behaviors, aligning with the strategic area of behavioral risk and HR policies. Additionally, their research delves into the mediation role of psychological capital in the connection between high-performance work practices and innovative behavior, mirroring the essence of the work value proposition and recognition strategy. Undeniably, exploring employees' innovative behavior offers valuable perspectives for cultivating a vibrant and inventive organizational culture and holds a central position in driving sustainable expansion and a competitive edge for contemporary businesses. With a focus on leadership, work value proposition, and recognition approaches, researchers and organizations can join forces to cultivate an environment conducive to innovation, benefiting individuals, enterprises, and society.

2.4 Organizational Innovation Culture

Organizational culture is one of the key variables in fostering creative thinking among employees. It may motivate workers, making them more invested in the company and more likely to embrace innovation as a core value (Botelho, 2020). Fostering a creative work environment where employees are encouraged to pursue new ideas is crucial. Thus, it is important to determine what policies, procedures, and guidelines may help promote communication and innovative behavior in the workplace (Åmo, 2006). Previous studies have established a connection between innovation culture and both innovation outcomes and performance results (Strychalska-Rudzewicz, 2021; Al-Khatib et al., 2021). The latter research emphasizes that organizations with a strong culture supporting innovation are likely to positively and significantly impact performance outcomes.

A culture of innovation may be defined in several ways. Claver et al. (1998) offered a definition of innovative culture as the way of thinking and behaving that creates, develops, and establishes values and attitudes within an organization that may raise, accept, and support ideas and changes involving an improvement in the functioning and efficiency of the organization, even though such changes may mean a conflict with conventional and traditional behavior. The term “innovation culture” is widely used despite the fact that a number of writers have characterized it as a complex set of contexts and structures (Stock et al., 2013). According to Tian et al. (2018), innovation culture represents an environment and set of values that prioritize engaged participation and promote growth and performance.

Michaelis et al. (2018) define innovative culture as shared values, beliefs, assumptions, and symbols that motivate team members to work towards common goals, such as developing novel goods and services. This concept aligns with the standard understanding of organizational culture, with the added benefit that it encourages and supports initiatives

aimed at increasing innovation within the company. Dobni (2008), on the other hand, presents an alternative perspective, characterizing an innovative culture as a complex framework encompassing elements such as the innovation goal, supportive infrastructure, operational behaviors impacting the market, a value-driven outlook, and a conducive environment for implementing innovation. Challenge, involvement, freedom, confidence, transparency, time for the idea, enjoyment, dispute resolution, discussions, and risk-taking are eight attributes identified by Isaksen and Ekvall (2010) as essential to a creative culture.

The five components of the innovation culture are presented in a model called ETOILe, consisting of environment, team, organization, individuals, and leaders (Davies & Buisine, 2018), as seen in Figure 2.4. An organization's innovation culture should encompass several key elements. First, it should foster an **environment** that encourages connections with the outside world, facilitates efficient collaboration, and offers a diverse range of communication options. Second, it should recognize and support an innovative **team** with regulations that prioritize and promote discovery, as well as a focus on attracting complementary talents. Third, the **organization** should cultivate shared attitudes that value exploration, learning from mistakes, and a collective understanding of what constitutes originality, while involving both products and consumers. Fourth, it should acknowledge and empower **individuals** who demonstrate innovative thinking while also being aware of their emotional investment and aptitude for discovery. Finally, the presence of innovative **leaders** and managers who possess mastery of discovery skills is crucial for driving the organization's innovation efforts.

Additionally, Denison Consulting (2006) has formulated a comprehensive model of an innovative culture within an organizational setting, including adaptability that embraces change, prioritizes customer focus, and fosters organizational learning. The mission

encompasses strategic direction and intent, setting goals and objectives, having a clear vision, maintaining consistency of the core values, reaching agreements, coordinating and integrating within the organization, and engaging in activities that foster empowerment, team orientation, and capability among employees. Although its advantages are acknowledged and mentioned explicitly in the literature, the successful promotion and implementation of cultural elements and techniques have been a critical problem for organizations (Costa, 2023). A review of the company's procedures reveals underlying cultural problems, such as unclear rules, poor communication, and incompetent management.

Consequently, involving employees, especially middle-level managers, front-line managers, and opinion leaders, is vital in creating the various elements of an innovative culture. This requires bridging the gap between employees' perception and understanding of organizational challenges and their willingness to actively contribute to solving them, following the stages of perception, knowledge acquisition, assessment, belief, acceptance, and commitment (Cameron & Quinn, 2011). The essential components of an innovative culture, including regulations, mindsets, guiding beliefs, algorithms, protocols, behavioral models, norms, and traditions, undergo gradual development over a prolonged period. This evolutionary process allows constant improvement through numerous iterations to reach the best possible structure and settings (Carmona et al., 2020).

Compensation is another critical aspect to analyze when considering the impact of various factors on employee satisfaction and autonomous regulation. Underscoring this point, it is evident that compensation not only influences overall employee contentment but also plays a significant role in affecting employees' need for satisfaction and their ability to regulate their work autonomously. Most compensation studies have looked at performance-based pay, in which workers are rewarded for achieving specific work goals. Findings imply

that contingent compensation, particularly for complex activities or those requiring high cognitive resources, may diminish autonomous control by forcing workers to concentrate only on outcomes related to pay (Frey & Jegen, 2005).

However, to lessen the negative impact of performance-based pay, employers should limit controllable elements and give workers greater leeway in determining what they consider to be successful (Gagné & Forest, 2009). Recent studies have shown that incentives positively impacting an individual's requirements are more likely to be accepted than those negatively affecting the individual's needs (Thibault Landry et al., 2017). In the dynamic landscape of global business, understanding the intersection between culture and innovation is crucial for organizations aiming to foster creativity and competitive advantage. Tian et al.'s (2018) article "How does culture influence innovation? A systematic literature review" provides an in-depth analysis of how culture shapes innovation.

This review spans an extensive period from 1980 to 2017, providing a deep dive into how organizational and national cultures influence innovative practices and outcomes. The study meticulously analyzes the impact of organizational culture on innovation. It identifies various organizational cultural frameworks that significantly affect innovation levels within companies. Among these, innovation-oriented and learning cultures are particularly emphasized. The article discusses how these cultures promote innovation by embracing practices that encourage creativity and continuous improvement.

Furthermore, it uses the competing values framework to explore different organizational culture-hierarchical, clan, adhocracy/development, and market/rational and their distinct impacts on innovation (Tian et al., 2018). On a broader scale, the review extends its analysis to the impact of national culture on innovation.

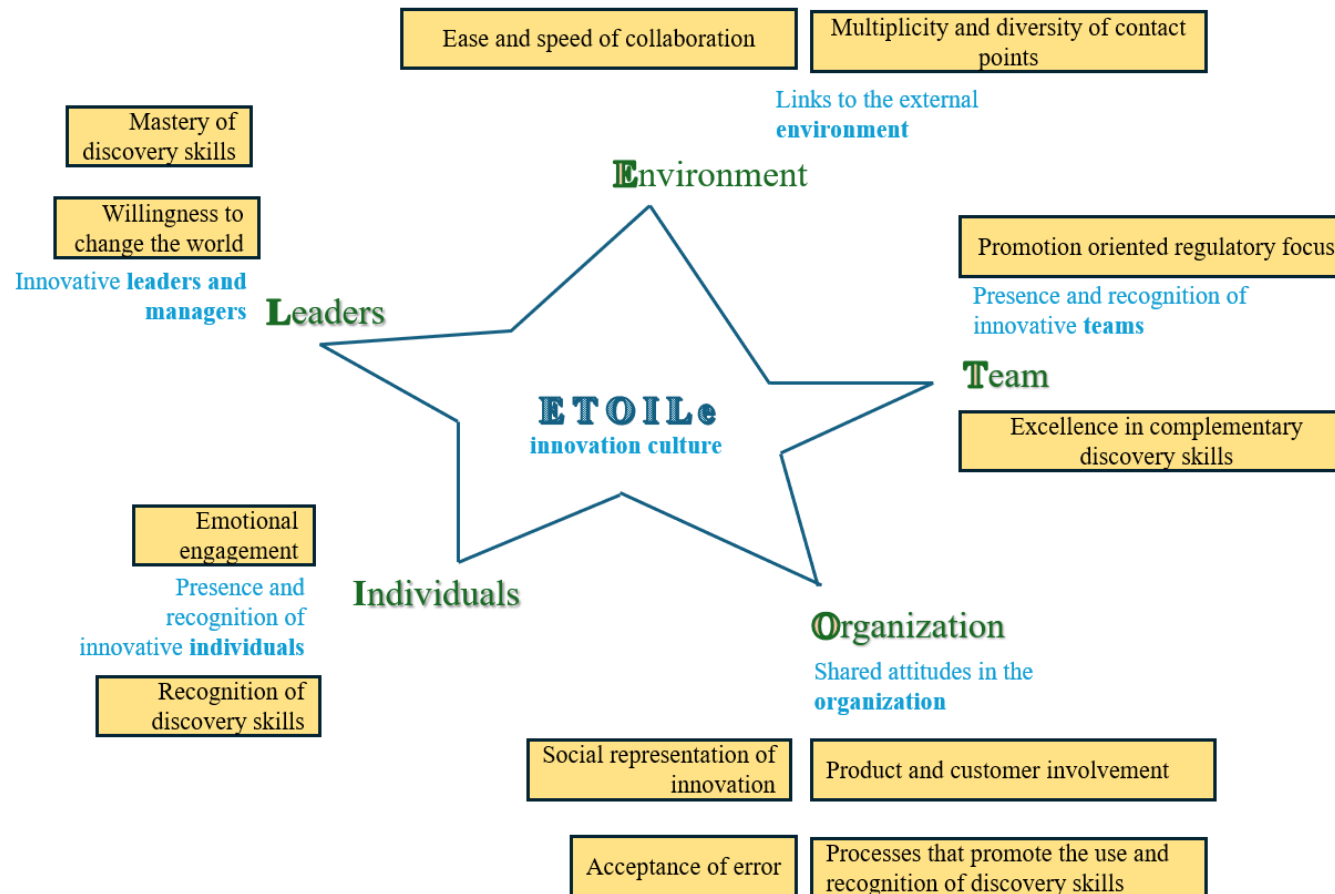


Figure 2.3 : ETOILe model of the innovation culture in organizations
 Source: Adopted from Davies & Buisine, 2018

It explores several cultural dimensions, such as power distance, individualism versus collectivism, and uncertainty avoidance. Each dimension is critically analyzed to determine how it fosters or impedes innovation at the national level. The review reveals that cultural attributes can both facilitate and restrict innovation, depending on the societal context and existing cultural norms (Tian et al., 2018). The findings from the systematic literature review highlight the nuanced relationship between culture and innovation. It is evident that culture profoundly influences innovation, though this relationship is complex and context-dependent.

The article suggests a significant need for further empirical research to address the contradictory findings and deepen the understanding of cultural impacts on innovation. These insights are particularly valuable for business practitioners aiming to implement effective innovation strategies tailored to specific cultural contexts (Tian et al., 2018). The extent of organizational innovation culture in private firms, particularly in Malaysia, may be limited in comparison to more developed research areas in other countries. As in many other developing economies, the focus on innovation and research in private firms might need to investigate how Malaysia's unique cultural diversity and context impact the development and implementation of innovative cultures within private firms. Investigations could have also explored the role of leadership styles, including inclusive leadership, transformational leadership, and entrepreneurial leadership, in shaping the innovative culture of private firms in Malaysia.

2.5 Underpinning Theories

In the field of inclusive leadership research, scholars analyze research models based on various underlying theories. Researchers use a variety of theories to guide their

investigations in the context of innovative work behavior (IWB). Among these, social theories are the most prevalent, with social exchange theory being applied in over half of the studies. This theory suggests that value generation is contingent on social interactions. Following social theories, motivational theories are also commonly employed, focusing on inspiring employees to achieve desired outcomes and performances (Aiessa & Durugbo, 2021).

Social Exchange Theory (SET) and Self-Determination Theory (SDT) offer comprehensive frameworks for understanding the reciprocal nature of leader-employee interactions and the impact of intrinsic motivation on organizational outcomes. By elucidating the relationships within the conceptual framework, SET and SDT highlight how an innovative culture fosters inclusive leadership and enhances employees' innovative behavior through reciprocal exchanges and the fulfillment of psychological needs.

The theories underscore the importance of positive leader-employee interactions and the role of intrinsic motivation in driving innovative behaviors. As organizations strive to cultivate innovation, understanding the principles of SET and SDT and their application to inclusive leadership practices becomes increasingly vital. By fostering positive exchanges, nurturing a supportive culture, and fulfilling psychological needs, organizations can enhance their innovative capacity and achieve sustainable success.

2.5.1 Self-Determination Theory

According to the self-determination theory (SDT), developed by Deci and Ryan (2000), four distinct varieties of motivation are positioned along a spectrum ranging from autonomous to controlled regulation. Individuals are more likely to engage in autonomous behavior when motivated by the intrinsic interest of the job at hand, resulting in pleasure and

fascination. Conversely, if the task at hand does not provide inherent gratification, an individual's drive to perform may be affected by external factors. The key determinant of an individual's position on this continuum is how these external factors have been integrated or internalized within their sense of self. Consequently, the more an external factor becomes internalized, the greater the autonomy of an individual's regulation (Manganelli et al., 2018).

Extensive research consistently supports the notion that autonomous regulation yields a wide array of positive outcomes for individuals and organizations compared to controlled regulation (Gagné & Deci, 2005). Psychologically, autonomously motivated employees experience enhanced well-being, happiness, and energy while reporting lower levels of distress and burnout (Deci & Ryan, 2008; Gagne et al., 2015). Higher performance and output are linked to employees' ability to regulate their behavior in the workplace (Trépanier et al., 2015). Specifically, self-motivated employees are more likely to remain focused, diligent, and invested in their jobs. (Deci & Ryan, 2008; Haivas, Hofmans, & Pepermans, 2013). Additionally, they are more likely to do their jobs well, adjust to new situations, and develop creative solutions to problems. (Devloo et al., 2015).

In contrast, controlled regulation is associated with decreased performance and perseverance due to attention and memory difficulties. (Vallerand, 1997), as well as an increased prevalence of physical difficulties, emotional distress, and disengagement (Trépanier et al., 2015). From an organizational standpoint, self-motivated employees are more dedicated to their jobs, have fewer work absences, are less likely to leave their organizations, and have a higher organizational commitment (Gagné et al., 2015). Given the importance of these findings, the following section aims to guide managers who seek to promote autonomous regulation in their staff.

Deci and Ryan (2000) emphasize the importance of focusing on the type of motivation rather than the magnitude. Autonomous individuals are motivated by their own free will and possess a strong feeling of independence, whereas controlled motivation is participating in activities in order to obtain rewards or avoid punishment. Autonomous motivation is the result of fulfilling humans' fundamental psychological demands for competence, relatedness, and autonomy; this type of motivation leads to increased engagement and improved outcomes. Employers should cater to these needs by providing the most favorable learning, working, or performing conditions. Autonomous motivation is divided into two main categories: intrinsic and extrinsic. Individuals can internalize extrinsic motivation, understanding the worth of the action for which they may be rewarded or asked. This leads to intrinsic motivation, producing favorable results (Deci & Ryan, 2000).

Humans' psychological needs have been compared to those necessary for their development, stability, and happiness (Deci & Ryan, 2017). The need for competence (feeling competent in dealing with one's environment), autonomy (having control over one's activities), and relatedness, feeling linked to others (Ryan & Deci, 2008) are the three fundamental psychological needs. The need for competence is the psychological requirement for feeling competent in dealing with one's surroundings (Deci & Ryan, 2000). It is most apparent when individuals exhibit a strong desire to experiment with and manipulate their environment, as well as pursue challenging jobs that enable them to test their talents to the fullest extent.

When individuals' needs for competence are met, they can better adapt to novel situations, while unmet competence needs can lead to feelings of hopelessness and a lack of motivation at work (Broeck et al., 2010). In contrast to regular duties, innovative work behavior requires continual adaptation to new situations and challenges. When employees

are encouraged and reassured that they have the skills to handle complicated challenges and deal with uncertainty, they are likelier to stick with the process until they reach their innovative goals (Pudjiarti & Hutomo, 2020).

The theory also states that the degree to which workers feel that they are in control of their work environment is a key factor in inspiring individuals to put in the effort required to achieve their goals (Humphrey, Nahrgang, & Morgeson, 2007). Employees need to feel like they have some independence to come up with innovative solutions (Oldham & Cummings, 1996). Employees are more likely to take the initiative and implement new ideas when they believe they have some degree of control over their work environment (Felstead, 2020). Individuals are more willing to take chances and attempt new things without fear of reprimand or punishment if they feel they have some control over their work environment.

This is important because innovative behavior relies on trial and error and accepts failure as a stepping stone to learning. As a result, employees have a greater sense of freedom and autonomy in their jobs. Those whose desire for independence is met are more likely to take the initiative and pursue their objectives (Devloo et al., 2015), while those who are self-directed tend to do it at their own speed (Parker, Bindl & Strauss, 2014).

Similarly, the characteristics found in innovative work behavior imply that employees' feelings of autonomy in the workplace are positively associated with their attempts to offer ideas, the volume of their voices, and the frequency with which they act on those suggestions. The need for relatedness, as defined by Gagne and Deci (2005), is when an individual is emotionally invested in their relationships with coworkers and sees their workplace as a positive place to make new friends. Past studies on creativity show that employees' idea development and execution in the workplace might be stimulated by the perceived relatedness of their supervisor and group members, referring to their colleagues

(Thuan, 2020). Employees who feel encouraged in their day-to-day interactions are more willing to take risks and promote their creative ideas, even with some uncertainty. Individuals who establish significant relationships in the workplace are less prone to fearing disagreements, criticism, opposition, or feeling disconnected from their social environment.

The level of collaboration and knowledge-sharing among peers in transparent and trustworthy social networks would also increase (Chedid et al., 2019), which shows that understanding the elements' generating motivation is essential for managers who want to improve employees' autonomous regulation. Creating environments that cater to these fundamental psychological requirements is crucial for encouraging autonomous control (Gagné & Forest, 2014). This can be achieved through job/work design, emphasizing autonomy in task execution, prioritizing quality interpersonal relationships and leadership focused on meeting employees' psychological needs, and implementing compensation systems with reduced emphasis on pay-for-performance schemes. Manganelli et al. (2018) provide an overview of the research results discussed in the article and put forward a framework illustrating how work practices can influence various outcomes in the workplace.

As shown in Figure 2.4 below, the proposed framework outlines how work practices can result in different outcomes in the organization. The relationship implications are shown in three distinct categories: psychological, behavioral, and organizational outcomes. When work practices, such as job design, satisfy an employee's requirements, specifically in terms of relatedness, it results in autonomous regulation. Moreover, as previously clarified in prior research, when employees have a sense of autonomy over their activities, it results in improved psychological well-being, including heightened levels of energy. Needs frustration is the antithesis of needs fulfillment, and it arises when an individual's or employee's needs

remain unfulfilled or unsatisfied. Employees feeling controlled and scrutinized leads to negative psychological outcomes, such as burnout or low energy.

Several factors were found to foster autonomous regulation within organizations. One of them is job design. Hackman and Oldham (1975) identified five primary features of the workplace that would contribute to promoting autonomous regulation: task variety, task identity, task significance, job autonomy, and feedback. Employees should be exposed to a wide range of activities, each of which calls for a unique set of abilities (task variety), and should be able to follow the progression of their job from beginning to end (task identity). The ability to make choices freely (job autonomy), complete meaningful activities, and majorly influence the organization (task significance) are equally critical. Furthermore, employees should be given constructive criticism (feedback) tailored to their areas of improvement (Carpentier & Mageau, 2013). Numerous studies (Trépanier et al., 2015; van Hooft & van Hooft, 2017), among others, show that jobs structured according to these five characteristics effectively satisfy individuals' basic psychological needs, leading to increased autonomous regulation and decreased controlled regulation.

In addition to these features, employees may further satisfy their psychological needs via job creation, enabling them to modify their workplace depending on their interests and beliefs (Slemp & Vella-Brodrick, 2014). As employees can display distinct types of work motivation, the prevalence of these different motivations is significant since autonomous regulation, compared to controlled regulation, results in numerous favorable outcomes for individuals and organizations. Managers are urged to prioritize the promotion of autonomous regulation by evaluating their employees' existing motivations and shaping three elements of the work environment (job design, interpersonal relationships/leadership, and compensation) to facilitate the satisfaction of psychological needs (Manganelli et al., 2018).

2.5.2 Social Exchange Theory

Social exchange theory is a highly influential conceptual paradigm in comprehending organizational behavior (Cropanzano & Mitchell, 2005). It focuses on social exchange, which entails both interdependent and contingent interactions with an exchange partner (Blau, 2017). It emerged in the 1960s in the United States and gained global prominence, offering a sociological perspective on studying social behavior, particularly in terms of the economic relationship between input and output.

The theory focuses on the characteristics of interpersonal connections, describing interpersonal communication as a social exchange phenomenon. It suggests that individuals inherently seek advantages and try to minimize negative outcomes, making them strive to maximize benefits and reduce costs during interactions that are influenced by self-interest (Blau, 1964). Within the social exchange theory (SET), emphasis is placed on these interdependent transactions that can foster high-quality relationships, leading to trust, loyalty and mutual commitments (Voss et al., 2019). The SET also highlights the presence of long-term unspecified obligations, where individuals willingly engage in social interactions in both their personal and professional lives, exchanging trust, help, and feedback with others (Haynie, 2011).

Additionally, social exchange theory effectively explains the dynamic process of resource exchange between individuals or groups. Also, it suggests that the perceived quality of workplace exchanges influences individuals' willingness to act altruistically in these relationships, implying that higher-quality workplace exchanges lead to greater altruistic behavior (Loi et al., 2009). According to Das and Teng (2002), SET is an important strategic marketing paradigm for business-to-business (B2B) partnerships because it creates a cycle of interaction in which each party's behavior depends on the others.

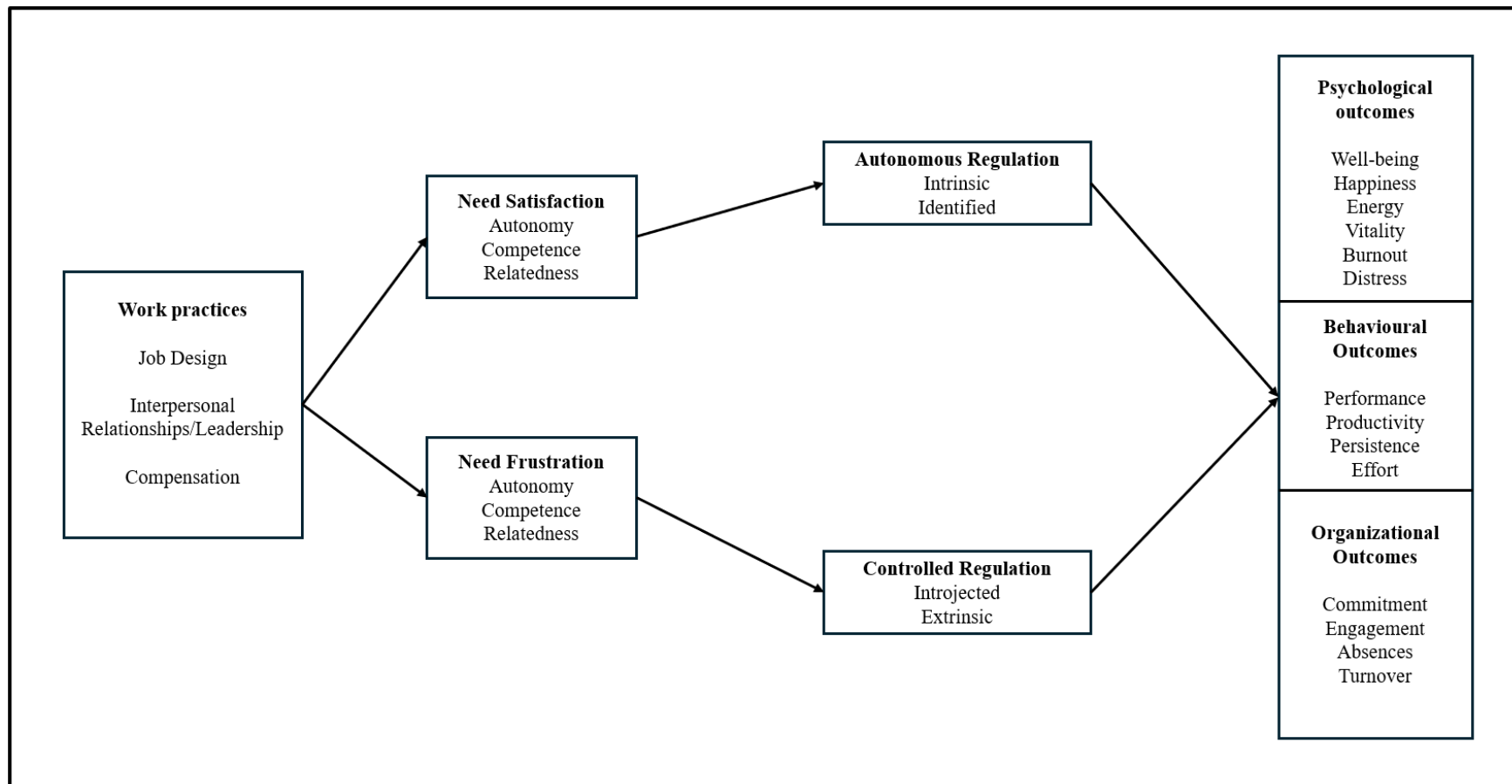


Figure 2.4: A Proposed Framework Outlining the Potential Processes Through Which Work Practices Can Result in Different Outcomes in the Workplace

Source: Adopted from Manganelli et al.(2018)

As Luo and Donthu (2007) point out, the value of social exchange goes much beyond the monetary or objective worth of the goods and services traded. While various forms of social exchange exist, contemporary models in organizational behavior generally exhibit the following common features: (1) the actor's initial behavior towards a target individual, (2) the target's reciprocation, including both attitudinal and behavioral responses to the action, and (3) the establishment of a relationship between them. When an organizational actor or perpetrator, such as a manager or coworker, treats a target individual favorably or unfavorably, this sets the social exchange process (Eisenberger et al., 2004).

These first activities are referred to as initiating behaviors, and examples of potential positive initiating actions include providing organizational support (Riggle, Edmondson, & Hansen, 2009) and justice (Nazir et al., 2019). Potential negative initiating actions include abusive supervision (Choi, Kim, & Yun, 2022) and bullying (Hayat & Afshari, 2020). The recipient, usually a subordinate or colleague, may respond to the initiator's actions positively or negatively (Eisenberger et al., 2004). These actions are usually described as returning responses, and according to social exchange theory, when the targets or the subordinate experience positive initiating actions, they are likely to respond similarly by showing more positive reciprocating responses and reducing their negative reciprocating responses.

These reactions may, in a very general sense, be broken down into two categories: relational and behavioral. Most notably, one form often results in another (Cropanzano et al., 2017). In a broader sense, an economic exchange connection may develop into a high-quality social exchange relationship through a succession of successful reciprocal exchanges. This might lead to individuals becoming emotionally invested in their organizations (Vandenberghe, 2021) and exhibiting greater trust (Gill et al., 2019), among other positive outcomes. Figure 2.5 below demonstrates these processes:

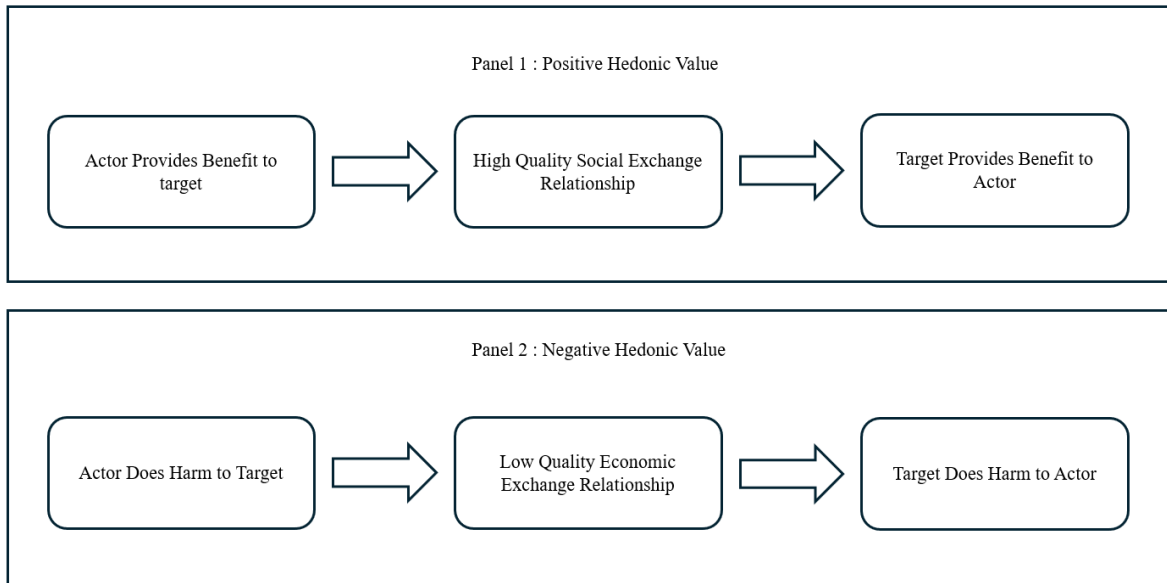


Figure 2.5: A Generic Model of Social Exchange
Source: Adopted from Cropanzano et al. (2017)

The figure explains a general model of social exchange in which an actor providing benefits to the target demonstrates a positive hedonic value, which leads to high-quality social relationships. The target, in turn, provides a benefit to the actor. This bears resemblance to panel 2 in the model, which illustrates the negative hedonic process that begins when an actor causes harm to the target. It leads to a low-quality economic exchange relationship, and in turn, the target will harm the actor. Positive social exchange relationships are less likely to form under these conditions (Choi, Kim & Yun, 2022; Hayat & Afshari, 2020). Individuals are less likely to create intimate and open-ended relationships with persons who hurt them; therefore, the following trade may be economic.

The concept of reciprocity was developed within the context of the social exchange theory, and generalized reciprocity, balanced reciprocity, and negative reciprocity are the three forms of reciprocity that are now the most frequently recognized (Liu et al., 2020). Generalized reciprocity refers to the act of assisting others without any expectation of receiving something in return; balanced reciprocity involves individuals providing and

receiving an equal amount of value; and negative reciprocity occurs when individuals prioritize their own interests without considering the potential impact on others (Liden et al., 1997). Reciprocity, regarded as a compelling motivating factor, significantly influences employees' behavior in organizational research (Fehr & Kirchsteiger, 1997).

The theory suggests that when employees experience mutual commitment, including affective and calculative dimensions, stemming from the organization's voluntary efforts towards fostering innovation, it encourages reciprocal adoption behaviors among the employees. In this way, SET elucidates the dynamics of how inclusive leadership and an organizational culture that promotes innovation play a mediating role in fostering employee motivation toward innovation.

2.6 Conceptual Framework and Hypotheses Development

A conceptual framework refers to the logical direction and connections that underpin a researcher's entire research effort, including the fundamental concepts, procedures, aims, methods, and implementation. In other words, the conceptual framework incorporates the researcher's ideas about the topic of interest, the concern to be probed, the issues to discuss, the literature to be investigated, the theories to be adapted, the technique to be used, the methods, processes, and tools, data analysis, and interpretation of results, suggestions, and conclusions (Ravitch & Riggan, 2017).

Accordingly, the conceptual framework reflects the researcher's overall logical structure for the research project. Figure 2.6 presents the conceptual research model of the current study. In this study, the independent variable is inclusive leadership, while the dependent variable is employees' innovative behavior. It is anticipated that organizational innovation culture will serve as both a moderator and an additional independent variable,

bridging the gap between the primary independent and dependent variables. The independent variable remains unaffected by the other variables the researcher is measuring.

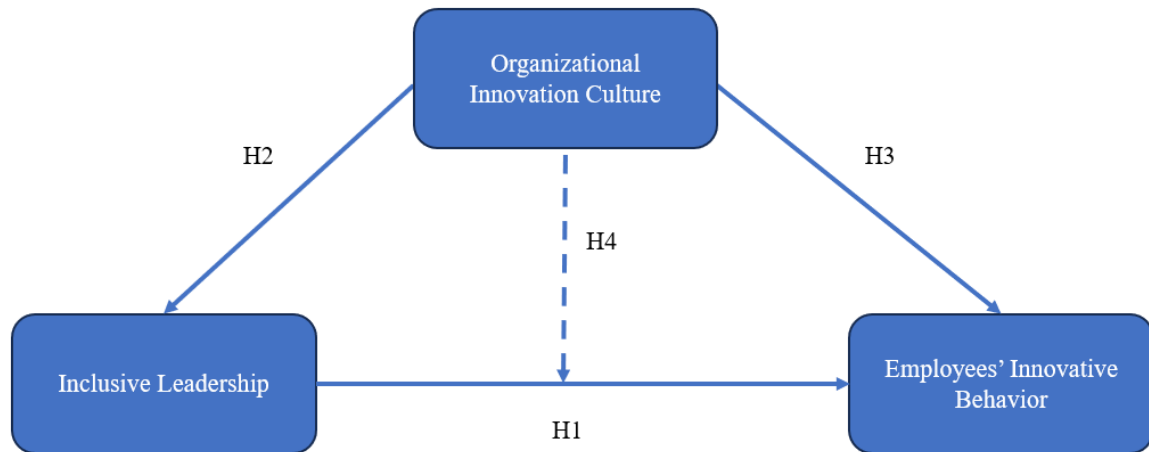


Figure 2.6: Conceptual Framework

2.6.1 Inclusive Leadership and Employees' Innovative Behavior

Innovative behavior generates, promotes, and implements new technologies, processes, methods, or products. Employees' innovative behavior focused on the innovation process (i.e., participating in innovative activities) rather than the innovation output (i.e., new products) (Backstrom & Bengtsson, 2019), which was beyond the concept of creativity (Shin et al., 2017). Organizational innovation has been linked to many forms of leadership for decades (Alblooshi et al., 2020).

From a theoretical standpoint, inclusive leadership may encourage staff innovation. First, inclusive leaders inspire innovation (Fang et al., 2019). Brimhall (2019) views inclusion as a process that improves employees' internal perception of the organization and is closely connected to intrinsic motivation, leading to higher engagement in innovative behavior. Second, social exchange theory emphasizes the interdependent transactions that

foster high-quality relationships, leading to trust, loyalty, and mutual commitments (Voss et al., 2019). Typically, the organization provides these resources, and inclusive leaders can contribute knowledge, time, and support to foster innovation (Fang, Dai, & Zhang, 2021). Leader inclusivity promotes and values varied team members' perspectives, giving employees greater innovation flexibility (Qi et al., 2019).

Inclusive leadership, characterized by fairness, support, and recognition, plays a crucial role in influencing employees' innovative behavior. SET provides a lens through which this relationship can be understood. When leaders exhibit inclusive behaviors, they create a supportive environment where employees feel valued and respected. This positive treatment is perceived as a benefit by employees, who, in turn, feel an obligation to reciprocate through positive organizational behaviors, such as innovation.

In terms of conceptual framework, Hypothesis 1 (H1) proposes that inclusive leadership positively impacts employees' innovative behavior. According to SET, this relationship is driven by the reciprocal nature of leader-employee interactions. Employees, who recognize their leaders' support and inclusivity, reciprocate by engaging in innovative activities. This reciprocal exchange fosters a cycle of positive interactions, where supportive leadership continually encourages innovative behavior, which in turn reinforces the leaders' inclusive practices.

SDT further enhance this relationship by highlighting the role of intrinsic motivation. Inclusive leadership fulfills employees' psychological needs for autonomy, competence, and relatedness. When these needs are met, employees are intrinsically motivated to engage in innovative behavior. This intrinsic motivation, driven by the fulfillment of psychological needs, enhances the positive impact of inclusive leadership on employees' innovative behavior. Therefore, this study proposes the following:

Hypothesis 1: There is a significantly positive impact of inclusive leadership on employee innovative behavior.

2.6.2 Organizational Innovation Culture and Inclusive Leadership

The influence of organizational innovation culture (OIC) on Inclusive Leadership (IL) is crucial for fostering environments that encourage innovation and inclusivity. An organizational culture that prioritizes innovation creates a supportive atmosphere that allows leaders to adopt inclusive practices effectively. This culture values creativity, risk-taking, and diverse perspectives, which are essential for inclusive leadership. Recent studies emphasize that in such environments, leaders are better equipped to engage employees, encourage diverse viewpoints, and foster an inclusive work environment. This ultimately leads to enhanced organizational performance and employee satisfaction (Qi et al., 2019; Guo et al., 2020)

Research indicates that organizations with a strong culture of innovation are more likely to develop and sustain inclusive leadership practices. For example, a study published in the Journal of Management & Organization found that psychological safety, fostered by an innovative culture, mediates the relationship between inclusive leadership and innovative work behavior. This suggests that when employees feel safe to express their ideas without fear of negative consequences, they are more likely to engage in innovative activities. Inclusive leaders play a pivotal role in creating this safe environment by valuing diversity and encouraging open communication (Guo et al., 2020). Therefore, fostering an organizational innovation culture is fundamental to the development and success of inclusive leadership, driving both employee innovation and overall organizational effectiveness.

It is suggested that an organizational innovation culture positively influences inclusive leadership. SET provides a lens through which this relationship can be understood. An organizational culture that values and promotes innovation creates an environment where leaders are encouraged and supported in adopting inclusive behaviors. This positive cultural context is perceived as beneficial by leaders, who, in turn, feel an obligation to reciprocate by engaging in inclusive leadership practices.

Hypothesis 2 (H2) suggests that an organizational innovation culture has a positive impacts on inclusive leadership. According to SET, this relationship is driven by the reciprocal nature of cultural support and leadership behaviors. Leaders, recognizing the supportive and innovative environment, reciprocate by fostering inclusivity in their leadership style. This reciprocal exchange fosters a cycle of positive interactions, where an innovative culture continually encourages inclusive leadership practices, which in turn reinforce and sustain the innovative culture.

An innovative culture fulfills leaders' psychological needs for competence and relatedness, according to SDT. When leaders feel competent in their roles and connected to their teams, they are more likely to exhibit inclusive behaviors. This intrinsic motivation, driven by the fulfilling of psychological needs, further enhances the positive impact of an innovative culture on inclusive leadership. Therefore, the study proposes the following:

Hypothesis 2: There is a significantly positive relationship between Organizational Innovative Culture and Inclusive Leadership.

2.6.3 Organizational Innovation Culture and Employees' Innovative Behavior

According to the literature, organizational culture may significantly impact employee innovation (Nguyen et al., 2019). Most firms have innovation cultures that affect employee

behavior with various norms, attitudes, and beliefs. The dominating cultural factors build the innovation culture, affecting workers' sense of innovation as a core value and increasing participation (Deshmukh, 2020). The concept of an innovation culture can be defined as a comprehensive framework comprising multiple dimensions, encompassing the desire to innovate, the necessary infrastructure to sustain innovation, the operational behaviors required to influence the market, and the environment that fosters the implementation of innovative ideas (Dobni, 2008).

Martins and Terblanche (2003) investigated organizational cultures that foster creativity and innovation. Their concept emphasizes the significance of trust, working conditions, managerial support, and customer focus. Trust, especially when it involves openness and honesty, is crucial in empowering employees to embrace change and foster innovation. Past studies found that organizational culture promotes innovation in the workplace. Creating a culture of innovation that emphasizes trust, transparency, and support allows organizations to unleash their workers' creativity and increase performance. SET highlights how a supportive culture is perceived as beneficial by employees and encourages reciprocal behaviors such as innovation. In a culture that values innovation, employees feel their contributions are recognized and rewarded, prompting them to engage in innovative activities as a form of reciprocation.

Hypothesis 3 (H3) posits that the organizational innovation culture has a positive impact on employees' innovative behavior. Within the SET framework, this relationship is driven by the reciprocal exchanges between the organization and its employees (Kmieciak, 2020). A culture that supports innovation provides employees with the necessary resources and encouragement to pursue new ideas. Employees, in turn, reciprocate by engaging in innovative behaviors, perpetuating a cycle of positive exchanges that continually enhance

the innovative capacity of the organization. SDT complements this understanding by emphasizing the role of intrinsic motivation. An innovative culture provides an environment that fulfills employees' psychological needs, leading to intrinsic motivation. When employees feel autonomous, competent, and connected, they are more likely to engage in innovative behavior. This intrinsic motivation, driven by the fulfillment of psychological needs, further enhances the positive impact of an innovative culture on employees' innovative behavior. Therefore, this study proposes the following:

Hypothesis 3: There is a significantly positive relationship between Organizational innovative culture and employee innovative behavior.

Through an organizational innovation culture, inclusive leadership may encourage employees' innovative behavior. Aman et al. (2012) conducted a study that focused on identifying organizational culture factors affecting creativity and innovation. These factors encompassed strategy, structure, support mechanisms, behavior-supporting innovation, and open communication. The study highlighted that communication had the most significant impact, followed by behavior-encouraging innovation, strategy, structure, and support mechanisms. Park and Donahue (2018) further found seven cultural factors characterizing highly innovative organizations, which are relationships, risk-taking, resources, knowledge, objectives, incentives, and tools. These aspects provide a framework for executives to assess and improve innovation cultures.

Additionally, Zhao, Li, and Yu (2021) state that top managers are essential to creating a successful and lasting innovation culture. A well-implemented and maintained innovation culture should empower senior managers to excel in the mentioned domains and enable the organization to compete effectively by integrating current market demands with process innovations that fulfil those demands. To help employees unlock their innovation potential,

they must perceive that leaders are supportive (Qi et al., 2019). If leaders care about subordinates' needs and feelings, provide positive feedback, encourage employees to express their ideas and develop their skills, and help them solve job-related problems, organizational loyalty and employee interest in work will increase, enabling them to explore and innovate (Lee et al., 2021).

The moderating role of organizational innovation culture in the relationship between inclusive leadership and employees' innovative behavior is crucial for understanding the full impact of SET and SDT. Hypothesis 4 (H4) suggests that organizational innovation culture moderates this relationship, amplifying the positive effects of inclusive leadership on innovative behavior. According to SET, the presence of a supportive and innovative culture strengthens the reciprocal exchanges between leaders and employees.

An innovative culture enhances the intrinsic motivation fostered by inclusive leadership, according to SDT. When the culture supports innovation, employees' psychological needs for autonomy, competence, and relatedness are consistently met. This continuous fulfillment of psychological needs amplifies the intrinsic motivation to innovate, further strengthening the relationship between inclusive leadership and employees' innovative behavior. Thus, the study proposes:

Hypothesis 4: Organizational innovative culture moderates the relationship between inclusive leadership and employee innovative behavior.

Table 2.1 below illustrates a summary of the hypotheses, their corresponding research objectives, and the research questions:

Table 2. 1: Summary of Hypotheses and Corresponding Objectives and Research Questions

Hypothesis	Description	Supporting RO	Supporting RQ
H1	There is a significantly positive impact of inclusive leadership on employee innovative behavior.	To determine the impact of inclusive leadership on employee innovative behavior.	What is the impact of inclusive leadership on employee innovative behavior?
H2	There is a significantly positive relationship between Organizational Innovative Culture and Inclusive Leadership.	To examine the relationship between organizational innovative culture and inclusive leadership.	How does organizational innovative culture relate to inclusive leadership?
H3	There is a significantly positive relationship between Organizational innovative culture and employee innovative behavior.	To investigate the influence of organizational innovative culture on employee innovative behavior.	How does organizational innovative culture influence employee innovative behavior?
H4	Organizational innovative culture moderates the relationship between inclusive leadership and employee innovative behavior.	To assess the moderating effect of organizational innovative culture on the relationship between inclusive leadership and employee innovative behavior	Does organizational innovative culture moderate the relationship between inclusive leadership and employee innovative behavior?

2.7 Gaps in the Literature

A research gap occurs when the capacity of the systematic reviewer to conclude is constrained, according to Robinson et al. (2011). Gaps are crucial as they allow for a more comprehensive understanding of the subject matter and promote inclusivity in literature. By filling these gaps, new insights and perspectives can emerge, enriching the literary landscape and providing a more diverse range of narratives for readers to engage with. In this study,

several gaps in the literature have been found from the perspective of inclusive leadership and employees' innovative behavior.

2.7.1 Inclusive Leadership

Veli et al. (2022), in their comprehensive literature review on inclusive leadership, aimed to provide clarity on the concept of inclusive leadership and present an up-to-date overview of the current research in the area. Their review identifies future directions, that fill the gaps in the study of inclusive leadership. First, the review found that most research done by scholars investigates a single dimension of inclusive leadership, and there is a lack of studies that explore the multidimensional nature of inclusive leadership. Additionally, the review highlighted the need for more empirical research to examine the effectiveness of inclusive leadership in different organizational contexts and industries.

Second, inclusive leadership's interconnections have not been adequately studied to determine their effects. Investigating the relationship to see whether different dimensions of inclusive leadership lead to distinct outcomes is crucial. Third, most inclusive leadership research focused on Western countries in shaping the theory of inclusive leadership, subsequently influencing studies conducted in Eastern cultures. This may present a challenge because cultural values can impact understanding and attitudes toward inclusive leadership, as well as employees' reactions to their leaders (Kirkman et al., 2009). Hence, it is important to determine whether inclusive leadership practices produce the same results and whether "inclusion" has the same meaning across cultural boundaries and industries (Klarsfeld et al., 2019).

2.7.2 Employees' Innovative Behavior

Previous research in the field of innovative work behavior (IWB) has explored various aspects, including the organizational climate and processes that facilitate IWB, such as workplace learning. However, an analysis of the current research spaces reveals that limited attention has been given to critical and virtual work environments in the context of IWB. For the most part, quantitative surveys (Agarwal, 2016) have been used as the research design of choice in IWB literature (89% of all studies).

While this perspective acknowledges the importance of quantitative research, it also stresses the need for qualitative, conceptual, and exploratory study into topics like IWB. While there have been meta-analyses and experiments, further experimental research and unique approaches like applied anthropological methodologies and decision analysis are urged to broaden the methodological area further (June & Khar Kheng, 2014). The theoretical literature on IWB has mostly focused on social theories, as well as some behavioral and work theories, whereas innovation theories have not received as much attention.

The viewpoint from Aiessa and Durugbo (2021) suggests looking at classic innovation theories, like Schumpeterian viewpoints on technological development, Rogers' diffusion theory, and newer ones, like eco-innovation, co-creation, and frugal innovation. There is room for investigation into front-line workers, higher-ups (such as CEOs), and other strategic decision-makers in the analytical space. Part-time and contract employees in the gig economy, as well as remote workers in the digital economy, are two groups of workers that have been mostly left out of IWB studies.

2.7.3 Organizational Innovation Culture

A notable limitation in the study of an organizational innovation culture is the inherent complexity in defining and measuring the concept itself. The term "innovation culture" encompasses a range of multifaceted dimensions (Espig et al., 2021), which are subject to interpretation, organizational complexities, and industry-specific norms. This inherent subjectivity introduces a level of ambiguity that can hinder the consistent operationalization of innovation culture across different studies (Fuad et al., 2020).

Another critical limitation stems from the dynamic nature of organizational culture, including innovation culture. Organizations evolve due to internal and external influences, and as a result, their cultures may also change (Bendak et al., 2020).

A study capturing the innovation culture at a specific moment may not fully grasp this dynamic evolution, potentially limiting the generalizability of findings to other time frames or organizational contexts. Additionally, the context-specific nature of innovation culture introduces variability. Different organizations, influenced by factors such as size, industry, leadership styles, and historical context, may exhibit unique facets of innovation culture. This context dependency makes it challenging to develop a universally applicable framework for measuring innovation culture that applies uniformly to diverse organizations (Jones, Chace & Wright, 2020).

2.8 Chapter Summary

This chapter provides a thorough literature review on the constructs of inclusive leadership, employee innovative behavior, and organizational innovation culture, supported by self-determination and social exchange theories. It critically examines existing research to identify theoretical and contextual gaps, particularly in the application of inclusive

leadership in the Malaysian telecommunication industry. This chapter sets the groundwork for understanding how inclusive leadership can foster an organizational innovation culture and enhance employees' innovative behavior. The following chapter on research methodology comprehensively details the methods used to conduct the present study in order to achieve the previously mentioned objectives.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This study explores the relationship between inclusive leadership and employees' innovative behavior via organizational innovation culture. The chapter will include a comprehensive examination of the research design used in the study, including its conceptual framework and the methodology employed. The following subtopics will include discussion of the study's target population, sampling methods, data collection techniques, sample, and instrumentation.

3.2 Research Design

A study design is a fundamental plan or approach for doing research. It includes the components and method the researcher intended to examine (Rusli et al., 2014). The present study will use a quantitative survey to evaluate the relationship between inclusive leadership and employees' innovative behavior via organizational culture, particularly in the Malaysian mobile telecommunication industry. The researcher chose quantitative data because it uses numerical information to address questions about who, how much, what, where, when, how many, and how.

Aliaga and Gunderson (2002) expand upon this notion by applying it to quantitative research methodologies, which include comprehending an issue or phenomenon via the use of numerical data and mathematical methodologies, particularly statistics. Creswell (2014) states that social research problems necessitate a particular approach. For instance, if the problem involves identifying factors that impact an outcome, assessing the effectiveness of

an intervention, comprehending the most accurate predictors of outcomes, or testing a theory or explanation, then the quantitative approach is the most suitable. Employing quantitative research yields numerous benefits, such as:

- i. Researchers rely heavily on general public data in quantitative studies because it appears more objective. When researchers are removed from the daily affairs of the individuals being studied, their bias in data collection or analysis is greatly reduced (Daniel, 2016).
- ii. The quantitative research results may be generalized to a wider sample and used in various contexts. This is due to the fact that using scientific procedures for data gathering and analysis allows for a bigger sample size to be included, leading to more reliable and consistent results (Xiong, 2022).
- iii. Quantitative research allows for efficient data collection and analysis.

According to Bryman (2012), quantitative research methodologies rely heavily on numerical data for analysis. Data is primarily collected through surveys and experiments, followed by analysis using statistical and computational methods to maximize efficiency and effectiveness. For example, using the Statistical Package for the Social Sciences (SPSS) statistical software, Connolly (2007) illustrates that computer data may be computed and performed in educational research. These tools may reduce the amount of time and energy researchers spend on technical support.

3.3 Sampling Design and Procedures

Using sophisticated, reproducible data-gathering approaches and careful attention to sampling is essential to arrive at generalized propositions that provide insight or have prediction potential (Johnson & Duberley, 2000).

3.3.1 Target Population

The study's target population was the nationwide employees of Malaysia's four largest mobile telecommunication companies (Maxis, CelcomDigi, TM/Unifi Mobile, and U Mobile). Several factors contributed to the decision to limit the study's sample size to these four major players. First, these organizations are the industry leaders, controlling a significant portion of the market, and are crucial in establishing the country's current state of the telecommunication industry (MCMC, 2021). Analyzing these prominent companies' practices may reveal how inclusive leadership influences staff members' tendency to be creative or innovative. Second, focusing on only the four major players enables a more precise and comprehensive analysis of the issues under study. Focusing on these key players will help understand the industry's unique practices, dynamics, and corporate cultures. This focused approach increases the validity and relevance of the findings, allowing for more accurate comparisons and generalizations within the context of the Malaysian mobile telecommunications sector. Respondents encompass various ages, educational backgrounds, and occupations.

According to Bursa Malaysia's 2023 annual report, there were approximately 15,700 employees in these companies (Bursa Malaysia, 2023; Global Data, 2023; Maxis, 2023; CelcomDigi, 2023). These four prominent Malaysian companies in mobile telecommunications have a nationwide presence, strategically divided into four key regions to ensure comprehensive coverage and service accessibility. The regions are organized as follows: Central and Eastern Region (includes the states of Selangor, Kuala Lumpur, Putrajaya, Pahang, Terengganu, and Kelantan), Southern Region (includes the states of Negeri Sembilan, Melaka, and Johor), Northern Region (consists of Perlis, Kedah, Penang, and Perak), and Northern Borneo Region (includes the states of Sabah and Sarawak).

3.3.2 Sampling Size

Sample size was determined using Cohen's method of statistical power analysis. The approach uses the interdependencies between the five variables necessary for valid statistical conclusions. Each relationship is a function of the other four for any statistical model. Taking this into account, it can be anticipated that the sample size needed for any particular statistical test may be calculated by providing values for the following four variables: (1) significance level, (2) effect size, (3) desired power, and (4) expected variance. When the sample size is determined using Cohen's statistical power analysis, the goal is to establish what constitutes a statistically significant sample while still being feasible in terms of time and resources. The potential for inconclusive inference due to a shortage of respondents may be avoided by optimizing the sampling process. On the other hand, maximized sampling occurs when more information is gathered than is necessary for meaningful findings, leading to a waste of scarce resources.

To ensure representativeness in the purposive sampling method, several strategic steps were implemented. The total population consisted of 15,700 employees from four major Malaysian telecommunications companies. Given the diverse nature of the workforce, it was essential to capture a wide range of perspectives to comprehensively understand the impact of inclusive leadership on employees' innovative behavior.

First, clear inclusion and exclusion criteria were established. The inclusion criteria focus on employees with direct experience working under inclusive management, as these individuals could provide relevant and insightful data regarding the research topic. As per the exclusion criteria, employees with less than one year of tenure as well as those in temporary or contract positions, were excluded. This is to capture more stable and long-term perspectives on inclusive leadership and its impacts.

Given the lack of detailed regional data from HR departments, the survey was designed to ensure geographical diversity through a self-reporting demographic section. This section included a question asking respondents to indicate their region (e.g., Peninsular Malaysia's northern, southern, eastern, and central regions, as well as northern Borneo). This method allowed us to verify after data collection that our sample included participants from various regions, ensuring it accurately represented the geographical distribution of the population. To collect data, Google Forms were distributed to the HR representatives of all four companies, who then disseminated the survey link to all employees. This method ensured broad reach, although participation was voluntary. To ensure that only relevant respondents proceeded with the survey, a filter question was included: "Do you have any experience working or currently work with an inclusive leader?". A clear definition of an inclusive leader was provided. If respondents answered "Yes," they were directed to the subsequent questions; if "No," the survey concluded for them. This filter ensured that the data collected was pertinent to the study's objectives.

To specify the sample size, the G*Power program is used to perform the power analysis for this study with the recommended setting provided by Memon et al. (2020). The chosen test family was "F tests" analysis followed by "Linear multiple regression: fixed model, R² deviation from zero" for the statistical tests type. The type of power analysis is set to "A-priori: Compute required sample size – given α , power and effect size". The effect size was then specified at 0.15 (medium effect) and α at 0.05. For the power value, the recommended value is 0.80. However, because this study's unit of analysis is individual, the researcher decided to use a power value of 0.95 with only a 0.05 error probability. The number of predictors was determined by this study's hypothesized model, which is 2. According to the calculation, the study required a sample size of 107. However, this study

aimed for a higher sample response rate to provide a more solid result, 250 respondents were set instead. The G*Power calculation and its setting are presented in Figure 3.1 below:

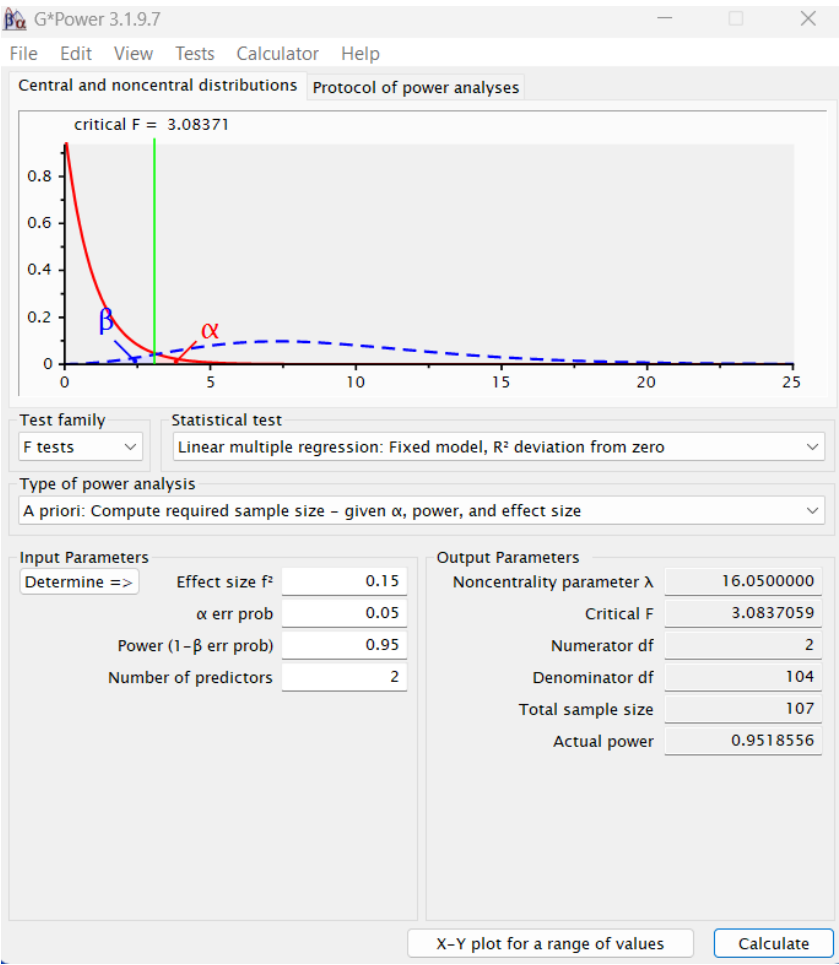


Figure 3.1: G*Power Calculation

Given that the distribution of responses is influenced by voluntary participation, it is reasonable to allocate the questionnaires evenly across all regions to ensure fairness and representative sampling. This approach acknowledges that participation rates may vary, but it provides an equal opportunity for all regions to contribute to the survey. Equal distribution in survey sampling can help achieve balanced representation and reduce potential biases from nonresponse (Groves & Peytcheva, 2008). In minimizing common method bias and ensuring the integrity and reliability of collected data, one of the primary strategies was

ensuring the anonymity and confidentiality of respondents. By assuring respondents that their responses would be anonymous and confidential, the study aimed to reduce social desirability bias and encourage honest and accurate responses. This assurance helped alleviate any apprehensions respondents might have about their data being traced back to them, thereby promoting more truthful reporting.

3.4 Data Collection Process

The initial plan was to employ simple random sampling, a method known for its impartiality and representativeness. However, the sensitive nature of information held by telecommunications companies was a significant obstacle, as they were unwilling to share employee lists due to concerns about data security and employee privacy. In response to these challenges, the researcher openly communicated with the organizations, and after several discussions, a compromise was reached: purposive sampling would be employed instead of traditional random sampling. The telecommunication companies agreed to share a nationwide Google link, inviting employees to participate voluntarily. Although this resulted in self-selection bias, it respected the privacy concerns of the organizations and the autonomy of potential respondents.

Purposive sampling aims to include certain types of cases among all those that may be included in the study's final sample. Based on the study's aims and objectives, a purposive sampling strategy is used because it is believed that certain types of individuals may have different and important perspectives on the ideas and issues at hand (Mason, 2017; Robinson, 2013). Despite their differences, previous studies have explored the possibility of purposive sampling. Nevertheless, each method, despite its purposeful nature, incorporates a convenience component. This is due to the voluntary nature inherent in all consent processes,

where the researcher relies on the availability of a pool of potential respondents. Because their involvement is entirely optional, researchers can assume that respondents not only meet the study's inclusion criteria but also have a genuine interest in the subject matter and are eager to learn more about it so that they can make a meaningful contribution to the body of knowledge in this area (Campbell et al., 2020).

Depending on the medium used to reach respondents and compile responses, online survey data collection is broken down into three distinct channels: (1) face-to-face, (2) email, and (3) Web-based. For this study, questionnaires would be distributed through Google Forms or web-based surveys. By definition, Google Forms is a survey administration software included in the free, web-based Google Docs Editors suite offered by Google (Stanton, 1998). It is a flexible program with many potential uses, such as making a quick quiz or collecting event attendees' contact information.

It is important to consider the benefits and drawbacks of web-based surveys before committing to them, despite the fact that they are the most cutting-edge methods currently available. Web-based surveys, unlike email-based surveys, have a short turnaround time and may reach many prospective responders immediately. Multiple-question formats, direct database access, data quality checking, customized instrument distribution, and assured confidentiality are ways that Web-based surveys may use modern technology to increase the trustworthiness of their collected information (Jamsen & Corley, 2007).

Data collection began in September 2023 with the finalized questionnaires. Questionnaires were distributed to Human Resources (HR) representatives across all telecommunication companies, and a Google link was shared for wider accessibility. By the end of October, only 20% of the targeted respondents had actively participated in the study. To address this, the researcher employed proactive measures, including follow-up

communication through WhatsApp and phone calls, significantly improving the response rate. By early November, an impressive 80% response rate was achieved.

In an effort to enhance the study's generalizability, the researcher ensured comprehensive coverage across all four locations— from Borneo (Sabah and Swk), the central and eastern region, the southern region, to the northern region of Malaysia. This geographical diversity was intended to capture a representative sample reflecting the broader population under investigation and avoid selection bias through purposive sampling.

By mid-November, the diligent efforts and strategic follow-up yielded 250 responses, meeting and surpassing the minimum number of responses predetermined using G-Power. This comprehensive data collection process ensures statistical robustness and enhances the study's potential for generalization across diverse regions and telecommunication companies.

In order to guarantee that the selection criteria are satisfied, the present study included an explanation aimed at boosting the respondents' grasp and understanding. The explanation was positioned at the bottom of the query. For example,

- 1) *Question: My manager values the differences that members of diverse backgrounds bring to the work unit.*

*Clarification: **Diverse** is defined as coming from various social and ethnic backgrounds, genders, and sexual orientations..*

- 2) *Question: My manager makes resources equally accessible to all work unit members.*

*Clarification: **Resources** are defined as any source or supply of support that enables you to do your work effectively.*

To filter respondents appropriately, an introductory/preliminary question is strategically positioned on the first page of the questionnaires, ensuring that only individuals possessing prior experience with inclusive leadership engage in the survey. Before responding to this survey, respondents are provided with a concise explanation clarifying the concept of inclusive leadership:

An inclusive leader is defined by the following attributes:

- 1) **Empathy** involves understanding and caring about the feelings and perspectives of all team members.*
- 2) **Active listening** means paying close attention when others speak, showing that one values their input by asking questions and responding thoughtfully.*
- 3) **Diversity appreciation** means valuing and respecting individuals from different backgrounds, cultures, and experiences.*
- 4) **Fostering an inclusive culture** means creating an environment where everyone feels welcome, valued, and able to contribute their unique ideas and abilities.*

3.5 Measures

This study used pre-existing scales that have already been published in reputable publications to increase the validity and reliability of the assessment instruments. This approach ensures that the study's scales are reliable and have been subjected to extensive testing. Researchers can rely on previous work to establish their validity and reliability by utilizing pre-existing scales. Using pre-existing scales also simplifies comparison studies, facilitating knowledge accumulation in the field. Overall, incorporating pre-existing scales into research methodology is a prudent choice that enhances the robustness and quality of

the assessment instruments (Hyman et al., 2006). Despite the biases and limitations in previous studies, the agree-disagree scale has long been adopted in any social sciences study.

The earlier scholars proposed the use of a 5-point Likert scale; however, recent studies show that 7 to 10 points should be used as it can obtain comparable results and yield more information. Drawing on the findings of Ravilla, Saris, and Krosnick (2014), which highlight the superior measurement quality offered by 5-point scales, this study will employ a 5-point Likert scale ranging from 1 ('strongly disagree') to 5 ('strongly agree'). This approach is adopted to ensure the collection of high-quality data that accurately reflects respondents' attitudes and perceptions.

3.5.1 Inclusive Leadership

This instrument was designed to measure inclusive leadership behaviors as well as, assess employees' self-reports of past experiences with their manager's behaviors. The initial plan of the present study was to use a nine-item scale that was developed by Carmeli et al. (2010) and a similar approach has been used by Naseer et al. (2023), Bataineh et al. (2022), and Hafeez et al. (2019). The earlier 9-item scale with a Cronbach's alpha (α) of 0.94 measures three dimensions of inclusive leadership: openness, availability, and accessibility, and the respondents are asked to rate their supervisors based on these dimensions. However, the latest study found several limitations associated with the existing measures. The limitations include the following:

- a) The current inclusive leadership assessment tools fall short of meeting all four characteristics described in the literature on the topic. Existing metrics do not capture inclusive leadership behaviors that meet the basic requirements of workers for authenticity, distinctiveness, and belonging. The existing assessments fail to consider

the impact of direct supervisors on the execution (or lack thereof) of policies pertaining to diversity and inclusion within organizations (Aitong, 2021).

- b) There are significant doubts about the validity of the current inclusive leadership assessments since the items' referents differ both within and between assessments. For instance, some questions inquire about individual experiences with leaders (e.g., "the manager is ready to listen to my requests"); others seek feedback on the leader's treatment of team members from different professional backgrounds (e.g., "physicians ask for the input of team members that belong to other professional groups"). Yet, others do not specify the referent (e.g., "the manager is accessible for discussing problems"). This results in varying responses from the employees, which occasionally reveal the leader's personal treatment of them. At times, the answers reveal the leader's approach to managing the team, and in some cases, it's unclear if the employees' responses are a reflection of their personal experiences or a combination of both individual and team experiences (Arthur & Boyles, 2007).
- c) Current research on inclusive leadership primarily focuses on leaders' employees rather than self-reports or peers. This approach assumes that every employee has seen all leadership behaviors, disregarding the fact that the target leader and their colleagues have similar and distinct knowledge of the target's leadership (Hunter et al., 2009).

Due to these limitations, Aitong (2021) suggested developing questionnaires that would include all four dimensions of inclusive leadership abstracted from previous literature. When assessing the reliability of the Inclusive Leadership Questionnaire, a high internal consistency was reported, with a Cronbach's alpha of 0.97 (Aitong, 2021). This indicates an excellent level of reliability, validating the questionnaire's capability to consistently measure

inclusive leadership behaviors across different contexts. The new questionnaires developed would have all four different dimensions of inclusive leadership. The first dimension would be the degree to which the management treats all employees fairly and gives them equal opportunities. The second dimension is the degree to which the supervisor promotes cooperation and coordination across the workforce. The third dimension is the manager's ability to address each employees' basic requirements for belonging, individuality, and authenticity in the unit. Organizational policies and programs pertaining to diversity and inclusion and the manager's level of implementation of these policies and programs constitute the fourth dimension. Table 3.1 below shows the questionnaires used for inclusive leadership:

Table 3.1: Questionnaire on Inclusive Leadership

Source	Measure	Scale
Adopted from Aitong (2021)	IL1: My manager respects individual differences in the work unit (Dimension Three).	1 2 3 4 5
	IL2: My manager values the uniqueness/differences of all work unit members (Dimension Three).	1 2 3 4 5
	IL3: My manager values the differences that members of diverse backgrounds bring to the work unit (Dimension Three).	1 2 3 4 5
	IL4: My manager encourages work unit members of diverse backgrounds to exchange ideas (Dimension Two).	1 2 3 4 5
	IL5: My manager encourages all work unit members to learn from one another (Dimension Two).	1 2 3 4 5
	IL6: My manager makes resources equally accessible to all work unit members (Dimension One).	1 2 3 4 5
	IL7: My manager manages biases and discrimination towards underprivileged	1 2 3 4 5

Table 3.1 continued

Adopted from Aitong (2021)	group members in the work unit (Dimension one).	1 2 3 4 5
	IL8: My manager encourages everyone in the work unit to participate in decision-making (Dimension Two).	1 2 3 4 5
	IL9: My manager implemented a shared decision-making process and inclusive problem-solving process (Dimension Two).	1 2 3 4 5
	IL10: My manager actively incorporates different points of view into his or her final decisions (Dimension Two).	1 2 3 4 5
	IL11: My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness (Dimension Three).	1 2 3 4 5
	IL12: My manager tries to make all members feel like they belong to the work unit (Dimension Three).	1 2 3 4 5
	IL13: My manager welcomes constructive debate among work unit members (Dimension Two).	1 2 3 4 5
	IL14: My manager is open to alternative perspectives when working on shared problems in the work unit (Dimension Two).	1 2 3 4 5
	IL15: My manager encourages all work unit members to collaborate with each other (Dimension Two)	1 2 3 4 5
	IL16: My manager encourages multiple inputs from all members to achieve work unit goals (Dimension Two).	1 2 3 4 5
	IL17: My manager encourages work unit members to contribute in their own ways (Dimension Two).	1 2 3 4 5
	IL18: My manager COMPLIES with organizational diversity and inclusion	

Table 3.1 continued

Adopted from Aitong (2021)	policies in the work unit (Dimension Four).	1 2 3 4 5
	IL19: My manager IMPLEMENTS organizational diversity and inclusion programs in the work unit (Dimension Four).	1 2 3 4 5
	IL20: My manager IMPLEMENTS organizational diversity and inclusion initiatives in the work unit (Dimension Four)	1 2 3 4 5

3.5.2 Employees' Innovative Behaviors

A 9-item scale ($\alpha = 0.95$) based on Janssen's (2000) study is used to assess innovative behavior. Three items were associated with idea generation, three with idea promotion, and five were associated with idea realization. The research follows Janssen's idea of self-reported measurements for several reasons. First, employees' cognitive representations of innovative work behavior are more subtle than managers' due to their deeper understanding of the work's context, history, and background (Jones & Nisbett, 1987).

Second, innovative work behavior is always deemed discretionary work behavior in an organization, and since its evaluation is always considered subjective, it is always open to different interpretations by the supervisors/managers (Organ & Konovsky, 1989). Finally, some managers may fail to see their workers' true creative behavior because they are too focused on the showmanship necessary to win over their superiors (Organ & Konovsky, 1989). With the strong relationships obtained from Scott and Bruce's (1994) work, it is hypothesized that idea generation, idea promotion, and idea realization would contribute to forming a composite measure of innovative behavior in the workplace. The questionnaires used are shown in Table 3.2 below:

Table 3.2: Questionnaire on Employees' Innovative Behavior

Source	Measure	Scale
Adopted from Janssen (2000)	EI1: Creating new ideas for difficult issues (idea generation)	1 2 3 4 5
	EI2: Searching out new working methods, techniques, or instruments (idea generation)	1 2 3 4 5
	EI3: Generating original solutions for problems (idea generation)	1 2 3 4 5
	EI4: Mobilizing support for innovative ideas (idea promotion)	1 2 3 4 5
	EI5: Acquiring approval for an innovative idea (idea promotion)	1 2 3 4 5
	EI6: Making important organizational members enthusiastic for innovative ideas (idea promotion)	1 2 3 4 5
	EI7: Transforming innovative ideas into useful applications (idea realization)	1 2 3 4 5
	EI8: Introducing innovative ideas into the work environment in a systematic way (idea realization)	1 2 3 4 5
	EI9: Evaluating the utility of innovative ideas (idea realization)	1 2 3 4 5

3.5.3 Organizational Innovation Culture

Questionnaires developed and validated by Park et al. (2015) and Terziovski (2010) are adopted to measure organizational innovation culture. The 4-item scale with Cronbach's α value of 0.82, developed by Park et al. (2016), focuses on various dimensions, such as leadership support and employee empowerment, which were crucial for fostering innovation within an organization. On the other hand, the 4-item scale with a Cronbach's α value of 0.70 in Terziovski's (2010) questionnaire encourages creativity and experimentation. Validated questionnaires provide valuable insights into organizational innovation, improvement areas, benchmarking against industry standards, and tracking progress, providing a robust

framework for assessing and nurturing an innovative culture. Table 3.3 below displays the questionnaires currently adopted:

Table 3.3: Questionnaire on Organizational Innovation Culture

Source	Measure	Scale
Adopted from Park et al. (2015) and Terziovski (2010)	OIC1: Our organization rewards behaviors that relate to creativity and Innovation	1 2 3 4 5
	OIC2: Our organizational culture encourages employees to monitor their performance	1 2 3 4 5
	OIC3: Employees take risks by continuously experimenting with new ways of doing things	1 2 3 4 5
	OIC4: Risk-taking is encouraged without fear of punishment for mistakes	1 2 3 4 5
	OIC5: Creativity and innovation are rewarded	1 2 3 4 5
	OIC6: Managers are receptive to change	1 2 3 4 5
	OIC7: Employees are receptive to change	1 2 3 4 5
	OIC8: New practices and ways of doing business are encouraged	1 2 3 4 5

3.6 Questionnaire Pre-Testing

It was critical to provide pre-tests to the research respondents to ensure they understood the questions. During pretesting, researchers may gather data from a small sample of respondents by having them fill out questionnaires that assess how well the study questions were understood and whether or not they were suitable for the study (Sekaran & Bougie, 2016). A researcher may fix any problems with the study instrument by pre-testing it before using it to gather data from a large sample. A pre-test sample size of 5–30 is sufficient for revision purposes when it comes to questionnaires (Perneger et al., 2014).

Therefore, in this study, 30 respondents from the telecommunication industry took part in pre-testing the questionnaires. The questionnaires were also checked for comprehension and readability by a telecommunication industry expert and an academic researcher.

3.7 Pilot Test

A pilot test is a preliminary investigation done on a small scale to assess the feasibility, time, cost, adverse events, and effect size. Its purpose is to anticipate an appropriate sample size and improve the study design before conducting the full-scale survey. It offers several advantages, including the suitability of questions and the accuracy of instructions. It provides information on whether the type of survey is effective, saves financial resources, and is a beneficial way to assess whether a large-scale study is worth the effort (Cheah, 2023). A common rule of thumb is to use a sample size of around 5-10% of the main study's expected final sample size; however, the standard acceptable size would be 30 (Hair, 2003). This can provide enough information to identify potential issues without requiring a large number of respondents.

The decision to employ a sample size of 30 for the pilot test is informed by the Central Limit Theorem (CLT), which posits that the distribution of sample means converges to a normal distribution with increasing sample size, irrespective of the population's underlying distribution. A sample size of 30 or more is typically deemed adequate for the CLT to apply reliably, ensuring that the distribution of sample means exhibits characteristics akin to a normal distribution (Cheah, 2023).

In the initial phase of the study, pre-testing was conducted exclusively with employees from CelcomDigi to assess the relevance and clarity of the developed questionnaires. This approach was chosen based on the company's accessibility and its

operational alignment with the broader research objectives. While this method introduces potential biases linked to CelcomDigi's unique corporate culture, it is important to note that the purpose of this phase was strictly to refine research instruments rather than to extract data for analytical conclusions. Such controlled pre-testing allows for immediate and relevant feedback and is essential for ensuring the effectiveness of the questionnaires in subsequent broader applications.

The Human Resources department assisted in selecting the 30 respondents for the pre-testing phase. HR identified potential respondents based on their immediate availability and expressed willingness to participate in the study at their convenience, ensuring minimal disruption to their regular work schedules.

The feedback collected from respondents during this pre-testing phase is crucial for refining the research questionnaire. Adjustments would be made based on participant input to enhance the clarity, relevance, and effectiveness of the questionnaire, ultimately ensuring that the main study yields reliable and valid results. To ensure the comprehensiveness and applicability of the questionnaires used in this study, a multi-faceted validation process was employed. This process involved both industry and academic expertise to scrutinize the instruments for their practical relevance and theoretical soundness.

The questionnaires were first reviewed by an industry expert—an experienced retail manager with over 20 years of experience in the sector. This expert's role was to assess the practical applicability of the questions, ensuring that they are meaningful and directly relevant to the day-to-day realities faced by professionals in the industry. Their extensive experience provided critical insights into the operational and strategic aspects of retail management, helping to refine the questionnaires to better reflect current industry practices and challenges.

Further validation was conducted by an academic expert with a strong research background and a deep understanding of theoretical constructs, who assessed the questionnaires for their scientific rigor and alignment with the latest academic standards. The review focused on ensuring theoretical consistency, construct validity, and relevance to current research in the field. Feedback from both the industry expert and the academic reviewer led to meaningful modifications to the questionnaires. These adjustments included clarifications of certain items, alignment of terminology with both industry standards and academic concepts, and enhancements to ensure comprehensive coverage of the topic.

3.7.1 Pilot Test - Construct Reliability and Validity

In this study, reliability is the measure of the construct's internal consistency. A construct is reliable if the Alpha (α) value is greater than 0.70 (Hair et al., 2013). Using Cronbach's alpha, construct reliability was assessed. The results revealed that the inclusive leadership scale with 20 items ($\alpha = 0.954$) and the employees' innovative behavior scale with 9 items ($\alpha = 0.914$) were reliable. The findings also indicated that the organizational innovation culture scale, which consists of 8 items, achieved a Cronbach's alpha of 0.895. This value, which is well above 0.70, demonstrates a high level of internal consistency, indicating that the scale is reliable and effectively measures the construct of organizational innovation culture. Table 3.4 displays the reliability findings:

Table 3.4: Reliability Statistics

Constructs	No of Items	Cronbach's Alpha (α)
Inclusive Leadership	20	0.954
Employees' Innovative Behavior	9	0.914
Organizational Innovation Culture	8	0.895

Validity testing assesses the extent to which the measurement instruments employed in the study are valid, signifying their accuracy in measuring the intended constructs. In this context, validity ensures that the research instruments effectively capture what they are designed to measure. The criteria for validity testing include a correlation value greater than 0.30, a correlation value that exceeds the critical r-table value ($DF = n-2$), and a significance level of 0.05 or 0.01 (Cham, 2023).

The validity results for the measurements demonstrate that inclusive leadership, employees' innovative behavior and organizational innovation culture exhibit correlation values exceeding 0.30, with the correlation value surpassing the critical r-table value and the significance level falling below 0.05.

3.8 Unit of Analysis

The unit of analysis is defined as the level of aggregation of the data collected during the subsequent data analysis stage (Cavana et al., 2001). Almost anything may serve as the focus of a social science study; however, the social science field often limits, if not strictly, the options for the study's unit of analysis. Employees, supervisors, senior managers, consumers, work teams, departments, and businesses are common units of study in organizational behavior and management sciences.

Although certain units are more common in a given field of study, a researcher is free to choose any social item considered intriguing to analyze as the unit of analysis for her study (Dolma, 2010). This study's unit of analysis includes individual employees in the telecommunications sector. This includes a wide spectrum of positions, from non-managerial staff to senior management. The rationale for this choice is based on the premise that all employees within an organization, regardless of their hierarchical position, interact with

leaders and therefore have pertinent insights into the nature and impact of inclusive leadership.

This diverse participant base was selected to ensure the study captures a broad range of perspectives and experiences regarding leadership practices. By including both non-managerial employees and senior managers, the research aims to explore how inclusive leadership influences employee behavior and attitudes across different levels of authority and responsibility.

3.9 Instrumentations

To obtain the quantitative data needed for this study, the survey technique was used. Malhotra et al. (2007) state that surveys are a common, standardized, and methodical way to gather data from individuals representing the study community. The survey technique was chosen because of its low cost, suitability to the research, the nature of the data required for the study, the characteristics of the population, and the availability of resources.

The researcher selected the survey instrument due to its timeliness, cost-effectiveness, and ability to collect anonymous data that accurately represents the population of interest. Nevertheless, a significant limitation of using a questionnaire is the substandard quality of the acquired data, which may be attributed to the absence of information, inadequately phrased questions, and careless design. These difficulties are of utmost importance yet may be circumvented (Gilham, 2008). Therefore, using a validated survey is an excellent method to ensure the precision and dependability of the questionnaires used. Additionally, it will reduce the amount of time and financial resources allocated to the development and verification of its reliability and accuracy (Boynton, 2004).

3.10 Data Analysis Tools and Techniques

The current section of the study presents a comprehensive overview of the tools and strategies used to test hypotheses and analyze the gathered data. This study used up-to-date instruments and commonly used statistical methods to assess the reliability, validity, and hypotheses. For data analysis, software programs such as SPSS and PLS-SEM are used; these programs are chosen based on their extensive usage and acceptability.

PLS-SEM is a comprehensive framework offering a novel perspective on examining the intricate web of relationships between variables. It provides a robust solution to address the limitations of conventional covariance-based SEM, making it particularly appealing in the current research landscape. A central reason for the increasing use of PLS-SEM is its capacity to handle intricate relationships between latent constructs and observed indicators. In studies where variables exhibit complex interdependencies, PLS-SEM's flexibility allows researchers to uncover latent patterns that might remain concealed under more rigid methodologies (Hair et al., 2012).

The data collected was analyzed in two stages: (i) preliminary data analysis and (ii) hypothesis testing through PLS-SEM. The details of the techniques and procedures used for data analysis are discussed in the following sections.

3.10.1 Preliminary Data Analysis

Preliminary data analysis of the present study has been performed through SPSS, one of the highly accepted statistical analysis tools (Rahman & Muktadir, 2021). The techniques included in early data analyzes are data coding, data editing and screening, missing data analysis and its treatment, data normalcy and evaluation of outliers, data transformation, and examination of internal consistency. The appropriate tests, such as frequency distribution,

reliability estimation method, and outliers, are further assessed by the Mahalanobis distance test in SPSS. The same statistical tools also handled the respondents' descriptive statistics and demographic profiles. The specifics of these tests are described in the next chapter.

3.10.2 Partial Least Squares Structural Equation Modeling (PLS-SEM)

PLS-SEM has been used in several published publications (Hair et al., 2012), organizational management (Sosik et al., 2009), international management (Richter et al., 2015), and human resource management (Ringle et al., 2019). Smart PLS and developed partial least squares structural equation modelling (PLS-SEM) are used to examine the research data. This study uses a modified version of partial least squares structural equation modelling (PLS-SEM) called smart PLS to analyze the collected information.

The sample, or data, is the determining factor in selecting this approach for analysis. PLS-SEM is especially suitable for research or scenarios characterized by a small sample size, a non-normal distribution of data, or intricate correlations between variables. The study of management and related fields has also benefited greatly from this approach to data analysis, and it is applied in numerous fields and areas of forecasting research (Hair et al., 2020).

PLS-SEM also produces fewer inconsistent findings than regression analysis (Ramli et al., 2018) and is often considered the best approach for predicting the effects of the dependent variable. PLS-SEM is used to evaluate reporting methods, conduct powerful analysis in management science, and identify factors that serve as mediators (Ramli et al., 2018).

3.10.3 Measurement Model

In Partial Least Squares Structural Equation Modelling (PLS-SEM), the measurement model represents the relationships between latent constructs and their observed indicators. The measurement model is an important component of PLS-SEM because it helps assess the reliability and validity of the measurement instruments. Confirmatory factor analysis is performed to determine the reliability and validity of the constructs used in the research.

In stage one of SEM, two fundamental processes are carried out. The first step involves evaluating the causal link between constructs and their observable variables (items). The second step involves assessing the validity and reliability of the constructs. The first step's basic aim is to verify the uni-dimensionality of constructs. This involves determining the factor loading of each observed variable (item) of the construct, assessing reliability, and making more accurate predictions about the discriminant and convergent validity of the constructs (Meyers et al., 2006; Hair et al., 2010).

Two widely known methods exist for factor analysis: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). As EFA is usually suitable for use when theoretical basis constructs are unknown, CFA tests how well the theory fits the research observations (Zikmund et al., 2013). In the present study, CFA would be a better choice because sets of hypotheses need to be tested, and the research objective is rather confirmatory. Furthermore, the scales of this study's constructs are adopted, confirming the use of CFA instead of EFA.

The present study used confirmatory factor analysis to assess the validity of the constructs. Items with low factor loadings were excluded from the analysis. The widely accepted criterion for accepting factor loadings is 0.50 or above (Holmes-Smith et al., 2006;

Hair et al., 2010). Therefore, items with factor loadings below 0.5 were excluded from further analysis.

To ensure accurate and relevant outcomes, it is recommended that reliable and valid instruments be used in the data collection. An instrument's capacity to provide consistent findings over time is referred to as its reliability (Segal & Coolidge, 2018). Although all the chosen instruments of investigation have been extensively used and shown to be dependable in prior studies, their reliability in a different environment, in this case, the telecommunication industry, has to be verified. Cronbach's alpha is a commonly used and highly acknowledged measurement for assessing the reliability of constructs (Meyers et al., 2006). Bonett and Wright (2014) define Cronbach's alpha as a measure of internal consistency or the average correlation among questions in a survey instrument, which assesses its reliability.

When Cronbach's alpha value increases and approaches 1, a scale's reliability and internal consistency increase. The present study uses Cronbach's alpha values to test the constructs' reliability, and most researchers agree that reliability estimates of a scale above 0.70 are deemed trustworthy. This benchmark is widely recognized and supported by several studies (Nunnally, 1978; Ruane, 2005; Hair et al., 2010). This study will follow widely recognized Cronbach's alpha value benchmark, with a minimum acceptable threshold of 0.70.

Table 3.5: Internal Consistency of Constructs

N = 200	Cronbach's Alpha
Inclusive Leadership	0.954
Employees' Innovative Behavior	0.914
Organizational Innovation Culture	0.902

Table 3.5 displays the reliability coefficients, which are calculated using the Cronbach alpha values. All three constructs used have values above the 0.70 threshold. In

terms of internal consistency, inclusive leadership demonstrates the greatest level (0.954), but organizational innovation culture exhibits the lowest level (0.902), despite possessing a high Cronbach's alpha. The data indicates that the scale used for the sample in the present study is reliable.

While reliability refers to a construct's capacity to provide consistent findings across time, validity refers to a construct's ability to measure the same notion on a scale (Bonds-Raacke & Raacke, 2012). The validity of a construct is crucial as it ensures that it accurately assesses the intended concept or attribute. A viable construct should include a substantial quantity of objects for measurement, which should be associated with the construct and other constructs (MacKenzie & Podsakoff, 2011).

Content validity, often referred to as face validity, refers to the quality and comprehensibility of a concept. According to Burns (2000), expert opinion is a reliable method for assessing the content validity of a concept. Bonds-Raacke and Raacke (2012) also state that experts' assessment of content quality is suitable for evaluating content validity. The recommendations were followed, and experts discussed the study's methods. In order to accomplish this objective, the researcher obtained verification from telecommunications professionals with more than two decades of expertise in the industry. The individual provided feedback on the caliber and substance of the measures implemented by the construct.

3.10.4 Structural Model

Structural equation modelling involves hypothesis testing, and it examines the links between different constructs in research. The path diagram, widely used in social and behavioral research, has been used to analyze and visually represent the relationships

between variables (Byrne, 2016; Kline, 2016). The graphical representation facilitates comprehension of the interconnections between constructs. The variables and their relations are shown using rectangles and arrows. Rectangles denote observable variables, and arrows depict their connections. Single-headed arrows show associations between independent and dependent variables.

3.11 Assumptions of PLS-SEM

Partial Least Squares Structural Equation Modeling (PLS-SEM) is known for being less restrictive in terms of assumptions compared to Covariance-Based SEM (CB-SEM). Table 3.6 still contains some assumptions and considerations.

Table 3.6: Assumptions of PLS-SEM

Statistical Test	Assumptions
PLS SEM	Smaller sample size No Missing data No outliers No Multivariate Normality Assumption No Multicollinearity

3.11.1 Small sample size

PLS-SEM is often considered robust with smaller sample sizes compared to CB-SEM. However, the exact sample size requirements can depend on the complexity of the model and the specific research question. When probabilistic sampling techniques are often difficult to employ due to the unavailability of a sampling frame (Memon et al., 2017), non-probabilistic sampling is the only option.

3.11.2 No Missing data

Outliers are values that are very high or extremely low with respect to the rest of the responses (Pallant, 2016). It is usually recommended to review the data before analysis because outliers can have a significant impact on data and findings. Outliers should be treated accordingly to ensure they do not influence the research results. The Mahalanobis distance test is a common practice when looking for outliers (Tabachnick & Fidell, 2013). The findings of the Mahalanobis distance test are reported in the following chapter.

3.11.3 No Multivariate Normality Assumption

Many of the statistical procedures demand normally distributed data for analysis. As normally distributed data is the primary assumption for CB SEM, PLS-SEM does not require the data to follow a specific normal distribution pattern. Traditional methods like maximum likelihood-based Structural Equation Modeling (SEM) often assume a normal distribution, but PLS-SEM does not rely on this assumption. Instead, it estimates models through a series of Ordinary Least Squares (OLS) regressions, making it more flexible in handling different types of data distributions.

PLS-SEM calculates latent variable scores by combining manifest variables in a precise way, treating these scores as ideal stand-ins for the manifest variables (Martinez et al., 2023). Unlike other methods, this process helps capture important information for explaining the latent variables. PLS-SEM also treats these latent variable scores as if they are perfect replacements for the manifest variables. It assumes that these scores represent the underlying concepts accurately (Manley et al., 2020).

3.11.4 No Multicollinearity

Multicollinearity occurs when two or more independent variables in a regression model are highly correlated. In other words, a strong linear relationship exists between two or more predictor variables. This can cause issues in statistical analysis because it becomes challenging to separate the individual effects of each variable on the dependent variable. In the context of PLS-SEM, "No Multicollinearity" assumes that the manifest variables (indicators or observed variables) used to measure latent constructs should not exhibit severe multicollinearity.

This assumption is crucial for obtaining reliable estimates of the relationships between latent and manifest variables (Martinez et al., 2023). High multicollinearity makes it challenging to interpret the individual contributions of each indicator to the latent variable. Researchers may find it difficult to understand the unique impact of each variable when they are highly correlated. Multicollinearity can lead to inflated standard errors and, in turn, wider confidence intervals. This reduces the precision of parameter estimates and affects the reliability of the results (Latan et al., 2023).

3.12 Chapter Summary

This chapter describes the methodology used to examine the relationship between inclusive leadership and employees' innovative behavior, with organizational innovation culture as a mediator, in the context of the Malaysian mobile telecommunication industry. The chapter discusses the quantitative research approach, detailing the sampling design, data collection methods, and the statistical tools employed for analysis, including SPSS and PLS-SEM. The chapter includes detailed information on the sample size, which is derived from employees of the four leading telecommunication companies. It also discusses the rationale

for using purposive sampling, which is driven by privacy concerns. The chapter also addresses the measures taken to ensure the reliability and validity of the data collected through various pre-tested questionnaires.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

This section discusses the study's findings using various data analysis methods. The findings were presented in five parts. The data preparation is detailed in the first part, which also includes a description of the response rate. Data cleaning, missing data points, data outliers analysis, multivariate normality, non-response bias, and preliminary data analysis are all covered in the following section. This section delves into the respondents' profile, analyzing their survey responses item-by-item for each research component and discussing the ramifications of this analysis. The common method variance problem addresses all four approaches. The research model is thoroughly evaluated after presenting the latent constructs and the robustness analysis. Then, using PLS-SEM, the endogenous constructs' route relationships and the model's explanatory power were analyzed; this provided access to the model's measurements and structure. Finally, the study's hypotheses were tested using direct and moderated methods.

4.2 Data preparation

4.2.1 Data Cleaning

Prior to performing any statistical analysis, it was essential to carefully examine and revise the gathered data in order to remove any mistakes in data input, incomplete data, and missing values, as well as ensure its suitability for use (Singh et al., 2006). Data preparation, which includes “editing, dealing with missing data, coding, transformation, and entering data” (Hair et al., 2016, p. 317), is just as crucial as data analysis and interpretation. Data

editing involves ensuring that the data is comprehensive, consistent, and legible before it is prepared for coding and storage (Zikmund et al., 2013, p. 463). In practice, this means ensuring data integrity and ensuring researchers only utilize correctly edited, cleansed, and tagged data that can be used for useful analysis in the future.

The data was encoded into SPSS using the data compilation technique, which is the first step in the data preparation process. SPSS was used to assess the frequency of missing values in the dataset. As a result, the dataset returns with no incomplete values. The number of questionnaires distributed through Google Forms returned 250 responses. Out of these 250 responses, 34 were discarded, and only 216 responses were usable for analysis.

After conducting an initial evaluation, 216 viable cases were imported into SPSS version 26 for additional analysis. Descriptive analysis findings were generated using the SPSS statistics database. A thorough evaluation of missing data was performed for each variable, followed by a data analysis to assess the presence of common method variance. Subsequently, the pre-existing data from SPSS was exported to a Microsoft Excel file in order to offer the Smart-PLS 4.0 program with clean input. The assessment of the structural and measurement models was performed utilizing the Smart-PLS 4.0 software.

4.3 Respondents' Profile

Table 4.1 reports the respondent's profile. The responses are mostly from female respondents. About 60.6% of the respondents are female, while 39.4% are male. The respondents between 41 and 50 were the highest respondents to the survey, amounting to 33.3%, followed by those aged between 31 and 40, with 30.1%. Respondents aged 21 to 30 constitute 22.7%, and the least are those aged 51 and above, with only 13.9%.

Table 4.1: Profile of Respondents

Demographic Variable	Description	Frequency	% age
Gender	Male	85	39.4
	Female	131	60.6
Age	21 – 30 years	49	22.7
	31 – 40 years	65	30.1
	41 – 50 years	72	33.3
	51 and above	30	13.9
Highest level of education	Diploma and below	107	49.5
	Degree	93	43.1
	Masters and above	16	7.4
Location	Sabah and Sarawak	57	26.4
	Central & Eastern Region	57	26.4
	Southern Region	53	24.5
	Northern Region	49	22.7
Total experience	1 – 5 years	51	23.6
	6 – 10 years	38	17.6
	11 – 15 years	26	12.0
	16 years and above	101	46.8
Which telecommunication company are you currently with	Maxis	47	21.8
	CelcomDigi	97	44.9
	U Mobile	23	10.6
	TM Unifi/Unifi Mobile	49	22.7
Job Level	Middle Management	52	24.1
	Lower Management	72	33.3
	Non Managerial	92	42.6

In terms of the respondent's level of education, those with a Diploma and below responded highly to the survey, amounting to 49.5%, whereas the Degree holders, with 43.1% and those with a Master's, responded the least, only 7.4% of the total respondents. To enhance the generalizability of this study's findings and mitigate potential selection bias, the questionnaires incorporate data from four distinct regions. The data collection indicates a

relatively balanced distribution of respondents across all regions. This can be attributed to the researcher's intervention, which involved follow-up efforts to ensure data collection from each region. Specifically, the distribution of respondents is balanced for Sabah, Sarawak and the Central Region, which accounted for 26.4%, the Southern Region for 24.5%, and the Northern Region for 22.7%.

The analysis of respondents' total professional experience is as follows: 23.6% of respondents exhibit 1–5 years of experience, 17.6% showcase a 6 to 10 year tenure, and 12% reflect a smaller but still notable segment of the workforce with more than a decade of experience, but less than 15 years. The most experienced group comprises 102 respondents, accounting for 46.8%. This significant proportion indicates a strong presence of long-term employees with over 16 years of experience in the organization. This comprehensive overview contributes valuable insights into the demographic profile of the study respondents, enriching the contextual understanding of the research findings.

When delving into respondents' telecommunications preferences, the data reveals a diverse distribution across various companies. Presently, 21.8% of respondents are affiliated with Maxis, while a majority of 44.9% are associated with CelcomDigi. U Mobile represents only 10.6% of respondents, and TM Unifi/Unifi Mobile captures a significant share of 22.7%. In terms of respondents, U Mobile emerged as the telco with the lowest contribution. This difficulty in securing participation can be attributed to the company's relatively limited geographical presence, as its branches are primarily concentrated in West Malaysia.

Additionally, U Mobile's smaller size compared to other telco companies may have hindered its ability to engage in the study. These factors combined make it difficult to secure a commitment from the company and ensure a representative sample of U Mobile respondents.

Concluding the demographic profile, the job levels of the respondents demonstrate a significant variety. In particular, 24.1% occupy middle management positions, 33.3% are in lower management, and 42.6% hold non-managerial roles. This distribution offers a comprehensive overview of the professional roles within the study group, adding important context to the research findings.

4.4 Descriptive Statistics

Using SPSS version 25, each indicator's mean and standard deviation were calculated. Table 4.2 outlines the descriptive statistics for all variables in this study. The results are as follows:

Table 4.2: Descriptive Statistics for All Variables

Construct	Indicator	Mean	Std. Deviation
Inclusive Leadership	IL1	3.77	.862
	IL2	3.34	1.167
	IL3	3.64	1.029
	IL4	3.64	1.099
	IL5	4.29	.891
	IL6	3.65	1.267
	IL7	3.31	1.269
	IL8	3.60	1.133
	IL9	3.73	1.026
	IL10	3.69	1.027
	IL11	3.98	1.145
	IL12	3.55	1.200
	IL13	3.36	1.157
	IL14	3.28	1.219
	IL15	3.61	1.267
	IL16	4.19	.818
	IL17	3.64	1.181
	IL18	3.56	1.119
	IL19	3.53	1.108
	IL20	3.40	1.257
	EIB1	3.87	0.816
	EIB2	4.04	0.740
	EIB3	3.92	0.803
	EIB4	3.61	1.006

Table 4.2: continued

Employees' Innovative Behavior	EIB5	4.22	0.855
	EIB6	3.34	0.956
	EIB7	3.57	0.952
	EIB8	3.51	1.021
	EIB9	3.71	0.922
Organizational Innovation Culture	OIC1	3.34	1.198
	OIC2	4.39	0.770
	OIC3	3.33	1.246
	OIC4	3.18	1.196
	OIC5	3.24	1.206
	OIC6	3.75	1.097
	OIC7	3.87	0.964

The descriptive statistics presented in Table 4.4 provide insightful information regarding the constructs of inclusive leadership (IL), employees' innovative behavior (EIB), and organizational innovation culture (OIC) in the telecommunication industry.

For Inclusive Leadership (IL), the highest mean score is observed for IL5 (4.29), indicating a strong agreement among respondents with this particular aspect of inclusive leadership. This could suggest that employees perceive high inclusivity in certain leadership behaviors or practices represented by IL5. On the other hand, the lowest mean score is found for IL14 (3.28), highlighting an area where perceptions of inclusivity may be weaker. The standard deviations for IL indicators range from 0.818 to 1.269, suggesting moderate response variability. The higher standard deviations, such as for IL6 and IL7, indicate greater diversity in perceptions of these aspects of inclusive leadership.

In the case of employees' innovative behavior (EIB), the means indicate a generally positive perception of innovative behavior among employees, with EIB5 showing the highest mean score (4.22). This suggests that the aspect of innovative behavior represented by EIB5 is particularly strong among the respondents. The lowest mean score for EIB6 (3.34) points to a potential area for improvement in fostering innovative behavior. The standard

deviations for EIB indicators are mostly below 1, indicating a relatively consistent agreement among respondents regarding their innovative behavior.

For organizational innovation culture (OIC), the mean scores vary from 3.18 to 4.39, indicating differences in perceptions of various aspects of the innovative culture. OIC2 stands out with the highest mean score (4.39), suggesting a strong presence of that particular element of innovative culture within the organization. The lowest mean score for OIC4 (3.18) highlights an area where the innovative culture may be perceived as weaker. The standard deviations for OIC indicators suggest moderate response variability, with values ranging from 0.770 to 1.246.

4.5 Data Verification

This section discusses the analysis undertaken to validate the characteristics of the collected data. The data verification process involved several key steps to ensure the accuracy and reliability of the dataset. First, missing values were effectively managed using Google Forms, which required responses to all questions, thereby eliminating any gaps in the data. Outliers were identified and assessed using the Mahalanobis distance test, revealing no significant outliers within the dataset.

To ensure normality, skewness and kurtosis values were calculated, and all variables were found to be within acceptable ranges. Additionally, the study checked for common method bias using the Variance Inflation Factor (VIF), with all values indicating no significant bias. Collinearity tests were also conducted, showing VIF values below the threshold, ensuring no multicollinearity issues among the independent variables. These rigorous checks confirmed that the data was clean, reliable, and ready for analysis using PLS-SEM.

4.5.1 Handling the Missing Value

Missing data points are regarded as a prevalent problem in data analysis. Missing data points frequently arise in survey research, resulting from both intentional and unintentional actions by respondents who may choose to skip particular questions (Hair et al., 2010). The present study uses Google Forms as the survey platform to ensure that there are no missing points. Respondents are compelled to respond to all questions, as each one is designated as required, preventing them from progressing to subsequent questions without providing a response.

4.5.2 Outliers Analysis

According to Tabachnick et al., 2001, statistical results may be skewed when one or more variables have very high or low values or an uncommon combination of scores across the variables. According to Hair et al. (2010), social science research often includes data sets with outliers. Outliers may occur in both continuous and dichotomous variables. Both multivariate and univariate datasets may consist of outliers. It is possible to draw faulty statistical conclusions and misinterpret findings due to the outlier in the dataset. In order to identify the multivariate outlier, the Mahalanobis distance calculation is useful. According to Hair et al. (2010), Mahalanobis distance (D^2) is a metric that determines how far a case is from the set's centroid in a multidimensional space. A larger D^2 value indicates a greater distance from the centre in a three-dimensional space.

After conducting a thorough analysis to detect outliers in the dataset, the Mahalanobis distance test was employed for the research data. The test, which accounts for the multivariate nature of the data, revealed no outliers present. The Mahalanobis distance values for all cases fell within an acceptable range, indicating that none of the data points

significantly deviated from the multivariate mean. This result suggests that the dataset is free from extreme observations or influential cases, confirming the data's robustness for subsequent analysis.

4.5.3 Data Normality Test

Compared to its parametric alternatives, SmartPLS is less susceptible to the problem of data normality as it is a non-parametric structural equation modeling approach (Hair et al., 2014). On the other hand, ensuring the data is normal strengthens the data analysis, and the form of the data may be better understood using multivariate skewness and kurtosis. The degree of symmetry in a variable's distribution may be determined by its skewness. Skewed distributions occur when a variable's response distribution leans heavily toward one of the distribution's two extremes, either the right or left tail. If the skewness is negative, it results in a greater number of larger values, while positive skewness results in a greater number of smaller values.

Significant nonnormality is indicated by values that exceed -2 and +2 (Hair et al., 2022). Kurtosis determines whether the distribution is overly peaked or too narrow, with most replies concentrated in the middle. A positive kurtosis value indicates a distribution that is more peaked than typical. A negative kurtosis indicates a flatter-than-average form. Data is deemed normal if the skewness falls within the range of -2 to +2 and the kurtosis falls within the range of -3 to +3, according to Hair et al. (2010) and Bryne (2013).

Table 4.3: Skewness and Kurtosis

	N	Min	Max	Mean	Std Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std Error	Statistic	Std Error
IL1	216	1	5	3.74	0.877	-0.588	0.164	0.717	0.327
IL2	216	1	5	3.34	1.160	-0.306	0.164	-0.701	0.327
IL3	216	1	5	3.61	1.067	-0.341	0.164	-0.429	0.327

Table 4.3: continued

IL4	216	1	5	3.60	1.118	-0.519	0.164	-0.328	0.327
IL5	216	2	5	4.27	0.887	-1.044	0.164	0.202	0.327
IL6	216	1	5	3.63	1.276	-0.652	0.164	-0.555	0.327
IL7	216	1	5	3.28	1.282	-0.135	0.164	-1.040	0.327
IL8	216	1	5	3.55	1.162	-0.454	0.164	-0.704	0.327
IL9	216	1	5	3.71	1.048	-0.502	0.164	-0.647	0.327
IL10	216	1	5	3.66	1.048	-0.653	0.164	0.257	0.327
IL11	216	1	5	3.95	1.168	-1.252	0.164	0.632	0.327
IL12	216	1	5	3.53	1.224	-0.558	0.164	-0.583	0.327
IL13	216	1	5	3.32	1.164	-0.179	0.164	-0.821	0.327
IL14	216	1	5	3.26	1.228	-0.218	0.164	-0.882	0.327
IL15	216	1	5	3.56	1.282	-0.471	0.164	-0.903	0.327
IL16	216	1	5	4.15	0.892	-1.036	0.164	1.049	0.327
IL17	216	1	5	3.62	1.192	-0.496	0.164	-0.686	0.327
IL18	216	1	5	3.54	1.130	-0.328	0.164	-0.651	0.327
IL19	216	1	5	3.49	1.131	-0.386	0.164	-0.566	0.327
IL20	216	1	5	3.41	1.243	-0.257	0.164	-0.916	0.327
EIB1	216	1	5	3.87	0.810	-0.797	0.164	1.806	0.327
EIB2	216	2	5	4.05	0.734	-0.438	0.164	-0.046	0.327
EIB3	216	2	5	3.93	0.790	-0.385	0.164	-0.255	0.327
EIB4	216	1	5	3.60	0.987	-0.607	0.164	-0.201	0.327
EIB5	216	2	5	4.23	0.854	-0.690	0.164	-0.695	0.327
EIB6	216	1	5	3.33	0.935	-0.508	0.164	0.292	0.327
EIB7	216	1	5	3.58	0.927	-0.428	0.164	0.055	0.327
EIB8	216	1	5	3.51	1.029	-0.299	0.164	-0.619	0.327
EIB9	216	1	5	3.70	0.913	-0.471	0.164	0.130	0.327
OIC1	216	1	5	3.34	1.198	-0.507	0.166	-0.488	0.330
OIC2	216	1	5	4.39	0.770	-1.167	0.166	1.208	0.330
OIC3	216	1	5	3.33	1.246	-0.68	0.166	-0.632	0.330
OIC4	216	1	5	3.18	1.196	-0.328	0.166	-0.700	0.330
OIC5	216	1	5	3.24	1.206	-0.255	0.166	-0.799	0.330
OIC6	216	1	5	3.75	1.097	-0.644	0.166	-0.205	0.330
OIC7	216	1	5	3.67	0.964	-0.558	0.166	0.147	0.330
OIC8	216	1	5	3.82	0.925	-0.273	0.166	-0.681	0.330

Table 4.3 shows that the study's data is deemed to be normal, because the skewness and kurtosis are within the range of -3 to +3.

4.5.4 Common Method Bias

Instead of the Harman's test, the common method bias was assessed using the inner model's variance inflation factor (VIF) values. In the present study, all the VIF values are

lower than 3.33; hence, the model can be considered free from common method bias (Kock, 2015).

Recent empirical studies and methodological reviews in the social sciences have supported the VIF approach. For instance, Fuller et al. (2016) highlight the limitations of Harman's test and advocate for more advanced techniques like VIF. Similarly, Kock and Lynn (2012) have demonstrated the effectiveness of VIF in detecting common method bias in various social science contexts. This wide acceptance underscores the accuracy and reliability of VIF in the social sciences, making it a preferred choice among researchers. An editorial by Rodríguez-Ardura and Meseguer-Artola (2020) on preventing and detecting common method variance recommends the use of VIF and other statistical techniques over traditional methods like Harman's test. They emphasize modern approaches that provide better diagnostics and controls for common method bias in empirical research.

VIF helps identify multicollinearity among the predictor variables. In the social sciences, where survey data and self-reported measures are common, VIF can effectively reveal if the data is influenced by common method bias. Since the present study likely relies on survey data, common method bias can be a concern. VIF will help detect if the constructs that are measured (e.g., inclusive leadership, innovative behavior) are influenced by respondents' tendencies to provide similar types of responses across different measures. By using VIF to confirm the absence of significant common method bias, it can ensure that the relationships between inclusive leadership and innovative behavior are genuine.

Podsakoff et al. (2003) suggested five distinct techniques that should be considered when attempting to reduce common method bias:

- i) Separating the measurement in time, space, and methodology
- ii) Using separate sources to assess the predictor and criterion variables

- iii) Developing better scale items
- iv) Rearranging the sequence of the questions to avoid bias
- v) Ensuring respondents' confidentiality

These steps are usually taken during research design and questionnaire developments. To ensure the confidentiality of its respondents, this study used one of these methods. Because the surveys were anonymous, the respondents could confidently and correctly answer without fear of repercussions because their identity was safeguarded. The entire collinearity test was performed to evaluate common method bias. According to Kock and Lynn (2012), it is a methodical approach to check for lateral and vertical collinearity simultaneously.

This study's statistical test was run using SmartPLS, which required the generation of variance inflation factors (VIFs) for each latent variable in the model (Kock 2015). For this test, a VIF score below the 3.3 threshold was suggested; anything above suggests that common technique bias could taint the model and pathological collinearity (Kock 2015). However, according to Kock (2015), all VIFs were less than 3.3 in this study; hence, the common technique bias was not a major concern. Thus, the data analytics have shown that conventional process bias is not a major issue.

The VIF results for the study are as follows:

- Inclusive leadership (IL) predicts employees' innovative behavior (EIB) (VIF = 1.276).
- Inclusive leadership (IL) predicts organizational innovation culture (OIC) (VIF = 1.000).
- Organizational innovation culture (OIC) predicts employees' innovative behavior (EIB) (VIF = 1.274).

The interaction between organizational innovation culture (OIC) and inclusive leadership (IL) predicts employees' innovative behavior (EIB) (VIF = 1.040)

All VIF values are well below this threshold, suggesting that multicollinearity and common method bias are not significant concerns in this study's analysis. Therefore, there is confidence in the validity of the study's findings regarding the relationships between inclusive leadership, organizational innovation culture, and employees' innovative behavior.

4.5.5 Collinearity Test

Another statistical approach to evaluate common method bias is the collinearity test, a methodical procedure that concurrently examines both vertical and lateral collinearity (Kock and Lynn, 2012). The test was again conducted via PLS-SEM.

Multicollinearity, also known as collinearity and inter-correlation, is a condition that arises when the independent variables in a regression model are highly correlated with one another (Hair, Black, Babin, & Anderson, 2014). This phenomenon can lead to unreliable estimates of the regression coefficients, as it becomes difficult to discern the individual effects of the correlated variables. To address this problem, the variance inflation factor (VIF) test is one commonly used test in Partial Least Squares Structural Equation Modeling (PLS-SEM). The VIF test quantifies the extent of multicollinearity by measuring how much the variance of an estimated regression coefficient increases due to collinearity. A VIF value greater than 5 typically indicates multicollinearity, suggesting that the corresponding independent variable is highly correlated with other variables in the model (Hair, Hult, Ringle, & Sarstedt, 2017).

Addressing multicollinearity in PLS-SEM involves careful examination of the correlations among independent variables. It may require modifications to the model, such

as removing redundant variables or using techniques like ridge regression to mitigate the effects of multicollinearity on the estimates. The Variance Inflation Factor (VIF) values for the constructs in the research model suggest that multicollinearity is not a significant concern. For the Inclusive Leadership (IL) construct, VIF values range from 1.535 to 3.140, all below the threshold of 5. This result suggests that the items measuring Inclusive Leadership contribute uniquely to the construct without excessive overlap.

Similarly, for the employees' innovative behavior (EIB) construct, VIF values range from 1.315 to 3.905, again all below the threshold of 5, which suggests no significant multicollinearity among the items measuring this construct. For the organizational innovation culture (OIC) construct, VIF values range from 1.559 to 3.191 below the required threshold. It indicates that the items measuring organizational Innovation Culture are not highly correlated with each other, suggesting favorable construct validity. Overall, the VIF values for all constructs in the study are below the commonly used threshold of 5, indicating that multicollinearity is not a significant issue in the research model. This implies that the independent variables in this study are not excessively correlated, allowing for a more reliable interpretation of their relationships with the dependent variables. Table 4.4 shows the collinearity test on the variables.

Table 4.4: Collinearity Test

Construct	Items	Outer VIF Values
Inclusive Leadership	IL1	2.596
	IL2	1.535
	IL3	3.140
	IL4	2.414
	IL5	2.719
	IL6	1.979
	IL7	1.878
	IL8	1.984
	IL9	2.397
	IL10	2.318
	IL11	2.687

Table 4.4 continued

Employees' Innovative Behavior	IL12	1.827
	IL13	1.601
	IL14	1.965
	IL15	1.545
	IL16	2.236
	IL17	2.199
	IL18	1.701
	IL19	1.855
	IL20	1.588
	EIB1	2.799
	EIB2	1.623
	EIB3	2.946
	EIB4	2.534
	EIB5	1.315
	EIB6	3.905
	EIB7	3.147
	EIB8	3.795
	EIB9	2.622
Organizational Innovation Culture	OIC1	3.191
	OIC2	1.579
	OIC3	3.033
	OIC4	3.153
	OIC5	3.079
	OIC6	1.559
	OIC7	1.904
	OIC8	2.268

4.6 Assessment of the Measurement Model

In this study, the research model was assessed using PLS-SEM. A study's measurement and structural model are often evaluated using SmartPLS 3.0 (Ramayah et al., 2018). By analyzing the measurement model's internal consistency reliability, indicator reliability, convergent validity, and discriminant validity, PLS first determines the reliability and validity of the reflective constructs. The following sub-sections present the analysis and findings of this measurement model.

4.6.1 Internal Consistency Reliability

Internal consistency's reliability is the first common criterion to be measured. The most common measure of internal consistency is Cronbach's alpha, which provides a rough estimate of dependability by looking at the correlations between the predictor variables. A measure of internal consistency, Cronbach's alpha is sensitive to the total number of items and aims to understate its efficiency. Because of this restriction, a different metric, composite reliability, is better suited from a technical standpoint (Hair et al., 2017). A higher composite reliability score (any number between 0 and 1) indicates a more trustworthy system. Based on exploratory research, a composite reliability score ranging from 0.6 to 0.7 is deemed to be of acceptable quality, while a score between 0.7 and 0.9 is considered to be exceptional. Values over 0.9 or 0.95 are undesirable since they suggest that all indicator variables reflect the same occurrences, hence compromising the validity of the construct. Based on the results, the composite reliability ranged from 0.878 to 0.951, which was deemed satisfactory. Accordingly, the results demonstrate that the elements used to characterize the structure are correct concerning internal consistency.

4.6.2 Indicator Reliability

Hair, Black, Babin, and Anderson (2010) define indicator reliability, which shows how well items (i.e., indicators) developed for a certain construct measure the central idea in a specific study. Indicator reliability is considered met when an item's loading exceeds 0.5 (Hair et al., 2014). According to Hair, Hult, Ringle, and Sarstedt (2017), one way to measure the reliability of indicators is by screening their outer loadings. This involves estimating the relationships between the reflective latent variables and their indicators. Conversely, indicator reliability loadings should be more than 0.7, 0.6, 0.5, or 0.4 to be considered

adequate by Hulland (1999) and Byrne (2016); however, this is contingent upon additional items having high loading scores to supplement the composite reliability and average variance extracted value. Table 4.5 below shows the item loadings for the constructs:

Table 4.5: Items loading for Constructs

Construct	Item	Loadings/Weights	Composite Reliability (CR)	Average Variance Extracted (AVE)
Inclusive Leadership	IL1	0.679	0.895	0.517
	IL3	0.731		
	IL5	0.772		
	IL8	0.596		
	IL9	0.805		
	IL10	0.673		
	IL11	0.797		
	IL12	0.681		
	IL16	0.712		
Employees' Innovative Behavior	EIB1	0.783	0.953	0.660
	EIB3	0.742		
	EIB4	0.764		
	EIB6	0.889		
	EIB7	0.857		
	EIB8	0.899		
	EIB9	0.733		
Organizational Innovation Culture	OIC1	0.844	0.887	0.604
	OIC3	0.804		
	OIC4	0.841		
	OIC5	0.828		
	OIC6	0.609		
	OIC7	0.733		
	OIC8	0.753		

To achieve construct reliability and convergent validity, the items that cannot be synchronized with their respective constructs are dropped. The inclusive leadership construct, eliminates IL2, IL4, IL6, IL7, IL13, IL14, IL15, IL17, IL18, IL19 and IL20. For employees' innovative behaviors, EIB2 and EIB5 are dropped, whereas for organizational innovation culture, OIC2 is dropped.

The measurement model was estimated and results indicates that there are 11 items with factor loading less than 0.5 , i.e. IL2 (0.437), IL4 (0.471), IL6 (0.494), IL7 (0.440), IL13 (0.480), IL14 (0.438), IL15 (0.217), IL17 (0.442), IL18 (0.442), IL19 (0.450), and IL20 (0.416), so they were dropped from further analysis and the model was estimated again with the remaining 9 items. The factor loadings have improved significantly and all remaining 9 items have excellent factor loadings ranging from 0.5 to 0.8, as shown in Table 4.5.

Following the factor loading process, several items were excluded from the inclusive leadership construct, particularly those measuring the dimensions of "fostering employee's uniqueness" and "supporting organizational effort." This reduction raises concerns about the potential for an incomplete evaluation of the construct. However, upon reviewing the remaining items, it is evident that some items partially capture the essence of these excluded dimensions.

The exclusion of items can be attributed to a variety of factors unique to the context of the Malaysian telecommunication industry. The telecommunication industry in Malaysia has specific operational dynamics and standardized practices that may influence how employees perceive and respond to items related to equal opportunity and diversity policies. These standardized practices might make such items less distinctive or less variable in responses, leading to low factor loadings. Some items may have been interpreted differently by respondents, causing inconsistency in responses. For example, items that support organizational efforts may be viewed as administrative or compliance-related rather than reflecting day-to-day managerial behaviors that directly impact employees.

The remaining items may sufficiently cover aspects of inclusive leadership that are more immediate and visible to employees, such as team belongingness and showing

appreciation. This could make other items appear redundant or less impactful, resulting in lower loading values.

Despite the exclusions, the remaining items provide valuable insights into the dimensions of "strengthening belongingness in a team" and "showing appreciation." These dimensions are crucial for fostering an inclusive environment and have been effectively captured by the current measure. For instance, the item "My manager respects individual differences in the work unit" from the dimension of strengthening belongingness can also be interpreted as fostering employee's uniqueness. Similarly, the item " My manager encourages all work unit members to learn from one another" implicitly covers aspects of supporting organizational efforts to improve overall team capability and performance through continuous learning and development. The construct validity of the remaining items has been tested and found acceptable. This ensures that the dimensions measured are valid representations of the inclusive leadership construct, even though some specific dimensions are underrepresented.

4.6.3 Reliabilities and Validities

After the indicator loading was examined, constructed reliabilities were estimated using Cronbach's alpha composite reliability (CR). Cronbach alpha's values ranging from 0.600 to 0.700 were professed to be acceptable, while values of 0.700 and 0.900 terms were considered satisfactory to good (Hair et al., 2010). As since Cronbach's alpha is regarded as a relaxed reliability index and associated with the limitation of dependency on the number of indicators, CR is termed as more robust.

The value of CR varies between 0 and 1, and a value range between 0.7 and 0.9 is regarded as satisfactory (Hair et al., 2014). After items are removed, the reliability constructs

are shown in Table 4.6 below. All values for Cronbach's alpha are well above 0.650, and CR rho values are well above 0.7, suggesting that the study's constructs have sufficient reliability to use for further analysis.

Table 4.6: Construct Reliabilities and Validities

Constructs	Cronbach's Alpha	CR (rho)	AVE	VIF
Inclusive Leadership	0.883	0.895	0.517	1.000
Employee Innovative Behavior	0.917	0.931	0.660	1.527
Organizational Innovative Culture	0.888	0.914	0.604	1.527

4.6.4 Convergent Validity

Convergent validity refers to the degree to which a latent variable is estimated by its indicators. The average variance extracted (AVE) is a measure of convergent validity. According to Urbach and Ahlemann (2010), convergent validity encompasses the extent to which certain indicators mirror a convergent construct compared to other constructions' assessments. A construct-related indicator's squared loading must exceed this criterion's maximum mean value. For a better expression, "it is the degree to which a latent construct explains the variance of its indicators" (Hair et al. 2016, 79, 114). With an AVE of 0.5 or above, the constructs have sufficient convergent validity. According to the results above, the AVE is greater than 0.5, indicating that all constructs have sufficient convergent validity.

4.6.5 Discriminant Validity

Discriminant validity tests the extent to which the construct differs from other constructs. In essence, it evaluates the non-overlap between constructs in a given model.

Discriminant validity can be evaluated using the following assessments: a) the Cross-loading criterion, b) the Fornell and Larcker (1981) criterion, and c) the heterotrait-monotrait ratio of correlations (HTMT).

The cross-loading criterion is the first method in assessing discriminant validity. According to Ramayah et al. (2018), the loading of the indicators on the allocated latent variable should be higher than the loadings on all other latent variables in the model. The other criterion mentioned is that there should not be less than 0.1 difference between the loadings across latent variables. Table 4.7 below displays all bolded criteria, that exceed 0.1, indicating that the required criterion has been met.

Table 4.7: Loadings and Cross Loadings

Construct	EIB	IL	OIC
EIB1	0.783	0.194	0.311
EIB3	0.742	0.268	0.319
EIB4	0.764	0.449	0.72
EIB6	0.889	0.314	0.596
EIB7	0.857	0.368	0.485
EIB8	0.899	0.347	0.535
EIB9	0.733	0.211	0.289
IL1	0.223	0.679	0.354
IL10	0.287	0.673	0.542
IL11	0.3	0.797	0.435
IL12	0.239	0.681	0.36
IL16	0.247	0.712	0.38
IL3	0.742	0.731	0.424
IL5	0.277	0.772	0.429
IL8	0.157	0.596	0.119
IL9	0.38	0.805	0.534
OIC1	0.539	0.461	0.844
OIC3	0.564	0.296	0.804
OIC4	0.515	0.324	0.841
OIC5	0.373	0.411	0.828
OIC6	0.32	0.739	0.609
OIC7	0.636	0.34	0.733
OIC8	0.426	0.529	0.753

The Fornell-Larcker criterion, as described by Ramayah et al. (2018), is used to assess discriminant validity in structural equation modeling. This criterion specifically addresses the degree to which a given construct is distinct from others within the same model. This may also be evaluated by recognizing that the diagonal's square root of the average variance extracted (AVE) should exceed the off-diagonal correlation values (Ramayah et al., 2018). Table 4.8 displays the results of the Fornell-Larcker criteria. The EIB and OIC constructs satisfy the Fornell-Larcker criterion for discriminant validity. This is because the square roots of their AVE values are higher than their correlations with other constructs. Nevertheless, the discriminant validity between IL and OIC may be inadequate since the square root of the AVE for IL is not greater than its correlation with OIC. This suggests that these variables may not be adequately separated in the model.

Fornell and Larcker proposed assessment methods to evaluate discriminant validity, and a recent investigation into cross-loading performance did not consistently identify concerns regarding discriminant validity (Henseler et al., 2015). Therefore, Henseler et al. (2015) recommended using the heterotrait-monotrait ratio (HTMT) to measure the relationships as a potential solution.

Table 4.8: Fornell and Lacker's Criterion

Construct	EIB	IL	OIC
EIB	0.812		
IL	0.405	0.719	
OIC	0.628	0.587	0.777

HTMT denotes the ratio of correlations within constructs to those between constructs (Ramayah et al., 2018). According to the criteria, an HTMT value exceeding 0.9 indicates a potential issue with discriminant validity (Ramayah et al., 2018). Henseler et al. (2015)

argued that a more conservative threshold of 0.85 is justified when the structures in the path model are conceptually distinct. The HTMT value between employees' innovative behavior (EIB) and inclusive leadership (IL), as shown in Table 4.9, is 0.403. This value is well below the conservative threshold of 0.85, suggesting a clear distinction between the constructs of EIB and IL. This indicates that respondents perceive EIB and IL as different concepts essential for the study's validity.

The HTMT value between employees' innovative behavior (EIB) and organizational innovation culture (OIC) is 0.624, and between inclusive leadership (IL) and organizational innovation culture (OIC) is 0.620. These values are below the threshold of 0.85, indicating acceptable discriminant validity. This suggests that respondents differentiate between the concepts of EIB, IL, and OIC, further supporting the validity of the measurement model. In conclusion, all necessary reliability and validity tests on the measurement model were conducted, meeting all recommended criteria. The tests at the measurement model level confirmed that the indicators used in this study were appropriate and acceptable for use in structural model analyzes.

Table 4.9: Heterotrait-Monotrait Ratio of Correlation (HTMT)

Construct	EIB	IL
EIB		
IL	0.403	
OIC	0.624	0.620

4.7 Assessment of Structural Model

The following sections explore the results obtained from analyzing the study's structural model, which was performed using SmartPLS 3.0. This involved examining how well the model could predict outcomes and the relationships between different components.

Several assessments were conducted to ensure the structural model's evaluation's validity. These assessments included checking for any issues related to lateral collinearity, analyzing path coefficients, determining the coefficient of determination, evaluating effect size, assessing predictive relevance, and confirming hypotheses.

4.7.1 Full Collinearity Test

Multi-collinearity can manifest in horizontal and vertical dimensions and is referred to as full collinearity when both types are considered. In variance-based structural equation modelling (SEM) approaches such as PLS-SEM, full collinearity may persist even if constructs are distinct and have passed traditional tests for discriminant validity, such as the Fornell-Larcker criterion and cross-loading assessments (Kock & Lyn, 2012). This is because constructs can still be redundant despite appearing to be statistically distinct based on these common validity checks. In PLS-SEM, full collinearity can act as a new and improved criterion for assessing discriminant validity in PLS-SEM, especially in cases where the model includes a mix of reflective, composite (formative), or single-item constructs (Kock, 2015).

In this study, assessing inner VIF values is crucial to address potential collinearity issues in the structural model. While discriminant validity might have been addressed earlier, it is essential to separately evaluate the collinearity within the structural model to ensure the reliability of the findings (Ramayah et al., 2018). Diamantopoulos and Siguaw (2006) state that a VIF value below 3.3 or 5 is acceptable, with values exceeding these thresholds indicating a potential collinearity problem.

All the VIF values are well below the threshold of 3.3 and 5, indicating no significant collinearity issue in the structural model. It suggests that the relationships between inclusive

leadership (IL), employees' innovative behavior (EIB), and organizational innovation culture (OIC) are adequately distinct and do not suffer from excessive overlap. As a result, these relationships' findings can be considered reliable and valid for interpretation. Table 4.10 shows that all VIF values are less than 3.3 and 5, meaning there would be no collinearity issues:

Table 4.10: Full Collinearity Test

Construct	Items	Outer VIF Values	Inner VIF Values
Inclusive Leadership	IL1	1.606	1.276
	IL5	1.932	
	IL9	2.016	
	IL10	1.522	
	IL11	2.246	
	IL12	1.455	
Employees' Innovative Behavior	EIB6	2.467	1.274
	EIB7	2.207	
	EIB8	2.964	
Organizational Innovation Culture	OIC1	3.057	1.000
	OIC3	2.467	
	OIC4	3.067	
	OIC5	2.738	

4.7.2 Path Coefficient

Path coefficients are crucial as they represent the hypothesized relationships between constructs (Ramayah et al., 2018). Partial Least Squares (PLS) analysis, is non-parametric and, does not assume data distribution, which can affect the t-values, and potentially lead to Type 1 errors in cases of non-normal data (Ramayah et al., 2018). Path coefficient values range from +1 to -1, with values closer to +1 indicating a strong positive relationship and those closer to -1 indicating a strong negative relationship.

The significance of these coefficients is determined by their standard error, which is obtained through bootstrapping (Hair et al., 2016). In the present study, bootstrapping was conducted with 500 subsamples, using a one-tailed test with a significance level of 0.05. The

t-statistics output indicates the significance of each relationship. The path coefficient (β), standard error, t-value, and p-value results are presented accordingly. These results are then used to assess whether the proposed hypotheses of the study are supported or not, as further discussed in section 4.7.8.

4.7.3 Coefficient of Determination (R-squared)

The coefficient of determination, also known as R-squared (R^2), is a statistical measure that indicates the proportion of the variance in the dependent variable that is predictable from the independent variables. It is essentially the square of the correlation between the observed and predicted values of the endogenous construct. A higher R^2 value signifies greater predictive accuracy of the model. However, determining suitable R^2 values can be challenging, as it varies depending on the complexity of the model and the specific research field. In marketing research, R^2 values of 0.75, 0.5, and 0.25 are typically considered substantial, moderate, and weak (Hair et al., 2011; Henseler et al., 2009).

Based on the guidelines provided by Hair et al. (2011) and Henseler et al. (2009) for interpreting R^2 values in marketing research, this study's results can be classified as follows: For the Inclusive Leadership (IL) construct, the R^2 value is 0.345 (adjusted $R^2 = 0.342$). The value falls between the moderate (0.5) and weak (0.25) thresholds, so it can be considered as approaching moderate but still within the weak range. For the employee innovative behavior (EIB) construct, the R^2 value is 0.396 (adjusted $R^2 = 0.388$), which is also closer to the moderate threshold of 0.5 but still falls within the weak range according to the guidelines. In summary, while the results do not reach the moderate threshold defined by Hair et al. and Henseler, they are approaching moderate. They are above the weak threshold, indicating that the model explains a fair amount of variance in the dependent variables.

4.7.4 Effect Size (f-squared)

The F-square (f^2) effect size is used in PLS-SEM to assess a predictor variable's relative impact on the dependent variable's R-square value. It helps to determine the strength of the relationship between the constructs in the model. A variable in a structural model may be affected or influenced by several different variables and removing exogenous (IV) can affect the dependent variable. Thus, F-Square changes R-Square when IV is removed from the model. According to Cohen (1988), F-square values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively.

The F-square value for the relationship between OIC (organizational innovation culture) and EIB (employees' innovative behavior) is 0.379, considered a large effect size. It suggests that OIC substantially impacts EIB, indicating that changes in the organizational innovation culture significantly influence employees' innovative behavior.

The F-square value for the relationship between IL (inclusive leadership) and EIB is 0.003, which is considered a small effect size. This indicates that inclusive leadership's impact on employees' innovative behavior is minimal. Whereas the F-square value for the relationship between OIC (organizational Innovation culture) and IL (inclusive leadership) is 0.527 which is considered a large effect size, indicating that organizational innovation culture's impact on inclusive leadership is significant.

The F-square value for the moderation effect of organizational innovation culture on the relationship between inclusive leadership and employees' innovative behavior is 0.000, indicating no moderation effect and is statistically insignificant. This suggests that organizational innovation culture does not moderate the relationship between inclusive leadership and employees' innovative behavior.

In conclusion, the results indicate that organizational innovation culture significantly impacts employees' innovative behavior. In contrast, inclusive leadership has a minimal effect, and their interaction does not significantly influence employees' innovative behavior. Table 4.10 shows relevant F-square values for all relationships under the study:

Table 4.11: F-squared values

Relationship	F-squared
IL -> EIB	0.003
OIC -> IL	0.527
OIC -> EIB	0.379
OIC x IL ->EIB	0.000

4.7.5 Predictive Relevance (Q-squared)

Q^2 (Q-squared) is calculated using the blindfolding technique available in SmartPLS, which serves as a measure for assessing the model's predictive relevance or capacity for out-of-sample prediction. Blindfolding operates as a method of sample recycling, whereby it systematically omits data points from the indicators of an endogenous construct and recalculates the parameters using the remaining data (Henseler et al., 2009; Tenenhaus et al., 2005). A Q^2 value exceeding zero suggests that the model possesses predictive relevance for a specific endogenous construct. Conversely, a Q^2 value below zero indicates an absence of predictive relevance (Hair et al., 2016).

According to the results, for each construct, the EIB construct has a Q^2 value of 0.234, which is greater than 0. This indicates that the model has predictive relevance for the EIB construct, as it can explain approximately 23.4% of the variance in the EIB scores. For IL, the Q^2 value is 0.101, which suggests a small effect size. This indicates that inclusive leadership explains a small portion, 10.1%, of the variance in employees' innovative

behavior beyond what the model's predictors predicted. This could mean that the model is ineffective in predicting Inclusive Leadership scores.

In the last construct, OIC, the Q^2 value is 0.000, indicating that the model does not predict any variance in organizational innovation culture beyond what is already explained by the model's predictors. The result suggests that the variables included in the model are sufficient to explain the variance in organizational innovation culture, and no additional factors influence this construct.

4.7.6 Model Fit

In structural equation modelling (SEM), model fit refers to the extent to which a proposed model adequately represents the observed data. It is a crucial aspect of SEM analysis, as it indicates how well the theoretical model, with its hypothesized relationships between variables, aligns with the actual patterns in the data. A satisfactory model fit suggests that the specified model is a plausible representation of the underlying data structure, and the relationships hypothesized are consistent with the empirical observations (Kline, 2016). Model fit evaluation is less emphasized in PLS-SEM than in covariance-based SEM, as PLS-SEM focuses more on prediction and variance explanation. However, indices such as SRMR are still used to assess the model's overall fit in PLS-SEM (Hair et al., 2017).

Assessing model fit is critical in SEM analysis, as it provides evidence of how well the theoretical model represents the empirical data. Researchers use a variety of fit indices to evaluate the adequacy of the model fit, and a satisfactory model fit strengthens the validity of the research findings. According to the findings, the SRMR values for both the saturated and estimated models are 0.079. This value is just below the commonly accepted threshold of 0.08 for a good fit, indicating a satisfactory fit of the model to the data. In comparison,

the NFI values are 0.805 for the saturated model and 0.804 for the estimated model. NFI values closer to 1 indicate a better fit, with values above 0.90 generally considered acceptable. The NFI values are close to this threshold, suggesting a moderate to satisfactory fit. Overall, the model fit indices indicated that it fits the data satisfactorily. The SRMR value is just below the threshold, and the NFI values are close to the desired level. These results indicate that the estimated model represents the observed data reasonably well (Zainab et al., 2019).

In refining the measurement models for inclusive leadership (IL), employees' innovative behavior (EIB), and organizational innovative culture (OIC), several key factors that influenced the selection of the retained questions were carefully considered. The retained questions demonstrated statistically significant correlations with their respective constructs, underscoring their importance in capturing the essence of inclusive leadership, employees' innovative behavior, and organizational innovation culture. This statistical significance indicates that these questions are crucial in reflecting the constructs that this study aims to measure.

Furthermore, the retained questions exhibited strong factor loadings, suggesting they represent each construct's underlying dimensions. This alignment with the theoretical frameworks ensures that this study's measurements accurately reflect the concepts intended to be measured. For example, the questions retained for IL align with the theoretical dimensions of inclusivity, while those for EIB and OIC align with the theoretical dimensions of innovation within individuals and organizations, respectively.

These questions were chosen to improve the models' overall fit, as indicated by goodness-of-fit indices. This improvement suggests that the retained questions provide a more accurate representation of the relationships between the constructs being measured,

increasing the confidence in this study's findings, and supporting the validity of the study's conclusions. Moreover, the questions retained for each construct effectively capture the key dimensions identified in the theoretical framework. For IL, the retained questions focus on aspects that foster a sense of belonging and appreciation, which are central to inclusive leadership. For EIB, the emphasis is on promoting and realizing ideas, highlighting the importance of these stages in the innovative process. For OIC, the selected questions emphasize organizational support for innovation, reflecting the critical role of culture in fostering creativity.

Finally, the responses to the retained questions showed meaningful variability and consistency across the constructs, indicating that they effectively capture employees' diverse perceptions and experiences regarding inclusive leadership, innovative behavior, and the organization's culture of innovation. This variability and consistency in responses provide confidence that the retained questions capture meaningful aspects of each construct and are relevant to the respondents' experiences.

4.7.7 Moderation Analysis

Moderation analysis is a statistical technique used to examine whether the strength or direction of the relationship between an independent variable (IV) and a dependent variable (DV) is influenced by a third variable, known as the moderator variable (MOD). In the context of Partial Least Squares Structural Equation Modeling (PLS-SEM), moderation analysis investigates the interaction effect between the independent variable and the moderator on the dependent variable (Hair, Ringle, & Sarstedt, 2017).

The interaction term (INT) is created by multiplying the independent variable by the moderator variable ($INT = IV \times MOD$). This interaction term's significance and strength in

the model determine the presence and extent of the moderation effect. If the interaction term is significant, the moderator variable significantly moderates the relationship between the independent and dependent variables. The direction of the moderation effect (positive or negative) is determined by the sign of the interaction term's path coefficient (Hair et al., 2017).

In PLS-SEM, the assessment of moderation effects is typically done through bootstrapping. This resampling technique estimates the path coefficients' standard errors and significance levels, including the interaction term. This allows researchers to determine the statistical significance of the moderation effect and its impact on the model (Hair et al., 2017). According to the study's findings, the path coefficient from inclusive leadership (IL) to employees' innovative behavior (EIB) is 0.136, indicating a positive relationship. The p-value is 0.016, less than the commonly used significance level of 0.05, suggesting this relationship is statistically significant.

The path coefficient of organizational innovation culture (OIC) to employees' innovative behavior (EIB) is 0.504, indicating a strong positive relationship. The p-value is 0.000, which is highly significant, suggesting that this relationship is robust and statistically significant. However, the path coefficient for the interaction term (OIC x IL) on employees' innovative behavior (EIB) is -0.025, indicating a weak negative relationship. The p-value is 0.722, which is much greater than the significance level of 0.05, suggesting that the moderation effect of OIC on the relationship between IL and EIB is not statistically significant.

In summary, both Inclusive Leadership (IL) and organizational innovation culture (OIC) have significant positive relationships with employees' innovative behavior (EIB). However, the moderation effect of OIC on the relationship between IL and EIB is not

statistically significant, indicating that the strength of the relationship between IL and EIB does not vary significantly across different levels of OIC.

4.7.8 Hypothesis Testing

After assessing the measurement mode, the next step involves evaluating the structural path to determine the path coefficients (which represent the relationships among study constructs) and their statistical significance. Bootstrapping is done to test the hypothesis. Bootstrapping is crucial in hypothesis testing because it provides a method for estimating the sampling distribution of a statistic without strict assumptions about the data's distribution. It increases in accuracy by generating multiple estimates, is robust to non-normality, and is adaptable across various statistical tests and models. Overall, bootstrapping enhances the reliability of hypothesis testing by providing robust estimates of parameters and accommodating complex research designs.

Hypothesis 1: There is a significantly positive impact of inclusive leadership on employee innovative behavior.

H1 assesses whether inclusive leadership has a significant and positive effect on employees' innovative behavior. The results revealed that the PLS algorithm and bootstrapping are positive ($\beta = 0.134$, $t = 2.259$, $p = 0.024$) with the observed 95% confidence interval bias (0.035; 0.230). To clarify, the study rejects the null hypothesis on the grounds that the t-value exceeds the critical value and the p-value is below the predetermined significance level of 5%. As a result, it is determined that the relationship between inclusive leadership and employees' innovative behavior is supported.

Hypothesis 2: There is a significantly positive relationship between organizational innovation culture and inclusive leadership.

H2 evaluates whether organizational innovation culture positively affects inclusive leadership. The results revealed a positive relationship ($\beta = 0.452$, $t = 9.423$, $p = 0.000$) with the observed 95% confidence interval bias (0.358;0.521). To clarify, the study rejects the null hypothesis on the grounds that the t-value exceeds the critical value, and the p-value is below the predetermined significance level of 5%. As a result, it is determined that the relationship between organizational innovation culture and inclusive leadership is supported.

Hypothesis 3: There is a significantly positive relationship between organizational innovation culture and employees' innovative behavior.

H3 evaluates whether organizational innovation culture positively affects employees' innovative behavior. The results revealed a positive relationship ($\beta = 0.494$, $t = 7.827$, $p = 0.000$), with the observed 95% confidence interval bias (0.390;0.598). To clarify, the study rejects the null hypothesis on the grounds that the t-value exceeds the critical value, and the p-value is below the predetermined significance level of 5%. As a result, it is determined that the relationship between organizational innovation culture and employees' innovative behavior is supported.

Hypothesis 4: Organizational innovation culture moderates the relationship between inclusive leadership and employees' innovative behavior.

H4 evaluates whether organizational innovation culture moderates the relationship between inclusive leadership and employees' innovative behavior. The results of the moderating effect ($\beta = -0.013$, $t = 0.178$, $p = 0.859$), and the observed 95% confidence

interval bias (-0.125;0.109). To clarify, the study does not reject the null hypothesis on the grounds that the p-value exceeds the 5% significance level, and the t-value is less than the critical value, which means that the organizational innovation culture relationship between inclusive leadership and employees' innovative behavior is insignificant. Since the interaction term (OIC x IL -> EIB) is not significant ($p > 0.05$), it suggests that the effect of inclusive leadership (IL) on employees' innovative behavior (EIB) is not moderated by the level of organizational innovation culture (OIC). In other words, the relationship between IL and EIB remains consistent regardless of the level of OIC.

The results of direct relationships and moderation effects are presented in Table 4.12 and Table 4.13. The structural model is presented below:

Table 4.12: Results of Direct Relationships

Hypothesis	β	SE	T	P	Confidence Interval Bias	Decision	Results
H1: IL->EIB	0.134	0.059	2.259	0.024	0.035;0.230	Reject Ho	Supported
H2: OIC->IL	0.452	0.048	9.423	0.000	0.358;0.521	Reject Ho	Supported
H3: OIC->EIB	0.494	0.063	7.827	0.000	0.390;0.598	Reject Ho	Supported

Table 4.13: Moderation Effect of Organizational Innovation Culture on Inclusive Leadership and Employees' Innovative Behavior.

Hypothesis	β	SE	T	P	Confidence Interval Bias	Decision	Results
H4: OIC x IL -> EIB	-0.013	0.071	0.178	0.859	-0.125,0.109	Do Not Reject Ho	Not supported

4.7.9 Pearson Correlation Test

The Pearson's correlation coefficient, often denoted as r , measures the linear

relationship between two continuous variables. It ranges from -1 to 1, where: 1 indicates a perfect positive linear relationship, -1 indicates a perfect negative linear relationship, and 0 indicates no linear relationship. The value of r indicates the relationship's strength and direction. A positive value means that as one variable increases, the other tends to increase. Conversely, a negative value means that the other tends to decrease as one variable increases (Weisburd et al., 2020). The Pearson product correlation between inclusive leadership and employees' innovative behavior was found to be positive but low and statistically significant ($r = 0.242$, $p < 0.001$). Hence H1 is supported. This indicates that an increase in inclusive leadership could enhance the innovative behavior of employees within organizations.

The Pearson's correlation between organizational innovation culture and inclusive leadership was also found to be positive but moderate and statistically significant ($r = 0.502$, $p < 0.001$). Hence H2 is supported. This demonstrates that an increase in organizational innovation culture would lead to more inclusive leadership.

The Pearson's correlation between organizational innovation culture and employees' innovative behavior was also positive, moderate, and statistically significant ($r = 0.536$, $p < 0.01$). Hence H3 is supported. This indicates that enhancing the organizational innovation culture can lead to an increase in employees' innovative behavior.

Table 4.14: Correlation Analysis

Constructs	Inclusive Leadership	Employees' Innovative Behavior	Organizational Innovation Culture
Inclusive Leadership	1	0.242**	0.502**
Employees' Innovative Behavior	0.242**	1	0.536**
Organizational Innovation Culture	0.502**	0.536**	1

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

4.8 Discussion of Research Findings

This section thoroughly examines the findings from the preceding chapter's data analysis. These findings will be analyzed in relation to the research objectives outlined in this study, along with a comparison to previous studies' findings. Various theories previously discussed will be used to provide insights into the findings' consistency with existing literature. Any inconsistencies with prior literature will be addressed, offering probable explanations and justifications.

4.8.1 Relationship between Inclusive Leadership and Employees' Innovative Behavior

RO1: To determine the impact of inclusive leadership on employees' innovative behavior.

The first research objective of this study was to confirm the relationship between inclusive leadership and employees' innovative behavior. The research revealed that inclusive leadership positively impacts employees' innovative behavior, with $\beta = 0.134$, $t = 2.259$, and $p = 0.024$. However, the small effect size of the relationship between inclusive leadership and employees' innovative behavior ($f = 0.03$) indicates a minimal impact of inclusive leadership on employees' innovative behavior. Inclusive leadership, characterized by leaders who value and respect individual differences and promote a sense of belongingness and psychological safety, has been shown in previous studies to impact employees' innovative behavior positively (Carmeli et al., 2010; Fang et al., 2019). As mentioned by Veli et al. (2022), there are 4 dimensions in the study of inclusive leadership. According to the findings, there was a direct, positive, and significant relationship between inclusive leadership and employees' innovative behavior.

The findings, however, revealed a minimal effect in examining the impact of inclusive leadership on employees' innovative behavior in the Malaysian telecommunication

industry. This outcome could be attributed to several factors. First, the dynamic nature of the telecommunication industry, which is characterized by rapid technological advancements and high competition, may imply that external factors such as market trends and technological innovations have a greater influence on employee innovation than internal leadership styles (Qureshi et al., 2021).

Additionally, the high degree of autonomy that employees in this industry typically enjoy may mean that the influence of inclusive leadership on their innovative behavior is minimal. If employees are already accustomed to working independently, the additional impact of inclusive leadership might not be as pronounced (Zafar et al., 2023).

It is also possible that employees' perceptions of leadership inclusivity vary. If they do not perceive their leaders as genuinely inclusive, this could further diminish the impact of leadership on their innovative behavior (Guo et al., 2020).

The minimal degree of inclusiveness perceived by employees, despite a positive relationship with innovative behavior, can be attributed to several factors related to the hierarchical positions and professional experiences of employees within the organization. One significant aspect is the influence of job positions on perceived inclusiveness. Employees in middle management positions might feel moderately included due to their dual role in interacting with both higher management and the broader workforce.

However, they might experience a sense of being squeezed between executing top-down directives and addressing the needs of their subordinates without sufficient autonomy or recognition from senior leaders. This can lead to a perception of limited inclusivity between them and the upper management. In contrast, employees in lower management and non-managerial positions often have limited access to senior leaders and fewer opportunities to participate in decision-making processes. Their roles might be more task-oriented, with

fewer chances for their input to be considered in strategic decisions. This can result in a minimal perception of inclusiveness. Given that a significant portion of respondents are from lower management (33.3%) and non-managerial roles (42.6%), the overall degree of perceived inclusiveness is likely minimal due to the high representation of these groups.

The professional experience of employees also plays a crucial role in shaping their perceptions of inclusiveness. Experienced employees, who constitute 46.8% of the respondents with 16 years and above in the organization, often operate with a higher degree of autonomy due to their extensive knowledge and familiarity with their roles. This autonomy can lead to less frequent supervision and minimal communication between leaders and experienced employees. Leaders might assume that these employees need less guidance and support, resulting in fewer interactions. This can unintentionally lead to a sense of isolation and a decreased perception of inclusiveness because these employees may feel overlooked or undervalued. Additionally, the inconsistent application of inclusive leadership practices across different employee groups can exacerbate this perception. If inclusive practices are perceived to be more frequently applied to newer or less experienced employees, experienced employees might feel neglected. This can lead to feelings of disenchantment and a perception that inclusive leadership is not genuinely or uniformly practiced (Javed et al., 2020).

Experienced employees, due to their extensive knowledge and tenure, are often promoted to supervisory roles where they are responsible for overseeing lower-level employees. Without proper training in leadership and supervisory skills, they might struggle to apply inclusive leadership practices effectively, leading to perceptions of minimal inclusiveness among their subordinates. The lack of supervisory training can lead to ineffective communication and limited inclusivity practices. Without proper training,

supervisors may not prioritize or understand the importance of inclusive practices such as involving employees in decision-making, recognizing diverse contributions, and fostering a supportive environment. This can result in lower perceptions of inclusiveness among team members (Afsar & Umrani, 2020).

After confirming the model fit, only six valid questions were used out of 20 questionnaires to determine which dimensions most impacted employees' innovative behaviors. The dimensions identified were strengthening belongingness in a team and showing appreciation. Survey questions like "My manager respects individual differences in the work unit" align with the concept of showing appreciation. "My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness," and "My manager tries to make all members feel like they belong to the work unit" align with the concept of showing appreciation. On the other hand, survey questions such as "My manager encourages all work unit members to learn from one another" align with the concept of showing appreciation. "My manager implemented a shared decision-making process and inclusive problem-solving process," and "My manager actively incorporates different points of view into his or her final decisions" relate to strengthening belongingness in a team. Employees prefer managers who strengthen team belonging and show appreciation because these actions contribute to a positive work environment and foster a sense of unity and camaraderie among team members.

The minimal impact of inclusive leadership on employees' innovative behavior can be explained through three different theories: self-determination theory and social exchange theory. SDT emphasizes the importance of satisfying intrinsic needs for autonomy, competence, and relatedness for optimal motivation (Deci & Ryan, 2000). The minimal impact found in this study might suggest that inclusive leadership, in the context of the

Malaysian telecommunication industry, does not sufficiently address these intrinsic needs to the degree that significantly enhances employees' innovative behavior (Gagné & Deci, 2005). This may be due to a mismatch between the leadership style and the employees' needs, or other motivational factors being more dominant in this industry context (Ryan & Deci, 2000).

According to SET, the quality of the exchange relationship between leaders and employees can influence employee outcomes (Blau, 1964). In this study, the minimal impact of inclusive leadership on employees' innovative behavior might suggest that the exchange relationship, as perceived by employees, is not strong enough to enhance innovation significantly. This could be due to various factors, such as the nature of the telecommunication industry, where external factors like technological advancements might overshadow the influence of leadership (Eisenberger et al., 1986). It could also indicate that employees might not perceive enough reciprocity or mutual benefit in their relationship with leaders to be motivated to increase their innovative behavior (Cropanzano & Mitchell, 2005).

In light of these theoretical perspectives, it is important to consider that the minimal impact of inclusive leadership on employees' innovative behavior in this study does not negate its importance but rather highlights the complexity of the relationship. It suggests that other factors that diminish the influence of inclusive leadership may be at play, or that different elements within the theoretical frameworks must be considered in order to fully understand innovation in the telecommunication industry.

4.8.2 Relationship between Organizational Innovation Culture and Inclusive Leadership

RO2: To examine the relationship between organizational innovation culture and inclusive leadership.

The relationship between organizational innovation culture (OIC) and inclusive leadership (IL) is critical to understanding how these aspects interact and influence each other. By examining this relationship, organizations can gain insights into the dynamics between leadership practices and the overall culture of innovation. This understanding can help organizations develop more effective leadership strategies aligned with their innovative culture, ultimately fostering a work environment that nurtures innovation. Additionally, studying the relationship between OIC and IL can provide insights into how these factors impact employee engagement and performance. Following the initial administration of eight questions on organizational innovative culture, a subsequent goodness of fit test led to the retention of only four questions for the final survey instrument.

Questionnaires in the telecommunication industry may be reduced depending on many considerations. These issues pertain to the industry's focus on innovation, risk-taking, and creativity. Individuals in the telecommunications sector may place importance on a culture that recognizes and promotes innovation and encourages taking risks, as indicated by the remaining questions. Previous studies have shown that organizations that provide incentives for creativity and cultivate an environment of experimentation are more likely to see higher levels of innovative behavior from their employees (Kozioł-Nadolna, 2020). The retained questions may have also demonstrated higher factor loadings, indicating a stronger connection to the overall concept of organizational innovation culture within the telecommunication industry.

The study's findings revealed a positive relationship between organizational innovation culture (OIC) and inclusive leadership (IL), with the values of $\beta = 0.452$, $t = 9.423$, and $p = 0.000$. This finding indicates that an organizational innovation culture has a significant impact on inclusive leadership. The large effect size ($f = 0.527$) further supports the notion that organizational innovation culture plays a substantial role in shaping inclusive leadership practices within an organization.

The literature indicates that inclusive leadership encompasses four key dimensions: fostering employees' uniqueness, strengthening belongingness in the team, showing appreciation, and supporting organizational support. However, the study's results reveal that only two dimensions—strengthening belongingness in the team and showing appreciation—are applicable in the Malaysian telecommunications context. Similarly, in OIC, only the dimensions of rewards and risk-taking were found to be relevant.

The findings of the study highlight a gap between the theoretical framework of inclusive leadership and its practical application within the Malaysian telecommunication industry. This might be due to the context-specific factors where the telecommunication industry in Malaysia, like in many other collectivist societies, can be closely linked to the degree of collectivism. In a collectivist culture like Malaysia, this emphasis on teamwork aligns well with the cultural preference for group harmony and collective effort. Employees are likely to value and prioritize teamwork, leading to enhanced cooperation and collective problem-solving efforts. Collectivism fosters a sense of belonging and loyalty among employees.

In the telecommunication industry, where retaining skilled employees is vital for maintaining service quality and innovation, this cultural trait can be particularly beneficial. Employees in a collectivist culture are more likely to be engaged and loyal to their

organization, reducing turnover rates and ensuring continuity and stability in operations. Leadership in collectivist cultures also tends to be more inclusive and relationship-oriented. In the Malaysian telecommunication industry, leaders are expected to be considerate and supportive, fostering a family-like atmosphere within the workplace. This management style helps in strengthening team cohesion and collective commitment, which are essential for the successful implementation of large-scale telecommunications projects as well as promoting innovative behaviors (Zhang et al., 2023).

The second reason could be attributed to current organizational practices within the industry, which may not place as much emphasis on the dimensions of fostering uniqueness and providing organizational support. This could be due to a lack of awareness; for example, in some organizational cultures, traditional leadership styles that prioritize hierarchy and conformity might dominate, just like what has been observed in many Malaysian telecommunication companies. These norms can overshadow the importance of fostering uniqueness and providing organizational support, leading to a lack of emphasis on these dimensions. It can also be due to a lack of resources; for example, implementing changes that foster uniqueness and organizational support takes time and effort.

Organizations like telco companies might prioritize immediate business goals and outcomes over long-term cultural and structural changes, leading to these aspects being neglected. Companies may not be dedicating their efforts to these aspects because existing leadership practices do not sufficiently prioritize these dimensions (Asrar & Anjum, 2020). The telecommunication industry may focus more on immediate and tangible outcomes, such as team cohesion and individual recognition, rather than fostering uniqueness or broad organizational support.

Organizational innovation culture (OIC) plays a crucial role in shaping employee behavior and outcomes, particularly in fostering a work environment conducive to innovation. Previous studies consistently show a positive relationship between OIC and employees' innovative behavior (EIB). For example, a study by Qi et al. (2018) found that organizations with a strong innovative culture tend to have employees more willing to take risks, experiment with new ideas, and contribute to innovation efforts. Similarly, Koziół-Nadolna (2020) reported that organizations that reward creativity and encourage experimentation are likelier to see higher levels of innovative behavior among employees.

The present study builds upon these findings by examining the specific impact of OIC on EIB within the context of Malaysia's telecommunication industry. This study is unique in its focus on a particular industry and geographical location, providing relevant insights to companies operating in this sector. Despite the gaps identified, the study still has significant theoretical implications, particularly for the application of self-determination theory (SDT) and social exchange theory (SET) in understanding inclusive leadership and innovative behavior.

The dimensions of strengthening belongingness and showing appreciation still directly contribute to fulfilling the psychological needs of relatedness and competence as proposed by SDT. These dimensions enhance employees' intrinsic motivation to engage in innovative behaviors, thus validating SDT's applicability in this context (Ryan & Deci, 2000). Self-determination theory posits that individuals are motivated to behave in ways that fulfil their psychological needs for autonomy, competence, and relatedness. In the context of OIC and EIB, employees in organizations with a strong innovative culture may feel more empowered to explore new ideas and take ownership of their work, leading to higher levels of innovative behavior (Wang et al., 2022).

These dimensions facilitate positive social exchanges between leaders and employees, so social exchange theory remains relevant. The sense of belongingness and appreciation fosters reciprocal positive behaviors, enhancing employee engagement and innovation (Cropanzano & Mitchell, 2005). Social exchange theory suggests that individuals engage in a reciprocal relationship with their organization, exchanging efforts, rewards, and recognition. In an organization with a strong innovative culture, employees may perceive their efforts as valued and rewarded, encouraging them to continue innovating (Kmieciak, 2020).

The study's findings confirm that organizational innovation culture positively influences employees' innovative behavior. While the reduction in the number of items from the IL and OIC constructs may limit the study's ability to fully represent the broader concepts of inclusive leadership and organizational innovation culture, the retained dimensions still provide valuable insights. The theoretical foundations of SDT and SET remain relevant, though with a narrower focus. The findings suggest that theoretical models of inclusive leadership should be refined to account for cultural and contextual differences. While the four dimensions are universally recognized, their relative importance and applicability might vary across different cultural and organizational settings (Szymanski et al., 2020).

4.8.3 Relationship between Organizational Innovation Culture and Employees' innovative behavior

RO3: To investigate the influence of organizational innovation culture on employees' innovative behavior.

The next research objective is to examine the influence of organizational innovation culture on employees' innovative behavior. This objective seeks to understand how specific

aspects of organizational culture, as reflected in the survey questions, impact employees' innovative behavior. For example, the survey items related to rewarding creativity and innovation, encouraging risk-taking, and creating a supportive environment for innovation all reflect elements of organizational culture that can influence employees' willingness to innovate. By analyzing these aspects of OIC, the study aims to identify the key drivers of employees' innovative behavior within an organizational culture. This study will provide valuable insights for organizations looking to foster a culture of innovation and drive employee engagement in innovation initiatives.

The study's findings reveal a significantly positive relationship between organizational innovation culture and employees' innovative behavior ($\beta = 0.494$, $t = 7.827$, $p = 0.000$), which suggests that changes in the organizational innovation culture substantially influence employees' innovative behavior. The f-square value for the relationship is considered a large effect size ($f = 0.379$), further indicating the substantial impact of organizational innovation culture on employees' innovative behavior. It emphasizes the importance of fostering an innovative culture within organizations to stimulate and sustain employees' innovative behaviors. The positive correlation suggests that as organizations prioritize and enhance their innovative culture, they will likely observe a corresponding increase in employees' innovative behaviors (Maric et al., 2022). This finding highlights the strategic significance of nurturing a culture that encourages creativity, experimentation, and risk-taking, as it can lead to enhanced organizational innovation and competitive advantage.

An organizational innovation culture is characterized by an environment that encourages experimentation, risk-taking, and collaboration. This culture can increase productivity, efficiency, and competitive advantage in today's rapidly changing business landscape. It also promotes continuous improvement and adaptability, essential for long-

term growth and sustainability in the marketplace (Fietz & Gunther, 2021). Ultimately, organizations prioritizing innovation culture are better equipped to navigate challenges and seize growth opportunities. As mentioned in the previous study, the organizational innovation culture has influenced employees' innovative behavior.

However, personal differences among employees can lead to significant variations in how this culture is experienced. These differences, rooted in individual values, beliefs, past experiences, and job roles, play a critical role in shaping each employee's perception and interaction with the organizational culture. First, personal values and beliefs are fundamental in determining how employees perceive and react to the organizational culture. Each employee brings a unique set of values and beliefs to the workplace, which influences their interpretation of the organizational norms and practices. For instance, an employee who values creativity and risk-taking is likely to thrive in an innovative culture that encourages experimentation and new ideas (Lee et al., 2020). Conversely, an employee who prioritizes stability and routine may feel uncomfortable or out of place in the same environment, leading to a less positive experience of the organizational culture.

Past experiences also significantly impact how employees engage with the organizational culture. Employees who have had positive experiences with innovation and inclusivity in previous roles are more likely to embrace a similar culture in their current organization (Feitosa et al., 2020). On the other hand, those who have faced negative consequences for taking risks or expressing innovative ideas may be more hesitant and less engaged, even if the organizational culture actively promotes these behaviors. These past experiences shape an individual's expectations and willingness to participate fully in the cultural dynamics of the organization.

Job roles and responsibilities further contribute to the variability in cultural experience among employees. Different roles within an organization can interact with the culture in unique ways. For example, employees in creative or research and development roles are likely to be more directly involved in and influenced by the innovative aspects of the culture (Wang et al., 2021). Their day-to-day tasks may naturally align with the organization's emphasis on creativity and innovation. In contrast, employees in administrative or operational roles might not engage with these cultural elements as frequently, leading to a different overall experience. The nature of one's job can thus either amplify or diminish the perceived presence and impact of the organizational culture.

Additionally, personal career goals and aspirations play a role in how employees experience organizational culture. Employees with strong ambitions to advance and make significant contributions may be more attuned to and motivated by a culture that rewards innovation and inclusivity (Gagné et al., 2012). They are likely to actively seek out opportunities to align with and benefit from the cultural values promoted by the organization. In contrast, employees who are content with their current positions and have fewer aspirations for advancement may not engage as deeply with the cultural initiatives, resulting in a more passive experience.

Personality traits also influence how employees interact with organizational culture. Traits such as openness to experience, conscientiousness, and extraversion can affect an individual's response to cultural norms and practices (Wang et al., 2022). Employees with a high level of openness are more likely to embrace and contribute to an innovative culture, seeking out new experiences and ideas. Those high in conscientiousness may appreciate and thrive in a culture that values precision, reliability, and systematic innovation processes.

Extraverted individuals might engage more actively in collaborative and inclusive cultural activities, enhancing their experience and contribution to the organizational culture.

This relationship can be understood through the lens of several theoretical frameworks, including self-determination theory (SDT) and social exchange theory (SET). SDT posits that individuals are more likely to engage in innovative behavior when they feel a sense of autonomy, competence, and relatedness in their work environment. Therefore, an organizational culture that supports employees' autonomy in decision-making, provides opportunities for skill development and fosters positive relationships among team members is likely to promote innovative behavior (Liu et al., 2019). SET suggests that employees are more likely to engage in innovative behavior when they perceive that the organization will reward or recognize their efforts. An innovative culture that rewards and recognizes employees for their creative contributions will likely motivate further innovative behavior (Tripp, 2023).

4.8.4 The Moderating Effects of Organizational Innovative Culture on the Relationship between Inclusive Leadership and Employees' Innovative Behavior.

RO4: To assess the moderating effect of organizational innovation culture on the relationship between inclusive leadership and employees' innovative behavior.

The final objective of this study is to verify the moderating role of organizational innovation culture in the relationship between inclusive leadership and employees' innovative behavior. This objective is crucial as it seeks to understand how inclusive leadership and organizational culture influence employees' innovative behavior. By examining this relationship, the study aims to provide insights into how organizations can

effectively leverage inclusive leadership and a supportive, innovative culture to enhance employee innovation. This objective builds on the previous objectives by exploring the complex dynamics between leadership, organizational culture, and employee behavior, offering valuable implications for theory and practice.

After bootstrapping and assessing the goodness of model fit, only three out of the original eight questions on employees' innovative behavior were retained for the study. Initially, the questionnaires covered idea generation, promotion, and realization. However, following bootstrapping, only idea promotion and realization questions were retained. This reduction in the number of questions may apply to the study's respondents as it suggests that the aspects of employees' innovative behavior captured by the retained questions (idea promotion and realization) are more relevant or meaningful in the context of this study and the characteristics of respondents.

The study respondents might reject the idea generation questions because they may have perceived the questions related to idea promotion and realization as more relevant to their experiences and work environment. Ng et al. (2021) found evidence to support the idea that when supervisors reject employees' ideas, it can reduce employees' confidence in being creative or innovative, particularly in coming up with new ideas. This effect is stronger when employees place a high value on their ideas being accepted, particularly among those who are dedicated to the organization and see innovation as important.

Contrary to what has been hypothesized in the present study, the result shows that there is no moderation of organizational innovation culture in the relationship between inclusive leadership and employees' innovative behavior. The result of the moderating effect is insignificant, with $\beta = -0.013$, $t = 0.178$, and $p = 0.859$ ($p > 0.05$). The f-square value for the moderation effect is less than significant, based on Cohen (1988), with $f = 0.00$. These

findings suggest that organizational innovation culture does not moderate the relationship between inclusive leadership and employees' innovative behavior. These findings are supported by previous research, in which the researcher indicates that while organizational culture can influence innovative behavior, the relationship is not straightforward and can be moderated by other factors such as leadership style, personal values, and specific aspects of the culture. Note that context and individual factors can make one organization's solution ineffective in another. Therefore, organizations must understand their unique culture and context when fostering innovation (Liu et al., 2019; Zhang et al., 2023; Purc & Laguna, 2019).

In light of these unexpected results, it is critical to investigate the implications for self-determination theory (SDT) and social exchange theory (SET). These theories provide valuable frameworks for understanding the minimal impact of inclusive leadership on employees' innovative behavior, as well as the lack of moderation by organizational innovation culture.

Self-determination theory (SDT) proposes that individuals are more likely to engage in innovative behavior when their intrinsic needs for autonomy, competence, and relatedness are satisfied. The study revealed a minimal impact of inclusive leadership on employees' innovative behavior in the Malaysian telecommunication industry. This finding suggests that inclusive leadership may not sufficiently address these intrinsic needs in a way that significantly enhances innovative behavior. According to SDT, for inclusive leadership to be effective, it should create an environment where employees feel autonomous, competent, and related to their work and colleagues. The minimal effect could indicate a mismatch between the leadership style and the employees' needs. The employees' intrinsic motivation may be influenced more by other factors such as job autonomy, skill variety, and task

significance, which were not sufficiently covered by the inclusive leadership practices observed in the study.

Moreover, the high degree of autonomy typically enjoyed by employees in the telecommunication industry may reduce the perceived need for inclusive leadership to enhance innovative behavior. Employees who are used to working independently might not feel a significant additional benefit from inclusive leadership, as their intrinsic needs for autonomy and competence are already being met through their job roles. This suggests that while inclusive leadership can foster a sense of belongingness and psychological safety, it might not be the primary driver of innovative behavior if other sources of intrinsic motivation are more salient in the work context.

While SDT concentrates on the individual, social exchange theory (SET) focuses on the quality of the exchange relationship between leaders and employees, positing that employees are more likely to engage in innovative behavior when they perceive a high level of reciprocity and mutual benefit. The minimal impact of inclusive leadership on innovative behavior observed in the study may indicate that the exchange relationship's quality is not strong enough to significantly enhance innovation. This could be due to a variety of factors, such as employees' perceptions of leadership inclusivity or the broader context of the telecommunication industry.

If employees do not perceive their leaders as genuinely inclusive, or if they feel that the reciprocal benefits of engaging in innovative behavior are not substantial, the influence of inclusive leadership may be diminished. Additionally, in an industry characterized by rapid technological advancements and high competition, external factors like market trends and technological innovations might overshadow the impact of leadership styles. Employees

may prioritize adapting to external changes over engaging with inclusive leadership practices, which could explain the minimal observed effect.

The lack of a moderating effect of organizational innovation culture on the relationship between inclusive leadership and employees' innovative behavior further complicates the interpretation. This finding suggests that while an innovative culture is important, it does not necessarily amplify the effects of inclusive leadership. For instance, an innovative culture that emphasizes risk-taking and experimentation might not interact synergistically with leadership practices focused on belongingness and appreciation. It is possible that such a culture might interact more effectively with the other dimensions of inclusive leadership, such as supporting organizational efforts and fostering employees' uniqueness.

The interaction between an innovative culture and these dimensions of inclusive leadership may vary. While the current study focused on belongingness and appreciation, incorporating all four dimensions might provide a more comprehensive understanding of how inclusive leadership can drive innovation. For example, an innovative culture that encourages risk-taking and experimentation may better align with supporting organizational efforts and fostering employees' uniqueness, thereby enhancing their innovative behavior.

The findings align with some aspects of existing literature while contrasting with others. Previous studies have highlighted the positive impact of inclusive leadership on employees' innovative behavior, emphasizing the role of psychological safety and support (Carmeli et al., 2010; Fang et al., 2019). However, the minimal effect observed in this study suggests that the context of the Malaysian telecommunication industry presents unique challenges and dynamics that might not have been fully captured in earlier research.

Understanding these points is critical for organizations striving to develop a culture of innovation successfully. While organizational culture is important, its interaction with leadership styles and individual values adds complexity. Leaders must recognize these complexities and adjust their strategies to fit their organization's context. Moreover, the absence of moderation by OIC suggests that fostering inclusive leadership alone may not be sufficient to drive employees' innovative behavior. Organizations should consider a holistic approach that integrates various factors, including organizational culture, leadership practices, and individual motivations, to create fertile ground for innovation to flourish.

4.9 Chapter Summary

This chapter presents the study's findings, which involved analyzing data and respondents' profiles using SPSS for descriptive purposes. SmartPLS 4.0 was used to examine the study model's structure and measurements. The reliability and validity of the model's constructs were assessed through measurement analysis, demonstrating satisfactory levels. During the measurement assessment stage, the model paths were evaluated using bootstrapping to support the study results with confidence intervals and levels of significance. The empirical evidence has substantiated several key relationships between inclusive leadership and innovative organizational behavior. The results confirm a significantly positive impact of inclusive leadership on employees' innovative behavior. The data also support a positive relationship between organizational innovation culture and inclusive leadership, as well as between organizational innovation culture and employees' innovative behavior. However, the anticipated moderating role of organizational innovation culture in the dynamic between inclusive leadership and employees' innovative behavior

was not substantiated. The following chapter outlines the discussion of results, implications, and suggested future research opportunities, along with the relevant research limitations.

CHAPTER 5

CONCLUSION

5.1 Introduction

This chapter presents a comprehensive review and discussion of the data analysis results. It begins by revisiting the study's objective and research questions to provide context for the subsequent discussions. The chapter then delves into the key findings, offering explanations and rationales for the significant outcomes observed. Subsequently, the study's contributions to existing literature and managerial implications, which can assist decision-makers, are also outlined. The chapter then addresses the study's limitations and proposes potential directions for future research. And finally, to conclude, the chapter provides a summary that encapsulates the entirety of the study, offering a coherent overview of the research and its findings.

5.2 Recapitalization of the Study

The conceptual framework of this study was developed, incorporating inclusive leadership as the independent variable (IV), employees' innovative behavior as the dependent variable (DV), and organizational innovation culture as the moderator, aiming to clarify the influence of inclusive leadership on employees' innovative behavior within the organizational context. Data was collected from 250 employees nationwide using an online questionnaire survey, and a final sample of 217 was collected for analysis. The survey respondents in this study are employees from four prominent telecommunication companies, namely CelcomDigi, Maxis, TM Point, and U Mobile. The collected data were then analyzed using PLS-SEM. The study results indicate that inclusive leadership has a significantly

positive impact on employees' innovative behavior, according to the analysis. Even though it has a minimal effect, the result suggests that leadership styles emphasizing inclusivity will likely foster a more creative work environment. A significantly positive relationship between organizational innovation culture and inclusive leadership is also found, which further implies that a culture of innovation within an organization can enhance the effectiveness of inclusive leadership practices.

The study found a significantly positive relationship between organizational innovation culture and employees' innovative behavior, emphasizing the importance of an innovative culture in driving employees to engage in innovative behaviors. However, organizational innovation culture was not found to moderate the relationship between inclusive leadership and employees' innovative behavior.

5.3 Summary of Findings

The complete research findings are detailed in Table 4.13, encompassing all study hypotheses and their corresponding results. Three hypotheses garnered statistical support, leading to their acceptance. Regarding the moderation effect, the relationship between IL and EIB does not exhibit any moderating influence. Table 4.13 shows the summary of findings on all the hypotheses.

Table 5. 1: Summary of Findings

Research Question 1: What is the impact of inclusive leadership on employees' innovative behavior?		
Hypothesis	Descriptions	Results
H1	There is a significantly positive impact of inclusive leadership on employees' innovative behavior.	Accepted
Research Question 2: How does organizational innovation culture influence inclusive leadership?		
H2	There is a significantly positive relationship between organizational innovation culture and inclusive leadership.	Accepted

Table 5.1 continued

Research Question 3: How does organizational innovation culture influence employees' innovative behavior?		
H3	There is a significantly positive relationship between organizational innovation culture and employees' innovative behavior.	Accepted
Research Question 4: Does organizational innovation culture moderate the relationship between inclusive leadership and employees' innovative behavior?		
H4	Organizational innovation culture moderates the relationship between inclusive leadership and employees' innovative behavior.	No moderation

5.4 Implications of Research

The present study investigated the impact of inclusive leadership on employees' innovative behaviors in the Malaysian mobile telecommunication industry, with organizational innovation culture as a moderating variable. The present study was guided by the self-determination theory (SDT) and social exchange theory (SET) to provide a comprehensive understanding of the dynamics between leadership, innovation, and organizational culture. A well-structured conceptual model was developed to address theoretical and contextual gaps identified through an extensive and critical literature review.

This study's findings have significant theoretical and practical implications. Theoretically, the research contributes to the existing literature by examining the relationship between inclusive leadership and employees' innovative behaviors, a relatively underexplored area in the context of the Malaysian telecommunication industry. Furthermore, the study enhances the understanding of how organizational innovation culture moderates this relationship, providing new insights into the intricate dynamics of leadership and innovation.

From a practical standpoint, the results provide valuable guidance for policymakers and telecommunications company administration. By recognizing the importance of inclusive leadership and fostering an innovative culture, organizations can address critical

issues such as enhancing employee innovation and maintaining a competitive edge in the industry. These implications are discussed in the following sections, providing a comprehensive overview of the study's contributions and relevance to theory and practice.

5.4.1 Theoretical Implications

This study confirms the main assumptions of self-determination theory (SDT) and social exchange theory (SET). It expands the body of knowledge surrounding these theories by testing new variables, adding and clarifying new concepts, and incorporating specific dimensions of inclusive leadership. The findings of this study help connect some missing dots in previous literature on the models and provide new avenues for further research on the topic.

This study contributes to the SDT literature by examining the role of inclusive leadership in fostering an environment that meets employees' intrinsic needs for autonomy, competence, and relatedness. The minimal impact of inclusive leadership on employees' innovative behavior suggests that inclusive leadership practices in the Malaysian telecommunication industry may not fully address these intrinsic needs. This contrasts with previous studies that found a stronger link between inclusive leadership and innovative behavior (Deci & Ryan, 2000; Gagné & Deci, 2005). The study highlights the importance of aligning leadership practices with employees' intrinsic motivational factors. Future research should explore how inclusive leadership can be tailored to better satisfy these needs and enhance innovative behavior, particularly in contexts with high levels of autonomy and rapid technological change.

For SET, the study contributes to its literature by exploring the quality of the exchange relationship between inclusive leaders and their employees. The minimal impact

observed indicates that the perceived reciprocity and mutual benefit in the leader-employee relationship may not be strong enough to significantly drive innovative behavior. This finding contrasts with previous research emphasizing the significant influence of leader-member exchange on employee outcomes (Blau, 1964; Cropanzano & Mitchell, 2005). This underscores the need for leaders to not only foster a sense of belongingness and appreciation but also to enhance perceptions of mutual benefit and reciprocity. Future research could investigate how different dimensions of inclusive leadership, such as supporting organizational efforts and fostering employees' uniqueness, contribute to the quality of these exchange relationships and, consequently, to innovative behavior.

This study is unique in its detailed examination of the dimensions of inclusive leadership, namely strengthening belongingness, showing appreciation, supporting organizational efforts, and fostering employees' uniqueness. While the study focused on belongingness and appreciation, it suggests that an innovative culture that emphasizes risk-taking and experimentation might better interact with the other dimensions, such as supporting organizational efforts and fostering uniqueness. This nuanced understanding differs from previous studies that did not differentiate between the dimensions of inclusive leadership in relation to innovative culture (Carmeli et al., 2010; Fang et al., 2019). Future research should consider all four dimensions to gain a comprehensive understanding of how inclusive leadership practices can synergistically enhance employees' innovative behavior.

The lack of a moderating effect of organizational innovation culture on the relationship between inclusive leadership and employees' innovative behavior is a notable divergence from previous studies, which often found significant moderating effects of organizational culture (Qi et al., 2018; Kozioł-Nadolna, 2020). This finding suggests that while an innovative culture is important, it does not necessarily amplify the effects of

inclusive leadership. For instance, an innovative culture that emphasizes risk-taking and experimentation might not interact synergistically with leadership practices focused on belongingness and appreciation. Such a culture might interact more effectively with the other dimensions of inclusive leadership, such as supporting organizational efforts and fostering employees' uniqueness.

This study contributes to existing knowledge by providing empirical evidence from the Malaysian telecommunication industry, a context that has been underexplored in previous research. The findings indicate that while inclusive leadership positively influences employees' innovative behavior, the effect is minimal. This contrasts with previous studies conducted in different cultural and industrial contexts, highlighting the need to consider contextual factors when applying inclusive leadership practices. Additionally, the study's finding that organizational innovation culture does not moderate the relationship between inclusive leadership and employees' innovative behavior suggests that the interaction between leadership and culture is more complex than previously understood. This insight calls for a more nuanced examination of how specific cultural elements interact with various dimensions of inclusive leadership.

5.4.2 Practical Implications

This study provides important implications from a practical perspective for various stakeholders in the Malaysian mobile telecommunication industry, including telecommunications companies and employees within these organizations. The study highlights the importance of inclusive leadership in fostering employees' innovative behavior, which is crucial for maintaining a competitive edge in the rapidly evolving telecommunications sector. However, as inclusive leadership only has a minimal impact on

employees' innovative behavior, there are several practical implications for organizations in the telecommunication industry to consider.

In the pursuit of fostering innovative behavior within organizations, the types of reward systems employed play a pivotal role. While financial incentives have been extensively studied, there remains a significant gap in understanding the impact of non-financial rewards, such as recognition, and career development opportunities, and intrinsic rewards like job satisfaction and a sense of achievement. This gap, as identified by Halim et al. (2020), emphasizes the need to explore how these forms of rewards influence innovative behavior. Additionally, the effectiveness of these reward systems is not uniform across different organizational contexts. Factors such as organizational size, industry type, and cultural context significantly shape how rewards are perceived and their subsequent impact on innovative behavior. Jena and Goyal (2022) emphasize that high-growth service sectors, with their unique characteristics and challenges, may require tailored reward strategies. Despite this, existing research has not sufficiently addressed these contextual variations, highlighting the need for more focused studies that consider these factors.

In light of these identified gaps, the findings from this research offer valuable insights. This study found that inclusive leadership (IL) minimally impacts employees' innovative behavior (EIB), while organizational innovation culture (OIC) positively impacts both IL and EIB. This suggests that a supportive and innovative culture is crucial for fostering innovation. The minimal direct impact of IL on EIB might indicate that leadership alone is insufficient to drive innovation unless it is embedded within a culture that promotes and rewards innovative behaviors. The significant positive relationship between OIC and EIB underscores the potential effectiveness of non-financial rewards embedded within an innovative culture.

SDT proposes that fulfilling employees' psychological needs for autonomy, competence, and relatedness enhances intrinsic motivation and innovation. An innovative culture that supports autonomy and competence can positively impact both IL and EIB. Thus, non-financial rewards that align with these psychological needs, such as recognition and career development opportunities, should be a central component of organizational strategies to foster innovation. The unique context of the Malaysian telecommunication industry influenced these findings, highlighting the importance of contextual factors in the effectiveness of reward systems. The minimal impact of IL on EIB and the lack of moderation by OIC may reflect industry-specific challenges and cultural factors. This indicates that a one-size-fits-all approach to reward systems is inadequate. Instead, organizational size, industry type, and cultural context must be considered when designing reward systems. In the telecommunication industry, a tailored approach that considers these factors is crucial.

Social Exchange Theory (SET) suggests that the quality of relationships and reciprocity between leaders and employees significantly impacts outcomes like innovative behavior. Tailored reward strategies that enhance these exchanges can be particularly effective in specific contexts. Organizations should therefore focus on fostering an innovative culture that emphasizes intrinsic rewards. Recognizing employees' contributions, providing career development opportunities, and enhancing job satisfaction can significantly boost innovative behavior. This approach aligns with Self-Determination Theory (SDT), which emphasizes the importance of intrinsic motivation and the satisfaction of psychological needs.

SET highlights the role of reciprocal relationships between leaders and employees in fostering innovative behavior. An innovative culture enhances these reciprocal relationships,

positively impacting both IL and EIB. Tailored reward systems that resonate with employees' expectations and cultural norms can strengthen these exchanges. Both intrinsic and extrinsic rewards should be considered to create a supportive and innovative organizational culture. For instance, in high-growth service sectors, where rapid changes and unique challenges are prevalent, customized reward strategies that address specific industry needs and cultural contexts are essential. This can involve a combination of intrinsic rewards, such as recognition and career development opportunities, and extrinsic rewards that are meaningful within the specific context. The implementation of such reward systems should be tailored to the unique characteristics of the telecommunication industry. For instance, intrinsic rewards like job satisfaction and a sense of achievement can be promoted through structured career progression paths and regular acknowledgement of innovative contributions. This approach addresses the gap in understanding the impact of non-financial rewards on fostering innovative behavior (Halim et al., 2020).

In addition, organizations may also need to reevaluate their leadership development programs to ensure they effectively foster the behaviors and skills necessary to promote innovation. This implies that businesses should adjust their leadership training to cultivate a more inclusive environment that stimulates creative thinking and risk-taking, directly impacting innovation and competitive edge. It could involve incorporating comprehensive training on creating an inclusive environment that encourages creative thinking and risk-taking (Mokhber et al., 2017).

Organizations might also need to broaden their focus beyond inclusive leadership to drive innovation. This could include emphasizing other leadership styles or organizational practices that directly support innovation, such as transformational leadership or creating structured processes for idea generation and implementation (Alblooshi et al., 2020). This

recommendation indicates a strategic directive for businesses to enhance their innovation capabilities. Furthermore, strengthening different aspects of organizational culture that supports innovation, such as promoting a culture of continuous learning and encouraging cross-functional collaboration, could also be beneficial in enhancing overall business performance and adaptability.

Organizations should consider assessing whether employees' needs for autonomy, competence, and relatedness are being met through other means, as understanding and addressing these needs can help create an environment conducive to innovation (Lee et al., 2021). Furthermore, it is crucial to examine external factors such as market trends, technological advancements, and competitive pressures, as these factors can significantly influence innovation (Shatilo, 2020). To identify the specific factors that contribute to innovation success, organizations should establish robust mechanisms for monitoring and measuring innovation outcomes. Additionally, effective communication is a critical aspect of fostering innovation, so organizations should ensure that communication channels are open and that employees feel comfortable sharing their ideas and feedback, regardless of the level of inclusive leadership (Javed et al., 2019).

For employees within the telecommunication industry, the present study emphasizes the role of inclusive leadership in enhancing their innovative behavior. Understanding the impact of leadership and organizational culture on innovation can empower employees to actively participate in creating a more inclusive and innovative work environment. Additionally, employees can use the insights from this study to advocate for leadership development and organizational culture initiatives that support innovation.

In addition to the practical implications mentioned earlier, this study offers further insights for various stakeholders:

- 1) Telecommunications Companies: These organizations should consider implementing strategies that foster an inclusive culture where diverse ideas are valued and encouraged. This can involve creating platforms for employees to share their innovative ideas and providing resources to support their development and implementation. Recognizing and rewarding innovative behavior can motivate employees to engage in creative problem-solving and contribute to the company's innovation efforts.
- 2) Human Resource Departments: HR professionals in the telecommunication industry can be crucial in promoting inclusive leadership through recruitment, training, and performance management practices. The findings of this study also emphasize the pivotal role of the Human Resources (HR) department in bridging the gap between research insights and practical implementation. The HR department will be responsible for disseminating this study's findings to external consultants and trainers who specialize in leadership and employee development programs in the telecommunication industry. By providing consultants with these research insights, the HR department can ensure that the training programs are aligned with the specific needs and challenges identified in the study.

This study's findings provide the Human Resources (HR) department with valuable insights into the aspects of inclusive leadership and employees' innovative behavior that are critical for organizational success. Traditionally, mapping innovativeness as part of the organization's key performance indicators (KPIs) has been challenging due to the intangible nature of innovation. However, this study sheds light on specific dimensions of innovative behavior that can be focused on and measured to align with the overall organizational KPIs. The HR department can develop more precise

metrics to assess organizational innovation by identifying the key behaviors contributing to employees' innovative behavior. These metrics could include idea generation, idea promotion and realization. Incorporating these innovative behaviors into the framework allows for a more targeted approach to evaluating and encouraging innovation. By focusing on these behaviors, the HR department can create a clear, measurable path for employees to contribute to the organization's innovation goals.

- 3) Employees: Individuals working in the telecommunication industry can actively contribute to a culture of innovation by embracing a mindset of continuous learning and being open to new ideas. They can seek opportunities for cross-functional collaboration and participate in innovation initiatives within their organizations.

By addressing these practical implications, stakeholders in the Malaysian mobile telecommunication industry can work together to create an ecosystem that supports inclusive leadership and fosters innovation, ultimately contributing to the industry's long-term success and competitiveness in the global market.

5.4.3 Research Limitations and Recommendations for Future Research

This section discusses the limitations of the present study and proposes recommendations for future research. One inherent limitation of this study is its cross-sectional design, which does not allow for the establishment of causality between inclusive leadership, organizational innovation culture, and employees' innovative behavior. Future research could benefit from a longitudinal approach to better understand the dynamic nature of these relationships over time.

Moreover, while this study employs a quantitative research design, which provides a broad understanding of the relationships between variables, it may benefit from adopting a qualitative approach in future research. Qualitative studies could explore the real experiences of employees and leaders, providing a richer understanding of the mechanisms through which inclusive leadership fosters innovation.

This study's focus on the Malaysian mobile telecommunication industry may limit the findings' generalizability to other sectors or geographical contexts. Therefore, future research should consider investigating the proposed relationships in different sectors and countries to assess the applicability of the findings across diverse settings. Furthermore, respondents in this study were selected based on the availability of data provided by telecommunication companies. Future research could benefit from a more targeted selection of participants, possibly through collaboration with larger research organizations or industry associations, to enable a more comprehensive sampling strategy and potentially yield more representative insights into the impact of inclusive leadership on employees' innovative behavior.

This study also primarily relies on self-reported data, which may be subject to social desirability bias or self-assessment inaccuracies. Future studies could incorporate objective measures of employees' innovative behavior or use a multi-source data collection approach to validate the findings.

Conducting intervention studies where inclusive leadership practices are implemented within organizations could offer more concrete evidence of causality, measuring their impact on employee innovation over time. Engaging in collaborative research with the telecommunication industry could provide access to richer data and insights involving partnerships with industry bodies, telecommunication companies, or regulatory authorities.

Lastly, while this study provides valuable insights into the role of inclusive leadership in promoting employees' innovative behavior, future research could further explore the interaction between inclusive leadership and other organizational factors, such as communication patterns, decision-making processes, and employee empowerment, to provide a more holistic view of how inclusive leadership contributes to fostering an organizational innovation culture.

5.5 Conclusion

The study explored the intricate dynamics of inclusive leadership and organizational innovation culture within the Malaysian telecommunication industry, focusing on their impact on employees' innovative behavior. Utilizing the frameworks of self-determination theory (SDT) and social exchange theory (SET), the study provided insights into the detailed relationships between leadership practices, organizational culture, and innovative outcomes.

5.5.1 Key Findings

The findings indicated that inclusive leadership exerts a minimal positive influence on employees' innovative behavior. This suggests that while inclusive leadership contributes to creating a supportive environment, it may not sufficiently drive innovative behavior on its own in the Malaysian telecommunications context. Furthermore, there was a significantly positive relationship between organizational innovation culture and both inclusive leadership and employees' innovative behavior. However, contrary to expectations, organizational innovation culture did not moderate the relationship between inclusive leadership and employees' innovative behavior.

5.5.2 Significance of Findings

These findings challenge some of the established notions in existing literature, particularly the expected strong influence of inclusive leadership on innovation and the moderating role of organizational culture. The minimal impact of inclusive leadership on innovative behavior suggests that other factors, possibly specific to the telecommunication industry, play a significant role in fostering innovation. The positive relationship between organizational innovation culture and both inclusive leadership and employees' innovative behavior reinforces the importance of a supportive cultural environment, but it also highlights that this culture alone does not enhance the effectiveness of inclusive leadership in driving innovation.

5.5.3 Contributions to the Malaysian Telecommunication Industry

The present study makes significant contributions to the Malaysian telecommunication industry by providing empirical evidence and practical insights that can inform leadership and organizational development practices. The minimal impact of inclusive leadership on innovative behavior underscores the need for telecommunications companies to integrate additional strategies and factors that address intrinsic motivational needs, beyond inclusive leadership practices alone. For instance, enhancing job autonomy, skill development, and task significance could better satisfy employees' intrinsic needs and potentially drive higher levels of innovative behavior.

In terms of the non-moderating role of organizational innovation culture, the study's findings suggest that while fostering an innovative culture is critical, it should be aligned with specific leadership practices that directly encourage innovation. Telecommunication companies should consider adopting a more holistic approach that integrates various

dimensions of inclusive leadership, such as supporting organizational efforts and fostering employees' uniqueness, to create a more conducive environment for innovation.

Overall, this study highlights the complexity of fostering innovation through leadership and culture within the telecommunication industry. It provides a foundation for future studies to explore these relationships further and develop targeted strategies that can enhance innovation capabilities in this rapidly evolving sector. By understanding the interplay between inclusive leadership, organizational culture, and employee behavior, the Malaysian telecommunication industry can better navigate the challenges of technological advancement and competitive pressures, ultimately leading to sustained growth and success.

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APPENDICES : QUESTIONNAIRES

ACADEMIC SURVEY



Department of Business and Management, Faculty of Economics
and Business, Universiti Malaysia Sarawak, 94300, Kota
Samarahan, Sarawak, Malaysia

Subject: Invitation to Participate in Research Study on Inclusive Leadership and Employee
Innovative Behaviour

Dear Sir / Madam,

I am a DBA student at Universiti Malaysia Sarawak (UNIMAS), and as part of my degree requirements, I am conducting a research study on "The Impact of Inclusive Leadership towards Employees' Innovative Behavior," particularly in the Malaysian Mobile Telecommunication Industry.

In order to complete my degree, I need your assistance in completing the questionnaire attached to this letter. In order to successfully complete my degree, I need your assistance in completing this questionnaire attached to this letter. Your participation in this study is entirely voluntary, and there will be no consequences if you choose not to participate or decide to withdraw at any stage. Your responses will be kept strictly confidential, and all data will be analyzed anonymously, ensuring the utmost privacy and confidentiality.

The survey/questionnaire will take approximately 5 to 10 minutes to complete, and your responses will be of immense value in shaping the outcomes of this research. Should you choose to participate, please click on the following link to access the questionnaire:
<https://forms.gle/ZZNHUdEKsCDF4gKP7>

If you have any questions or concerns about the research or your participation, please feel free to contact me at cjdi7412@gmail.com. I am more than happy to provide any clarifications you may need.

Thank you in advance for considering participation in this study. Your contribution will be instrumental in advancing the understanding of inclusive leadership and its impact on employees' innovative behavior.

Warm regards,

Sharifah Norliza Binti Wan Junaidi

Using the scale provided below, please indicate whether you agree to the following statements:

1 (Strongly Disagree) 2 (Disagree) 3 (Neutral) 4 (Agree) 5 (Strongly Agree)

Inclusive Leadership		1	2	3	4	5
1	My manager respects individual differences in the work unit					
2	My manager values the uniqueness/differences of all work unit members					
3	My manager values the differences that members of diverse backgrounds bring to the work unit					
4	My manager encourages work unit members of diverse backgrounds to exchange ideas.					
5	My manager encourages all work unit members to learn from one another					
6	My manager makes resources equally accessible to all work unit members.					
7	My manager manage biases and discrimination towards underprivileged group members in the work unit.					
8	My manager encourages everyone in the work unit to participate in decision-making.					
9	My manager implements a shared decision-making process and inclusive problem-solving process.					
10	My manager actively incorporates different points of view into his or her final decisions.					
11	My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness.					
12	My manager tries to make all members feel like they belong to the work unit					
13	My manager welcomes constructive debate among work unit members.					
14	My manager is open to alternative perspectives when working on shared problems in the work unit.					
15	My manager encourages all work unit members to collaborate with each other					
16	My manager encourages multiple inputs from all members to achieve work unit goals.					
17	My manager encourages work unit members to contribute in their own ways.					
18	My manager COMPLIES with organizational diversity and inclusion policies in the work unit.					
19	My manager IMPLEMENTS organizational diversity and inclusion programs in the work unit.					
20	My manager IMPLEMENTS organizational diversity and inclusion initiatives in the work unit.					

Employees Innovative Behaviour		1	2	3	4	5
21	I create new ideas for difficult issues (Idea Generation)					
22	I search out new working methods, techniques, or instruments (Idea Generation) on my own.					
23	I am able to generate original solutions for problems (Idea Generation).					
24	I am able to mobilize/get support for innovative ideas (Idea Promotion).					
25	I need to acquire approval from my manager for an innovative idea (Idea Promotion).					
26	I am able to make other organizational members feel enthusiastic for new creation of innovative ideas (Idea promotion).					
27	I am able to transform innovative ideas into useful applications (Idea Realization).					
28	I am able to decide whether my innovative ideas can effectively solve a problem, improve processes or provide a meaningful advantage (Idea Realization).					
Organizational Innovative Culture		1	2	3	4	5
29	Our organization rewards behaviours that relate to creativity and Innovation.					
30	Our organizational culture encourages employees to monitor their performance.					
31	Employees take risks by continuously experimenting with new ways of doing things.					
32	Risk-taking is encouraged without fear of punishment for mistakes.					
33	Creativity and innovation are rewarded.					
34	Managers are receptive to change.					
35	Employees are receptive to change.					
36	New practices and ways of doing business are encouraged.					

Demographic Info

Please place (√) in the block that relates to you.

1) Age

- | | |
|--------------------|--------------------------|
| 21 to 30 years old | ☐ |
| 31 to 40 years old | ☐ |
| 41 to 50 years old | ☐ |
| 51 years and above | ☐ |

2) Gender

- | | |
|--------|--------------------------|
| Male | ☐ |
| Female | ☐ |

3) Highest level of education

- | | |
|-------------------|--------------------------|
| Diploma and below | ☐ |
| Degree | ☐ |
| Masters | ☐ |

4) Location

- | | |
|---|--------------------------|
| Borneo (Sabah & Sarawak) | ☐ |
| Central & Eastern Region
(Selangor, KL, Putrajaya,
Pahang, Terengganu, Kelantan) | ☐ |
| Southern Region
(Negeri Sembilan, Melaka and Johor) | ☐ |
| Northern Region
(Perlis, Kedah, Penang and Perak) | ☐ |

5) Total Experience

- | | |
|--------------------|--------------------------|
| 1 - 5 years | ☐ |
| 6 - 10 years | ☐ |
| 11 - 15 years | ☐ |
| 16 years and above | ☐ |

6) Which telecommunication company are you currently with?

- | | |
|-----------------------|--------------------------|
| Maxis | ☐ |
| CelcomDigi | ☐ |
| Umobile | ☐ |
| TM Unifi/Unifi Mobile | ☐ |

7) Job Status

- | | |
|--|--------------------------|
| Middle management
(Example : Marketing Manager, Sales Manager,
Operation Manager, Branch Manager, etc) | ☐ |
| Lower Management
(Example: Supervisor, Junior level Management) | ☐ |
| Non Managerial
(Example : Executives, Non Executives, clerk, etc) | ☐ |