



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

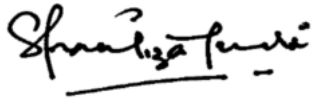
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DECLARATION

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