

LINKING PSYCHOLOGICAL CAPITAL, PSYCHOLOGICAL
EMPOWERMENT, AND AUTHENTIC LEADERSHIP TO INNOVATIVE
BEHAVIOUR: THE MEDIATING ROLE OF EMPLOYEE CREATIVITY

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DEDICATION

The research thesis is dedicated to ALLAH Almighty, thanking Him for this direction, strength, mental power, protection, skill, and talents, as well as for providing us with a healthy existence.

This research thesis is also dedicated to my father—Muhammad Arif, and my late mother—Ghulam Fatima, who have been my inspiration and given me strength when I was about to give up; my wife; my son—Muhammad Ibrahim; and my daughter—Ayat Fatima. I also dedicate my professors: ALLAH Ditta Mughal, Dr. Muhammad Irfan Malik, Dr. Asad Ul Islam Khan, Dr. Muhammad Asif Khan, Dr. Atiq Ur Rehman and Dr. Eta Binti Wahab. Finally, I dedicate and am extremely grateful to Deputy Chief Postmaster Muzaffar Hussain, Zaki Abbas, General Manager Muhammad Asif, Mudassar Hussain, Mustansar Hussain, Anaesthesia Specialist Wasif Mohi UD Din, Dr. Ali Haider, Ali Hamza, my siblings—brothers and sisters, my cousins, niblings—nieces and nephews, my brothers-in-law, my sister-in-law, my mother-in-law, and my father-in-law, my relatives, my friends, my classmates, my mentors, school teachers, college and university professors for their words of wisdom and inspiration. They continue to give me emotional, spiritual, moral, and financial support and to help me accomplish my research thesis.

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ABSTRACT

Telekom Malaysia Berhad plays a vital role in enhancing Malaysia's innovation level domestically, internationally, and globally. On the other hand, reports claim that Telekom Malaysia Berhad is struggling with a shortage of creative and innovative human resources. Thus, this research study attempts to examine the effect of psychological capital, psychological empowerment, and authentic leadership on employee creativity and innovative behaviour. Subsequently, the mediating role of employee creativity in the relationship between psychological capital, psychological empowerment, authentic leadership, and innovative behaviour has also been studied. A quantitative study has been conducted by distributing questionnaires to 500 employees of Telekom Malaysia Berhad with a response rate of 70%. Structural equation modeling (SEM) is used to analyse structural relationship. The results demonstrated that psychological capital has an insignificant impact on employee creativity and innovative behaviour. This study found that psychological empowerment and authentic leadership significantly affect employee creativity and innovative behaviour, both directly and indirectly. Moreover, employee creativity significantly mediated the effect of psychological empowerment and authentic leadership on innovative behaviour. Thus, in order to foster innovative behaviour among employees, the top management of Telekom Malaysia Berhad should promote psychological empowerment and practice authentic leadership to inspire creativity of the employees.

ABSTRAK

Telekom Malaysia Berhad memainkan peranan penting dalam meningkatkan tahap inovasi Malaysia samada di peringkat domestik, antarabangsa dan global. Walaubagaimanpun, dilaporkan bahawa Telekom Malaysia Berhad berhadapan dengan masalah sumber manusia yang kurang kreatif dan inovatif. Oleh itu, kajian ini cuba mengkaji kesan modal psikologi, pemeraksanaan psikologi, dan kepimpinan autentik terhadap kreativiti pekerja dan tingkah laku inovatif. Seterusnya, peranan pengantara kreativiti pekerja terhadap hubungan antara modal psikologi, pemeraksanaan psikologi, dan kepimpinan autentik terhadap tingkah laku inovatif juga telah dikaji. Kajian kuantitatif telah dijalankan dengan mendedarkan borang soal selidik kepada 500 kakitangan Telekom Malaysia Berhad dengan kadar maklumbalas sebanyak 70%. Pemodelan persamaan struktur (SEM) digunakan untuk menganalisis hubungan antara pembolehubah. Dapatan kajian menunjukkan bahawa modal psikologi tidak mempunyai kesan terhadap kreativiti dan tingkah laku inovatif pekerja. Kajian ini juga mendapati bahawa pemeraksanaan psikologi dan kepimpinan autentik memberi kesan secara langsung dan tidak langsung terhadap kreativiti dan tingkah laku inovatif pekerja. Selain daripada itu kreativiti pekerja menjadi pengantara di antara pemeraksanaan psikologi dan kepimpinan autentik terhadap tingkah laku inovatif. Oleh itu, pihak pengurusan atasan Telekom Malaysia Berhad disarankan agar menggalakkan amalan pemeraksanaan psikologi dan menekankan kepada kepimpinan autentik bagi merangsang tingkahlaku inovatif dalam kalangan pekerja.

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LIST OF ABBREVIATIONS

<i>AL</i>	-	Authentic Leadership
<i>ALA</i>	-	Self-awareness
<i>ALB</i>	-	Balance Processing
<i>ALI</i>	-	Internalized Moral Perspective
<i>ALR</i>	-	Relational Transparency
<i>CBSEM</i>	-	Covariance-Based Structural Equation Modeling
<i>CFA</i>	-	Confirmatory Factor Analyses
<i>EC</i>	-	Employee Creativity
<i>GII</i>	-	Global Innovation Index
<i>IB</i>	-	Innovative Behaviour
<i>IBE</i>	-	Idea Exploration
<i>IBC</i>	-	Idea Championing
<i>IBG</i>	-	Idea Generation
<i>IBI</i>	-	Idea Implementation
<i>ICT</i>	-	Information and Communication Technology
<i>ITU</i>	-	International Telecommunication Union
<i>MCMC</i>	-	Malaysian Communications and Multimedia Commission
<i>PCE</i>	-	Self-efficacy
<i>PCH</i>	-	Hope
<i>PCO</i>	-	Optimism
<i>PCR</i>	-	Resilience
<i>PEC</i>	-	Competence
<i>PED</i>	-	Self-determination
<i>PEI</i>	-	Impact

<i>PEM</i>	-	Meaning
<i>PLS-SEM</i>	-	Partial Least-Squares Structural Equation Modelling
<i>PMS</i>	-	Performance Measurement Systems
<i>PsyCap</i>	-	Psychological Capital
<i>PsyEmp</i>	-	Psychological Empower
<i>R&D</i>	-	Research and Development
<i>TIM</i>	-	Telecommunication Industry of Malaysia
<i>TMB</i>	-	Telekom Malaysia Berhad / Telecom Malaysia Berhad
<i>WEF</i>	-	World Economic Forum



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CHAPTER 1

INTRODUCTION

1.1 Introduction

Chapter one provides an overview of the research background of the study, a problem statement, research objectives, and questions. Besides, the significance and scope of the study were presented with a contextual overview. Finally, the operational definition of psychological capital, psychological empowerment, authentic leadership, employee creativity, and innovative behaviour and a summary of the chapter were disclosed.

1.2 Research background

The presence of innovative businesses is critical for the prosperity and future development of countries (Hon & Lui, 2016; Afzal *et al.*, 2018), including Malaysia. Malaysia's firms need to struggle and work hard to develop new products and services (Bekhet & Latif, 2017; Taghizadeh *et al.*, 2019). Likewise, the telecommunication industry of Malaysia is still struggling to achieve the innovative rank on the Forbes list of the world's top 100 most innovative companies from 2014 to 2020 (Hajar *et al.*, 2020; Kee, Abdullah, & Mahtre, 2019). In light of this fact, the current study was conducted at the telecommunication industry in Malaysia to raise the creative and innovative solution.

The research scholars find that employee innovative behaviour (EIB) is a foundation of innovation in manufacturing industries, (Lukes & Stephan, 2017), and less research studies conducted in the service sector. In addition, Ibrahim, Mohamad, and Shah (2020) investigated innovative behaviour in Malaysia's Information and Communication Technology (ICT). To guarantee their success and survival in the face of intense local and international rivalry as well as an unpredictable economic climate, businesses must perform better than their innovative rivals by encouraging creativity and innovation (Sloane, 2017; Twelfth Malaysia Plan, 2021). Malaysian managers, must improve their ability to innovate according to Farid, Hakimian, and Ismail (2017).

In addition, it was anticipated that employee creativity (EC) has an influence on innovative behaviour (IB) (Slåtten, Lien, & Mutonyi, 2020). Usually, both idea generation (i.e, creativity) and idea implementation (i.e., innovative behaviour) are required for any company's survival and growth to be successful (Aldabbas, Pinnington, & Lahrech, 2021; Farrukh & Ansari, 2021; Ghafoor & Haar, 2021; Slåtten *et al.*, 2020). Despite the fact that creativity or creative performance is strongly connected with innovative behaviour, while innovation comprises multiple stages of the effective application of creative ideas inside an organisation at various levels of products or services (Amabile *et al.*, 1996; Derdowski *et al.*, 2018; Khan *et al.*, 2021; Safari *et al.*, 2020). Likewise, creativity and innovative behaviour among employees require concrete acts, through which workers must demonstrate considerable psychological strength and leadership in order to continue on their current path of action (Aldabbas *et al.*, 2021; Amabile, 1996; Malik, Sarwar, & Orr, 2021; Mutonyi, 2021; Yamak & Eyupoglu, 2021; Yıkılmaz & Sürücü, 2023; Zhang *et al.*, 2021). For instance, Supervisory-rated innovative performance that covers almost all the required stages of an individual's innovative behaviour, such as applying the most potential of those unique ideas that realise the need for an extra composite assessment of an individual's innovation (Haneda & Ito, 2018; Kim, Oja, & Anagnostopoulos, 2021; Uen *et al.*, 2021).

Furthermore, Luthans, Youssef, and Avolio, (2007) note that psychological capital refers to an individual's ability to generate positive psychological resources. When it comes to work-related ideas, it has the potential to act as a necessary reservoir

of psychological resources that may be utilised to effectively create and innovate ideas for implementation (Farukh & Ansari, 2021; Ghafoor & Haar, 2021; Kim *et al.*, 2021; Mutonyi, 2021; Uen *et al.*, 2021). While numerous studies have recently explored the association between psychological capital, employee creativity, and innovative behaviour (Slåtten *et al.*, 2020), and psychological empowerment is a state of mind that demonstrates itself in four types of cognition: impact, self-determination, competence, and meaning (Spreitzer, 1995), that are theoretically essential for both employee creativity and innovative behaviour (Khan *et al.*, 2021; Malik *et al.*, 2021; Mutonyi, 2021; Safari *et al.*, 2020). As a result, according to theoretical considerations, psychological empowerment makes a substantial contribution to employee creativity and innovative behaviour (Aldabbas *et al.*, 2021; Helmy, Adawiyah, & Banani, 2019; Yang, Gu, & Liu, 2019). On the other hand, many studies have looked at the association between leadership, employee creativity and innovative behaviour (Farid *et al.*, 2017; Hughes *et al.*, 2018; Yamak & Eyupoglu, 2021; Yıkılmaz & Sürücü, 2023; Zhang *et al.*, 2021).

For instance, Rodriguez *et al.*, (2017) describe authentic leadership as the ability for team leaders to maintain realistic optimism and dependability while also creating a secure leader–follower attachment style that encourages members to believe that the team leader believes in and respects their talents. According to research, employees in an organisation that experiences authentic leadership are more willing to share their innovative ideas that challenge the status quo, and they are more dedicated to convincing their leaders and colleagues to put these ideas into action (Ribeiro *et al.*, 2020; Duarte *et al.*, 2021; Yamak & Eyupoglu, 2021). Furthermore, it has been revealed that authentic leadership directly affects employee creativity and innovative behaviour among Malaysian managers (Farid, *et al.*, 2017; Grošelj, *et al.*, 2020; Laguna, *et al.*, 2019; Ribeiro, *et al.*, 2020; Sengupta, Sharma, & Singh, 2021). However, the development of evidence-based practical recommendations is particularly important because a number of highly intercorrelated variables (e.g., psychological capital, psychological empowerment, authentic leadership, employee creativity, and innovative behaviour) are studied in a complex literature (Hughes *et al.*, 2018; Sengupta *et al.*, 2021; Slåtten, *et al.*, 2020; Yamak & Eyupoglu, 2021).

Only a few researchers have empirically investigated the impact of psychological capital, psychological empowerment, authentic leadership, and employee creativity on innovative behaviour in a service context (for example, a telecommunications company), according to the previous literature review (Lee *et al.*, 2020; Slåtten, *et al.*, 2020; Zhang *et al.*, 2021). Therefore, an examination of the literature reveals that there is a need to empirically understand and to test the linkage between psychological capital, psychological empowerment, authentic leadership, employee creativity, and innovative behaviour at present (Hughes *et al.*, 2018; Lee *et al.*, 2020; Zhang *et al.*, 2021). It has been determined that due to the lack of clarity on these issues (i.e., relationships between variables), eight major questions (see section 1.3), eight objectives (see section 1.4), and a research gap have limited the value of research in this field.

Therefore, the above paragraph discussed the gap that was accomplished by examining the effect of psychological capital, psychological empowerment, authentic leadership, and employee creativity on innovative behaviour at Telekom Malaysia Berhad in Malaysia. In addition, the componential theory of organisational creativity and innovation supports the examination of direct and indirect relationships among the variables. To conclude, psychological empowerment and authentic leadership have a significant indirect link with innovative behaviour by mediating the role of employee creativity. However, employee creativity insignificantly mediates the relationship between psychological capital and innovative behaviour in the context of Telekom Malaysia Berhad (TMB).

1.3 Telekom Malaysia Berhad

Telecom Malaysia Berhad or Telekom Malaysia Berhad (TMB) was created after World War One to assist the administrative system of government (Corporate Overview Integrated Annual Report 2021; Lee, 2002; Ramlan, Yusoff, & Pazim, 2013). Later, it served a fundamental network to business, industry, and public. Gradually, this sector has become a complex telecommunications network, combining optical fibre cable, microwave, and satellite technologies to connect rural and urban locations throughout the country and the globe (Corporate Overview Integrated

Annual Report 2021). For instance, the 75-year history of Telekom Malaysia to link Malaysians is founded on the dependance of its stakeholders that are the cause for its success (Corporate Overview Integrated Annual Report 2021). The usage of telecommunications has grown rapidly, notably in phone customers. Second Malaysian Plan (1970-1975) has 169,600 subscribers (Lee, 2002; Wisuttisak, & Rahman, 2021; Smets, & Record, 2022).

Furthermore, Telekom Malaysia Berhad was instituted in 1984 (Lee, 2002; Ramlan, *et al.*, 2013). Later it become as a government-owned enterprise in 1987 that began as a domestic telekom providing fixed line, radio, and TV services and became a major broadband provider (Corporate Overview Integrated Annual Report 2021; Lee, 2002; Ramalingam, Piaralal, & Osman, 2021; Ramlan *et al.*, 2013). TMB communicates and builds long-term value with stakeholders via numerous channels to capture their evolving expectations and create creative methods to make their lives simpler (Corporate Overview Integrated Annual Report 2021). At the conclusion of the Fifth Malaysian Plan, there were 1.58 million members (1986 -1990) (Ramlan, *et al.*, 2013).

Moreover, from 1985 to 1993, there were 12 telephones for every 100 people. Additional services, including mobile telecommunication radio, trunk radio, paging systems, and data services like switching, datel, and telefax, also saw significant growth (Ramalingam *et al.*, 2021; Ramlan *et al.*, 2013). Latest value-added and downstream communications services boost manufacturing and economic service growth (Lee, 2002; Wisuttisak, & Rahman, 2021; Smets, & Record, 2022). The growth of the industrial and service sectors depends on telecommunications as a competitive aspect was added to modernise and boost telecommunications service growth (Ramalingam *et al.*, 2021; Ramlan *et al.*, 2013). New firms were allowed to provide pagers, trunked radio, two-way radio systems, mobile cellular phones, and other value-added services (Wong, Chandran, & Ng, 2016).

As well, active efforts are made to expand rural and cities public telecommunications networks (Lee, 2002; Wisuttisak, & Rahman, 2021; Smets, & Record, 2022) In 1990, there were 190,000 rural telephones; by 1995, there would be 351,000, an 11.5% increase (Lee, 2002; Wisuttisak, & Rahman, 2021; Smets, & Record, 2022). The rural telephone line penetration rate is predicted to rise from 1.8

to 3.1 per 100 people by 1995. (Lee, 2002; Wisuttisak, & Rahman, 2021; Smets, & Record, 2022). TMB has helped to nation-building, economic prosperity throughout its history, and access to new technology has hastened our contributions, propelling the country toward a digital society (Sustainability Statement Integrated Annual Report 2019).

TM's Digital Malaysia ambitions aim to catalyse economic, human, and sustainability development (Sustainability Statement Integrated Annual Report 2019). Likewise, the telekom business may contribute to the UN Sustainable Development Goals, and aspires to uncover Malaysia's digital leadership potential that also devotes to increasing our own sustainability (Sustainability Statement Integrated Annual Report 2019). Furthermore, It recognises corporate sustainability's dual nature, contributes to TM's long-term development, and success that seeks good economic, environmental, and social effects. (Sustainability Statement Integrated Annual Report 2019). By engaging consumers, TMB can provide new goods and services that improve lives and promote positive change and there are 833 million mobile money accounts worldwide, and significant telekom providers can empower these individuals with tools, apps, and solutions that allow them access to banking, decent education, and healthcare (Sustainability Statement Integrated Annual Report 2019).

Mobile technology's arrival and rapid evolution give new channels and chances to explore new business models such as sharing economies, creative mobile solutions to tackle climate change, and e-Commerce that allows SMEs to tap into the digital economy's riches (Smets, & Record, 2022). TM believes 5G will catalyse national growth and faster internet and 5G's larger coverage will boost consumer and commercial applications (Ramalingam *et al.*, 2021; Ramlan *et al.*, 2013; Smets, & Record, 2022). As a premier connectivity provider with nation-building responsibilities, TMB can attach 5G's socio-economic potential and empower enterprises and individuals, assuring their well-being (Ramalingam *et al.*, 2021; Smets, & Record, 2022). However, it can't ignore the perils of technology, such as data theft, cyberbullying, and information breaches (Sustainability Statement Integrated Annual Report 2019).

Moreover, TMB performs its obligation to make sure its customers are aware of possible hazards. Beyond cyber rights and cybersecurity education, and develop

solutions that create a secure and trustworthy environment for its consumers to use our goods and solutions (Ramalingam *et al.*, 2021). In 2019, TMB held cybersecurity awareness programmes for its workers, management, and the public. These programmes train our stakeholders how to avoid security risks (Sustainability Statement Integrated Annual Report 2019). TMB links its strategy and commitments to national and global objectives to promote sustainability (Corporate Governance Report, 2022; News Release Kuala Lumpur 25 February 2022). TMB will reduce carbon emissions by 30% in 2024, 45% by 2030, and Net-Zero by 2050. TMB will allow MyDIGITAL Blueprint 2025 by guaranteeing 70% of premises get high-speed Internet. TMB collaborates with the Malaysian Anti-Corruption Commission (MACC) to maintain the highest standards of corporate governance (Corporate Governance Report, 2022; News Release Kuala Lumpur 25 February 2022).

Likewise, TMB will continue to fuel a digital country by offering excellent Customer Experience, Solutions, and Connectivity (Hajar *et al.*, 2020; Ramalingam *et al.*, 2021; Smets, & Record, 2022). TMB's personnel are totally committed to creating a Digital Malaysia, to provide unflinching assistance and future-proofing the business with future-ready skills and a digital workforce to become a human-centered technology firm (Corporate Overview Integrated Annual Report 2021; News Release Kuala Lumpur 25 February 2022). Earnings Before Interest and Tax (EBIT) grew 6.6% to RM1.71 billion from RM1.60 billion despite one-off charges, impairments, and accelerated depreciation (Corporate Overview Integrated Annual Report 2021; News Release Kuala Lumpur 25 February 2022). Strong performance throughout its increasing business divisions, with 6.4% revenue growth to RM11.53 billion compared to RM10.84 billion in 2020, led by Internet (+7.8%) and data (+11.1%) revenue growth. Unifi's revenue grew 10.3% thanks to 2.78 million fixed broadband users. Those drive company development, and new growth areas (Corporate Overview Integrated Annual Report 2021; News Release Kuala Lumpur 25 February 2022).

Finally, the company's leadership is accountable for achieving its goals (Corporate Governance Report, 2022; Smets, & Record, 2022). TMB dedicates to serving the country as Malaysia's mobility limitations are lifted and the economy grows. The 2022 Budget, and the 12th Malaysian Plan include MyDIGITAL as Malaysia's digital revolution boosts innovation and economic prosperity

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