

**EFFECT OF LEADERSHIP SKILLS AND STYLES
WITH THE MODERATING ROLE OF PERSONAL
INITIATIVE IN SHAPING MALAYSIAN
INNOVATIVE WOMEN LEADERS**

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INITIATIVE IN SHAPING MALAYSIAN
INNOVATIVE WOMEN LEADERS**

by

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LIST OF ABBREVIATIONS

CEO	Chief Executive Officer
CI	Continuous Improvement
C-Suite	Chief Suite
DOSM	Department of Statistics Malaysia
DV	Discriminant Validity
EI	Emotional Intelligence
GDP	Gross Domestic Product
GLCs	Government-Linked Companies
HTMT	Heterotrait-Monotrait
IBR	International Business Report
ICDM	Institute of Corporate Directors Malaysia
MIT	The Massachusetts Institute of Technology
MLQ	Multifactor Leadership Questionnaire
OEA	Others-Emotional Appraisal
PLC	Public Listed Company
PLS-SEM	Partial Least Squares Structural Equation Modelling
R & D	Research and Development
ROE	Regulation of Emotion
ROs	Research Objectives
RQs	Research Questions
SEA	Self-Emotional Appraisal
SPSS	Statistical Package for the Social Sciences

TMTs	Top-Management Teams
UEO	Use of Emotion
USD	United States Dollar
VIF	Variance Inflation Factor
WEF	World Economic Forum

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**KESAN KEMAHIRAN DAN GAYA KEPIMPINAN DENGAN PERANAN
PENYEDERHANA INISIATIF PERIBADI DALAM MEMBENTUK PEMIMPIN
WANITA INOVATIF DI MALAYSIA**

ABSTRAK

Dalam meniti arus kemodenan ini, untuk menguruskan permintaan inovasi yang semakin meningkat dengan berkesan dalam banyak aspek organisasi perniagaan, pemimpin inovatif mesti mempamerkan pelbagai kemahiran dan gaya, terutamanya dalam mempromosikan kreativiti dan inovasi. Kertas kerja ini secara kritis menganalisis kesusasteraan masa lalu mengenai kemahiran dan gaya pemimpin wanita yang inovatif. Oleh itu, kajian ke arah ini menunjukkan bahawa kehadiran pengarah wanita membawa kepada prestasi yang lebih inovatif. Pemimpin wanita yang inovatif memainkan peranan penting dalam menutup jurang yang ketara antara keinginan untuk inovasi dan keupayaan untuk mengoptimumkan inovasi organisasi untuk mencapai kemampanan perniagaan. Dalam pada itu, pemimpin wanita yang inovatif akan membawa pandangan, kemahiran dan idea inovatif yang berbeza, tetapi gabungan ketiga-tiga ini akan membantu mewujudkan perspektif baharu yang akan menyumbang kepada kemahiran untuk membuat keputusan yang lebih baik untuk perniagaan secara keseluruhan. Lebih-lebih lagi, dengan mengenal pasti kesan kemahiran dan gaya kepimpinan yang sesuai, seorang pemimpin wanita yang inovatif boleh mengenalpasti kebolehan terbaik dalam ahli pasukan dan mendorong mereka untuk bekerjasama untuk mencapai peluang inovatif secara keseluruhan. Kajian itu mencadangkan rangka kerja komprehensif, berpandukan teori *trait* dan *behaviour* yang mengkonseptualisasikan enam pembolehubah utama

sebagai kemahiran dan gaya dalam membentuk pemimpin wanita yang inovatif. Model penyederhanaan inisiatif peribadi telah dikenalpasti peranan sebagai mekanisme asas yang menghubungkan kemahiran dan gaya kepada pemimpin wanita yang inovatif. Data telah dikumpul daripada sampel pemimpin-pemimpin wanita dari pengurusan tertinggi yang bekerja di Malaysia. Sebanyak 200 respons telah dianalisis menggunakan analisis statistik, SPSS, dan program statistik PLS-SEM. Hanya kebolehan berwawasan dan komunikatif yang terbukti sah. Walau bagaimanapun, apabila inisiatif peribadi digunakan sebagai penyederhanaan, korelasi yang ketara muncul antara berwawasan, pemikiran kritis, kecerdasan emosi, gaya transformasi dan pemimpin wanita yang inovatif. Secara umumnya, kajian ini membuktikan kesahihan teori trait dalam meramal kemahiran dan gaya sampel pemimpin pengurusan tertinggi wanita. Tambahan pula, kajian ini akan memberikan pandangan baharu untuk organisasi dan kelebihan untuk menggunakan sumber pemimpin wanita yang inovatif dalam menembusi pasaran dengan lebih pantas dan memberi hubungan yang lebih baik kepada pasaran membangun. Jelas sekali, ia juga boleh memberi peluang untuk penyelidikan lanjut dan mengeluarkan potensi modal insan, dengan menghasilkan pemimpin wanita yang lebih inovatif dan kesan yang lebih besar terhadap inovasi.

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WOMEN LEADERS.**

ABSTRACT

In order to effectively manage the rising demands for innovation in many aspects of business organisations, innovative leaders must exhibit multiple skills and styles, particularly in promoting creativity and innovation. This study critically analyses past literature on the skills and styles of innovative women leaders. Studies in this direction suggest that the boardroom presence of women leads to more innovative performance. Innovative women leaders play a crucial part in closing a significant gap between a stated desire for innovation and capabilities in order to optimise organisational innovativeness to attain business sustainability. Innovative women leaders will bring different views, skills, and innovative ideas to the table, but the combination of these three will help create new perspectives that will lead to better decision-making for the business as a whole. Moreover, by identifying the effect of the leadership skills and styles, an innovative woman leader can bring out the best abilities in team members and motivate them to work together to achieve a shared innovative opportunity. The study proposes a comprehensive framework, guided by trait theory, that conceptualises the six major variables as skills and styles in shaping Malaysian innovative women leaders. A model of moderation was established to investigate the role of personal initiative as the underlying mechanism linking skills and styles to innovative women leaders. Through a survey approach, data was gathered from a sample of top management women leaders employed in Malaysia. A

total of 200 responses were analysed utilising a statistical analysis tool, SPSS, and partial least squares structural equation modelling (PLS-SEM). Only visionary and communicative abilities were shown to be valid. However, when personal initiative was used as a moderator, substantial correlations emerged between visionary, critical thinking, emotional intelligence, Transformational leadership style, and innovative women leaders. In general, this study proved the validity of trait theory in predicting the skills and styles of a sample of women top management leaders. Furthermore, this study will provide new insights for organisations and an edge to utilise innovative women's leaders' resources in penetrating markets faster and provide a better connection to developing markets. Clearly, it could also investigate emerging opportunities and unleash human capital potential, resulting in more innovative women leaders and a greater impact on innovation.

CHAPTER 1

INTRODUCTION

1.1 Chapter Introduction

This chapter provides an overview of the background of the study and further speaks about the effect of leadership styles and skills of the field of innovative women leaders. This is followed by the issues faced by Malaysian women leaders concerning innovation, problem statement, research objectives and questions, the scope of the study, and the research significance of the study. Definitions of key terms are also given at the end of this chapter.

The introductory chapter presents the current perception and understanding of innovation in Malaysia and the reasons for its magnitude among women leaders.

1.2 Background of the Study

The world was in the midst of a technological revolution that would drastically alter how we lived and worked. Malaysia, one of the leading economies in Southern Asia, was a middle-income country that had unfailingly shown robust growth. Despite the fact that the current government had led the country's progress, Malaysia's economy had been and was progressively opening up and fast-developing towards innovation and technology. Modern economies revolve around innovation. In emerging economies, innovation was a significant force for development and addressing social and global challenges. Malaysia relies heavily on innovation. It gave organisations an advantage in tighter market penetration and provides a better relationship to develop, which could lead

to larger prospects. Similarly, in order to survive and thrive in the high-tech world of the twenty-first century, businesses must innovate. No organisation, large or small, can survive in today's globally competitive environment without innovation, and businesses must be able to surpass their competitors. Due to the fact that there is no commonly agreed definition of innovation, it has sparked the interest of both researchers and various industries. While there were numerous definitions of innovation, it was generally defined to encompass a number of forms, including new products or services, new process technologies, new organisational structures or administrative systems, and new plans or programmes involving organisational members (Damanpour, 1996). Henderson and Lentz (1995), described innovation as implementation of innovative ideas.

Based on the above explanation, the definition given to innovation influences the degree and nature of innovation in any organisation. Many emerging nations recognised and agree that science, technology, and innovation were important instruments of development. However, some nations' policies deviate from this. Many concluded that the presence, technology, and innovation could develop new knowledge while maintaining incentives and industrial policies that underlined the reinforcement of a small set of existing manufacturing capacity, frequently at the lower end of the spectrum of the value-added chain. Few countries such as India and China incorporate innovation at national strategic levels. The national accounts agency reports that the country's per capita income has climbed from USD 200 in 1960 to USD 11,072 in 2018. However, Mohammad, (2019) in the New Straits Times article revealed that in the 1950s, South Korea's gross domestic product (GDP) was less than Malaysia's, but over the last 50 years, it had intensified by more than 117 times compared to Malaysia's gross domestic

product (GDP). In the other hand, Malaysia only managed to increase by approximately 15 times. These nations will eventually be required to learn how to strike a balance between short-term competitiveness and long-term economic expansion and vitality. In a nutshell, they would be expected to prioritise the utilisation of current technology while laying the groundwork for continuing research and development (R & D) initiatives through the development of more innovative leaders.

A recent study on innovation identified it as a significant obstacle for leading company growth. Innovation could not thrive at any organisational level in the absence of fully present leadership or the ability to lead individuals. Finding and retaining the appropriate people was a critical component of implementing innovation. It expects people have been open to new ideas and to share their knowledge. Because innovation occurs on multiple levels, it has been stated that the ability of a leader is the most critical factor driving innovation (Gumusluoğlu & Ilsev, 2009). Multi-skilled leadership with unique talent and relevant skills became a critical component of the organisation's success. Despite this, each organisation ensures that their top executives utilised their ultimate potential to design excellent development and innovation strategies (Eisenhardt & Martin, 2000). In addition, the top management of an organisation would set the tone for their staff, and employees would undoubtedly be able to think forward. As per Mumford and Licuanan (2004), the desire for innovation led in a renewed emphasis on the role of leaders in demonstrating the nature and execution of creative activity. This refers to leaders creating or implementing innovative approaches in order to introduce new thinking and various activities to how the leader's guide, managed and carried out the task. As outlined by Gliddon (2006), innovation leadership was a confluence of theory and practise that

employed diverse leadership styles in order for employees to produce new ideas or products. In the concept of innovation leadership, the innovative leader played a significant role.

An innovative leadership philosophy emerged in the early twentieth century and has since gained recognition as new management thought used by leaders at workplace. Yet, some organisations concluded that more traditional approaches of leadership were more beneficial. Nonetheless, migrating from conventional to innovative ways has become a necessity, all the more so now that innovative leadership has emerged as the new flexible way, fusing numerous traditional styles of leadership with modern human, profession, organisational, and interactive twists (Campbell, 2012). The theory of an innovative leader was linked to the leader's skills and traits. An innovative leader was someone who was creative and would introduce innovative thinking and impose a distinct set of actions to lead, manage, and progress with work. They could devise novel approaches to overcoming organisational challenges or dealing with a lack of information (Loewe & Chen, 2007). This type of leader was not the primary innovator in the company, but rather created an environment that motivates and stimulates the organisation and its employees to innovate (Katsanovas et al., 2018). As per Burns (1979), some innovative leaders who could generate effective inventions were referred to as revolutionary leaders. Research has shown that top and middle managers influence innovation processes both directly and indirectly (Finkelstein et al., 2021; Hughes et al., 2017; Li et al., 2013; Lyngsie & Foss, 2016). For this reason, top-management teams (TMTs) played a critical role in introducing innovation into any organisation. The top-management teams (TMTs) constancy was the foundation of the innovation process. This was supported by Basham

(2012), stating that they assist every member of the organisation to contribute to the main innovation process. Employees may waste time battling windmills in the absence of top-management teams' (TMTs) encouragement and support. This was because they ensured the necessary support and commitment from all areas for the innovations that were currently occurring in day-to-day business. Once the global or domestic economy experiences a revolutionary transformation in the business landscape, top-management teams (TMTs) are required to choose the appropriate route for shifting the strategy based on company resources, customer demand, and other relevant considerations. As a response, top executives must have a varied set of skills and the capacity to select the best strategy at the right moment from a range of options, including low-cost leadership, an innovative mindset, a diversification tactic, manufacturing, and the establishment of private brands (Lin et al., 2015). The majority studies agree that there is value in the bringing more women board members (Galia & Zenou, 2012; Miller & del Carmen Triana, 2009; Nadeem et al., 2019). Nadeem et al. (2019) reported that innovative women leaders has a significant positive influence on innovation capital efficiency.

In particular, in Malaysia, leadership in a multicultural setting necessitates adopting new attitudes and behaviours, while Heffernan (2002), claimed that the future of business was dependent on women. Past studies suggest that women directors influence board decision and hence financial performance by introducing more creative and innovative ideas (McInerney-Lacombe et al., 2008; Huse et al., 2009; Faes et al., 2010), lead to rational decision (McColl-Kennedy & Anderson, 2005) and avoid overaggressive (less risk taking) decision making (LePine et al., 2002), which might be harmful to the company. One aspect of the feasibility study for female representation on boards of

directors and in top management reveals that companies with female representation perform better than those without (Ahmad-Zaluki, 2012). In particular, the 2010 Eversheds Board Report and a series of McKinsey & Company analyses on female participation revealed that higher performing organisations likely to have a higher ratio of female directors. Research has shown that women and men differ in their social proclivities, with women being more relationship-oriented than men (Tang et al., 2021). Furthermore, considerable empirical evidence has indicated that female leaders display more collaborative and inclusive management styles (Tate & Yang, 2015), whereby the embraced viewpoints may stimulate innovation through the heightened likelihood of firms identifying problems and finding solutions to them (Wuchty et al., 2007).

Since Malaysia gained independence in 1957, the position and status of women have shifted dramatically. Malaysia has made significant strides in recognising women's contributions to society. With increased access to education and employment opportunities, as well as changes in the sociocultural milieu, Malaysian women have evolved and begun to participate in all facets of the country's growth. Malaysia was brimming with women who had risen to the top of their respective fields, from educators to lawyers, business and management professionals, economists, doctors, and engineers. In the twelve Malaysia Plan (2021 – 2025), efforts will be focused on promoting women contribution, increasing economic participation, and enhancing the role of women in decision making. Women's participation in all sectors will be elevated via multiple economic platforms, including the sharing economy and the entrepreneurship development. In this plan, women's participation in the labour market is targeted to reach 59 % in 2025. As per the Malaysian Department of Statistics, the country's population is

projected at 32.7 million in 2020, with the annual population growth rate at 0.4 %. At that time, gender differences numbered 16.8 million males and 15.8 million females. In year 2019 to 2020, the sex ratio maintained 107 males for every 100 females (Department of Statistics Malaysia Official Portal).

This trend was paralleled globally, with more women enrolling in higher education than men. In 2020, Malaysia's public higher institutions attracted a total of 234,080 male students and 358,600 female students (Hirschmann, 2020). In 2020, the Statistics Department reported that women contributed to over 55 % of the nation's economy. This means that in 2020 alone, women in Malaysia contributed RM776.9 billion to the development of this country (<https://www.thestar.com.my/>, 2022). While women have increased their numbers in paid work as a whole, they remain under-represented at decision-making levels in the Malaysian public and private sectors (Mokhtar, 2020). The Corporate Governance Monitor Report 2021 reported women hold 17.7% of board positions across all listed companies (2020: 17.5%), and on the top 100 listed companies, 25.5% (2020: 25.1%). Meanwhile, women currently represents not only 57 % on its Board of Directors (BODs), exceeding the 30 %, but also constitutes 57 % of independent BODs (The Sun Daily, 2022). A review undertaken by the Institute of Corporate Directors Malaysia (ICDM) on board diversity found that boards comprising at least one-third women directors, had on average, 38% higher return on equity, compared to all male boards. Also a research by the International Finance Corporation of the World Bank Group examined the causes behind the low female board representation in Asia. It noted that in the Asian culture, women may choose to leave the workforce, as they are typically expected to take care of children and family. The study also showed that women struggle

with the stereotype that they are less capable leaders when compared to men. For example, female leaders are seen to be more maternal and empathetic, which are considered to be less suitable for senior-level positions. Board members are also often perceived to be aggressive and assertive, traits that are commonly associated with men (<https://www.randstad.com>, 2020). This was highlighted by Cho et al. (2020), traditional culture and religious beliefs in Asia dictate the inferior status of women in their daily lives. Second, women's appointment to high-ranking leadership roles in Asia has been a continuing challenge. Third, many organisations in Asia remain as gendered workplaces where cultural, religious, and organisational constraints coexist. Additionally, issues persist within where efforts still needed to change the mentality of women on the need for them to step up as leaders in various fields (Kamaruddin, 2021).

However, the Credit Suisse's 2021 *Gender 3000 Report* also highlighted positive correlation between increased participation of women in leadership positions and superior returns on capital, environmental, social and governance (ESG), and stock performance. The more pervasive diversity is within an organisation; the stronger the relationship. These findings add to the body of research that presents evidence on the positive impact of women participation on boards. Similarly, the survey also recommended a improvement in a refresh or change in board composition is required to strengthen board skills related to innovation. From the report, 48% of Chairmen would also like to bring skills and expertise related to innovation and technology to the board, likely driven by the accelerated digitisation of business and communication due to the COVID-19 pandemic (<https://www.credit-suisse.com>, 2021). Additionally, Walker et al. (2015) discovered that regardless of whether organisations have the capacity for innovation, women on corporate

boards stimulate innovativeness. Santos et al. (2019), reported that innovative women leaders were more open to new experiences through new ideas, people, and networks, which benefits their company innovations. This led to an increase in the proportion of women on corporate boards all over the world, including in Malaysia. Increasing the number of women on boards was clearly a goal set by our policy makers. This was supported by Malaysian government policies requiring 30% female representation on corporate boards, which should have been used and enforced on an ongoing basis to reap the benefits of having a male and female board composition. Furthermore, women directors may bring a variety of attitudes, perspectives, and problem-solving abilities to boards (Bilimoria & Wheeler, 2000; Eagly, 2005). True leadership, not simply competent management, is required for successful innovation (H. Soken & Kim Barnes, 2014). Thus, incorporating innovative women on the board of directors contributes to the boardroom's diversity. Innovative women leaders can provide a variety of perspectives, improve data collection, improve the quality of brainstorming ideas, inspire innovation, and result in more strategic possibilities (Post & Byron, 2015).

Although there are different approaches to the concept of leadership, scholars agree that the leader for innovativeness must exhibit specific skills (Amabile, 1996; Zhou, 2003) and styles (Zacher & Rosing, 2015). Personal skills are mostly associated with cognitive abilities, such as knowledge and problem-solving abilities, whereas social abilities are associated with interpersonal interactions (Cimatti, 2016). When it comes to leadership, styles may be described as a purposeful way through which an organisation's leaders influence a group of people towards a commonly acknowledged future state that differs from the existing state (Gandolf & Stone, 2017). Women's social traits also

manifest in their collaborative and inclusive leadership styles (Book & Book, 2000) and in turn lead to positive firm performance (Ruiz-Jiménez et al., 2016). At the TMT level, these relationship- and collaboration-oriented traits of women can be attributed not only to their social proclivities (Eagly & Wood, 1999) but also to gendered career trajectories to executive positions (Field et al., 2020; Glass & Cook, 2016). Women may have developed stronger skills in relationship management by overcoming various challenges in climbing up the career ladder before their appointment to TMT positions. Women executives' relationship-oriented traits facilitate information use and collaboration among TMT peers, which are subsequently carried over to subordinates (increasing collaboration at lower levels) (Rosener, 1998), given that TMT members also take on senior executive roles of leading functional departments in a firm (Menz, 2011). Vigorous collaboration is much needed in rapidly-changing innovation contexts (Krishnan & Park, 2005), and is correlated with innovation outcomes (Jones, 2009; Wuchty et al., 2007). Considering the impact of innovations, a more effective search resulting from the presence of female TMT members can lead to more significant innovations, which can serve as the basis for subsequent innovations. Breakthroughs originate from the integrated skills of associating, questioning, observing, networking, and experimenting (Christensen et al., 2011), which produce novel combinations of knowledge, and vigorous collaboration can foster the use of these skills at both the TMT and lower levels in a firm.

Hence, this study will establish the top-management women teams (TMTs) on boards as the sample selections. Based on the findings presented, innovative women leaders are crucial for organisational innovation and performance (Naala et al., 2017), as they may indirectly establish a positive environment in the boardroom by articulating

diversity, diverse values, and women's difficulties (Bilimoria, 1997). It is true that they can provide a unique set of values (Selby, 2000), knowledge (Hillman et al., 2002), and skill to boards, affecting organisational innovation favourably. In line with these predictions, studies suggest a distinctive skills and styles associated with women leaders. It may be unrealistic to believe that if the number of women on boards of directors is increased and shaped, boards will benefit from women's talent. As predicted by the trait theory perspective, we were able to demonstrate that board skills and styles are critical for creating more creative decision results. In sum, this study aims to examine the effect of leadership skills and style and extend it by considering the selection of personal initiative as moderating role in shaping Malaysian innovative women leaders.

1.3 Problem Statement

Innovation is very much involved in change. The transformative power of science and technology is increasingly affecting all other industries. When a business fails to innovate, it is because executives fail to lead. Hence, the problem to be addressed by this study was to identify the effectiveness of leadership skills and styles with the moderating role of personal initiative in shaping Malaysian innovative women leaders. With a lack of effective leadership, innovative women leaders are unable to grow and move forward to enable innovation in the organisation. This is the reason innovative women leaders are getting more prevalent as change has become the norm today and requires openness to continuous innovation. Unfortunately, an underrepresentation of women in innovation gives reason for concern.

Women's representation on management teams may influence innovation because leadership skills and styles that are more prevalent among women managers positively influence innovation. As such, they are likely to encourage participation and interaction, solicit inputs, and keep communication channels open (Dezsö & Ross, 2012). These behaviours facilitate innovation by supporting a diversity of perspectives and building trust that fosters the exchange of knowledge, ideas and information (Lyngsie & Foss, 2017). Diaz-Garcia et al. (2014) also used data from Spanish firms to examine gender diversity within R&D teams and revealed that promoting women to the upper echelons produces radical innovation. Accordingly, Abdullah et al., (2016) report in Malaysia that many boards are dominated by men, with over half of surveyed firms lacking women directors, and that the market fails to recognise the contribution of women directors. The contribution of women leaders is crucial because the results show that there is a positive association between board diversity and innovation performance in Malaysia (Ariff et al., 2017). Correspondingly, the proposition is that firm with diversity in the corporate board in terms of women has greater potential for not only a better comprehension of markets and external linkages but also increased firm creativity and innovation, as well as an improved decision-making process that deliberates more alternative courses of action (Jubilee et al., 2018).

Today, the government of Malaysia is very active in promoting public sector innovation with the Malaysia Administrative and Modernization and Management Planning Unit (MAMPU) as the medium to guide and aid ministries and agencies to be more creative and innovative (Ramli et al., 2017). Malaysia ranks 36th among the 132 economies featured in the GII 2021 and ranks 8th among the 17 economies in South East

Asia, East Asia, and Oceania. The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation (WIPO, 2021). Malaysia (36th) are the only other middle-income economy close to the top 30 of the GII, but with no consistent increase in rank over time. Indeed, Malaysia has been hovering close to the top 30 for the past 11 years but has not yet reached the mark (WIPO, 2021). However, when we viewed the world's most-innovative economy in GII 2021 rankings, it was Switzerland followed by Sweden, the United States of America (U.S.), the United Kingdom (U.K.) and the Republic of Korea (WIPO, 2021). Particularly, one of the reasons Swiss culture is based on a foundation that values creativity, individualism and equality; values the country shares with tech startups that value those three traits as well (Patel, 2021)

Moreover, in the 2021 edition of the Global Gender Gap Index Report, Switzerland has climbed back up into the top 10 countries and has achieved the narrowest gender gap score in its history (*Global gender gap report 2021*). Women are seen in political and boardrooms representation and in education. However, in Global Gender Gap Index 2021, Malaysia ranked 104th among 153 countries in the world compared to in the year 2006, Malaysia was ranked 72. The Global Gender Gap Report benchmarks the evolution of gender-based gaps in four areas; economic participation and opportunities, educational attainment, health and survival, and political empowerment (*Global gender gap report 2021*). Malaysia's scorecard showed that it has successfully bridged the gap in education and health sub-indexes, but there is still much to be a desire for economic participation and opportunity, and political empowerment (Muhamad, 2021).

Although women have higher educational qualifications and are likely to be in full-time positions, this does not reflect the percentage of women at the higher levels of hierarchy in certain sectors in Malaysia. When it comes to workforce participation, that education often fails to translate fully into job roles ((Rastogi et al., 2018). According to the Department of Statistics Malaysia (DoSM), women's participation in the labour market in the country has surpassed men's, with women contributing 6.23 million or 55.1 per cent to the total workforce as of quarter one of 2022. Malaysia also recently surpassed its target of 30% of women in senior leadership positions across local companies and organisations (Lee & Shin, 2021). The proportion of women holding senior leadership positions in Malaysia has hit 37%, the highest ever recorded despite the Covid-19 pandemic affecting economies around the world, according to Grant Thornton's annual Women in Business Report (Salim, 2021). According to the research, Malaysia has the most businesses with female chief marketing officers (36%) in the ASEAN region (Salim, 2021). Besides that, the proportion of women in the more traditional senior HR roles has increased slightly at 54% (+2pp from 2020) (Salim, 2021). Passing the 30% of women in senior roles globally is an important milestone for businesses, but it is not the end goal (Salim, 2021).

Businesses that want to reap the benefits of a better gender balance should not stop there and must continue to take action to enable women to realise their ambitions (Evans & Maley, 2020). According to the World Bank Report in September 2019, women only accounted for 35% of the workforce in the technological field in Malaysia. Women are taking the lead in the informal sector, such as network marketing and small and medium businesses, rather than the formal sector (SunBiz, 2021). Even if we surpassed our target

to achieve 30 % of women in senior roles globally, there is still room for improvement. In Grant Thornton's press release, Tan (2022) stated that with nearly half (47%) of Malaysian business leaders expecting a skill shortage to be a major constraint to their businesses in the year ahead, they are putting retaining existing talent (48%), having diverse teams (34%) and addressing future talent and skills shortages (32%) top on their priority list. Clearly, the government should consider this. The imperative to boost female engagement is clear. Boston Consulting Group (BCG) research shows that women leader's participation can make companies more innovative and agile, improving business performance (Rastogi, 2018). Those companies in which women account for more than 20% of the management team have about 10% higher innovation revenues than male-dominated peers (Rastogi, 2018). However, bridging the talent gap is a never-ending challenge for businesses. Hence, recognising the significant role of women, Malaysia is committed to achieving gender equality and promoting the rights of women. The government's continuous efforts and commitments toward achieving gender equality are in line with the Sustainable Development Goals and Twelfth Malaysia Plan (RMK-12). This is supported by WEF managing director Saadia Zahidi that in the face of a weak recovery, government and business must make two sets of efforts targeted policies to support women's return to the workforce and women's talent development in the industries of the future, otherwise, we risk eroding the gains of the last decades permanently and losing out on the future economic returns of diversity (Murugiah, 2022).

There are strong indications that leadership is important for innovation management (Denti & Hemlin, 2012). Increasingly fierce competition and sustainability remain a concern and important issues mark the current industry 4.0 era. Business

sustainability is driven by leaders' innovation capability (Putra et al., 2020). According to Bel (2009), different leadership styles are likely to have different impacts on employee involvement and commitment, which in turn influence the climate for innovation management. Similarly, many studies have shown that there is a set of skills which critical to the leaders at every level of an organisation (Iordanoglou, 2018). This was supported by Kane et al., (2019) cited that in a digital environment, leaders need to adapt or enhance their skills to act, to anticipate markets and trends, to make an experienced business decision, and to change the plan, if technology and market environment emerge in unexpected ways.

Malaysia encountered headwinds from global economic slowdown as the global landscape is increasingly challenging (Hanifah et al., 2019). Embrace the challenge which means that innovative women leaders do not delegate creativity and innovation but they lead it (Ariratana et al., 2019). Therefore the qualities of appropriate vision and innovative approach may help a leader to be more effective and capable to run an organisation and better cope, as well as play an important role in dealing with organisational challenges (Ariratana et al., 2019). In addition, another two different leadership styles that found positively associated with innovation are Transformational leadership style and transactional. Transformational leadership affects exploratory and exploitative innovations, and transformational leaders foster changes and pushes employees to transform things, to do more that is expected to them, to be creative and to explore new perspectives more than focusing on improving routines (Sarra et al., 2019). Whereas, transactional leadership found to have effect on exploitative innovation and not on exploratory innovation (Berraies & Bchini, 2019). The same result is generated by the

research of Berraies and Abidine (2019). Yadav (2015) stressed that transactional leadership is likely to provide constructive feedback that may improve routines and may foster exploitative innovation but hinder exploratory innovation. Moreover, skills include managing resources, communication and interpersonal skills, teamwork and problem solving and acquiring and maintaining a job. Further analysis by Stanford Research Institute and Carnegie Mellon Foundation involving Fortune 500 CEO found that the key traits employers are keen to look for are on the achievement orientation such as self-motivation, proactive, high integrity, reliable, able to work independently with minimal supervision, emotionally stable and able to perform well under pressure (Kenayathulla et al., 2019). This is parallel with individuals who have strong characteristics such as a high sense of self innovative, productive, skillful and competitive, a strong sense of determination and creative in facing the challenges of the nation as well as globalisation in the twenty-first century (Kenayathulla et al., 2019). From the perspective of the production industrial employers, technical oriented employees master sufficient technical skills, but lack of motivation, interpersonal, critical thinking, problem solving and entrepreneurship skills (Sattar et al., 2010). Employability skills are those essential skills necessary for acquiring, keeping, and performing well on a job (Shafie & Nayan, 2010). Three crucial skill variables critical thinking, emotional intelligence, and communication abilities as well as three style variables—visionary, transformational, and transactional have been identified in relation to this research.

Addressing the barriers to women's leadership development will require action on two fronts: practices that organisations can incorporate into their succession planning and career development processes and activities that women can undertake to take initiative

in their own leadership development (Beeson & Valerio, 2012). Theories of human agency argue that people act in ways that proactively create, transform, and/or preserve their environments, and that they regulate themselves to adapt to contexts (Bandura, 2006). As indicated in the proactivity literature, personal initiative is the inclination to behave proactively to overcome regulations and barriers in order to complete a task or achieve a goal (Frese et al., 1997). In every case, the initiators had to discover something new; that is, they had to expand their knowledge, experience, and ability in order to build the innovation (Frohman, 1999). This shows that persistence is necessary for creative individuals to succeed (Binnewies et al., 2007). That's why innovative woman leaders need to take the initiative to manage their career by proactively sharpening the skills and styles required so that opportunities for advancement will present themselves (Masiello, 2022). Thus, in addition to the ability to recognise the effect of skills and styles may be supportive in shaping Malaysian innovative women leaders, women leaders also need the personal initiative to effectively execute and to leverage the behaviour to achieve goals.

In theoretical terms, the thesis is concerned with how to both conceptualise and empirically research on innovative women leaders who will enhance trait theory. Using trait theory, it is suggested that leaders have particular characteristics or traits that allow them to succeed. Anh and Thang (2021) arrived at the conclusion that the leader should indeed possess innate characteristics, demonstrate skills, and inspire change in response to the issue at hand. The trait theory is based on observing the qualities or characteristics of numerous successful and unsuccessful leaders. Both observations are used to forecast a leader's effectiveness (Verawatia & Hartono, 2020). Less attention has been paid to the role that skills and leadership styles play in developing innovative women leaders in

Malaysia, and as a result, study frameworks have not been adequately established. In particular in the Malaysian context, this thesis will investigate the use of trait theory and how the outcome will strengthen the theoretical contribution.

More specifically, there are gaps in existing knowledge with respect to the effectiveness of leadership skills and styles with the moderating role of personal initiative in shaping Malaysian innovative women leaders which this research tries to address. At least six important variables of skills and styles have been identified, which are critical thinking, emotional intelligence, communication skills, visionary, transformational, and transactional leadership styles. The premise was that individuals would be more inclined to take personal efforts as a result if they wanted to demonstrate the necessary effective leadership skills and styles in leading innovation and change. Through research employing a questionnaire survey on those characteristics, this study hopes to close the research gap.

1.4 Research Questions (RQs)

Research Question 1: Is there a significant relationship between the effect of leadership skills (critical thinking, communication, and emotional intelligence) and innovative women leaders?

Research Question 2: Is there a significant relationship between the effect of the leadership styles (visionary, transformational leadership style and transactional leadership style) and innovative women leaders?

Research Question 3: Does personal initiative moderates the relationship between leadership skills (critical thinking, communication skills, emotional intelligence) and innovative women leaders?

Research Question 4: Does personal initiative moderates the relationship between leadership styles (visionary, transformational leadership style and transactional leadership style) and innovative women leaders?

1.5 Research Objectives (ROs)

The study's primary purpose is to ascertain the effect of leadership skills and styles and the moderating role of personal initiative that shape innovative women leaders in Malaysia. The study will then concentrate on the following research objectives:

Research Objective 1: To identify the effect of the leadership skills (critical thinking, communication skills, emotional intelligence) and innovative women leaders.

Research Objective 2: To identify the effect of the leadership styles (visionary, transformational leadership style and transactional leadership style and innovative women leaders.

Research Objective 3: To identify the moderating role effect of personal initiative between leadership skills (critical thinking, communication skills, emotional intelligence) and innovative women leaders.

Research Objective 4: To identify the moderating role effect of personal initiative between leadership styles (visionary, transformational leadership style and transactional leadership style) and innovative women leaders.

1.6 Significance of the Study

Malaysian innovation, leadership, and human capital management are the focus of this research from the theoretical, practical, and academic standpoints. This study would boost the value of findings by bridging the gap in the existing literature on innovation, leadership, and human capital topics, particularly women leaders in Malaysia.

This study can impact the body of knowledge significantly in several approaches, that will be described in further detail in the next section.

1.6.1 Theoretical Significance

In theoretical terms, the thesis is concerned with how to both conceptualise and empirically research of women top management leaders in particular to understand the effect of the skills and styles that contribute to the emergence of innovative women leaders in Malaysia. Additionally, the study attempts to analyse the moderating effect of personal initiative on their influences on each variable against innovative women leaders. Heavy male domination in senior management, provides a particular interest for an examination of how the social divisions of gender and innovation intertwined in the workplace experience, as well as addressing the gap in the academic literature.

From the theoretical perspective, this study was able to enhance the perception of innovation in Malaysia. This work corroborates the views of previous researchers, such as Osman et al. (2016), who acknowledged the indication that management should focus on innovation. In other words, the finding of the present study is expected to add the previous studies related to TMT characteristic mainly analysing the effect of the skills and style of women leaders on the innovation. By investigating the effect of women's leadership skills and styles on innovation, we assume that women have different values (Selby, 2000; Eagly, 2016) and different knowledge and expertise (Hillman et al., 2002; Singh et al., 2008; van der Walt & Ingley, 2003; Westphal & Milton, 2000) than men.

Secondly, this study will develop a research theoretical model using trait theory. Many factors influence innovation capability. Damanpour (1991) and Wolfe (1994) classified firm member characteristics as one of variables. Using trait theory, it is suggested that leaders have particular characteristics or traits that allow them to succeed. Anh and Thang (2021) concluded that the leader must have innate characteristics, demonstrate skills, and inspire change in response to the issue at hand. In addition to identifying opportunities for innovation and coordinating the use of various resources, managers also use their own management skills to direct other staff members in their work and build relationships with outside organisations in order to reap the rewards of innovation (Lipparini & Sobrero, 1994). Personal traits will also have an impact on managers' views towards innovation and how they respond to it (Rizzoni, 1991). The subject of discussion in this case will be women leaders.

This paper will contribute to the current body of knowledge on innovation towards enriching knowledge management and will generate a new dimension for further research pertaining to the relationship of innovative women leaders overall. This research expands knowledge on strategic planning in any organisation by studying these antecedents, ensuring the relationship between innovation and women's leadership in TMT is strengthened. Following that, the academic input would be the identification of skills and styles that are prominently influencing Malaysia's innovative women leaders, which could be a fresh start for further research in this area. There is a clear indication that women labour force participation in Malaysia's organisations has been increasing of late, and this would be a complete study to concentrate on innovative women leaders in TMT. The findings of this study may well assist academicians such as lecturers, tutors, and Master's and Degree candidates to conduct additional research into innovative leadership focusing on women surveys, which would benefit the overall understanding of women workforce and organisational growth. Alternatively, researchers may utilise this study's findings to establish a strategic human capital framework that incorporates a new measurement of dimension produced by this research.

1.6.2 Practical Significance

The information gleaned from this study may be useful to policymakers as well as those in charge of corporate management. Primarily, management would be able to optimise policy-making processes as they concern a new output line, in particular, organisations that would like to shape or adopt and support the government's current strategies to empower women in the workforce. Moreover, this may assist in allocating resources further effectively. This thesis is the first to focus upon a group of women who

have broken through the glass ceiling into senior positions in public and private sector organisations in Malaysia. Hence, this research focuses on the effect of the leadership skills and styles of innovative women leaders and might clarify whether current regulation provides enough importance for innovation, and whether organisations think that the appropriation of research and development efforts is sufficiently supported. Furthermore, by analysing the effect of the skills and styles that shape innovative women leaders, this research aims to provide recommendations to organisations on the underlying forces that drive firm dynamics in order for firms to be more innovative in this competitive environment. Together, they are able to design suitable human capital strategies and programmes for women leaders to address the skills and styles that are important in the achievement of successful innovation through (i) leadership training and development, (ii) talent management, (iii) job crafting, and (iv) innovation culture.

1.7 Definitions of Key Terms

Crucial words are essential to guarantee that the dissertation author and the audience have a common understanding of key concepts and terminology, especially if the keyword is peculiar as provided in the next subtopic. They are defined to establish the positions of this study and equally as a guideline.

1.7.1 Innovative Women Leaders

Innovative women leaders are individuals who respond in an innovative manner or who think in an innovative manner in order to stimulate innovation. They emphasised the behaviour and approach to change, problem-solving, operating under conditions of uncertainty, and setting goals. Among them are the responsibilities of being an innovative