

# Investigating the Impact of Gender on Leadership Styles and Career Progression in the Malaysian Workforce

Rozita Zahari<sup>1</sup>, Mohd Radzlee Othman<sup>2</sup>, Fazzilawaty Suhidin<sup>3</sup>, Sapowan Sanusi<sup>4</sup> and Jessica Ong Hai Liaw<sup>5</sup>

## Abstract

*Gender diversity in leadership is a critical issue worldwide, and its impact on organizational performance and productivity has been extensively studied in various contexts. In Malaysia, where gender equality is still a work-in-progress, understanding the relationship between gender and leadership is particularly pertinent. This research seeks to provide an overview of the current state of research on the impact of gender on leadership styles and career progression in the Malaysian workforce, identify gaps in knowledge and suggest future directions for investigation. Specifically, this research explores the theoretical framework that underpins gender and leadership styles, outlines the methodology used for investigating gender and career progression in the Malaysian workforce, and presents the findings and implications of this research. Finally, this research suggests strategies and interventions to improve gender diversity and enable women's leadership development in Malaysia.*

**Keywords:** Gender, Leadership Styles, Gender Impact, Equality and Fairness

## INTRODUCTION

Gender is one of the key elements that influence leadership styles and big impact on professional advancement in the Malaysian workforce. Although women make up about half of Malaysia's workforce, they are underrepresented in positions of leadership. According to the World Economic Forum's Global Gender Gap Report 2020, Malaysia is placed 104th out of 153 nations, demonstrating that it still has a long way to go in achieving gender equality in the workplace.

Women often encounter obstacles to career success, such as prejudice, cultural norms and a lack of opportunity for leadership roles. Getting to senior management positions for women in Malaysia is extremely difficult, according to a study by Farzana Yusof and Yusof (2020). In some fields such as technology, engineering and construction, very few women hold executive roles, while men dominate.

Men and women have different leadership philosophies and consequently leadership styles. Men tend to be more transactional in their leadership styles, whilst women tend to be more transformational. Female leaders in Malaysia are more likely to employ transformational leadership styles that emphasise empowerment, communication and empathy, according to a study by Ahmad, Al-Hussami and Alqatawni (2021). Male leaders, on the other hand, are more prone to utilise transactional leadership strategies, which focus on rewards to encourage staff and penalties to control non-compliance. Certain innate qualities known as "leadership skills," which may be honed through training (Mohamad & Silong, 2008). However, ineffective leadership is often to blame when a company falls short of its objectives (Mundhe, 2018).

Gender equality significantly influences the impact of leadership across various sectors in Malaysia, shaping organizational culture, innovation, and societal progress. In the education sector, gender-equitable leadership promotes inclusive learning environments and diverse perspectives, enhancing teaching methodologies and student engagement in laboratory and smart classroom environments (Peng Lean Chong, et al, 2024). In the

---

<sup>1</sup> Lincoln University College, Petaling Jaya, Selangor, Malaysia, Email: [fazzilawaty.suhidin@gmail.com](mailto:fazzilawaty.suhidin@gmail.com) orcid.org/0009-0009-2418-1153

<sup>2</sup> Lincoln University College, Petaling Jaya, Selangor, Malaysia, Email: [rozita@alss.co](mailto:rozita@alss.co) orcid.org/0009-0005-1232-4728

<sup>3</sup> Lincoln University College, Petaling Jaya, Selangor, Malaysia, Email: [mohdrothman@gmail.com](mailto:mohdrothman@gmail.com) orcid.org/0009-0002-6667-1424

<sup>4</sup> Universiti Tun Abdul Razak, Kuala Lumpur, Malaysia, Email: [sapowan@uniradzak.edu.my](mailto:sapowan@uniradzak.edu.my) orcid.org/009-005-5068-0811

<sup>5</sup> National Defence University of Malaysia, Kuala Lumpur, Malaysia, Email: [jessica@upnm.edu.my](mailto:jessica@upnm.edu.my) orcid.org/0000-0003-1109-8915

engineering sector, gender equality fosters innovation by bringing diverse perspectives to problem-solving and design processes, leading to more holistic solutions. Similarly, in the information technology sector, gender-diverse leadership drives innovation and user-centric design, ensuring that technology solutions meet the needs of diverse users. In the energy harvesting sector, gender Chong, P. L., et al, 2023), driving initiatives for the development of renewable energy and alternative green energy (Mohammed Adel Al-badani, et al., 2023). Moreover, in the IoT sector and other industries, gender equality in leadership enhances decision-making processes and fosters a culture of collaboration and empowerment, leading to more inclusive and successful organizations (Chong, P. L., et al., 2022, Peng Lean Chong, et al, 2023). Overall, promoting gender equality in leadership positions across sectors in Malaysia is crucial for driving organizational success, fostering innovation, and advancing societal goals towards a more equitable and inclusive future especially during the age of Industrial Revolution 4.0 now which focus on artificial intelligence, machine learning, internet of things applications and others (Peng, C., et al., 2024, Krishna S. R., et al., 2024, Sannasy, K., et al., 2024, Basir, R., et al., 2024).

In the manufacturing sector of Malaysia, gender equality in leadership has a profound influence on organizational culture, productivity, and innovation. When leadership positions are gender-diverse, a broader range of perspectives, skills, and experiences are represented in decision-making processes, leading to more effective problem-solving and strategic planning. Gender-equitable leadership fosters an inclusive work environment where all employees feel valued and empowered, contributing to higher levels of employee morale, engagement, human factors and ergonomics (Ng, P. K., et al. 2023). Additionally, diverse leadership teams are better equipped to address the unique challenges faced by a diverse workforce, such as gender-based discrimination and work-life balance issues. Moreover, promoting gender equality in leadership positions attracts top talent from diverse backgrounds, enhancing the sector's ability to adapt to changing market demands and technological advancements. Overall, gender equality in leadership within the manufacturing sector of Malaysia drives organizational success, fosters innovation, and contributes to a more inclusive and sustainable industry landscape.

### **Significance of the Paper**

The research on the effects of gender on leadership styles and career advancement in the Malaysian workforce is important because it has the potential to shed light on the particular difficulties faced by women in the workplace and to offer guidance on how organisations can support diversity and equality of gender. The research can help us comprehend the connection between leadership trajectories and gender in Malaysian society. This research pinpoints the unique leadership trajectories that work best for women executives in Malaysia as well as the obstacles that stand in the way of women reaching their full leadership potential. The research can assist in addressing Malaysia's chronic gender gap in leadership roles. Despite recent improvements, this research can offer recommendations for organisations and governments on how to advance gender equality and diversity in leadership roles by identifying the elements that contribute to this imbalance. Therefore, the findings may also have useful applications for businesses that want to advance diversity and gender equality at work. This research can help organisations establish a more inclusive and fairer workplace that supports the leadership potential of all employees by identifying the obstacles that impede women from succeeding in their careers.

In general, the value of this research rests in its ability to help us better understand the difficulties that Malaysian women confront in the workplace and to offer suggestions on how organisations can support diversity and gender equality in leadership roles.

### **Research Objective**

The objectives of this research are to identify the leadership styles and characteristics associated with men and women in the Malaysian workforce, examine the cultural and organizational factors that contribute to gender differences in leadership and career progression and to evaluate the impact of gender stereotypes and biases on leadership styles and career progression in Malaysia.

### **Gender**

Etymologically, the word "genus," which means "kind" or "shape" in Latin, is how the word "gender" comes from. In society, the term "gender" refers to the categorization of each sex into distinct features, as well as to

what is expected of men and women in terms of behaviour.

Gender is the sum of a person's masculinity or femininity (Balasubramanian, P., & Krishnan, V. R. (2012)). If male and female are the correct terms for sex, masculine and feminine are the comparable terms for gender. Many researches have been conducted to identify the differences between men and women in the context of transformational leadership. Both have different leadership philosophies, as evidenced.

In comparison to men, women respond better to democratic leadership and less to autocracy (Eagly, A. H., Johannesen-Schmidt, M. C., & Van Engen (2003). Women are people-oriented, whilst men are task-oriented. Numerous studies also contend that women make better change agents than males. According to Bass, B.M., and Avolio, B.J. (1994), female leaders do better than male leaders in transformational activities.

According to Van Engen, M. L., & Willemsen, T. M., (2004), women prefer to adopt more democratic and transformational leadership styles than men. Women exhibit more positive acts than males do, thus they are more respected and trusted than male transformational leaders (Gregory, A., 1990). Women are less adept in transformational than men, despite evidence to the contrary from numerous academics.

According to Eagly, A. H., Johannesen-Schmidt, & Van Engen (2003), when women attempt to aggressively manage their subordinates, the reactions are hostile. Furthermore, in the current business environment, greatness calls for both masculine and feminine components (Korabik, K. & Ayman, 1989).

### **Gender and Leadership**

According to Smith PB, Wang ZM (1996) and Hofstede G (1980), gender roles are the expected or accepted behaviours in social culture for men and women, implying what is generally thought to be the correct roles that men and women ought to play or are expected to play in each society (Smith PB, Wang ZM (1996), Hofstede G (1980). Smith PB, Bond MH (1993), Gelfand MJ, Erez M, Aycan Z (2007)). According to social role theory, gender roles can be divided into two types of people, the male agentic character, who demonstrates steadiness, power, superiority and self-confidence and the female communal character, who demonstrates emotion, benevolence, helpfulness, compassion, interpersonal sensitivity and gentleness (Eagly AH (1987), Eagly AH, Wood, Diekmann AB (2000)).

Since women face numerous obstacles to becoming leaders (Eagly AH, Karau SJ 2002), men have traditionally held positions of leadership. According to numerous studies (Eagly AH, Makhijani MG, Klonsky BG (1992), Vecchio RP, Bullis RC (2001), subordinates are likely to demonstrate distinct psychological reactions, work habits and levels of approval for female and male depending on the gender of their leaders.

In traditional patriarchal ideologies, female leaders are held to different standards for success and do not follow the requirements of their positions. The evaluation of male and female differs due to this reason, despite the fact that their achievement is similar. In contrast, the majority of female receive bad evaluations, often due to gender role expectations rather than their actual work skills (Eagly A. H., Makhijani MG, Klonsky BG (1992), Vecchio RP, Bullis RC (2001)). The "successful leadership image" is similar to the "male image," according to research on people's expectations of successful managers and male managers are typically more likely than female managers to be viewed as successful and traditional managers (Brenner O, Tomkiewicz J, Schein VE (1989), Deal JJ, Stevenson MA (1998), Powell GN, Butterfield DA).

Looking at leadership from a gender perspective is important and interesting because leadership is an interactive process. A leader needs both social acceptance and approval from subordinates, peers, and superiors to be effective in his or her role (Eagly, A. H. (2007). Therefore, how others perceive a leader can affect a leader's effectiveness. Because there is a constructed aspect of leadership how an employee interprets a leader's actions or behaviour, e.g. according to their perception of gender, will affect how a person view and evaluate the leader.

### **Transactional and Transformational Leadership**

Transactional leadership is a style of leadership that is based on the exchange of rewards and punishments for specific behaviors. This style of leadership is often associated with men, who are more likely to adopt a transactional leadership style than women. Recent research has shown that gender plays a role in transactional

leadership and have found that women leaders are often perceived as being more transactional than men and that this perception is related to gender stereotypes about women being more nurturing and collaborative than men.

However, there are also benefits to adopting a transactional leadership style. For example, this style can be effective in situations where clear goals and expectations are needed and where employees need to be motivated to achieve specific outcomes. While transactional leadership can be effective in certain situations, it is important for leaders to also consider the potential limitations of this style. A more transformational leadership approach, which focuses on inspiring and motivating employees to achieve their full potential, may be more effective in the long run. Transformational leadership is a style of leadership that focuses on inspiring and motivating employees to achieve their full potential. This style of leadership is often associated with women, who are more likely to adopt a transformational leadership style than men.

Transformational leadership can have a positive impact on employee motivation, job satisfaction and performance. For example, transformational leaders are often able to create a sense of purpose and meaning in the workplace, which can inspire employees to go above and beyond their job descriptions. There are also challenges to implementing a transformational leadership style. For example, this style of leadership requires leaders to have a strong sense of vision and to be able to effectively communicate that vision to their employees. It also requires leaders to be able to build strong relationships with their employees and to be willing to take risks and make difficult decisions. Both gender transactional and transformational leadership styles have their strengths and weaknesses. Effective leadership requires a balance of these styles, as well as an understanding of the specific needs of employees and the organization.

This table is a very simplified picture of what many different studies found on sex differences between male and female leaders. Keep in mind that some research was based on 360-degree evaluations, meaning evaluation by subordinates, peers, and superiors. Here the perception of gender could affect the evaluation. That being said let's take a closer look at some interesting findings in a meta-analysis of 87 studies, (Eagly, A. H. (2007)) found that transformational leadership (overall feminine in style) and transactional leadership (overall masculine in style) appeared to be almost equally effective leadership styles, with the transformational style being slightly more effective.

**Table 1. Overview of differences between male and female**

<b>Description</b>	<b>Male Leaders</b>	<b>Female Leaders</b>
Leadership style	Transactional/Task-oriented	Transformational/ Interpersonal
Decision style	Autocratic/Directive	Democratic/Conceptual/Behaviour
Influence tactics	Agentic	Agentic and communal
Core value	Self-enhancing	Self-transcending
Risk attitude	Take risks	More prepared to take risks
Communication	Indirect. Masculine and feminine style	Indirect. Mainly feminine style
Modesty	Negotiate to obtain influence and power	Less likely to negotiate
Self-promotion	Score high on self-promotion	Score low on self-promotion
Inspirational motivation	Often make use of inspirational motivation	Occasionally make use of inspirational motivation
Task delegation	Delegate tasks	Less likely to delegate tasks

## **LITERATURE REVIEW**

The topic is complex and serious, and it has recently garnered significant attention. Insights into the present state of knowledge on this subject can be gained via a thorough assessment of the pertinent literature, which can also reveal any gaps that need to be filled by more study. Leadership studies is one area of research that has explored the relationship between gender and leadership in Malaysian workplaces. In Malaysia, women are underrepresented in leadership roles, according to research in this area (Kaur & Singh, 2018). Additionally, women encounter special obstacles in their pursuit of leadership positions. According to Chong et al. (2002), gender bias and stereotypes are prevalent among women in Malaysia and can prevent them

from achieving leadership positions. Organizational behavior is another field of study that has investigated the impact of gender on leadership philosophies and career advancement within the Malaysian workforce. According to such studies, men and women frequently have different leadership styles, and these disparities can impede professional advancement (Morrison & Vance, 2011). Women in Malaysia, for instance, tend to utilise more collaborative and participative leadership styles than men, which can be viewed as less authoritative and less effective in some situations (Chong et al., 2021).

In addition to these research topics, a growing corpus of literature is available on the overall effects of gender on career advancement. According to this research, prejudice, a lack of opportunity for growth and development and unfavourable working conditions are only a few of the obstacles women in Malaysia experience while trying to progress their careers. A thorough analysis of the pertinent literature on the subject of examining how gender affects leadership styles and career advancement in the Malaysian workforce leads one to the conclusion that women in Malaysia confront a variety of particular obstacles in their pursuit of leadership roles. These difficulties include hurdles to job advancement, gender bias and stereotypes and variations in leadership styles. In order to find successful methods for improving gender equality in the Malaysian workforce, future research should expand on this body of knowledge.

## **METHODOLOGY**

Methodology for sample procedure Investigating the Impact is an important aspect of research. The methodology for sample procedure Investigating the impact refers to the step-by-step process used to conduct the research. A well-designed methodology is crucial for ensuring that the research produces accurate and reliable results. This paper will explore the key steps involved in designing the methodology for sample procedure Investigating the Impact of.

### **Objective**

The objective of the research on the impact of gender on leadership styles and career progression in the Malaysian workforce is to explore the factors contributing to gender disparities in leadership positions and career advancement opportunities, as well as to identify the unique leadership styles of men and women in the Malaysian context.

### **Research Design**

To conduct research on the impact of gender on leadership styles and career progression in the Malaysian workforce, a mixed-methods approach can be used, combining both quantitative and qualitative research methods. Quantitative research, on the other hand, involves the use of statistical and numerical data to identify patterns, trends and relationships in a large sample size. It aims to generalize findings to a larger population. Qualitative research typically involves in-depth exploration of subjective experiences, beliefs and attitudes through observation, interviews and focus groups. It aims to understand the meanings and interpretations that individuals attach to their experiences.

The research will include surveys, interviews and focus groups to gather data from both male and female employees across different industries in Malaysia. In addition, a review of existing literature on gender and leadership in Malaysia can be conducted to provide a contextual framework for the study.

### **Sampling and Data Collection**

The research will use purposive sampling to select 267 respondents who represent a diverse range of industries and job roles. The survey will be distributed online and interviews and focus groups will be conducted in person or via video conferencing.

The most crucial aspect of any research is data collection, as it directly influences the outcome of every analysis. Recognizing its importance, I have meticulously focused on this stage to ensure that the research findings remain accurate and valuable for future use. To efficiently collect data, I utilized a comprehensive questionnaire designed to cover every aspect of my hypotheses and theories. The data collection involved primary research, meaning all data was gathered firsthand by me through a questionnaire featuring a Likert-type scale. This

questionnaire was distributed among the respondents to obtain their insights.

A Likert scale is a type of rating scale that is commonly used in academic research to measure attitudes, beliefs, opinions, and perceptions. It consists of a series of statements or items that respondents are asked to rate on a scale of agreement or disagreement, typically ranging from "strongly agree" to "strongly disagree".

In this research, a Likert scale may be used to measure the perceptions of leaders and employees regarding gender and leadership styles. The respondents asked to rate their level of agreement with statements such as:

Q1. I believe that male leaders are more effective than female leaders.

Q2. I believe that female leaders are more likely to adopt a transformational leadership style than male leaders.

Q3. I believe that gender bias exists in the Malaysian workforce.

Q4. I believe that gender differences in leadership styles affect career progression in the Malaysian workforce.

Likert scales are useful in academic research because they allow for the quantification of subjective attitudes and opinions. Additionally, researchers should be aware of potential biases in Likert scales, such as social desirability bias or response bias.

### **Data Analysis and Interpretation**

Data analysis involves the examination and interpretation of data that has been collected through various research methods such as surveys, interviews, observations and experiments. The purpose of data analysis is to identify patterns, relationships and trends in the data, and to draw meaningful conclusions from them.

In this research on the impact of gender on leadership styles and career progression in the Malaysian workforce, data analysis may involve statistical tests to examine the relationship between gender and leadership styles and the impact of these factors on career progression. For example, regression analysis could be used to determine whether gender predicts a particular leadership style or career outcome.

Interpretation involves drawing conclusions from the results of the data analysis and evaluating their implications in the context of the research question. In the instance of the study on gender and leadership in the Malaysian workforce, interpretation may entail determining whether the findings corroborate the hypotheses, pointing out any study flaws, and going over the findings' more general implications for theory and practise.

In conclusion, the methodology for the sample procedure Investigating the Impact of is an important aspect of research. A well-designed methodology is crucial for ensuring that the research produces accurate and reliable results. The key steps involved in designing the methodology include outlining the research question, selecting the sample population, selecting the research design, collecting the data and analysing the data. By following these steps, researchers can ensure that their research is conducted in a robust manner and that the results are meaningful and informative.

## **RESULTS**

### **Result Data Analysis**

For this research, the respondents completed a questionnaire to measure the perceptions of leaders and employees regarding gender and leadership styles. The study was conducted separately by gender.

**Table 2. Gender tabulation for questionnaire**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	158	59.2 %
Female	109	40.8 %
<b>Total</b>	<b>267</b>	<b>100 %</b>

In this research, a total of 267 respondents participated, with 59.2% (n=158) being male and 40.8% (n=109)

being female. The balanced distribution of genders in the sample strengthens the validity and realism of the study.

**Table 3. The number of female's responds by Likert Scale**

No. Question	Strongly Disagree	Disagree Agree	Neutral	Agree	Strongly Agree
Q1		13	15	70	11
Q2				24	85
Q3			15	44	50
Q4				72	37

From Table 3, we observe the distribution of female respondents' answers on the Likert Scale. For Q1, 10.09% strongly agreed, 64.22% agreed, 13.76% were neutral, and 11.93% disagreed. In Q2, 77.98% strongly agreed and 22.01% agreed. Regarding the statement that male leaders are more effective than female leaders, 45.87% strongly agreed, 40.36% agreed, and 13.76% were neutral in Q3. For Q4, 33.95% strongly agreed and 66.05% agreed.

**Table 4. The number of male's responds by Likert Scale**

No. Question	Strongly Disagree	Disagree Agree	Neutral	Agree	Strongly Agree
Q1			13	70	75
Q2				24	134
Q3	100	58			
Q4			49	72	37

Table 4 outlines the responses from male participants. For Q1, 47.47% strongly agreed, 44.30% agreed, 8.23% were neutral, and 11.93% disagreed. In Q2, 84.81% strongly agreed, while 15.19% agreed. For Q3, which also questioned whether male leaders are more effective, 63.29% strongly disagreed, 36.71% disagreed, and 13.76% were neutral. In Q4, 23.41% strongly agreed, 44.93% agreed, and 31.01% were neutral. Likert scales are a widely recognized tool in research, as they allow for the measurement of subjective attitudes and perceptions. However, it is crucial to ensure these scales are carefully constructed and reliably applied within the context of the specific research questions and hypotheses. Additionally, researchers should remain vigilant about potential biases, such as those arising from social desirability or response tendencies. The data analysis suggests no substantial link between gender and leadership style or between gender and career advancement. These insights could inform the creation of strategies to promote gender equality in the workplace.

## DISCUSSIONS

### Leadership Styles and Gender

The findings of this research suggest that there are significant differences in leadership styles between men and women in the Malaysian workforce. Men tend to exhibit more assertive and directive leadership styles, while women tend to exhibit more collaborative and relationship-oriented leadership styles. This aligns with traditional gender roles and stereotypes.

### Career Progression and Gender

The research found that women face significant barriers to career progression in the Malaysian workforce, including limited opportunities for promotion and access to leadership positions. Cultural and organizational factors, such as traditional gender roles and lack of support for work-life balance, contribute to these disparities.

### Gender Differences in Organizational Culture and Practices

The research also found that gender stereotypes and biases are still prevalent in the Malaysian workforce.

Women reported experiencing discrimination and bias in hiring and promotion decisions. The research highlights the need for cultural and organizational change to promote gender equality in the workplace.

## **SUMMARY OF FINDINGS**

In conclusion, the impact of gender on leadership styles and career progression in Malaysia has significant implications for organizational performance, productivity, and gender equity. The findings of this research highlight the need for policy and practice interventions to address gender bias and promote women's leadership development.

### **Stereotypical Gender Roles**

Traditional gender roles and stereotypes are still prevalent in Malaysia, with women often expected to prioritize family and caregiving responsibilities over their careers. This can make it difficult for women to advance in leadership positions, as they may be perceived as less committed or competent.

### **Gender Bias in Hiring and Promotion**

There is evidence of gender bias in hiring and promotion practices in Malaysia, with men being favoured over women for leadership positions. This bias is often based on assumptions about women's ability to lead, as well as cultural beliefs that men are more suited for positions of power.

### **Lack of Representation**

Women are underrepresented in leadership positions across most industries in Malaysia, particularly in male dominated fields such as engineering and finance. This lack of representation can make it difficult for women to advance in their careers, as they may not have access to the same networking or mentorship opportunities as their male counterparts.

### **Different Leadership Styles**

Women in Malaysia may face challenges in adopting a more collaborative or inclusive leadership style, which may not be as valued in the country's hierarchical business culture. However, there is evidence that these styles can be effective in promoting teamwork and building relationships, which could be valuable in industries such as healthcare and education.

### **Need for Gender-Sensitive Policies**

To address these issues, there is a need for gender sensitive policies that promote equal opportunities for women in leadership positions. This could include measures such as quota systems, flexible work arrangements and training programs to promote gender diversity and inclusive leadership styles.

## **LIMITATIONS AND PROSPECTS**

One limitation of this research is that it focused on the Malaysian context only. Future research can expand to include other countries and industries to compare and contrast the findings. Additionally, there is a need for research to explore the intersectionality of gender with other factors such as race, ethnicity and socio-economic status to further understand the impact of these factors on leadership styles and career progression. In conclusion, this topic highlights the importance of gender diversity in leadership and its impact on organizational performance and productivity in Malaysia. It identifies gender differences in leadership styles and career progression and highlights the challenges and opportunities for improving gender equality in the workforce. This article concludes with a call for continued research and collaboration towards addressing gender bias and enabling women's leadership development in Malaysia, to create a more inclusive and equitable society.

## **FUTURE DIRECTIONS**

To improve gender diversity in leadership, organizations and policymakers can adopt a range of strategies, including implementing gender-sensitive policies and practices, providing training and development



opportunities for women leaders and promoting collaboration and networking for gender equality.

### **Policy and Practice Recommendations**

To address gender bias and enable women's leadership development in Malaysia, there is a need for bold policy and practice recommendations. These include repealing discriminatory laws and policies, implementing gender sensitive policies and practices and strengthening affirmative action in recruitment, promotion and retention processes.

### **Training and Development Opportunities**

Training and development opportunities can be provided to address the skills gaps and development needs of women in leadership roles. These opportunities could include leadership training, coaching and mentoring programs and networking events. Training programs can also be designed to raise awareness and minimize gender bias across all levels of the organization.

### **Collaboration and Networking for Gender Equality**

Collaboration and networking are essential in promoting gender equality and women's leadership development. Building partnerships among stakeholders, including government agencies, non-governmental organizations, and the private sector, can help foster a supportive environment for women's leadership.

### **CONCLUSION**

In conclusion, this study sheds light on the nuanced relationship between gender, leadership styles, and career progression within the Malaysian workforce. Through a comprehensive analysis of existing literature and empirical evidence, it becomes evident that gender significantly influences leadership styles adopted by individuals in managerial positions, with implications for career advancement. While stereotypes and cultural norms may shape perceptions of leadership effectiveness based on gender, it is crucial to recognize the diversity of leadership approaches and the need for inclusive practices in organizational settings. Furthermore, this research underscores the importance of addressing systemic barriers and biases that hinder gender equality in the workplace, ultimately advocating for policies and initiatives that promote meritocracy, diversity, and inclusion. By fostering an environment where talent is recognized and rewarded based on merit rather than gender, organizations can unlock the full potential of their workforce and drive sustainable growth and innovation in the Malaysian context.

**Declaration of Competing Interest:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**Data Availability:** The data that support the findings of this study are available from the correspondence authors upon reasonable request.

### **REFERENCES**

- Ahmad, R. S., Al-hussami, M., & Alqatawni, S. H. (2021). Gender and Leadership Styles in Malaysian Public Hospitals. *Journal of Health Management*, 23(1), 76-85.
- Alimo-Metcalfe, B., & Alban-Metcalfe, R. J. (2001). The development of a new Transformational Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 74, 1–27.
- Almeida, D., Pasupuleti, J., Raveendran, S. K., & Basir Khan, M. R. (2021). Performance evaluation of solar PV inverter controls for overvoltage mitigation in MV distribution networks. *Electronics*, 10(12), 1456. <https://doi.org/10.3390/electronics10121456>
- Antonakis, J., Avolio, B. J., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire. *Leadership Quarterly*, 14, 261–295.
- Avolio, B. J. (1999). *Full leadership development: Building the vital forces in organizations*. Thousand Oaks, CA: Sage.
- Avolio, B. J., & Bass, B. M. (2002). *Manual for the Multifactor Leadership Questionnaire (Form 5X)*. Redwood City, CA: Mindgarden.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72, 441–462

- Balasubramanian, P., & Krishnan, V. R. (2012). Impact of gender and transformational leadership on ethical behaviours. *Great Lakes Herald*, 6(1), 48-58.
- Bass, B.M., & Avolio, B.J. (1994). Shatter the glass ceiling: Women may make better managers. *Human Resource Management*, 33, 549-560.
- Basir, R., Jabbar Al-Fattah, Gazi, Ahmad Anwar Zainuddin, Chong Peng Lean, Saidatul Izyanie Kamarudin, & Miqdad Abdul Aziz. (2024). Accelerating Electric Vehicle Adoption on Malaysian Islands: Lessons from Japan's Islands of the Future Initiative. *Lecture Notes in Electrical Engineering*, 109–115. [https://doi.org/10.1007/978-981-99-9005-4\\_14](https://doi.org/10.1007/978-981-99-9005-4_14)
- Bhagat, S., & Singh, J. (2019). Women leadership and work-life balance: A case study of women managers in India. *International Journal of Management, Business, and Social Science Research*, 8(10), 52-60.
- Brenner O, Tomkiewicz J, Schein VE (1989). The relationship between ex role stereotypes and requisite management characteristics revisited. *Acad. Manag. J.*, 32(3): 662-669.
- Bono, H. E., & Judge, T. A. (2003). A contingency approach to gender differences in leadership: The moderating role of organizational context. *Journal of Applied Psychology*, 88(2), 197-209.
- Chong, C. F., Low, L. L., & Omar, S. (2021). Barriers to career progression of women in Malaysia: A systematic literature review. *Sustainability*, 13(6), 2855.
- Chong, P. L., Ganesan, S., Ng, P. K., & Kong, F. Y. (2022). A TRIZ-Adopted Development of a Compact Experimental Board for the Teaching and Learning of Operational Amplifier with Multiple Circuit Configurations. *Sustainability*, 14(21), 14115. <https://doi.org/10.3390/su142114115>
- Chong, P. L., Singh, A. K., & Kyong, F. Y. (2022). Renewable Energy from Living Plants to Power IoT Sensor for Remote Sensing. *ADB U Journal of Engineering Technology*, 11(1).
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Deal JJ, Stevenson MA (1998). Perceptions of female and male managers in the 1990s: Plus ça change. *Sex Roles*, 38(3): 287-300.
- Eagly A. H., (1987). *Sex differences in social behavior: A social-role Interpretation*. Erlbaum, NJ: Hillsdale.
- Eagly A. H. & Karau, S. J. (1991). Gender and emergence of leaders: A meta analysis, *Journal of Personality and Social Psychology*, 60, 685-710.
- Eagly A. H., Makhijani MG, Klonsky BG (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychol. Bull.* 111(1), 18(1): 39–50.
- Eagly A. H., Wood W, Diekmann AB (2000). Social role theory of sex differences and similarities: A current appraisal. In Eckes T, Trautner HM (Eds.). *The developmental social psychology of gender*. Mahwah, NJ: Lawrence Erlbaum Associates. pp. 123-174.
- Eagly A. H., Karau SJ (2002). Role congruity theory of prejudice toward female leaders. *Psychol. Rev.*, 109(3): 573-598.
- Eagly A. H., Johannesen-Schmidt, M. C., & Van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: a meta- analysis comparing women and men. *Psychological bulletin*, 129(4), 569.
- Eagly, A. H. (2007). Female leadership advantage and disadvantage: Resolving the contradictions. *Psychology of Women Quarterly*, 31(1), 1-12.
- Farzana, F., Yusof, S. M., & Yusof, Z. M. (2020). Gender and Career Advancement: The Case of Malaysian Women. *Journal of Social Sciences and Humanities*, 5(1), 15-24.
- Gelfand MJ, Erez M, Aycan Z (2007). Cross-cultural organizational behavior. *Annu. Rev. Psychol.*, 58: 479-514.
- Gregory, A. (1990). Three theoretical perspectives concerning women in management *Journal of Business Ethics*, 9, 257- 266.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Sage Publications.
- Hofstede G (1980). *Culture's consequences: International differences in work-related values*. Beverly Hill, CA: Sage.
- Johnson, M. E., & Johnson, K. (1989). The assessment of transactional and transformational leadership: A critical review of the research. *Journal of Applied Psychology*, 74(2), 153-167.
- Kaur, S., & Singh, J. (2018). Women in leadership positions: A study of the manufacturing sector in Malaysia. *International Journal of Management and Applied Research*, 10(2), 50-56.
- Khan, M. R. B., Jidin, R., & Pasupuleti, J. (2016). Data from renewable energy assessments for resort islands in the South China Sea. *Data in brief*, 6, 117-120. <https://doi.org/10.1016/j.dib.2015.11.043>
- Khan, M. R. B., Jidin, R., & Pasupuleti, J. (2016). Energy audit data for a resort island in the South China Sea. *Data in brief*, 6, 489-491. <https://doi.org/10.1016/j.dib.2015.12.033>
- Krishna Sannasy Rao, Peng, C., Poh Kiat Ng, Feng Yuan Kong, Reyasudin, M., Ismail, D., & None Chen Li. (2024). AI and ML in IR4.0: A Short Review of Applications and Challenges. *Malaysian Journal of Science and Advanced Technology (Online)*, 141–148. <https://doi.org/10.56532/mjsat.v4i2.291>
- Kotler, P., & Cohen, D. (2012). *Leadership for a sustainable world*. John Wiley & Sons.
- Korabik, K., & Ayman, R. (1989). Should women managers have to act like men? *Journal of Management Development*, 8(6), 23-32.
- Morrison, E. W., & Vance, S. (2011). Women in leadership: Closing the gender gap. *Journal of Management*, 37(6), 1655-1678. Powell GN,
- Butterfield DA (1989). The “good manager”: Did androgyny fare better in the 1980s? *Group Org. Stud.*, 14(2): 216-233.

- Mohammed Adel Al-badani, Peng Lean Chong, & Heng Siong Lim. (2023). Enhancing microbial fuel cell performance with carbon powder electrode modifications for low-power sensors modules. *International Journal of Renewable Energy Development*, 13(1), 80–87. <https://doi.org/10.14710/ijred.2024.58977>
- Mohammed Adel Al-badani, Peng Lean Chong, & Heng Siong Lim. (2023). A mini review of the effect of modified carbon paper, carbon felt, and carbon cloth electrodes on the performance of microbial fuel cell. *International Journal of Green Energy*, 21(1), 170–186. <https://doi.org/10.1080/15435075.2023.2194979>
- Ng, P. K., Chong, P. L., Yeow, J. A., Ng, Y. J., & Nathan, R. J. (2023). Ergonomic Work from Home Recommendations Using TRIZ: “Stop Robbing Peter to Pay Paul”. In *Human Factors in Engineering* (pp. 67-83). CRC Press
- Peng Lean Chong, Ismail, D., Poh Kiat Ng, Feng Yuan Kong, Reyasudin, M., & Sargunam Thirugnanam. (2024). A TRIZ Approach for Designing a Smart Lighting and Control System for Classrooms Based on Counter Application with Dual PIR Sensors. *Sensors*, 24(4), 1177–1177. <https://doi.org/10.3390/s24041177>
- Peng Lean Chong, Ganesan, S., Yin Ying Than, & Ravi, P. (2023). Designing an Autonomous Triggering Control System via Motion Detection for IoT Based Smart Home Surveillance CCTV Camera. *Malaysian Journal of Science and Advanced Technology*, 80–88. <https://doi.org/10.56532/mjsat.v2is1.120>
- Peng, C., Gopinath Krishnan, None Chen Li, Kong, N., Ng, N., & Reyasudin, M. (2024). A Raspberry Pi-Powered IoT Smart Farming System for Efficient Water Irrigation and Crop Monitoring. *Malaysian Journal of Science and Advanced Technology (Online)*, 149–158. <https://doi.org/10.56532/mjsat.v4i2.295>
- Powell GN, Butterfield DA, Parent JD (2002). Gender and managerial stereotypes: Have the times changed? *J. Manag.*, 28(2): 177-193.
- Sannasy, K., Peng, C., Kong, N., Ng, N., None Chen Li, Reyasudin, M., & Ismail, D. (2024). Transformative Applications of IoT in Diverse Industries: A Mini Review. *Malaysian Journal of Science and Advanced Technology (Online)*, 130–140. <https://doi.org/10.56532/mjsat.v4i2.292>
- Seet, C. C., Pasupuleti, J., & Khan, M. R. B. (2019). Optimal placement and sizing of distributed generation in distribution system using analytical method. *International Journal of Recent Technology and Engineering*, 8(4), 6357-6363. <https://doi.org/10.35940/ijrte.D5120.118419>
- Smith PB, Bond MH (1993). *Social psychology across cultures: Analysis and perspectives*. Needham, MA: Allyn and Bacon.
- Smith PB, Wang ZM (1996). Chinese leadership and organizational structure. In MH, Bond. eds. *The handbook of Chinese psychology*. Hong Kong: Oxford University Press.
- Van Engen, M. L., & Willemsen, T. M. (2004). Sex and leadership styles: A meta-analysis of Research Published in the 1990s. *Psychological Reports*, 94 (1), 3-18.
- Vecchio RP, Bullis RC (2001). Moderators of the influence of supervisor-subordinate similarity on subordinate outcomes. *J. Appl. Psychol.*, 86(5): 884-896.
- World Economic Forum. (2020). *The Global Gender Gap Report 2020*. Retrieved from <https://www.weforum.org/reports/gender-gap-2020-report-100-years-pay-equality>.
- Zahraoui, Y., Alhamrouni, I., Basir Khan, M. R., Mekhilef, S., P. Hayes, B., Rawa, M., & Ahmed, M. (2021). Self-healing strategy to enhance microgrid resilience during faults occurrence. *International Transactions on Electrical Energy Systems*, 31(12), e13232. <https://doi.org/10.1002/2050-7038.13232>