

Gender Equality on Leadership Effectiveness among Women in Higher Educational Institutions: A Preliminary Study

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Abstract

Effectiveness in leadership among females, especially in higher education, has been among critical research areas because of their ever-increasing representation in academia and consistent impediments they encounter in accessing senior roles in leadership. Despite having a huge progress in numerical representation, women are seen to be represented in fewer strategic roles due to being confined by structural, cultural, and institutional barriers, including gender-stereotypes and organisational cultures dominated by males and challenges associated to work-life balance. This study seeks to investigate a relationship between gender equality, leader competencies, and leadership effectiveness among women in higher education institutions, particularly in the East Coast Region of Malaysia. By employing a descriptive research design, an array of data will be collected from academic staff across public and private universities, polytechnics, and community colleges. Meanwhile, structural equation modelling of SmartPLS will be utilised to examine both the direct and indirect impacts, particularly the mediating role of leader competencies in shaping and elevating leadership effectiveness. Findings derived from this study will be expected to offer meaningful perspectives on how gender-sensitive strategies and the development of competence will amplify female leadership visibility, and its effectiveness and contribution towards institutional and national developments. This study also aims to inform policymakers and institutional top guns how to normalise inclusive, fair, and effective leadership practices in higher education.

Keywords: Leadership Effectiveness, Gender Equality, Leader Competencies, Higher Education Institutions, Women Leadership

Introduction

Leadership effectiveness among females in higher education has been under spotlight since many studies have identified this issue as the focal point of their investigations, reflecting their ever-increasing presence in academic leadership and continuously unceasing challenges they are enduring. Albeit notable progress done by the women, they have been trusted less for securing senior leadership roles in higher education institutions. This disparity has oftentimes been associated with continuously persistent gender stereotypes, institutional impediments, and barely unchangeable sociocultural norms (Fauzi et al., 2024; Khraban & Vyhivska, 2024).

Prior studies have unlocked the fact that female leaders regularly exercise transformational leadership styles foreshadowed by vision, collaboration, and empowerment. These sorts of leadership approaches have been closely associated with positive organisational outcomes, which are increasingly acknowledged as being effective, particularly in academic landscapes (Meza-Mejia et al., 2023; Othman & A. Hamid, 2023). Despite these, their advancement and retention in leadership roles have still been impeded by a stumbling block comprising restricted access to mentoring opportunities, challenges in achieving work-life balance, and the steadfast institutional cultures mostly dominated by men (Coetzee & Moosa, 2025; Khan et al., 2024). Therefore, addressing these barriers and establishing an inclusive institutional environment are essential in materialising the full potential of female leaders and embedding the concept of gender equality into higher education leadership (Coetzee & Moosa, 2025).

There is a close connection between the expansion of female leadership in higher education and the more far-reaching effort to achieve gender equality. Even though female representation in the academic field has been greater than before, the growth of female senior leadership positions has still been inhibited by structural and cultural barriers, including masculine-led organisational cultures, non-flexible work arrangements, and a combination of professional and familial responsibilities (Fauzi et al., 2024; Khraban & Vyhivska, 2024). These existing challenges have further been exacerbated by gender stereotypes and institutional practices that have unfairly privileged male leadership, limiting women's access to authoritative and influential positions (Fauzi et al., 2024; Rosa & Clavero, 2022). As a result, the continued female underrepresentation in leadership roles has unfortunately served as a pretext perpetuating gender inequity in higher education institutions.

It is evident that dealing with these disparities is vital for realising valid and legitimate gender equality, as underscored in global frameworks, such as the United Nations Sustainable Development Goals (SDGs) (Correa et al., 2025; Rosa & Clavero, 2022). Relatively, higher education institutions are significant, pivotal role players in upholding gender equality, either through internal governance structures or as influential agents responsible for shaping societal norms (Correa et al., 2025; Rosa & Clavero, 2022). Implementing gender-sensitive strategies, such as gender-based evaluation mechanisms, mentoring initiatives, and institutional gender equality plans, can expand a window of opportunities for women to secure leadership roles (Rosa & Clavero, 2022; Vilhena & Pérez, 2021). This is because fostering equality between genders not only empowers females but also contributes towards realising more inclusive, innovative, and effective higher education systems.

In the context of Malaysia, the lack of women representation in leadership roles has still been apparent despite their ever-growing numbers within academia. To illustrate this, in 2021, women were discovered to have been greater in number than men among academic staff in public universities, with 17,751 women compared to 12,629 men. Even though the numerical domination among the women prevailed, it was learned that, by late 2022, only two out of twenty public universities had two female Vice Chancellors appointed (Badrolhisam et al., 2022; Othman & A. Hamid, 2023). While women have relatively been well-represented at much lower and intermediate governance levels, their advancement to strategic and decision-making roles, such as Vice Chancellors, Deputy Vice Chancellors, and Deans, is still far-fetched (Badrolhisam et al., 2022; Othman & A. Hamid, 2023). Not to mention, gender disparities are significantly evident, particularly within STEM faculties, where women's involvement in leadership roles is comparatively lower than their representation on non-STEM disciplines (Islam et al., 2023; Raza & Singh, 2025)). These patterns have revealed that there are systemic challenges on the progression of women's leadership, which have gone beyond institutions and sectors.

Historically, men have long dominated higher education, where full professors and senior academic staff are known to have traditionally had and controlled exclusive access to positions in leadership and management (O'Connor & Irvine, 2020). The continued underrepresentation of women, particularly in senior positions, and the legitimacy of different practices appraising men and women, are often seen as a manifestation of gender inequality in higher education institutions (O'Connor, 2020). In the meantime, masculinising higher education has continued to shape the profile of leadership structures in every angle, which has in turn sustained power concentrations and reflected societal patterns and gender discrimination in a much broader way (O'Connor & Irvine, 2020).

Notwithstanding contexts in higher education, women's representation in leadership roles within sectors have equally been low and disproportionately unbalanced. This is because their presence in high-level decision-making bodies, for instance, corporate entities and executive positions, is still scarce and far from sufficient (Chizema et al., 2015). Likewise, the gender leadership gap, especially at highest levels within academia, has never been insufficiently elucidated in the existing body of literature (Nyoni & He, 2019). Studies have associated this to inadequate initiatives empowering women to climb the ladder of leadership roles and institutional challenges impeding their progression despite them having remarkable academic expertise and credentials (BlackChen, 2015; Nyoni & He, 2019).

However, recent evidence has demonstrated a slowly but surely development for women. (Ahmad, 2021) has unlocked the fact that 56.5 per cent of 31,584 academic staff appointed in public universities are women, representing 60 per cent of professors and 72 per cent of language educators. Apart from that, female academicians have also exhibited their competence in playing managerial roles, as witnessed by the appointment of four Deputy Vice Chancellors in three public universities in the last five years. Additionally, the Malaysia's Gender Gap Index (MGGI) closed by 68 per cent in 2021, highlighting women's ever-increasing contributions towards effective leadership and national development (Offermann & Foley, 2020)

Based on this context, this present study seeks to examine the relationship between gender equality and leadership competencies and their impact on women's leadership effectiveness in higher education institutions. In particular, it will discover whether or not the interaction between leader competencies and other factors, for example, leadership role, age, and educational background, will shape leadership effectiveness. There is no excuse that this particular study is significant as previous studies have discovered that female leaders are typically known to have underestimated their abilities to meet social expectations, which may disrupt their advancement into senior positions.

In relation to this, the present study also aims to investigate the connection between gender equality, leader competencies, and effective leadership among women working in higher education institutions. Besides, it also examines how leader competencies influence the relationship between gender equality and leadership effectiveness among women in higher education institutions.

Generally, this study may contribute towards heightening the level of awareness on the need to explore leadership strategies, which will bridge the gender gap and leverage female leader competencies to reinforce leadership effectiveness (Hu et al., 2022). If done properly, it will be in line with the stipulated national and international agendas, such as the Sustainable Development Goals (SDGs), Malaysia's Gender Gap Index (MGGI), and The World's Women 2022: Trends and Statistics, while offering valuable insights for policymakers looking for encouraging women's empowerment and involvement in decision-making processes. This study will focus on higher education institutions located in the East Coast Region of Malaysia.

Even though gender equality has been a global priority since years, tangible challenges in ensuring equitable opportunities for the development of women's academic and professional careers still exist. Based on this rationale, the present study aims to place its focus on gender equality and leadership effectiveness among women in higher education institutions and offer strategic measures for imprinting equality and inclusivity that are genuine in academic leadership.

Literature Review

Leadership Effectiveness

Leadership is often portrayed as an influence process (Gunter, 2010; Sinclair, 2014) due to its universally recognised function in promoting or inhibiting gender equality. However, the fact that leadership roles are often seen as gendered has formed systemic biases, making it uneasy for women to access and retain leadership positions (Fitzgerald, 2018; Schein et al., 1996). In addition, female leaders also encounter additional pressure related to their materiality, for instance, their physical appearance and outfit, and their emotions and aesthetic labour involved in negotiations of insider–outsider dynamics within their organisations (Fitzgerald, 2018; McKie & Jyrkinen, 2017). As a result, senior women are typically viewed as 'organisational transgressors' in circumstances where power is always considered to be incongruent with femininity, which requires them to navigate masculinist contexts dominated by men while recovering interrupted gender orders (O'Connor, 2020). Meanwhile, women tend to play roles in female-dominated sectors, which have been viewed as low-status, limiting and clouding their visibility as prospective future leaders. Evidence has suggested that during time of crises, many women have been deliberately placed in leadership positions

under high-risk conditions, which in return might distort and damage perceptions about their appropriateness in holding those roles.

Leadership effectiveness is closely associated to leaders' capabilities that lead to exceptional organisational performance. However, leaders who acquire fewer essential leadership skills may come across performance issues, which can negatively affect organisational outcomes. It is evident that poor leadership can trigger compromised organisational productivity, hindered attainment of organisational goals, and minimised employee retention, which in return obstruct organisational success (Luthra & Dahiya, 2015). To make it worse, leaders lacking vision can distort organisational focus, which suggests how important a clear vision is and why it needs to be shared widely so that employees can be empowered to engage meaningfully with organisational objectives (Wadhwa & Parimoo, 2016).

There are several leadership styles identified as having a significant contribution towards leadership effectiveness in higher education and organisational settings. For example, transformational leadership has been proven to be able to strongly predict leadership effectiveness, job satisfaction, and entrepreneurial behaviour among students and staff (Fauzi et al., 2024; Othman & A. Hamid, 2023). Change-oriented ability is perceived as a critical area for improvement, which serves as a master key that drives leadership performance in universities (Ghasemy et al., 2018). In the meantime, competency-based leadership frameworks underscore personal effectiveness, cognition, influence, and performance as important foundations in effective leadership (Ghasemy et al., 2018). Furthermore, the servant leadership approach emphasises the mediating role of working environments on job performance, highlighting the significance of supportive institutional contexts (Raime et al., 2024). While the sustainable leadership approach puts its focus on capacity building, diversity, and innovation strategised for attaining long-term institutional success (Vesudevan et al., 2024).

Gender and diversity considerations further shape leadership practices. Studies have shown that female leaders always adopt transformational leadership approach, and variables like gender or student origin have a minimal effect on leadership outcomes, denoting that leadership styles may be a more important determinant than the demographic characteristics themselves (Othman & A. Hamid, 2023; Wan Mokhtar et al., 2025). This highlights the importance of competency, strategic vision, and inclusive practices in inculcating leadership effectiveness, particularly in higher education settings where gendered expectations and organisational norms cross paths.

Collectively, these studies highlight that leadership effectiveness is contingent upon both the capabilities of individual leaders and structural and cultural environments in which they operate. Effective leadership requires not only personal competencies but also the ability to navigate organisational constraints, promote inclusivity, and maintain a clear vision that aligns with institutional goals. Understanding these dynamics is particularly critical in higher education, where female leaders must negotiate gendered barriers while contributing towards organisational performance and the broader goal of promoting gender equality.

Gender Equality

Gender equality refers to the fair distribution of rights, status, and opportunities regardless of gender, and is widely recognised as the fundamental human rights issue. Within a binary gender perspective, the focus is often placed on achieving gender parity—ensuring equal numbers of men and women in influential positions across institutional structures of society, including higher education. However, recent research has emphasised that numerical equality alone is insufficient to achieve genuine gender equality, as it fails to address the deeper structural and cultural biases that sustain inequality (Correa et al., 2025; Manna, 2024; O'Connor, 2020; Rosa & Clavero, 2022). Treating everyone identically within systems already marked by unequal access to power, time, and resources may in fact reinforce inequality rather than reducing it (Clavero & Galligan, 2021; Kapardis & Spanoudis, 2024).

In higher education institutions, persistent gender inequality has continued to manifest through the underrepresentation of women in senior academic and leadership roles despite decades of gender equity policies (Correa et al., 2025; Khan et al., 2024; O'Connor, 2020). These disparities have been perpetuated by entrenched patriarchal structures and institutional cultures that legitimise masculine leadership norms and marginalise women's authority (Galizzi et al., 2024; Vilhena & Pérez, 2021). To achieve meaningful gender equality, it is therefore essential to reconfigure the institutional culture—challenging the accepted practices of assigning, valuing, and rewarding work, authority, and competence.

Leadership plays a pivotal role in this transformation. The commitment of institutional leaders to challenge gendered norms, support equitable practices, and create inclusive environments directly influences progress towards gender equality (Kapardis & Spanoudis, 2024). In this context, this study examines how gender equality may interact with leadership competence to influence perceived leadership effectiveness among women in higher education. Understanding these dynamics can shed light on whether personal and professional factors, in combination with institutional contexts, can enhance their leadership visibility and success within academia.

Leader Competence

Leaders are responsible for a multitude of functions within organisations, and effective leadership skills are therefore essential for successfully managing organisational operations. Leadership competencies refer to a combination of skills, knowledge, personality traits, and abilities that collectively enable an individual to perform specific tasks effectively.

Kwiotkowska et al. (2022) have identified several key competencies that underpin effective leadership, including strategic perspective, self-awareness, critical analysis, self-vision, communication, team building and empowerment, resource management, results orientation, sensitivity, and influence. These competencies represent the core capabilities that allow leaders to navigate complex organisational challenges and achieve desired outcomes.

Among these, the capacity to manage resources is considered one of the most critical leadership competencies. According to the OECD competency framework, effective resource management involves a comprehensive understanding of human, financial, and operational resources to plan efficiently, optimise workflows, and enhance overall organisational

performance. Sayed and Edgar (2019) have similarly emphasised that the ability to manage resources effectively is central to achieving leadership success.

Achievement orientation is another essential component of leadership competency, focusing on producing tangible outcomes and improving organisational performance within specified timeframes. This dimension highlights the importance of goal-setting, monitoring progress, and maintaining accountability for results.

In addition, team building is also a fundamental aspect of leadership effectiveness. Misra and Srivastava (2018) have defined team building as a set of activities designed to enhance a team's effectiveness by fostering strong working relationships, improving member alignment, promoting effective communication, and increasing trust among team members. Hence, organisations should prioritise team development initiatives to strengthen leaders' interpersonal and communication skills, thereby enabling them to empower and guide their teams more effectively.

Collectively, these competencies demonstrate that effective leadership extends beyond individual abilities to encompass strategic, interpersonal, and operational skills, all of which are critical for achieving organisational goals and sustaining high performance.

Research Methodology

This preliminary study adopts a descriptive research design to provide a comprehensive profile of the characteristics, competencies, and leadership effectiveness of women in higher education institutions. A descriptive approach is suitable for exploring and characterising the attributes that influence leadership effectiveness, as it allows for a systematic examination of variables in real organisational contexts. In addition, hypothesis testing will also be conducted to assess the relationships and potential mediating effects among the study's variables, thereby providing empirical insights for future research and decision-making in HEIs.

Sampling and Data Collection

Data will be collected from staff members across all HEIs in the East Coast Region of Malaysia, including Kelantan, Pahang, and Terengganu. The sample will encompass public and private universities, polytechnics, and community colleges. Questionnaires will be distributed online to staff from different departments and position levels via the respective Human Resource or Registrar offices. The instrument will be designed to measure constructs of gender equality, leader competencies, and leadership effectiveness by using validated scales adapted from the previous studies.

Data Analysis Using SmartPLS

Although the initial plan was to analyse the data using the SPSS, the study will instead employ SmartPLS, which is the variance-based structural equation modelling (SEM) software. SmartPLS is particularly suitable for examining latent constructs and complex relationships among variables, allowing for simultaneous assessment of direct and indirect effects. This approach enables testing of the mediating role of leader competencies in the relationship between gender equality and leadership effectiveness. The analysis will involve evaluating the measurement model to ensure reliability and validity of constructs, followed by the structural model to test the hypothesised relationships. Key outputs will include path

coefficients, t-values, R^2 , and effect sizes to assess the strength and significance of the relationships among the variables.

Rationale for Using SmartPLS

SmartPLS provides several advantages over traditional methods, such as the SPSS for this study. This is because it is more robust in handling complex models with multiple mediating variables, accommodating smaller sample sizes typically available in preliminary studies, and enabling simultaneous estimation of measurement and structural models. By using SmartPLS, this study can gain deeper insights into how leader competencies mediate the impact of gender equality on leadership effectiveness, which is central to understanding and enhancing women's leadership roles in HEIs.

Discussion and Conclusion

The findings of this study are expected to underscore the importance of integrating gender equality and leadership competencies to enhance the effectiveness of female leaders in higher education. While numerical representation of women has improved, structural and cultural barriers have continued to limit their advancement to strategic positions, particularly in male-dominated disciplines and organisational settings. Leader competencies, including strategic vision, resource management, achievement orientation, and team-building, are likely to play a crucial mediating role in bridging the gap between gender equality and leadership effectiveness.

These results highlight the need for higher education institutions to adopt gender-sensitive policies and supportive structures, such as mentoring programmes, flexible work arrangements, and initiatives that challenge the traditional leadership norms. By fostering inclusive environments and leveraging women's leadership competencies, institutions not only can enhance organisational performance but also contribute to broader societal goals of gender equity and sustainable development.

Ultimately, this study contributes towards the growing body of literature on women's leadership by emphasising the interconnections between competence, gender equality, and leadership effectiveness. It offers practical implications for policymakers, institutional leaders, and stakeholders seeking to promote equitable participation and empowerment of women in academic leadership. Future research may expand upon these findings by exploring longitudinal effects, cross-disciplinary comparisons, and the impact of specific institutional interventions on women's leadership progression.

Theoretical and Contextual Contributions

This study offers both theoretical and contextual contributions to the existing body of knowledge on women's leadership and gender equality in higher education. Theoretically, it advances the understanding of leadership effectiveness by integrating gender equality and leadership competencies within a single analytical framework. The findings underscore the mediating role of leader competencies, demonstrating that women's leadership effectiveness is influenced not only by personal capability but also by organisational culture and structural conditions. This approach enriches leadership theory by positioning effectiveness within the broader institutional and gendered context, thereby extending the relevance of competency-based and transformational leadership perspectives.

Contextually, this research provides valuable insights into the realities of women's leadership within higher education institutions in the East Coast Region of Malaysia, a setting that has received limited scholarly attention. It highlights the contextual factors that shape women's access to and progression within leadership roles, particularly the interplay of institutional norms, gendered expectations, and cultural influences unique to Malaysian academia. The implications of these findings may guide policymakers and higher education administrators in designing gender-responsive leadership development initiatives that strengthen leadership competencies, promote inclusivity, and foster equitable opportunities. In doing so, the study contributes to the national agenda on gender equality and supports the creation of a more balanced and sustainable leadership environment within Malaysian higher education.

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