

A strategic approach to empowerment and improving educational quality: Women's leadership in higher education institutions

Farid Saber Nassar^{1,2,*}, Ahmed Osman Abbas², Hassan Al-Sify³

¹ Deanship of Development and Quality Assurance, King Faisal University, Al-Ahsa 31982, Saudi Arabia

² College of Agriculture and Food Sciences, King Faisal University, Al-Ahsa 31982, Saudi Arabia

³College of Arts, King Faisal University, Al-Ahsa 31982, Saudi Arabia

* Corresponding author: Farid Saber Nassar, Fsmahmoud@kfu.edu.sa

CITATION

Nassar FS, Abbas AO, Al-Sify H. (2024). A strategic approach to empowerment and improving educational quality: Women's leadership in higher education institutions. Journal of Infrastructure, Policy and Development. 8(16): 10548. https://doi.org/10.24294/jipd10548

ARTICLE INFO

Received: 26 November 2024 Accepted: 18 December 2024 Available online: 19 December 2024

COPYRIGHT



Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/ by/4.0/ Abstract: The growing global recognition of leadership diversity and the acknowledgment of women's contributions to higher education necessitate the appointment of women to leadership positions within academic institutions, which is essential for promoting inclusivity and improving educational outcomes. This study employed a qualitative descriptive research methodology to examine the role of women in leadership positions within higher education institutions, with the objective of empowering women and improving the quality of education offered. The results demonstrate that women in leadership positions adeptly tackle institutional difficulties through inventive and adaptable solutions, enhancing academic quality significantly. The findings highlight the importance of robust policies and organizational backing in facilitating women's achievement of quality goals via leadership. The report suggests that universities, colleges, and departments should implement quotas to ensure women's presence and active participation on their boards, as well as training programs to support female leaders in improving academic achievement. These ideas seek to improve the quality of higher education by creating more sustainable and progressive classroom environments.

Keywords: education quality; empowering women; higher education; strategic approach; women's leadership

1. Introduction

Authorities and professionals in higher education concur that the issues confronting education today are increasingly intricate, highlighting the want for astute, strategic, and audacious leaders among teachers, staff, and administrators in colleges and universities. Nonetheless, numerous capable women with leadership potential still encounter limitations to their advancement due to various internal and external circumstances, a constraint observable even inside higher education (Longman and Madsen, 2014). A substantial body of research has recorded the status of women in collegiate and university leadership. Although progress in leadership roles, strategies, and best practices has somewhat facilitated opportunities for women in higher education, considerable obstacles persist, with both conscious and unconscious biases remaining widespread. Higher education can significantly benefit from discovering, developing, and advancing more high-potential women into leadership positions. Attaining this objective is crucial for providing optimal education for our children, grandchildren, neighbors, students, and the global community (Abalkhail, 2017).

The UNESCO (1998) Declaration on Higher Education asserted that higher education 'should foster solidarity and equity' and emphasized equality of access.

Furthermore, 'democratizing' narratives such as meritocracy and opportunity bolstered the reorganization of the higher education sector, propagating an inherent 'belief' that the new university would facilitate the 'natural' attainment of gender equality, for instance, via quality assurance policies. Consequently, numerous higher education research studies and intricate evaluations of ongoing transformative processes often overlook gender equity as an analytical category. Four Nonetheless, the presumption that women have attained a degree of opportunity and benefit in the workplace contradicts the ongoing trend of male dominance in senior and middle leadership roles, which is evident in nations with varied policies and gender equality laws (Spanò, 2020).

An important necessity for innovative leadership models exists to facilitate organizational success in increasingly complex and competitive landscapes (Kay and Shipman, 2014). Robust cultural norms dictate appropriate leader behavior, frequently rooted in extensive cultural and historical contexts (Morley, 2013). Today, we expect leaders to demonstrate authority, emotional intelligence, and proficiency in interpersonal and communication skills, a shift from historical expectations. David Goleman's well-known concept of "emotional intelligence" (Goleman, 1995) articulates the transition of academic leadership towards managerialism, linking leadership to attributes such as teamwork, adaptability, and relationship cultivation. People often assume that women naturally possess these characteristics. The notion of leadership continues to prioritize values such as logic, strategic vision, energy, dedication, and resilience—attributes that women are anticipated to exhibit, whereas males are presumed to inherently possess (Spanò, 2020).

Although the percentage of women in academic jobs within higher education has improved, particularly in tenure-track posts, their presence in senior leadership roles, such as deanships and university presidencies, remains limited (Park, 2020). The gap arises from the unequal workload that women endure relative to men, necessitating greater hours in teaching, advising, and mentoring. This complicates their access to leadership positions (Rauhaus and Carr, 2020), thereby reinforcing the belief that women lack the necessary skills for leadership roles in higher education (Sayler et al., 2019). Gender studies show that women are underrepresented in senior professional roles (Nica, 2014), and their progression to positions with greater responsibility is slow (Pyke, 2013).

This research examines women's leadership in higher education institutions as a strategic method to enhance educational quality and empower individuals, considering the escalating global competition among universities and the continuous initiatives to diversify leadership within these institutions while leveraging the capabilities of women. This study seeks to answer four fundamental questions:

Q1: what is the concept of leadership in higher education institutions?

Q2: what are the factors that drive the need for female leadership in universities?

Q3: how do societies and university managerialism influence women's aspirations for leadership?

Q4: what strategies can enhance women's leadership participation to improve the quality of higher education?

This study examines universities' continuous initiatives to implement techniques that foster diversity in leadership, thereby improving educational quality and bolstering institutional academic reputations. Enhancing women's empowerment and augmenting their representation in leadership roles within higher education institutions constitutes a crucial investment in human capital. Consequently, it is vital to perform a thorough assessment of the elements that enhance women's access to leadership positions as a strategic method for elevating the general quality of higher education.

This research seeks to fill a notable void in the current literature by offering a comprehensive and contemporary examination of the essential role of women's leadership in higher education. It will uncover essential variables that facilitate the empowerment of women in leadership roles while providing actionable insights to inform programs and policies designed to promote leadership diversity within these organizations.

This research is significant for policymakers and higher education institutions, providing evidence-based insights into the societal and institutional elements that affect women's leadership aspirations. Furthermore, it proposes innovative methods to increase the representation of women in leadership roles, thereby fostering successful initiatives that enhance educational quality and support the long-term growth of higher education institutions.

2. Materials and methods

This study employed a qualitative descriptive research methodology to investigate the essential aspects that facilitate women's professional development and enhance their representation in higher education leadership as a strategic means to improve educational quality. Descriptive research, as defined by Neuman (2014), is characterized by its ability to "illustrate the specific details of a situation, social context, or relationship" and "begins with a clearly articulated issue or question, with the objective of describing it accurately." "...concentrates on 'how' and 'who' questions...". Lambert and Lambert (2012) contend that qualitative research methodologies, including phenomenology and grounded theory, can serve both descriptive and explanatory purposes. The authors advocate for the use of the term "qualitative descriptive research" to accurately delineate the research methodology, rather than misclassifying it with terminology associated with other methodologies (e.g., phenomenology, grounded theory, ethnography). Lambert and Lambert (2012). Naturalistic inquiry, which aims to capture phenomena as authentically as possible within the study context, forms the fundamental basis of qualitative descriptive research (Lambert and Lambert, 2012). This basically qualitative study seeks to examine the key attributes and tactics that foster and maintain women's leadership in higher education institutions. Identifying these elements enhances educational quality; hence, it constitutes qualitative descriptive research. Furthermore, an exhaustive content analysis of both digital and printed materials pertinent to the events under investigation is essential, given the objectives of this study (Bowen, 2009). Bowen (2009) asserts that it comprises three phases: skimming, thorough reading, and interpretation. Content analysis (Weber, 1990) allows for the disaggregation of reading and writing into smaller, more manageable components. The objective is to

identify the principal concepts by examining reoccurring themes and patterns within the sources (Patton, 2002).

3. Results and discussion

Leadership in higher education institutions is a fundamental pillar for achieving academic excellence, improving the quality of education and research, and fostering an institutional environment that supports diversity and inclusion. With the rapid global developments in academic institutions, the need for effective and inclusive leadership has become more urgent than ever. In this context, female leadership emerges as a pivotal subject requiring further research and development due to its critical role in achieving leadership balance and enhancing the sustainability of academic institutions. Moreover, this study discusses the findings of analyzing the concept of leadership within universities, highlighting the factors that emphasize the necessity of female representation in leadership roles. It also examines the influence of societal norms and university managerial practices on women's aspirations to take on leadership positions, where cultural and institutional factors often intertwine, either hindering or encouraging their participation. Finally, this work proposes practical strategies to enhance women's leadership participation, contributing to improving the quality of higher education and achieving sustainable development goals through the following.

3.1. The concept of leadership in higher education institutions

Leadership transcends mere position or occupation; it encompasses larger perspectives. To attain leadership, one must possess vision and creativity. In addition, characterizes leadership as the capacity to unite individuals, instruments, and resources to address challenges and attain outcomes. In the contemporary global landscape, a leader must go beyond traditional roles to unify their human resources across national, geographic, cultural, and other barriers, employing information technology to attain corporate objectives (Sunarsi et al., 2020).

The leadership style inside a company correlates with the overall success of the team. The three components constituting a leadership result are the extent to which evaluators believe their leader inspires them (extra effort) and the efficacy with which they perceive their leader engaging at various organizational tiers. Individuals experience effectiveness and satisfaction with their leader's methods compared to others, a phenomenon known as Satisfaction with Leadership (Avolio et al., 1999). It is important to recognize that more effort inspires people to go beyond their perceived limits, enhances their ambition for success, and ultimately fosters a greater willingness to exert themselves. The leader assesses effectiveness as feedback regarding the fulfillment of others' work-related requirements, the representation of the team at higher organizational levels, and the leadership of a productive team. Ultimately, happiness with leadership correlates with the application of suitable leadership techniques and effective collaboration with others (Antonakis et al., 2003).

In higher education institutions, leadership and leadership style are crucial for establishing a successful institution. The leadership style of the Head of the educational institution should not engender feelings of tyranny or coercion among lower-level academics and administrative staff (Mango, 2018). Research on educational leadership has highlighted the significance and impact of the leader on the enhancement and efficacy of the foundation. The research provided data supporting the notion that leadership is a multilayered construct capable of influencing factors that impact educational institutions and students (Antonopoulou et al., 2021).

Educational institutions view the leadership function as crucial. The purpose of leaders is to steer and guide folks appropriately. Thus, students can satisfactorily complete their educational responsibilities, respond more effectively to challenges, and surmount hurdles. Furthermore, a pivotal element of organizational efficiency and success is the management and leadership within any company or service, whether in the public or private sector. To operate efficiently, every manager utilizes (or experiences) the organization and expression of leadership in a specific context and setting. Numerous theorists in organizational and administrative science assert that educational administration extensively utilizes the principles of administration, positioning it as the primary testing ground for pertinent principles and practices (Jaser, 2020). In organizational management, contemporary advancements and ongoing, intricate, and interconnected issues heighten the need to reconcile distinctiveness and cohesion (Santora, 1991).

Gaus et al. (2022) characterize leadership as a synthesis of conventional leadership styles, based on positivism, and modern leadership styles, founded on social constructivist principles. This perspective roughly corresponds with concepts put out by researchers (Yukl, 1989). Gaus et al. (2022) propose a synthesis of traditional understanding, defining leadership as a non-coercive endeavor to inspire and engage organizational personnel toward common goals, influenced by the leader's conduct, competencies, and personal attributes. This definition characterizes leadership as "the process of guiding a group or groups of individuals in a specific direction through predominantly non-coercive methods" (Jones et al., 2012). Furthermore, Yukl (1989) defines leadership as the ability to influence others to gladly follow, whereas Kotter (1990) highlights the importance of sustaining human relationships to facilitate change. In contrast, management emphasizes the organization of resources to facilitate the efficient operation of an organization (Yukl, 1989). In the current quickly changing landscape, both leadership and management are crucial for companies, especially higher education institutions, to maintain adaptability and sustainability. Despite their theoretical separation, higher education increasingly views leadership and management as complementary systems of action (Kotter, 1990). Leadership is a crucial component of management; nevertheless, an overemphasis on leadership at the cost of management can be harmful (Gaus et al., 2022).

3.2. Factors driving the need for female leadership in higher education

The notion of "feminine power" in leadership frequently highlights the relational and emotional dimensions of leadership responsibilities. The necessity to regulate or conceal emotionality underscores the enduring unfavorable perception of emotions frequently associated with irrationality (Putnam and Mumby, 2000). De Lauretis (1987) often perceives women's leadership styles as components of gendered dynamics, perpetuating prevailing gender standards, including within academia. Leadership and managerial positions remain predominantly associated with traits traditionally attributed to masculinity, perpetuating the underrepresentation of women in executive roles. At the same time, academic institutions often expect women to perform tasks such as teaching, administration, and "institutional housekeeping," which are unrecognized forms of labor. The contentious notion that women are intrinsically "supportive" and fundamentally equipped to enhance the emotional welfare of the organization may underpin the concept of "women's ways of leading". Nonetheless, it is unclear whether these leadership styles facilitate or obstruct women's career progression in universities (Doherty and Manfredi, 2006). Furthermore, feminist leadership seeks to confront the competitive individualism sometimes endorsed in performative academic environments, which tends to perpetuate conventional views of rivalry, envy, and discord among women (Spanò, 2020).

Globally, women are achieving increased exposure and acknowledgment as professionals within businesses. Multiple variables, such as economic expansion, shifts in societal perceptions regarding employment, married women with children, and other political and legal modifications, are responsible for this trend (Burke and Richardsen, 2016). Despite the rise in women's labor force participation across all nations, gender equality with men remains unattained (World Economic Forum, 2015). The Global Gender Gap Index shows that in 145 countries, there is still a significant disparity between women and men in terms of economic participation and political empowerment (World Economic Forum, 2015).

"The female advantage" (Niemi, 2017) refers to the correlation between elevated educational attainment and engagement in responsibilities of greater magnitude within academia, which has led to an enhanced presence of women in significant roles. Since 1990, this concept has marked the emergence of women into the workforce, emphasizing their talents, skills, and ideas (Helgesen, 1995). Women's advancement to significant positions in academia serves as evidence (Eurostat, 2018). Between 2000 and 2018, there was a global rise in female enrollment relative to male enrollment, with the gross enrollment rate for men in higher education increasing from 19% to 36% and for women from 19% to 41% (United Nations Educational, Scientific and Cultural Organization (UNESCO, 2021). Despite predictions of an increase in this phenomenon in the coming years (DiPrete and Buchmann, 2013), the United Nations report (2021) documents that the female advantage is paradoxically not correlated with women holding the majority of academic positions in universities post-graduation, engaging in significant research, assuming leadership roles, or receiving competitive and comparable salaries. Women in higher education: Has the female advantage eradicated gender inequalities? United Nations Educational, Scientific and Cultural Organization (UNESCO, 2021).

The trends of women's underrepresentation in leadership are concerning, as multiple research studies across various industries have established a strong case for promoting more women into leadership roles, as outlined in Madsen's (2015) report. Women's active participation on boards and leadership teams provides institutions and organizations with five benefits: enhanced financial performance, improved organizational climate, elevated corporate social responsibility and reputation, optimized talent utilization, and increased innovation and collective intelligence.

Consequently, higher education ought to lead the push for enhanced women's representation in organizational leadership due to both substantive and symbolic reasons (Madsen and Longman, 2020).

Recently, innovative leaders have been essential, especially in addressing the growing demand for creativity and innovation inside commercial organizations. To effectively tackle these difficulties, leaders must exhibit a range of talents and methodologies that foster creativity. Studies indicate that women in leadership positions augment organizational creativity by connecting the desire for innovation with the necessary capacities to realize it, hence promoting company sustainability. Female leaders offer distinct viewpoints, competencies, and innovative concepts, enhancing decision-making and motivating teams to work cohesively toward common innovation objectives. Six fundamental attributes-visionary thinking, critical thinking, communication skills, emotional intelligence, transformational leadership, and transactional leadership—are crucial for cultivating innovative women leaders. Utilizing these attributes allows firms to obtain critical insights, expedite market entry, and establish more robust relationships with emerging markets. Investing in innovative female leaders enhances human capital potential, fosters a new generation of innovators, and magnifies their influence on organizational and social advancement (Chellappan and Muthuveloo, 2022). Conversely, implementing these principles in higher education institutions is essential for promoting innovation and sustainability. Empowering innovative women leaders improves academic and administrative processes through the use of unique techniques that tackle modern difficulties. Their varied viewpoints and leadership approaches enhance inclusive and successful decision-making. Moreover, effective leaders propel institutions toward enduring sustainability by synchronizing objectives with global development agendas. Through their exemplary conduct, they motivate students and staff, fostering a culture of excellence, collaboration, and perpetual enhancement, so reinforcing the institution's capacity to adapt, innovate, and prosper in an ever-evolving environment (Chellappan and Muthuveloo, 2022).

3.3. The influence of societies and higher education institutions managerialism on women's aspirations for leadership

Undoubtedly, significant improvements have occurred in women's participation in higher education institutions, with forecasts indicating a continued rise in the forthcoming years. Nonetheless, significant disparities persist, as progress is not uniform across all domains of knowledge or academic endeavors. Gender biases that obstruct the inclusion of women in decision-making roles persist. This illustrates that significant disparities and discriminatory practices in academic participation persist concerning gender relations. Consequently, women encounter numerous internal and external obstacles throughout this process. Traditional cultural elements, such as insufficient commitment to professional practice and the strain work roles create at home, characterize the former, while peers' overt resistance to promotion, gender quotas, wage disparities, and a lack of female role models characterize the latter (Meza-Mejia et al., 2023). Research on women's careers, particularly in upper organizational echelons, reveals a persistent underrepresentation of talented women in executive leadership roles (Eagly and Carli, 2007; Karam and Afiouni, 2014). Researchers offer several explanations for this phenomenon, including gender discrimination in hiring and promotion (Alimo-Metcalfe, 2010), employment segregation by gender, race, class, and the exclusion of women from male developmental networks (Abalkhail and Allan, 2015).

Notwithstanding comprehensive anti-discrimination and affirmative action frameworks (White, 2011) as well as organizational and institutional gender equity structures, women remain underrepresented in higher education leadership. O'Connor (2018) notes that "formal positions of academic leadership in higher education remain predominantly held by males." We recognize the obstacles that hinder women's advancement into leadership positions in higher education. The underrepresentation of women in the role of full professors is a significant issue. According to Jarboe (2018), possessing a notable research background is typically a prerequisite for roles such as Vice-Chancellor, Deputy Vice-Chancellor, Pro Vice-Chancellor, or Dean (Burkinshaw, 2015). However, after achieving full professorship, women often face discrimination in the workplace and within scientific organizations (Popp et al., 2019), a viewpoint that Santos and Stéphanie (2019) challenge. O'Connor (2017) questions whether increasing the number of women who are full professors is enough to change the culture of higher education: "Such developments can fulfill the demand for institutional legitimacy but may not contest the prevailing paradigm." This is because the most important thing is not just the number of women professors (and potential senior leaders leading cultural change), but also the number of feminists (both women and men) in leadership positions (Burkinshaw, 2015). The increased presence of women in academia holds symbolic significance, although it "is not sufficient" (O'Connor, 2018). Organizations must integrate gender into their essence and objectives. A further obstacle is the absence of transparency in recruiting, promotion, and retention (Acker, 2014; Morley, 2014).

Theoretically, gender studies emphasize that the inequality experienced by women is primarily a societal construct rather than an inherent condition. This is specifically shown in higher education, where women admission is considered a huge milestone and a great achievement, and the "female advantage" represents their rising influence and success within this domain. Meza-Mejia et al. (2023) highlight the great participation of women in leadership within higher education through teaching, participating in innovative research and taking management jobs although their involvement level is different in each scope. Over time, institutions have played an important role in the establishment and reinforcement of norms and values linked to each gender, strongly entrenching stereotypes inside individuals and their environment by reinforcing certain expectations and behavior for each gender. The establishment of each gender role has been an obstacle in the way of women participation in the paid work market. In the professional realm, gender gaps are predominantly evident in salary inequality, frequently stemming from discrepancies in the nature of labor undertaken, it's perceived worth, and the associated compensation. Despite efforts to achieve initiations such as "equal pay for status", different genders continue to receive unequal salaries underscoring the ongoing challenge for achieving equality (Meza-Mejia et al., 2023).

Despite these efforts concerning targeting equality continue to evolve in developing nations, gaps still exist particularly in fields that traditionally depend on men such as Science, Technology, Engineering, and Mathematics (STEM) (Li, 2020). This is further illustrated visualizing the situations in fields such as Geography, which is going to require continues leadership to alter workplace inequalities (Maddrell et al., 2016), Agricultural Science, that has been influenced by men through history making it hard for women to have their own participations in this field (Niewoehner-Green et al., 2022), and Tourism, where performance matrix also reflects gender equality (Pritchard and Morgan, 2017). A pertinent example is a study by Rauhaus and Carr (2020), which indicates that female faculty members undertake an unequal share of advising and mentoring duties in the academic labor division, hence diminishing their chances of attaining leadership roles within their institutions.

Privileges or favors are naturally presented to men during their academic life. Consequently, Gouthro et al. (2018) suggests the integration of a critical feminist perspective into the organizational model within higher education, while authors such as Acker (2012) recommend analyzing the experiences of female academic leadership through varied analytical frameworks. Furthermore, some women have successfully navigated specific crises and obstacles associated with their academic journeys and gender, achieving a balance between their personal and professional lives, which has enabled their success (Van Helden et al., 2023). Social determinants that assist women in shaping their professional trajectories encompass parental influence, marital support, and collegial backing from male academics (Oti, 2013), among others.

Research recognizes gender as a main factor contributing to inequality, especially in the allocation of position of authority within research (Morais et al., 2022). Men primarily hold most of the leadership occupations that have the major impact in research initiatives and decision-making process, leading to the women being pushed into less influential roles, marginalizing their positions and making them invisible in high-impact research endeavors (Davies et al., 2019; Hakiem, 2022). Consequently, female academics navigate their profession differently than their male counterparts, encountering micro inequities and minor incidents that compel them to remain silent or face overt silence, especially in Asian countries where hierarchical culture mandates women to adopt submissive roles and confine them to conventional domestic responsibilities (Aiston and Fo, 2021). Females are less likely to attain tenure, publish fewer works, secure less external funding, exhibit fewer markers of research prestige, and allocate more time to teaching (Aiston, 2014), despite being more frequently authors and leaders in publications within bold/innovative and resistance domains (Acai et al., 2022).

Researchers have offered several causes for the underrepresentation of women in senior leadership roles in the workplace. A patriarchal culture delineates labor roles by gender, resulting in male dominance in positions of power inside enterprises (Broadbridge, 2008). Some researchers, like Eagly and Carli (2007), say that the subsequent assignment of different social gender roles indirectly reinforces gender stereotypes, since the activities women usually do in their designated roles don't seem to show the personal qualities needed for leadership. This social stereotype fosters and

promotes discriminatory attitudes toward women in leadership roles. Alimo-Metcalfe (2010) indicates that gender-biased procedures are the primary cause of the underrepresentation of women in senior management roles. This encompasses recruiting, performance assessment and appraisal procedures; insufficient access to training and networks; and a deficiency of mentors (Al Ariss et al., 2014). Numerous studies (Sidani et al., 2015) indicate that, despite government programs aimed at fostering gender equality in Arab countries, women have recently entered various executive roles; yet, their careers continue to encounter numerous obstacles.

Level	Description	Barriers
Macro (Societal)	Culture challenges that lead to the limitation of women contribution as leaders and their role to be regarded seriously.	 Control the way women can express themselves (restrictions in how they contribute) Limitation of women choices due to cultural constraints (constraints by society and social norms) Expectation of the gender behavior (generalizations held by society) Bias gender unawareness (lack of understanding of how the actions of some organizations lead to gender inequality) Leadership perceptions (Society tend to see that leadership is associated with men) Scrutiny (critical observation that women in leadership face)
Meso (Organizational)	Ways of how women's leadership, contributions and the effectiveness of their contributions are minimized within organizations.	 Devaluing of communal practice (a more caring and nurturing style is discounted) Discrimination (unjust treatment) Exclusion from informal networks (limited access) Glass cliff realities (being placed in high-risk roles) Lack of mentoring, sponsorship, and support (three separate barriers, each of which is relationship-based) Male gatekeeping (control of access) Male organizational culture (male normed) Organizational ambivalence (lack of confidence in women) The queen bee effect (women not supporting women) Salary inequality (gender wage gap) Tokenism (not being viewed as competent and earning a spot) Two-person career structure (the partner is expected to do unpaid work) Unequal standards (women must perform at a higher level) Workplace harassment ("sabotage, verbal abuse, bullying, intimidation, sexual harassment, and other behaviors intended to provoke, frighten, intimidate, or bring discomfort")
Micro (Individual)	Barriers that typically lie within the woman herself, though rooted in cultural and organizational expectations for women's behavior.	 Communication style constraints (women must monitor what and how messages are communicated) Conscious unconsciousness (choosing to not notice) Personalizing (take responsibility for organizational problems) Psychological glass ceiling (behave according to society's expectations) Work-life conflict

Table 1. Gender-based leadership barriers in higher education settings.

*Source: Diehl and Dzubinski (2017).

Moreover, there are no policies in place for mentorship programs to promote the progression of women's professions (Tlaiss and Kauser, 2011), nor are there any strategic affirmative action initiatives aimed at bright women (Sidani and Al Ariss, 2014). As a result, female managers often depend on their families for career assistance and successful organizational prospects (Abalkhail and Allan, 2015).

Consequently, women face challenges from social issues, and organizations are also failing to provide strategic support (Sidani and Al Ariss, 2014).

Diehl and Dzubinski (2017) presented a thorough framework delineating the gender-specific leadership obstacles encountered by women in higher education settings. **Table 1** illustrates the classification of the barriers based on their primary social levels: Macro-level (societal), Meso-level (organizational), and Micro-level (individual).

Understanding the different obstacles that faces women is essential for acknowledging optimal strategies to prepare women for leadership. This is done by addressing the factors affecting women's aspiration in terms of underlying process, organization structures and cultural norms that have a negative impact on women ambition. This is vital in motivating and supporting women through their leadership journey (Madsen and Longman, 2020).

3.4. Strategies to enhance women's leadership participation to improve the quality of higher education

Although women participation in academic positions within higher education, their contribution in senior leadership roles such as being a dean or as a university president remain very low (Park, 2020). Women are exposed to heavier workload as they sometimes have additional obligations that include teaching, advising and monitoring increasing the gap between gender and not giving them space to prove themselves. The time and effort for these additional requirements restrict their chances to land leadership roles (Rauhaus and Carr, 2020) and perpetuate the belief that women lack adequate preparation for leadership positions in higher education (Sayler et al., 2019). This limitation in the representation of women in senior professional roles is highlighted by gender studies (Nica, 2014), along with considerable delays in their advancement to positions must implement measures to augment women's involvement in leadership roles, thereby enhancing the quality of higher education and fostering sustainable and progressive classroom settings, which should encompass the following:

3.4.1. Empowering women's leader identity to enhance their participation in leading higher education institutions

Enhancing the concept of "leader identity development" is essential to augment women's participation in leadership within higher education institutions (Ibarra et al., 2013; Komives and Dugan, 2014). Ibarra et al. (2013) confirms that individuals attain leadership by internalizing a leadership identity and believing in their ability to lead by adopting the mindset of being a leader, in addition to cultivating a sense of purpose to drive their actions and decisions. This approach is an iterative process not a onetime event, with leadership demonstrated by intentional acts such as convening a meeting to reinvigorate a stagnant project. The impact of others on an individual either in a supportive or oppositional manner helps shape the individual's self-image as a leader and influence how the individual sees their suitability for the role. Furthermore, Ibarra (2015) illustrates the formation of a leader identity, which involves pursing challenging tasks, accepting risk and strategic networking and building relationships that can help achieve organizational goals. This approach prioritizes exterior actions and experiences over internal attributes like authenticity, underscoring the significance of interacting with the wider world to develop leadership (Madsen and Longman, 2020).

Conversely, promoting women from entry-level to mid-level roles enables them to cultivate vital skills and establish a credible record of accomplishments that can enhance future career advancement. Research indicates that a smaller proportion of women than men aspire to senior leadership positions (McKinsey and Company, 2018). Women tend to seek leadership positions for relational aspects rather than personal gain, as they most of time seek building relationships, collaborating with others, power, status or making positive impact (Devnew et al., 2017). Women tent more to pursue leadership posts motivated by a desire to effectuate significant change in values they hold dear, prioritizing jobs that are "high impact rather than high-profile" (Keohane, 2014). Furthermore, Kay and Shipman's (2014) suggest that the women's confidence in their work is boosted by achieving collective goals of a group or organization instead of just individual achievement. This change can lead to more women have the target of landing more leadership positions as they might feel more motivated and more confident. Moreover, studies within faith-based higher education indicate that women frequently occupy leadership roles as a manifestation of "stewardship," motivated by an awareness of their own abilities or a sense of vocation to serve a greater purpose that promotes a specific cause or mission (Longman and Lamm, 2017).

Based on our conclusion, higher education institutions must prioritize the development of what is called "leader identity" in women by providing more and more opportunities for difficult and more advanced jobs, also easy access to leadership training and camps should be provided both online and offline to ensure that every woman out there have the opportunity she deserves.

In order to ensure that women participate in processes of decision-making that could effectively contribute to the creation of the "leader identity," organizations must also give multiple seats for women on their boards of directors. Moreover, institutions must cultivate settings that promote proactive risk-taking, strategic networking, and engagement in high-impact programs that resonate with women's leadership aspirations. We must address obstacles and barriers that could face women's aspirations and block her route for senior leadership positions, such as promoting mentorship initiatives and of course eliminating any gender biases ensuring racismfree work and education environment, to create a better leader development framework.

By equipping women with the necessary skills, confidence, and support for leadership positions, institutions can improve female representation and their influence in top-tier academic leadership

3.4.2. Providing specialized training courses for women to prepare them for leadership roles in higher education institutions

A transformation is necessary in corporate leadership development strategies, as the current system perpetuates the emergence of male executives akin to those of preceding generations. Currently, numerous women fail to realize their full potential, representing a significant loss in the competition for talent. Overseeing diversity and cultivating future diverse leaders are essential responsibilities for leadership inside UK organizations. This research examines the significant impact of women-only training on the advancement of future female leaders and the progression of their careers. The authors assert that, in conjunction with other leadership courses and support systems like mentoring and coaching, women-only training facilitates the clarification of leadership ambitions, the recognition of leadership strengths, and the attainment of leadership roles for women. Organizations that facilitate such learning opportunities will have access to a broader and more robust talent pool than previously (Vinnicombe and Singh, 2002). Furthermore, as noted by Abalkhail (2017), professional development activities in higher education settings manifest in diverse formats, including participation in seminars, training courses, or conferences. The study indicates a severe lack of training courses specifically designed to foster women's advancement into senior leadership roles.

Achieving gender equality and enhancing women's performance in leadership roles highlight the importance of providing them with specialized training programs that provide them with the skills needed for leadership positions in higher education institutions. Women may significantly improve institutional performance when they are given the tools to develop self-confidence and essential leadership traits, such as strategic thinking, decision-making, and effective communication. By addressing the gender gap in leadership, this approach promotes diverse perspectives in decisionmaking, which helps businesses succeed and grow. This training helps combat gender stereotypes, guarantee that everyone has equal opportunity, and achieve an inclusive and diverse environment that attracts the talented while continuously supporting women in an educational context that promotes leadership and active engagement.

3.4.3. The role of family support in enhancing self-confidence and empowering women to take leadership roles in higher education institutions

The career progress females are significantly impacted by male relatives, particularly fathers. About 50% of the participants stated that their fathers had the biggest influence on their career choices and accomplishments, highlighting the father's role as the cornerstone who helped them advance their education and careers. In conjunction with this familial support, the women exhibited considerable selfconfidence, empowering them to confront preconceptions. They cultivated this selfconfidence by recognizing their potential, strengths, and development opportunities, which empowered them to pursue leadership roles. Approximately fifty percent of the participants indicated that familial support, together with professional experience and advanced education, fostered their independence and goal-oriented mindset (Abalkhail, 2017). Meanwhile, Maheshwari and Nayak (2022) pointed out that there are still barriers on the participation of women in leadership roles within higher education institutions. The principal barrier obstructing women's progression to leadership positions in higher education is considered to be the work-life imbalance, the opinions of female leaders by their subordinates, restricted social networking possibilities, and individual variables. Employers and the leadership capabilities of females all these worked as the engine for encouraging females to seek leadership position within higher education institution.

Furthermore, to enhance the presence of women in leadership roles within higher education institutions, policies and programs must prioritize the utilization of family support, especially from male relatives, as a crucial element in women's professional advancement. The Initiatives could stress on the importance of family support in female's career development, moreover. Institution should provide mentorship and consultation for females that could boost the self-confidence, independency and help in developing their leadership skills, at the same time obstacles and barriers that face females such as work-life imbalance and restricted social networking and also the problem facing childbearing females to provide better and supportive work environment and framework.

4. Conclusion

The improvement of the service provided to the stakeholders keep the higher education institutions in non-stop and strong competition. This continuous competition requires better administration and management and also requires encouragement of the innovation. studies, researchers and professionals in Higher education institutions state that the difficulties facing the educational sector is fiercer than ever, there is always a need for innovative, bold and hardworking leaders among the staff from teachers to administrators at all colleges and institutions. The fully usage of female capabilities in higher education institutions provide a great opportunity to improve decision-making and strategies ensuring the disappearance of all gender biased decisions. This usage of leadership qualities in females has a direct relation with the quality of education and academics. Identifying impediments at cultural and institutional levels that impede the development of women's leadership skills and restrict their access to leadership positions in higher education is crucial. Implementing explicit tactics and embracing best practices can facilitate women's advancement as leaders in the field. Even after addressing the facts and removing a lot of obstacles but there are still obstacles still need to be addressed, both conscious and unconscious prejudices continue to face females in the higher education institutions. Notwithstanding these challenges, higher education may greatly benefit from the identification, preparation, and development of more women with substantial leadership potential. By utilizing their inherent and developed capabilities, schools can attain superior educational quality and improve their academic reputation.

Author contributions: Conceptualization, FSN and AOA; methodology, HAS; software, AOA; validation, FSN, AOA and HAS; formal analysis, FSN; investigation, AOA; resources, FSN; data curation, HAS; writing—original draft preparation, FSN; writing—review and editing, AOA; visualization, AOA; supervision, FSN; project administration, HAS; funding acquisition, FSN. All authors have read and agreed to the published version of the manuscript.

Funding: The Deanship of Scientific Research and the Vice Presidency for Graduate Studies and Scientific Research at King Faisal University, Saudi Arabia (grant number: KFU242410) have granted the authors financial assistance to conduct and publish the presented research, for which they are deeply grateful.

Conflict of interest: The authors declare no conflict of interest.

References

- Abalkhail, J., and Allan, B.(2015). Women's career advancement: mentoring and networking in Saudi Arabia and UK. Human Resource Development International, 18(2),1-16.
- Acai, A., Mercer-Mapstone, L., and Guitman, R. (2022). Mind the (gender) gap: Engaging students as partners to promote gender equity in higher education. Teaching in Higher Education, 27, 18–38.
- Acker, S. (2012). Chairing and caring: Gendered dimensions of leadership in academe. Gender and Education, 24, 1–18.
- Acker, S. (2014). A foot in the revolving door? Women academics in lower middle management. Higher Education Research & Development, 33, 73–85.
- Aiston, S. J. (2014). Leading the academy or being led? Hong Kong women academics. Higher Education Research & Development, 3: 59–72.

Aiston, S. J., and Fo, C. K. (2021). The silence/ing of academic women. Gender and Education, 33, 1-18.

- Al Ariss, A., Cascio, W., and Paauwe, J. (2014). Talent management: current theories and future research directions. Journal of World Business, 49 (2), 173-179.
- Alimo-Metcalfe, B. (2010). Developments in gender and leadership: introducing a new "inclusiv" model. Gender in Management: An International Journal, (25) 8, 630-639.
- Antonakis, J., Avolio, B. J., and Sivasubramaniam, N. (2003). Context and Leadership: An Examination of the Nine-Factor Full-Range Leadership Theory Using the Multifactor Leadership Questionnaire. The Leadership Quarterly, 14(3), 261–295. doi:10.1016/s1048-9843(03)00030-4.
- Antonopoulou, H., Halkiopoulos, C., Barlou, O., and Beligiannis, G. N. (2021). Transformational Leadership and Digital Skills in Higher Education Institutes: During the COVID-19 Pandemic. Emerging Science Journal, 5 (1), 1-15, DOI: http://dx.doi.org/10.28991/esj-2021-01252.
- 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(4), 441–462. https://doi.org/10.1348/096317999166789
- Bowen, G. A. (2009). Document analysis as a qualitative research method. Qualitative Research Journal, 9(2), 27-40.
- Burke, R.J. and Richardsen, A.M. (2016).Women in management worldwide: progress slowly, in Burke, R.J. and Richardsen, A.M. (Eds), Women in Management Worldwide: Signs of Progress, 3rd ed., Gower, Farnham.
- Burkinshaw, P. (2015). Higher Education, Leadership and Women Vice Chancellors: Fitting into Communities of Practice of Masculinities. Basingstoke: Palgrave Macmillan.
- Chellappan, Y., and Muthuveloo, R. (2022). Shaping the skills and styles of future innovative women leaders: the moderating roles of self efficacy and personal initiative. Journal of Entrepreneurship, Business and Economics, 10(1), 177–211.
- Davies, J., Yarrow, E., and Syed, J. (2019). The curious under-representation of women impact case leaders: Can we disengender inequality regimes?. Gender, Work & Organization, 27: 129–48.
- De Lauretis, T. (1987). Technologies of Gender: Essays on Theory, Film and Fiction. Basingstoke: Macmillan Press.
- Devnew, L. E., Austin, A. M. B., Le Ber, M. J., and Shapiro, M. (2017). Women's leadership aspirations. In S. R. Madsen (Ed.), Handbook of research on gender and leadership. Northampton, MA: Edward Elgar.
- Diehl, A. B., and Dzubinski, L. (2017). An overview of gender-based leadership barriers. In S. R. Madsen (Ed.), Handbook of research on gender and leadership. Northampton, MA: Edward Elgar.
- DiPrete, T., and Buchmann, C. (2013). The Rise of Women: The Growing Gender Gap in Education and What It Means for American Schools. New York: Russell Sage Foundation. Available online: http://www.jstor.org/stable/10.7758/9781610448000
- Doherty, L., and Manfredi, S. (2006). Women's Progression to Senior Positions in English Universities. Employee Relations 28 (6): 553–572.
- Eagly, A. H., & Carli, L. L. (2007). Through the labyrinth: The truth about how women become leaders. Boston, MA: Harvard Business School Publishing.
- Eurostat. 2018. Gender Statistics. Available online:

https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Gender_statistics

Gaus, N., Basri, M., Thamrin, H. and Ritonga, F. U. (2022). Understanding the nature and practice of leadership in higher education: a phenomenological approach. International Journal of Leadership in Education, 25(5), 685-703, https://doi.org/10.1080/13603124.2020.1737241

Goleman, D. (1995). Emotional Intelligence. New York: Bentham Books.

- Gouthro, P., Taber, N., and Brazil, A. (2018). Universities as inclusive learning organizations for women? Considering the role of women in faculty and leadership roles in academe, The Learning Organization, (25), 29–39.
- Hakiem, R. (2022). Advancement and subordination of women academics in Saudi Arabia's higher education. Higher Education Research and Development, 41, 1528–41.
- Helgesen, S. 1995. The Female Advantage: Women's Ways of Leadership. New York: Doubleday Currency.
- Ibarra, H. (2015). Act like a leader, think like a leader. Boston, MA: Harvard Business Review Press.
- Ibarra, H., Ely, R. J., & Kolb, D. M. (2013). Women rising: The unseen barriers. Harvard Business Review, 91(9), 60-66.
- Jarboe, N. (2018). Women Count: Leaders in Higher Education 2018. London: Women Count. https://women-count.org/portfolio/womencount-leaders-in-higher-education-2018/
- Jaser, Z. (2020). The Connecting Leader. Aligning Leadership Theories to Managers' Issues. Leadership,17(3),367-382, doi:10.1177/1742715020981188.
- Jones, S., Lefoe, G., Harvey, M., & Ryland, K. (2012). Distributed leadership: A collaborative framework for academics, executives, and professionals in higher education. Journal of Higher Education Policy and Management, 34(1), 67-78. https://doi.org/10.1080/1360080X.2012.642334
- Karam, C., and Afiouni, F. (2014). Localizing women's experiences in academia: multilevel factors at play in the Arab Middle East and North Africa. The International Journal of Human Resource Management, 25(4),500-538.
- Kay, K., and Shipman, C. (2014). The Confidence Code: The Science and Art of Self-assurance What women should know. New York, NY: HarperCollins.
- Keohane, N. O. (2014). Leadership out front and behind the scenes: Young women's ambitions for leadership today. In K. A. Longman & S. R. Madsen (Eds.), Women and leadership in higher education. Charlotte, NC: Information Age Publishing.
- Komives, S. R., & Dugan, J. P. (2014). Student leadership development: Theory, research, and practice. In D. V. Day (Ed.), The Oxford handbook of leadership and organizations. New York, NY: Oxford University Press.
- Kotter, J. (1990). What leaders really do. Harvard Business Review, 103-111.
- Lambert, V. A., & Lambert, C. E. (2012). Qualitative descriptive research: An acceptable design. Pacific Rim International Journal of Nursing Research, 16(4), 255-256.
- Li, Y. L. (2020). First-generation immigrant women faculty's workplace experiences in the US universities—Examples from China and Taiwan. Migration Studies, (8), 209–27.
- Longman, K. A., & Lamm B. D. (2017). The role of purpose and calling in women's leadership experiences. In S. R. Madsen (Ed.), Handbook of research on gender and leadership. Northampton, MA: Edward Elgar.
- Longman, K. A., & Madsen, S. R. (2014). Introduction. In K. A. Longman & S. R. Madsen, Women and leadership in higher education (pp. ix-xvii). Charlotte, NC: Information Age Publishing.
- Maddrell, A., Strauss, K., Thomas, N., and Wyse, S. (2016). Mind the gap: Gender disparities still to be addressed in UK Higher Education geography. Area, 48,48–56.
- Madsen, S. R. (2015). Why do we need more women leaders in higher education? (HERS Research Brief No. 1). Retrieved from https://www.uvu.edu/uwlp/docs/hers.brief.no.1.pdf
- Madsen, S. R., and Longman, K. A. (2020). Women's leadership in higher education: Status, barriers, and motivators. Journal of Higher Education Management, 35(1), 13-24. https://issuu.com/aaua10/docs/final_jhem_35_1__2020_
- Maheshwari, G., and Nayak, R. (2022). Womenleadership in Vietnamese higher education institutions: An exploratory study on barriers and enablers for career enhancement. Educational Management Administration & Leadership, 50(5) 758–775.
- Mango, E. (2018). Rethinking Leadership Theories. Open Journal of Leadership, 7 (1), 57-88. doi:10.4236/ojl.2018.71005.
- McKinsey & Company. (2018). Women in the workplace 2018. Leanin. Retrieved from https://wiw
 - report.s3.amazonaws.com/Women_in_the_Workplace_2018.pdf
- Meza-Mejia, M. D. C., Villarreal-García, M. A., and Ortega-Barba, C. F. (2023). Women and Leadership in Higher Education: A Systematic Review. Social Sciences 12:555. https://doi.org/10.3390/socsci12100555
- Morais, R., Fernandes, C., and Piñeiro-Naval, V. (2022). Big Girls Don't Cry: An Assessment of Research Units' Leadership and Gender Distribution in Higher Education Institutions. Social Sciences, 11: 345.

- Morley, L. (2013). The Rules of the Game: Women and the Leaderist Turn in Higher Education. Gender and Education, 25(1), 116–131.
- Morley, L. (2014). Lost leaders: Women in the global academy. Higher Education Research & Development, 33, 114-28.
- Neuman, W. L. (2014). Social research methods: Qualitative and quantitative approaches (7th ed.). Pearson Education Limited. UK.
- Nica, E. (2014). The importance of leadership development within higher education. Contemporary Readings in Law and Social Justice, 5, 189–94.
- Niemi, N. (2017). Degrees of Difference: Women, Men, and the Value of Higher Education. New York: Routledge.
- Niewoehner-Green, J., Mary, M. R., and McLain, S. (2022). The Gendered Spaces and Experiences of Female Faculty in Colleges of Agriculture. Rural Sociology, 87, 427–53.
- O'Connor, P. (2017). Towards a New Gender Agenda and a Model for Chang. In Gendered Success in Higher Education: Global Perspectives. Edited by Kate White and Pat O'Connor. Basingstoke: Palgrave, pp. 255–82.
- O'Connor, P. (2018). Editorial: Introduction to Special Issue on Gender and Leadership and a future research agenda. Education Sciences, 8: 93. https://doi.org/10.3390/educsci8030093
- Oti, A. O. (2013). Social Predictors of Female Academics' Career Growth and Leadership Position in South-West Nigerian Universities. SAGE Open, 3: 1–11.
- Park, S. (2020). Seeking changes in ivory towers: The impact of gender quotas on female academics in higher education. Women's Studies International Forum 79: 102346-1–102346-9.
- Patton, M. Q. (2002). Qualitative research & evaluation methods (3rd ed.). Sage Publications. https://doi.org/10.1177/1035719X0300300213
- Popp, A. L., Lutz, S. R., Khatami, S., van Emmerik, T., and Knoben, W. J. M. (2019). Perceptions and impacts of gender inequality in the geosciences are strongly gendered. Earth Arxiv, https://eartharxiv.org/repository/view/962/
- Pritchard, A., and Morgan, N. (2017). Tourism's lost leaders: Analysing gender and performance. Tourism's lost leaders. Analysing Gender and Performance 63: 34–47.
- Putnam, L. L., and D. K. Mumby. (2000). Organisations, Emotion and the Myth of Rationality. In Emotions and Organisations, edited by S. Fineman. London: Sage.
- Pyke, J. (2013). Women, choice and promotion or why women are still a minority in the professoriate. Journal of Higher Education Policy and Management, 35, 444–454.
- Rauhaus, B., and Carr, I. (2020). The invisible challenges: Gender differences among public administration faculty. Journal of Public Affairs Education, 26, 1–20.
- Santora, J. C. (1991). Book Review: A Force for Change: How Leadership Differs from Management. Journal of Management, 17(1), 218–218. doi:10.1177/014920639101700115.
- Santos, G., and Stéphanie, D. V. (2019). Gender and Academic Rank in the UK. Sustainability, 11, 3171, https://doi.org/10.3390/su11113171
- Sayler, M., Smith, P., and Marc, C. (2019). Hidden leaders: Results of the national study of associate deans. Studies in Higher Education, 44, 1–11.
- Sidani, Y. and Al Ariss, A. (2014). Institutional and corporate drivers of global talent management: evidence from the Arab Gulf region. Journal of World Business, 49(2), 215-224.
- Sidani, Y., Konrad, A. and Karam, C. (2015). From female leadership advantage to female leadership deficit. Career Development International, 20(3), 273-292.
- Spanò, E. (2020). Femina Academica: women 'confessing' leadership in Higher Education, Gender and Education, 32:3, 301-310, https://doi.org/10.1080/09540253.2017.1336205
- Sunarsi, D., Rohaeni, N., Wulansari, R, Andriani, J., Muslimat, A, Rialmi, Z., Kustini, E., Kristianti, L. S., Rostikawati, D., Effendy, A. A., Purwanto, A., Fahlevi, M. (2020). Effect of e-Leadership Style, Organizational Commitment and Service Quality towards Indonesian School Performance. Systematic Reviews in Pharmacy,11(10), 472-481.
- Tlaiss, H. and Kauser, S. (2011). Women in management in Lebanon, in Davidson, M.J. and Burke, R. (Eds), Women in Management Worldwide: Progress and Prospect, Gower, London.
- UNESCO. (1998). Towards and Agenda for Higher Education: Challenges and Tasks for the 21st Century Viewed in the Light of the Regional Conference. Paris: UNESCO.

- UNESCO. (2021). Women in Higher Education: Has the Female Advantage Put an End to Gender Inequalities? Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000377182
- Van Helden, D., Den, L., Bram, S., and Vernooij, M. (2023). Career implications of career shocks through the lens of gender: The role of the academic career script. Career Development International, 28, 19–32.
- Vinnicombe, S., and Singh, V. (2002). Women-only management training: An essential part of women's leadership development, Journal of Change Management, 3(4), 294-306, https://doi.org/10.1080/714023846

Weber, R. P. (1990). Basic content analysis (2nd ed.). Sage Publications. https://doi.org/10.4135/9781412983488

White, K. (2011). Legislative Frameworks for EO. In Gender, Power and Management: A Cross Cultural Analysis of Higher Education. Edited by Barbara Bagilhole and Kate White. Basingstoke: Palgrave Macmillan.

World Economic Forum. (2015). The Global Gender Gap Report. https://members.weforum.org/pdf/gendergap/report2016.pdf

Yukl, G. (1989). Managerial leadership: A review of theory and research. Journal of Management, 15(2), 251–289. https://doi.org/10.1177/014920638901500207