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PAPER

A Gender Role Perspective on Women's Leadership in Chinese Higher Education

Hongli Wang, Thitinant Wareewanich(✉)

Chakrabongse Bhuvanarth International Institute for Interdisciplinary Studies (CBIS), Rajamangala University of Technology Tawan-OK, Bangkok, Thailand

thitinant_wa@rmutto.ac.th

ABSTRACT

This study investigated the relationship between women's gender roles and their leadership in the context of Chinese higher education. Based on a questionnaire survey of 438 female leaders at various levels in Chinese higher education institutions, the research results show that gender-related factors such as family-role orientation and gender self-confidence have a close correlation with leadership aspiration and leadership self-efficacy. The results show that women's family-role orientation has a negative effect on women's leadership aspirations and leadership self-efficacy, while women's gender self-confidence does not have a positive effect on leadership aspirations and leadership self-efficacy as hypothesized. Both family-role orientation and gender self-confidence have a close correlation with leadership aspirations. Leadership aspiration significantly mediated the effects between family-role orientation and leadership self-efficacy. These findings revealed the characteristics and changes in the relationship between gender and leadership among women leaders in Chinese higher education.

KEYWORDS

gender role, women's leadership, Chinese higher education

1 INTRODUCTION

On September 25, 2015, the United Nations' 193 member countries passed the 17 Sustainable Development Goals (SDGs) spanning from 2015 to 2030. The fifth goal (G5) focuses on women's empowerment and gender equality. The G5 covers various ways of achieving gender equality, including increasing women's chances of participating in leadership roles [1]. Although some women have stepped into managerial positions and even occupied roles in mid-level management, the proportion of women in higher education institution management and elite leadership positions is still low [2, 3]. Women encounter gender bias, discrimination, and gendered inequalities in organizational hierarchies [4, 5].

Some studies have shown that universities are still male-dominated and provide fewer promotion opportunities for women compared to men in advancing

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to leadership [6, 7]. In higher education, the underrepresentation of women is still quite evident. In many countries, females play a prominent role in the education industry; however, it is males who hold senior leadership positions globally [8]. In the United States, women helped 26% of university presidencies in 2011. In Canada, the figure was 16% in 2006, and in the European Union, it was only 9% in 2007 [7]. In China, the situation is even more serious. In mainland China's higher educational institutions, only 4.5% of leaders (presidents and vice presidents) were female in 2008 [9]. On one hand, women's participation in executive positions at universities is increasing; on the other hand, the percentage of women in senior positions remains relatively low [10]. In higher education, male academics are often seen as 'gatekeepers' to job promotions and have a significant impact on key decisions. Women, on the other hand, are often positioned as outsiders and excluded from the predominantly male-dominated community [6].

Remarkably, recent research on the relationship between gender and leadership has emerged [11]. Theorists from different disciplines agree that gender is the foundational element that contributes to the slow advancement of women into leadership roles [12]. Actually, gender is an unavoidable aspect of interpersonal relations in the workplace and is extremely important in any discussion about advancing women's careers and enhancing their leadership skills [11]. Gender has different impacts on leadership because, from the very beginning, the term 'leadership' has been associated with masculine traits, which can have disadvantageous effects on women [13].

Studies on women's leadership in higher education have primarily been conducted in Western countries. Publications in other countries, such as East Asia [14, 15], South Africa, and the Middle East [16], have only appeared in recent years. In China, existing publications focus on the leadership of female teachers or female principals in primary schools, as well as on female managers and entrepreneurs. However, there is a noticeable lack of studies on women's leadership in higher education in mainland China.

The Merriam-Webster Dictionary defines gender as the behavioral, cultural, or psychological characteristics typically associated with one sex [17]. Gender reflects a binary designation of the social categories of male and female, traditionally and historically [18]. Gender is a concept constructed based on cultural and societal expectations rather than purely biological traits [19]. In a specific cultural context, society largely determines what is considered suitable for women and what is suitable for men [20]. Individuals shape their gender roles based on their self-perception as a man or woman.

Family-role orientation and gender self-confidence are two main factors influenced by female gender roles that impact women's leadership. Gender roles refer to the shared beliefs about the social identification of one's sex [21]. Women's gender roles affect their career progression [9]. Some studies have revealed that work-family conflict influences personal career aspirations [22, 23]. Gender self-confidence is closely associated with one's leadership identity [24]. Influenced by Confucianism and the Chinese notion that "a woman takes care of her family," many Chinese women opt to wholeheartedly support their husbands' careers and attend to their families, often lacking ambition for their own careers [25]. In the context of Chinese higher education, the paper examines the empirical impact of family-role orientation and gender self-confidence as two independent variables on Chinese women's leadership. The results will reveal the influential relationship between women's gender roles and their leadership in Chinese higher education, inspiring us to gain a better understanding of the state of Chinese higher education.

2 LITERATURE REVIEW

2.1 Women and gender roles

Gender roles are often considered a self-perceived construct and are shaped by how individuals identify themselves as men or women. In Asian cultures, femininity is highly valued, and women's roles are often defined by cultural expectations to be responsible homemakers, wives, and mothers. In China, over the past several decades, there have been tremendous social changes due to modernization. However, China remains a patriarchal society with a clear division of gender roles. For Chinese people, there are important implications for work and family life [22]. Chinese women are still confined to their family roles, while men primarily identify themselves through their work roles [22, 26].

The study investigates women's gender roles primarily from two perspectives: family-role orientation and gender self-confidence. The two aspects stem from women's gender roles and are closely related to women's leadership.

Family-role orientation signifies the tendency to value the family role and regard it as of great importance. Throughout history, the fields of work and family have been gendered. Men have traditionally played the work role, while women have traditionally played the family role [27–29]. Though nowadays women also join the workforce, they still dominate the family sphere [38]. Women's family-role orientation influences their career ambitions. Some studies have revealed that work-family conflict affects personal career aspirations [22, 23]. Family and childcare responsibilities are the biggest obstacles to women's professional careers [30–32].

Gender self-confidence refers to the extent to which a person accepts, respects, and values themselves as a man or woman. It is a sense of security in one's femaleness or maleness [33]. To examine gender self-confidence, the study utilizes the Revised Hoffman Gender Scale (HGS) in two dimensions: gender self-definition and gender self-acceptance. Gender self-definition is defined as one's view of oneself as a man or as a woman [34]. Gender self-acceptance refers to the state of comfort that an individual feels when they consider themselves to be a member of their gender [34].

2.2 Women's leadership

Studies have demonstrated that women do not aspire to leadership positions as much as men do [35]. Women's poor self-image or self-esteem, along with socialized role expectations, decrease the likelihood of attaining higher job positions [35]. Women's leadership aspirations were discouraged by the masculine construction of society. Some research findings showed that women participants in higher education institutions had no desire to advance to higher positions but prioritized other duties such as family responsibilities, research, and teaching tasks [19]. Women's burden of both domestic and waged work depresses women's career ambition and leadership aspirations [9]. Examining factors associated with women's leadership aspirations is very important because aspirations are a precursor to career advancement [36].

The study investigates women's leadership, primarily focusing on two aspects: leadership aspiration and leadership self-efficacy. The two components are crucial for the development of women's leadership and are greatly influenced by women's gender roles.

The term "leadership aspiration" refers to the personal interest in achieving a leadership position and the willingness to accept an offer and assume such a

role [36]. Social, organizational, and psychological factors influence leadership aspirations [35]. Leadership aspiration is considered one of the internal factors contributing to the "leaky pipeline" phenomenon [37, 38].

Leadership self-efficacy refers to the belief that one has personal abilities and potential resources to meet the requirements of a particular task [39]. Self-efficacy refers to a personal belief, a judgment of one's capabilities to accomplish a certain task independently [40, 41]. Self-efficacy is a component of ideology, making it a dynamic subject that can vary across different situations [42]. Leadership Self-efficacy is illustrated as believing in one's sense of agency, promoting leadership, the origin of goal-setting behavior, and the capacity to organize actions and carry them out [43]. Leadership self-efficacy is closely connected with leadership behavior [42].

Investigating the mediating factors along the path to enhancing leadership self-efficacy is highly significant. Self-efficacy is the perception individuals have of their ability to perform actions that will lead to specific performance achievements. Leadership self-efficacy significantly influences leaders' behavior, as it can either positively or negatively affect motivation and actions. Therefore, high levels of leadership self-efficacy are more likely to lead leaders to accept more challenging goals and exert more effort in an attempt to accomplish them. A high level of leadership self-efficacy can assist leaders in developing defense mechanisms to effectively cope with stress and disappointments [44].

Bandura (1977) outlined four main sources through which self-efficacy can be achieved, and emotional arousal through the management of one's physiological self is one of them [45]. Leadership aspiration pertains to managing one's physiological self. One's leadership aspirations are strong, indicating the ability to manage one's physiological self effectively. A positive attitude and physiological state can strengthen one's leadership self-efficacy.

2.3 The relationship of women's gender roles and leadership

Some researchers have pointed out that gender has a negative influence on administrators' leadership self-efficacy [46]. Morley's study on women's leadership in Asian countries revealed that women are usually involved in multiple engagements with the conception and performance of leadership. They often exhibit rejection, anxiety, and fear towards leadership roles. In Ngai's theory of "ugly feeling," these negative emotions are referred to as such and can impede and undermine self-efficacy, agency, and well-being [10]. Women's recognition of leadership roles influences their self-efficacy, especially when these roles are assumed by women [10].

Once women enter leadership positions, they experience tensions due to varying role expectations [47]. Organizational cultures are often gendered in ways that discourage women. For instance, the competitive, win-or-lose mindset of leaders represents a male-dominated culture that women do not really embrace. There are other male-normed mindsets, such as goal orientation, hierarchy, and power control. Female-pattern contexts are characterized as collaborative, egalitarian, and influential. The differences in gender identity cognition impact women's leadership in organizational settings and social cultures.

Researchers found that women's subject cognition about themselves is very important to their leadership aspirations and leadership self-efficacy. Taking the university women of six South Asian countries as examples, the UK found that women's cognition affected their leadership progression [15]. In women's negative perception, they think that women leaders are stressed, anxious, and experiencing

difficulties; the environment for leaders is highly competitive and aggressive; they spend massive amounts of time on work, which would be due to the impact of accompanying children; once the wife's position is too important, pressure will be generated on the husband and may decrease the happiness of their marriage; a high level of position for women means sacrificing a lot, which means that their life is not successful and happy; there is a lot of corruption and nepotism among the leaders in the university. The above negative cognition makes women have negative gender self-acceptance and avoidance attitudes in terms of their leadership aspiration and leadership self-efficacy [10].

2.4 Chinese higher education

Chinese higher education is significantly engaged in the new trend of global higher education. Chinese students constitute the largest group of international students in developed countries such as Canada, the USA, the UK, and Australia. Many university professors travel abroad to advance their studies as visiting scholars or to pursue higher degrees, often with support from various programs sponsored by the Chinese Education Department. Generally speaking, Western academic models predominate in Asian higher education, including China, due to the long history and current trend of graduate training abroad [32]. Women leaders in higher education are middle-level or senior management staff who have more opportunities to study, visit abroad, or travel internationally for conferences or academic purposes. These groups of women represent a class of mobile, internationally networked groups. They are familiar with concepts of women's rights, gender equity, quality assurance, women's leadership, the glass ceiling, or other terms related to women's development.

A distinctive feature of Chinese higher education is the active involvement of the Communist Party of China in administration. In Chinese universities, in addition to the president, vice president, and deans, there are also secretaries at different levels involved in administrative affairs. These include the secretary or deputy secretary of the university committee of the Communist Party of China and the secretary or deputy secretary of the department committee of the Communist Party of China. They are usually responsible for the development of the Communist Party of China, such as developing members, perfecting policies, overseeing the promotion and training of university cadres, guiding the university's development direction, and fostering unity and harmony within the university. Secretaries of the committees at various levels of the Communist Party of China are considered part of university leadership and constitute a target population for the study.

3 METHOD

3.1 Population and sample size

Based on the information released by the Ministry of Education of the People's Republic of China in 2021, the study focuses on 1258 universities as the research target. The population consists of female leaders in various positions from these universities, including high-level female leaders such as university chancellors or vice-chancellors, secretaries or deputy sectaries of the Communist Party of China of university committee, mid-level female leaders such as deans or deputy deans,

secretaries or deputy secretaries of the Communist Party of China school or department committee, directors of teaching and research offices, and other offices within the universities.

In accordance with Krejcie and Morgan [48] for sample size determination, Roscoe's [49] guidelines, and Gay's [50] methods, the sample size for this study should range between 400 and 500, with a minimum of 379 valid questionnaires.

3.2 Instruments

A questionnaire containing two parts with all close-ended questions was employed in the study. The first part presents the demographic data of the population, including seven variables: ethnic nationality, age, education, party membership, position, residence (domestic or abroad), and province. The second part describes the scales used for the six variables, which were measured on a 7-point Likert-type scale. In this scale, 1 indicates "strongly disagree," while 7 indicates "strongly agree." The Chinese version of the questionnaire was distributed online using the snowball sampling methods.

Family-role orientation. This study employs a 2-item scale validated by Li Liuzhen (2009) to assess the family-role orientation of women leaders, using a sample of female managers in entrepreneurship. Items examples include "I emphasize and value family rather than work."

Gender self-confidence. This study utilizes adopts a 14-item revised Hoffman Gender Scale developed by Hoffman et al. [34] to evaluate the gender self-confidence of women leaders. Hoffman measures gender self-confidence using two dimensions: gender self-acceptance. Gender self-acceptance: gender self-definition includes seven items, such as "When I am asked to describe myself, being female is one of the first things I think of." Gender self-acceptance also consists of seven items, for example, "I am confident in my femininity.").

Leadership aspiration. This study uses a three-item scale that Li Liuzhen (2009) tested and validated. Experts endorsed and validated the scale, which has also been adapted for use in China. The scale was endorsed and validated by experts and has also been adapted for use in China. Items examples include "I want to have the ability to lead."

Leadership self-efficacy. To test leadership self-efficacy, this study uses an 8-item scale that Li Liuzhen (2009) validated, originally developed for Western populations [51] and adapted for use in China. The scales include three dimensions: environment supporting (two items, e.g., "People support women to become senior leaders"), controlling (two items, e.g., "The capacity to be a leader can be improved continuously"), ability (four items, e.g., "I have the ability to become a senior leader.").

3.3 Data collection and analysis

This study collected 496 questionnaires online through a survey platform called Wenjuanxing in Chinese within three weeks in April 2023. After selection, we deleted 58 invalid questionnaires (due to almost identical answers or being submitted too quickly to have answered the questions seriously), leaving a total of 438 valid questionnaires.

This study utilizes SPSS and AMOS software as statistical tools to analyze survey data. For exploratory factor analysis, the SPSS statistical software is used.

For confirmed factor analysis, AMOS statistical software is used to explore the relationship results. The structural equation modeling (SEM) methodological technique is used for analysis. To examine the mediating effects of leadership aspiration, the bootstrapping method is used.

4 RESULTS

4.1 Reliability and construct validity

This study measures the internal reliability of the questionnaire using Cronbach's alpha coefficient. The results presented in Table 1 indicate that all the coefficients are greater than 0.8, suggesting that the questionnaire's reliability is quite high and that it is effective.

Table 1. Reliability test of variables

Variables	Cronbach's Alpha	Items
Family-Role Orientation	0.900	2
Gender Self-Confidence	0.914	14
Leadership Aspiration	0.863	3
Leadership Self-efficacy	0.849	8

The study conducted confirmatory factor analysis (CFA) through AMOS 21.0 to examine the construct validity of the four instruments. The CFA results listed in Table 2 show that the fitting index of the 4-factor model is the best. The X^2/df value is 1.857, which is less than 3. The RMSEA value is 0.044, which is less than 0.08. Additionally, the values of NFI, TLI, and CFI are all higher than 0.9, indicating a high level of validity.

Table 2. Model fit-index

Model	X^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Four-factor Model	1.857	0.988	0.956	0.974	0.981	0.988	0.044
Three-factor Model	4.340	0.940	0.897	0.932	0.925	0.946	0.087
Two-factor Model	15.75	0.774	0.635	0.738	0.667	0.749	0.184
Single-factor Model	15.373	0.774	0.645	0.736	0.676	0.748	0.181

Notes: Four-factor Model = FRO; GSC; LA; LSE; Three-factor Model = FRO+GSC; LA; LSE; Two-factor Model = FRO+GSC+LA; LSE; Single-factor Model = FRO+GSC+LA+LSE. FRO = Family-Role Orientation, GSC = Gender Self-Confidence, LA = Leadership Aspiration, LSE = Leadership Self-Efficacy.

4.2 Descriptive statistics and correlation

Table 3 presents the descriptive statistical results. When the absolute value of the minimum is less than 3 and the absolute value of the maximum is no more than 7, it is generally considered that the sample conforms to a normal distribution. The absolute values of the standard deviation for all variables are less than 3, and the absolute values of the mean values are all no more than 7. The sample survey data for all measurements in the research meets the standard criteria.

Table 3. Results of descriptive statistical analysis

Variables	N	Minimum	Maximum	Mean Value	Standard Deviation
FRO	438	1	7	3.251	1.648
GSC	438	2	7	5.270	0.905
LA	438	1	7	5.220	1.336
LSE	438	1	7	5.036	0.986

This study uses the Pearson correlation test to analyze the relationship between the variables. As displayed in Table 4, the correlation coefficients of FOR, GSC, LA, and LSE are –0.716, 0.364, and 0.498, respectively. The corresponding P-values are all less than 0.01, indicating that FOR, GSC, LA, and LSE have significant correlations.

Table 4. Correlation test of variables

	FRO	GSC	LA	LSE
FRO	1			
GSC	–.369**	1		
LA	–.510**	.238**	1	
LSE	–.716**	.364**	.498**	1

4.3 SEM analysis

The main outcomes of the model are depicted in Figure 1. The model operation fitting index is shown in Table 5. The statistical value of x^2/df is 1.857, which is less than 3, meeting the standard criteria. The results meet the standard criteria. The statistical value of GFI is 0.988, and the value of AGFI is 0.956. Both values are greater than 0.8, meeting the standard criteria. The statistical values are as follows: NFI = 0.974, TLI = 0.981, and CFI = 0.988. All of these values exceed 0.9, meeting the standard requirements. The statistical value of RMSEA is 0.044, which is less than the criterion of 0.08, meeting the standard. According to the statistical results and standard criteria, all the statistical results meet the standard.

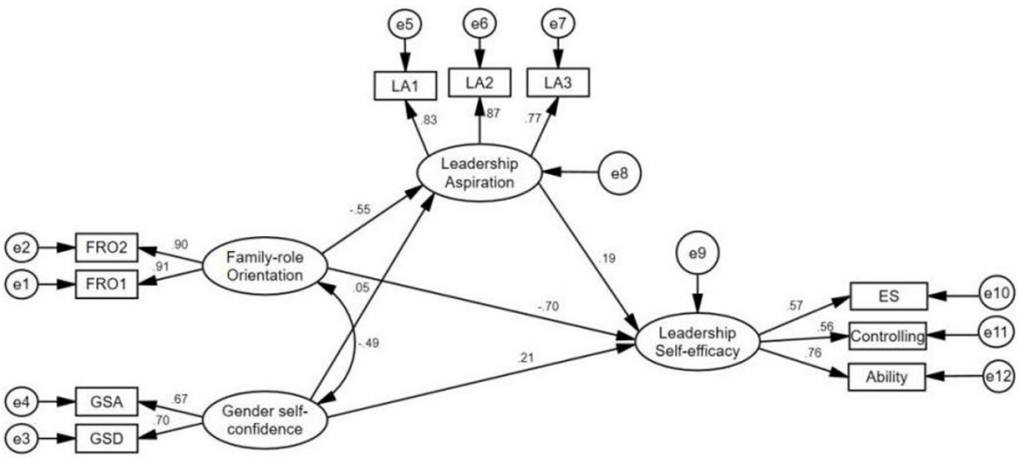

Fig. 1. Structural equation model diagram operation results

Table 5. Structural equation model fitting index

Statistical Items	X^2/df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical Values	1.857	0.988	0.956	0.974	0.981	0.988	0.044
Standard Criteria	<3	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08

4.4 Mediation analysis

With the application of the Bootstrap testing method, the mediating effect can be directly tested. The standard direct test for the mediating effect is the formula HO: ab = 0^2. If the confidence interval value is 0, it indicates that there is no mediating effect. The confidence interval standard is 95%, and the experiment is repeated 5000 times.

Table 6. Mediating effect testing results

Relationship Path	Effect Value	Lower	Upper
FRO-LSE (direct effect)	–0.701	–0.835	–0.544
GSC-LSE (direct effect)	0.211	0.061	0.387
FRO-LA-LSE (indirect effect)	–0.106	–0.203	–0.034
GSC-LA-LSE (indirect effect)	0.009	–0.017	0.052
FRO-LSE (complete effect)	–0.807	–0.926	–0.647
GSC-LSE (complete effect)	0.220	0.060	0.399

Note: FRO = Family-Role Orientation, GSC = Gender Self-Confidence, LA = Leadership Aspiration, LSE = Leadership Self-Efficacy.

As shown in Table 6, the relationship path of FRO-LA-LSE indicates that leadership aspiration mediates between family-role orientation and leadership self-efficacy. The mediating effect value is –0.106, and the confidence interval is [–0.203, –0.034], excluding 0. The results indicate that leadership aspiration affects the relationship between family-role orientation and leadership self-efficacy. The mediating effect is significant. The results of the relationship path of GSC-LA-LSE show that the mediating effect value is 0.009, with a confidence interval of [–0.017, 0.052], which includes 0. The results indicate that leadership aspiration has no effect on gender self-confidence or leadership self-efficacy. The mediating effect is not significant.

5 DISCUSSION

5.1 The effects of women's gender roles on women's leadership

The negative impact of a family-role orientation on women's leadership indicates that, even in contemporary society, Chinese women leaders in higher education institutions are still constrained by their family household responsibilities. They perceive this as one of the major challenges they must overcome in their career progress. Facing the dilemma between work and family, the challenge of time management in balancing family and work life [4, 31] discourages women from aspiring to leadership roles. Balancing work and family responsibilities is a challenge for

women worldwide. Morley (year) pointed out that leadership and senior management positions entail heavy workloads, which may disrupt work-life balance [4].

The demographic data of female leaders in Chinese higher education, such as workplace environment, age, educational background, and whether they have studied abroad or not, are factors that contribute to the finding that gender self-confidence does not have a significant positive impact on leadership aspiration.

Female leaders in higher education institutions have better educational qualifications compared to those in other fields. A better education leads to a stronger sense of self-awareness and gender identity among women. Educated women are less susceptible to social prejudices and biases related to gender compared to their less educated counterparts. The participants in the study were mainly born in the 1980s or 1990s. The younger generation of women has a better understanding of gender, and their self-esteem regarding their female identity is high. The participants in the study have had educational experiences, which have broadened their worldview. To be influenced by Western culture and its perspective on gender equality, they hold modern opinions about their gender roles. Due to the reasons mentioned above, female leaders in higher education embrace their gender identity fully and exhibit confidence in being female. As a result, they are less affected by gender self-confidence issues in their careers. This finding is in line with the view of Maheshwari's study [31]. In Maheshwari's study, the majority of young women leaders (below 45 years old) perceived that there is currently no gender inequality in their institutions. Most women believe that gender is not a significant factor in higher education; instead, they consider the degree and age as the most important criteria. This view suggests that the mindset of young female leaders is changing. Gender self-confidence is not a factor influencing women's leadership aspirations among female leaders in Chinese higher education.

5.2 The mediating role of leadership self-aspiration between women's gender roles and leadership self-efficacy

The mediating effect of the testing results indicates that leadership aspiration plays a mediating role between family-role orientation and leadership self-efficacy.

Leadership aspiration is considered one of the internal factors contributing to the phenomenon of the "leaky pipeline" [52, 53]. Once women have an ambition to achieve higher leadership positions and to be successful in their careers, they encounter the pressure of psychological conflict [54]. Women struggle to balance work and family, and then they strive to work hard to prove themselves as capable as men. As a result, women experience more stress than their male counterparts due to the conflict between work and family [54].

Some research has found that women do not aspire to leadership positions as much as men do [55, 56]. Women's burden of both domestic and waged work depresses women's career ambitions and leadership aspirations [54]. Numerous factors contribute to the lower leadership aspirations of women. Family responsibilities have become one of the most critical reasons for the decline in women's leadership aspirations. Other managerial challenges, such as a lack of childcare and inflexible working hours, are also cited as reasons for women's low leadership aspirations [56].

In Morley's (year) finding, it is pointed out that leadership is often perceived as a loss [5]. Taking on leadership positions often entails relinquishing independence, sacrificing research time, and compromising health and well-being. Entering leadership positions unsuccessfully can lead to a loss of reputation and self-esteem.

The rapidly expanding, neoliberalized, globalized, and male-dominated academic sphere was perceived as an unattractive space. This reflects that women's leadership aspirations are deeply weakened in current conditions.

6 CONCLUSIONS AND RECOMMENDATIONS

The results show significant correlational relationships among variables of family-role orientation, gender self-confidence, leadership aspiration, and leadership self-efficacy. Family-role orientation has a significant negative effect on women's leadership aspirations and leadership self-efficacy, as hypothesized. Gender self-confidence does not have a significant positive impact on leadership aspiration and leadership self-efficacy. The mediating effect of test results revealed that leadership aspiration serves as a mediator between family-role orientation and leadership self-efficacy. However, leadership aspiration does not mediate the relationship between gender self-confidence and leadership self-efficacy. On the basis of the above results, there are various implications for female leaders, universities, and governments.

For female leaders, the recommendations include maintaining leadership aspirations and balancing work and life. There are two important influencing factors for women leaders to increase their leadership self-efficacy. Women leaders should maintain their leadership aspirations throughout their career development. Women who aspire to be leaders must have a strong desire to lead and believe in their ability to be promoted, even in the face of failure. Strengthening their leadership aspirations could improve their chances of becoming effective leaders in the future. Women leaders should balance work and life effectively to enhance their career development. The study found that family-role orientation negatively affects women leaders' leadership aspirations and leadership self-efficacy. Balancing work and life well is vital for women to become successful leaders. Continuous family support could motivate women leaders to advance in their career paths [31].

For universities, the primary recommendation is to avoid stereotypes and gender bias about female leaders and instead implement constructive measures to foster the development of female leaders. Since family-role orientation affects women's leadership aspirations and leadership self-efficacy, some university leaders worry that women may not be able to accomplish tasks as efficiently as men due to traditional family roles. Consequently, they may prefer men to be promoted over women. Such utilitarian university leaders still exist in Chinese higher education, causing disadvantages for women leaders in their career advancements. University leaders should enhance their understanding and commitment to promoting gender equality and implement proactive measures to ensure equal advancement opportunities for women leaders.

For governments, the recommendations are to implement policies or regulations to ensure a specific number or percentage of female leaders in senior management roles in higher education. Additionally, governments should establish regulations or promote programs to support and enhance women's participation in leadership roles at various levels. Governments and organizations such as the Ministry of Education, Education Department, Women's Union, etc., should establish policies or regulations to enhance and ensure the representation of female leaders in senior management positions in higher education, aiming for specific percentages such as 35% or 40%. Although governments have implemented policies requiring an appropriate number of women to serve as leaders, the exact percentage is not specified

or mandated in these policies. Therefore, the underrepresentation of female leaders remains a reality. Governments should implement policies and programs that support women's career advancement to leadership roles and promote diversity and inclusion in higher education institutions. Governments may implement effective measures to train and mentor women leaders to support their career advancement, such as creating programs to enhance self-motivation and develop the leadership capacity of women.

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8 AUTHORS

Hongli Wang, Chakrabongse Bhuvanarth International Institute for Interdisciplinary Studies (CBIS), Rajamangala University of Technology Tawan-OK, Bangkok 10400, Thailand.

Thitinant Wareewanich, Chakrabongse Bhuvanarth International Institute for Interdisciplinary Studies (CBIS), Rajamangala University of Technology Tawan-OK, Bangkok 10400, Thailand (E-mail: thitinant_wa@rmutto.ac.th).