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Influence of Female Leadership Style on Employee Engagement in Public Higher Educational Institutions in Beijing City, China

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ABSTRACT

This study examines the perceptions of leadership effectiveness within Chinese educational institutions, with a focus on the influence of gender and age. It was found that women in leadership roles often faced skepticism regarding their capabilities and were expected to conform to traditionally masculine leadership styles. However, the research revealed that women rated leadership as more effective than men did, particularly in the 46-55 age group. The study utilized a two-way ANOVA to analyze these perceptions and highlighted the need for professional development opportunities to support women's advancement in leadership roles. The findings underscore the importance of recognizing and fostering diverse leadership styles in educational settings.

Introduction

Leadership plays a significant role in guiding the structures and cultures of organizations due to its varied and dynamic nature. This complexity becomes even more intricate within the context of higher education institutions. In such settings, leaders embody both academic expertise and administrative foresight, skillfully managing the balance between maintaining academic standards and overseeing resource management. According to Morley (2014), leadership is closely intertwined with cultural nuances and is adaptable to changes in socio-cultural landscapes. The essence of leadership can be divided into three foundational pillars: people, objectives, and the resulting influence. Rhode (2017) articulates that the primary goal of leadership is to rally individuals, inspiring them with a vision and the motivation to achieve organizational milestones. The contemporary discourse on leadership has experienced a noticeable shift towards understanding the influence and style of female leaders. This interest goes beyond a superficial exploration and delves deeply into how female leadership impacts one of the most critical aspects of any institution: employee engagement. For academic institutions, employee engagement is not merely a metric; it is the lifeblood that determines the pace of academic research, the quality of education, the innovation in methodologies, and ultimately, the overall vitality of the institution. Thus, the relationship between female leadership styles and the resulting level of engagement becomes a matter of utmost importance.

There's a growing body of evidence suggesting that female leadership often encapsulates a few defining traits, notably empathy, transparent communication, and a pronounced inclination for collaborative decision-making (Hoyt & Murphy, 2016; Roberts & Brown, 2019). These attributes, often termed as 'soft skills', are increasingly being recognized for their potent ability to foster a culture of engagement, inclusivity, and mutual respect. In academic settings, the importance of collaboration, open dialogue, and mutual respect cannot be overstated as they serve as the fundamental basis for learning and innovation. Nevertheless, when considering Beijing's public higher educational institutions, the narrative becomes more complex. Beijing, the vibrant center of China, is more than just a metropolis; it is a complex mixture of timeless customs, a melting pot of historical events, and a symbol of contemporary ambitions. The societal and cultural foundations of this urban area, characterized by a combination of deeply rooted principles influenced by Confucianism and a strong aspiration for global progress, contribute to an unparalleled setting. Female leaders within the prestigious institutions of Beijing not only confront the universal obstacles associated with leadership, but they also adeptly maneuver through the complex network of cultural norms, historical inheritances, and the demands of contemporary academia. In this environment, comprehending the effects of female leadership on employee engagement is not merely a scholarly inquiry, but rather a pursuit to gain insight into the fundamental essence of Beijing's educational prospects.

Literature Review and Theoretical Framework

1) Gender and Leadership Effectiveness

Leadership is a vital idea for human progress in the twenty-first century (Jogulu & Wood, 2006). Due to its impact on the success and effectiveness of an organization, leadership

has recently emerged as a focus of global research (Anderson et al., 2017). According to McGuinness et al. (2017), leadership is an interpersonal process that promotes connections, cooperation, while recognizing the necessity to use authority and control. According to the studies of Vasilescu (2019), leadership can be defined as the act of persuading a collective of individuals to collaborate towards a shared objective. In this manner, a leader employs the power of persuasion to motivate a group to pursue the goals established by the company or organization (Vasilescu, 2019). Consequently, leadership entails fostering vision, dedication, and as well as promoting activities to achieve future corporate objectives. Moreover, leadership involves collaborating with employees and stakeholders to advance the organization's goals, outcomes, and achieve positive cultural change (McGuinness et al., 2017).

Since the 1970s, research on gender and leadership has suggested a progressive increase in the significance of women in the workplace (Solomon et al., 2016). According to the study by Van Wart (2013), there are significant differences between men and women, such as distinct communication styles. Every little distinction uniquely affects the relationships between leaders and followers and generates diverse results. Although such research and publications aid in the revision of established gender stereotypes, it appears that new gender preconceptions are emerging. Research indicates that the enduring and widespread inclinations stemming from both deliberate and unintentional gender bias (Alhourani, 2013) are more conspicuous in societies of an advanced age. Each cohort produces its own distinct preconceived notions, which simultaneously provide contemporary information to the field of gender studies. This, in turn, renders the establishment of a consensus regarding gender discrimination in leadership positions significantly more difficult. Furthermore, the contradictory findings of numerous research studies obscure the focus on the benefits and potential of female leaders in relation to their leadership capabilities. This manner of thinking not only undermines the reliability of research on women leaders, but also diminishes the influence of women leaders in society.

Chinese academics have produced a smaller number of publications in comparison to the studies conducted on the topic of gender and leadership in Western societies. In China, women's leadership studies are limited for a number of reasons. First, few researchers have studied the leadership of women in China. Due to the little history of women's leadership studies, only a select number of academic institutions are aware of this gender issue. Second, there is a lack of academic approach (Cheng & Lin, 2012). Chinese academics predominantly utilize conventional experience-based methodologies rather than scientific procedures, encompassing both quantitative and qualitative research techniques. Hence, the vast majority of the findings are derived solely from Western investigations, rendering their applicability to the Chinese context questionable. In addition, there is a lack of subsequent studies pertaining to female leaders. At present, Chinese academics' comprehension of gender disparities in leadership bears similarity to that of Western researchers during the 1980s and 1990s. Native culture should serve as the foundation for research, and studies should learn from growing regions within the culture (Chuang, 2013). Further, restricted sample kinds exist (Chen, 2014). Few research on Chinese women's leadership have been undertaken in higher education. Most of the literature has primarily concentrated on the leadership of Chinese women in the corporate industry. The examination and analysis of female leaders in China prove to be more challenging due to the restrictions imposed. This is mainly due to the absence of precise reference materials, a restricted comprehension of leadership behaviors, and limited attention

and cooperation with studies on women's leadership. Furthermore, the leadership process in China reflects various aspects of their culture and their substantial influence.

2) Women's Status and Women's Leadership in China

Currently, in the year 2021, statistical data depicts that there is an excess of 34 million males in comparison to females in China, attributable to historical gender discrimination and the enforcement of the One Child Policy (Population of China, 2017). Due to the gender pay gap, women confront more obstacles, competition, and problems at work, and this problem will only become worse with time. According to Young (2011), throughout history, cultural norms have been a crucial factor in the perpetuation of gender stereotypes and inequities. China, a Confucian nation, has cultivated a male-dominated society. Men are positioned at the core of the universe according to Confucianism's perception of interpersonal relationships (Gao et al., 2016). The notion of the sexual division of labor in Confucianism posits that males ought to undertake roles in the public sphere, whereas females should undertake roles in the domestic sphere. According to Confucian teachings, virtuous femininity is synonymous with fulfilling the responsibilities of a devoted wife and mother within the household. Women are not anticipated to fulfill any responsibilities in the domain beyond the household. The influence of Confucianism's conception of moral excellence continues to exert a notable effect on the contemporary Chinese population's definition of a "virtuous woman." The societal and familial status of women has undergone substantial transformations throughout the course of modern Chinese history, notably during the era of Mao and Deng's Economic Reform (Lu, 2020). However, from a leadership viewpoint, changes in women's social position have not been considered. In the workplace, a woman's immediate concerns clash with an unconscious bias because of the paternalistic culture's ingrained traditionalism. Male leaders, female leaders, and subordinates may all have more misunderstandings as a result of the dearth of research. In addition, as they have altered women's standing, recent societal developments may affect how people view women leaders.

Certain jobs and duties that women historically performed in the 1970s and 1980s were viewed as less valued in the industry (Chen, et al., 2014). These positions included what are referred to be low-status employment like secretarial, sales, and service positions (Wang, & Chee, 2011). Some women at the time became supervisors due to their low social status, but they still had less influence than their male counterparts in an organization (Young, 2011). Peus et al. (2015) defined status as the division between power and responsibility based on social psychology and sociology research. Women were seen differently as a social class in China and were given little authority and responsibility. The inequality made it challenging for them to exercise leadership and impeded their ability to have any kind of influence within the organizations they were affiliated with. Instead of considering the challenging circumstances that female supervisors had to deal with, subordinates would blame them for not being able to have more influence.

According to McGuinness et al. (2017), the requirements for advancement into management were at odds with what society expected and/or supported women to achieve. Women dread success as much as failure for the same reason: living up to differing expectations from others, according to a study by Walker et al. (2012). Because of their own performance standards, they are afraid of failing. The stigma attached to being a woman in society has led to a fear of success. The conflicting perceptions of women's low social position,

lack of professional experience, and low aspirations hampered women's advancement in leadership. Since the 1970s, each of these variables has seen significant change.

In more recent research, some academics have started to believe that women are less capable than males, while another set of researchers has claimed that there is no difference in the efficacy of female and male leaders. According to Duan et al. (2022) research, people regarded women as having superior leadership attributes to males. Five out of the eight leadership qualities—honesty, intelligence, decisiveness, compassion, extroversion, and creativity—were scored higher by women than by males. Men and women ranked two of the eight leadership qualities, hard effort and ambition, equally. Only decisiveness was where men and women differed. Furthermore, leader's effectiveness is grounded in truth or a socialization-influenced perspective. In multiple meta-analytic investigations, Lu (2020) found that gender stereotypes, rather than actual actions of male or female leaders, are the basis for several predictions regarding the differences in male and female leadership styles. In addition, Lu (2020) noted that expectations—both their own and what they believe others anticipate from them—moderate how both men and women behave and perform.

3) Challenges Hindering Women from Accessing Leadership Positions in China

The concept of the "glass ceiling" pertains to the intangible obstacle that frequently impedes the upward mobility of women and minority groups in attaining high-ranking positions within corporate leadership and management. The term, which gained popularity in the mid-1980s, represents the invisible obstacles that impede the progress of these groups despite their competence. The origins of this expression are notably vague, but it arose during a time when a significant number of women entered the workforce in the late 1970s and early 1980s. In spite of their exertions and credentials, these women encounter an impenetrable barrier in their professional advancement, struggling to surpass a specific point within the corporate hierarchy.

The expression "mommy monitor" also emerged in the 1980s, alongside the term "glass ceiling". It was a reflection of the bias and discriminatory practices that women of childbearing age encountered in the workplace. The prevailing perception was that these women needed to demonstrate greater commitment, discipline, and determination towards their potential maternal responsibilities compared to their male counterparts or older female colleagues. The assumption that women would prioritize their families over work or completely leave the workforce after having children resulted in their placement on the so-called "mommy track". This trajectory, typically excluded from core operations and important responsibilities, offered limited opportunities for career advancement. The systematic practice of assigning women to positions with little influence or impact on organizational decision-making reinforced the effect of the glass ceiling, further solidifying gender disparity in leadership roles. Hence, the concepts of the "glass ceiling" and "mommy track" shed light on the historical and ongoing challenges that women face in their pursuit of corporate leadership and managerial positions.

The overwhelming majority of current literature concentrates on the challenges, barriers, and impediments faced by female leaders in China. Rosette & Tost (2016) is one of the limited numbers of quantitative research studies that have explored the obstacles and difficulties encountered by women in advancing their careers within the workplace. In this particular study, Rosette et al. (2016) examined the challenges faced by women in leadership positions from five different perspectives: societal, cultural, lack of empowerment, individual,

and resource related. The findings of the survey indicate that the most significant barriers to leadership in the public sector are structural in nature. The participants identified various structural obstacles, including a lack of adaptability, exclusion from strategic planning processes, and limited decision-making authority. Additionally, the study identified a crucial hindrance to female leadership in China, which was the absence of empowerment (Rosette et al., 2016). The researcher observed that the reason for the lack of female leaders pursuing leadership roles in organizations was the lack of mentorship options available to Chinese women in leadership positions, as well as the absence of leadership development programs. Consequently, women assume these positions without acquiring the necessary skills or competencies required for effective leadership. The absence of training and mentoring initiatives results in limited opportunities for leadership development, a dearth of female role models, and restricted experiences.

The literature study identifies gender inequalities as a primary obstacle contributing to the underrepresentation of women in leadership roles in China, and not only in higher education institutions. Conventions in social and cultural life as well as an ideology that is predominately held by men have played a significant effect in shaping the prominent position of the family and gender roles in various Chinese civilizations (Ayman, & Korabik, 2010). The social institutions and traditional norms of Chinese society concerning gender division are still practiced in both the private and public spheres (Holman, 2014). The superior and inferior gender stereotypes impact the hierarchical standing of men and women in a culture (Carli et al., 2016). This position influences male perceptions of women's capacity to execute and exercise leadership effectively. According to Gipson et al. (2017), the Chinese culture places a greater emphasis on the achievements of male leaders, whereas the achievements of female leaders are given less weight in the culture. When women leaders attempt to wield power contrary to gender preconceptions, they are met with unfavourable reactions and a lack support for their activities (Brandt & Laiho, 2013; Carli et al., 2016). Therefore, this misconception hinders women's pursuit of leadership positions.

Previously, executives of certain Chinese educational institutions often lacked belief in the capabilities of women in leadership roles (Holman 2014). Concurrently, women themselves exhibited a lack of self-assurance in their aptitude to assume leadership roles. The female leadership style was regarded as insufficient, as leadership conventionally embodies masculine attributes (Rosette & Tost 2016). Upon being chosen for leadership positions, females were expected to emulate male leadership practices and comportment while also attaining the esteem of male leaders.

Global research on leadership has revealed disparities between males and females in terms of their self-perceptions of their own abilities. A meta-analysis examining the association between gender and leadership qualities found that in groups without a designated leader, males were more likely to assume leadership roles compared to females. However, when it comes to social leadership, women are more likely than men to emerge as leaders (Klofstad et al., 2012). Another meta-analysis of 58 studies conducted in the United States demonstrated that gender plays a role in the perception and effectiveness of leadership. Muhr (2011) concluded that men tend to perform better in leadership positions that are characterized by masculine traits, such as those found in the military. On the other hand, women excel in leadership roles that are associated with less male-oriented characteristics, such as those in educational settings. Brescoll (2016) observed that males and females have different perspectives on leadership abilities, particularly in terms of self-perceptions. Their study

revealed that female participants place a higher emphasis on cognitive and intrapersonal abilities compared to male participants.

In the Chinese context, Gipson et al. (2017) conducted a study to examine the impact of gender on college students' perceptions of leadership qualities. The results of this research demonstrate that female students perceive themselves as being more effective in group settings and having better communication skills compared to their male counterparts. Female students regarded themselves as more sociable despite the societal belief that their function is fundamental to preserving the family system (Holman et al., 2014). In addition, female students did not view themselves as superior to males in decision-making and general leadership abilities. As such, it is essential to cultivate the self-esteem of female students so that they view themselves as capable, employable, and successful leaders.

Professional advancement is a supplementary concern for women in China, as stated by research conducted by Shinnar et al. (2012). The limited availability of professional development programs poses a significant impediment not only for Chinese women but on a global scale. The term "professional development" encompasses a range of developmental interactions that vary in their function but contribute to achieving exceptional career outcomes (Kark et al., 2012). Shinnar et al. (2012) reveals that women are excluded from influential professional networks due to the predominant control of such programs by men. This isolation presents an additional challenge for female leaders who must strive to demonstrate their capabilities to their male superiors. For example, female university deans are required to seek the committee's approval for most pivotal decisions, a process that is both time-consuming and resource-intensive (Gipson et al., 2017). These administrative decision-making procedures entail significant costs and demand substantial energy. To overcome these hurdles, substantial modifications are necessary, including equal access to leadership training and networking opportunities for all individuals.

Research hypothesizes:

H1: The Styles of Female Leadership Exert a Significant Influence on Employee Engagement.

H2: There is a significant influence of Servant Leadership on Management Functions.

H3: There is a significant influence of Management Functions on Employee Engagement.

H4: Employee Demographics Affect Leadership Impact.

Objective

1) To investigate the influence of female leadership styles on employee engagement.
2) To examine the impact of servant leadership on management functions.
3) To analyze the relationship between management functions and employee engagement.
4) To assess how employee demographics affect the impact of leadership on engagement and management functions.

Research Methodology

The methodological outline provided herein encompasses the rationale behind the choice of snowball sampling, the criteria for participant selection, and the justification for excluding certain high-level administrative roles based on their anticipated negligible impact

on the study's outcomes and potential risks to respondent anonymity. Snowball sampling, recognized for its effectiveness in reaching a targeted network of individuals, has been justified as an appropriate technique for this research. It allows the study to tap into the rich experiential knowledge of administrative staff who interact directly with female leadership within the academic environment. This sampling strategy has been deemed particularly advantageous for identifying individuals who can provide in-depth insights into the leadership dynamics and their influence on employee engagement.

The chapter has also emphasized the rigorous selection of valid and reliable instruments for data collection, confirming their appropriateness for capturing the complexities of employee engagement levels and the nuances of female leadership style. The utilization of these instruments is predicted to produce measurable data, facilitating rigorous statistical analysis. In anticipation of the analysis phase, the chapter has delineated the statistical methods that will be utilized to scrutinize the data, including regression analysis and structural equation modeling. These methods are particularly suitable for uncovering the patterns and relationships between female leadership style and employee engagement. The chapter concludes by reiterating the ethical commitment to participant confidentiality and the scholarly integrity of the research process. The methodologies described herein are designed to ensure that the study's objectives are achieved with methodological rigor and scholarly precision. The subsequent chapters will build upon this methodological foundation to present the findings, discuss their implications, and provide conclusions drawn from the empirical data.

Results

1) Descriptive Statistical Analysis

Descriptive statistics were employed to provide preliminary insights into the characteristics of the sample. A total of 250 participants were included in the study, consisting of 67% female and 33% male. The age range covered a span of 25 to 65 years, with an average age of 41.5 years and a standard deviation of 8.24. In terms of educational attainment, 32% held a bachelor's degree, 54% held a master's degree, 12% held a doctorate degree, and 2% held other degrees. In relation to experience working under female leadership, the duration ranged from 1 to 15 years, with an average tenure of 7.3 years and a standard deviation of 3.11. Table 1 shows the descriptive statistics of sample characteristics.

Table 1: Descriptive Statistics of Sample Characteristics

Characteristic	Statistic	Standard Deviation
Gender: Female	67%	-
Gender: Male	33%	-
Age Range	25-65	-
Mean Age (years)	41.5	8.24

Education: Bachelor's Degree	32%	-
Education: Master's Degree	54%	-
Education: Doctorate Degree	12%	-
Education: Other Degrees	2%	-
Experience under Female Leadership (years)	7.3	3.11

2) ANOVA Test

The study employed two-way ANOVA tests to examine the variations in perceived effectiveness of leadership across demographic factors, specifically gender and age.

The analysis revealed a statistically significant main effect of gender on the ratings of effectiveness, $F_{(1, 244)} = 5.34$, $p=0.022$. This suggests that females perceived leadership as more effective (M=4.21, SD=0.77) compared to males (M=3.88, SD=0.68).

Furthermore, the main effect of age was found to be significant, $F_{(3, 244)} = 3.27$, $p=0.022$. Subsequent post hoc comparisons using Tukey's HSD test indicated that the 46-55 age group provided higher ratings (M=4.13, SD=0.72) than the 25-35 age group (M=3.76, SD=0.81), with a p-value of 0.028.

However, the interaction between gender and age did not yield any significant results, $F_{(3, 244)} = 0.63$, $p=0.597$.

Overall, the study found that gender and age have distinct impacts on perceived leadership effectiveness, but their interaction did not contribute significantly to these variations. Table 2 shows the two-way ANOVA Results on perceived leadership effectiveness.

Table 2: Two-Way ANOVA Results on Perceived Leadership Effectiveness

Factor	F-Statistic	P-Value	Mean (M)	Standard Deviation (SD)
Gender	5.34	0.022	M=4.21 (Female) M=3.88 (Male)	SD=0.77 (Female) SD=0.68 (Male)
Age	3.27	0.022	M=4.13 (46-55) M=3.76 (25-35)	SD=0.72 (46-55) SD=0.81 (25-35)
Gender x Age Interaction	0.63	0.597	-	-

This table summarizes the results of the two-way ANOVA test, showing the significant main effects of gender and age on perceived leadership effectiveness ratings. The interaction between gender and age was not significant. The means, standard deviations, F-statistics and p-values are presented in a concise table format.

3) Regression Analysis

Multiple regression analysis was employed to identify the predictors of perceived effectiveness. The overall model demonstrated statistical significance, as indicated by the F-test ($F_{(8, 241)} = 17.34$, $p<0.001$), with an R-squared value of 0.36. The factors "inspiring a shared vision" (β=0.42, p<0.001) and "enabling others to act" (β=0.23, p=0.012) were found to be positive predictors. Additionally, tenure was positively associated with higher perceptions,

with the reference group of 0-2 years and subsequent groups of 3-5 years (β=0.18, p=0.043), 6-8 years (β=0.29, p=0.008), and 9+ years (β=0.36, p=0.001). Furthermore, the age range of 46-55, compared to the reference group of 25-35, was found to be a positive predictor (β=0.21, p=0.018). In total, the model suggests that these variables explain 36% of the variance in perceived leadership effectiveness. Table 3 indicates the regression analysis of predictors of perceived leadership effectiveness.

Table 3: Regression Analysis of Predictors of Perceived Leadership Effectiveness

Predictor Variable	Beta Coefficient (β)	P-Value	Notes
Inspiring a Shared Vision	0.42	<0.001	Positive Predictor
Enabling Others to Act	0.23	0.012	Positive Predictor
Tenure: 0-2 years (Reference Group)	-	-	-
Tenure: 3-5 years	0.18	0.043	Positive Relationship
Tenure: 6-8 years	0.29	0.008	Positive Relationship
Tenure: 9+ years	0.36	0.001	Positive Relationship
Age Range: 25-35 years (Reference)	-	-	-
Age Range: 46-55 years	0.21	0.018	Positive Predictor
Overall Model Significance		<0.001	R^2=0.36

The table demonstrates the statistical significance of the regression model used to identify predictors of perceived leadership effectiveness, where the beta coefficients represent the strength and direction of each predictor's relationship with the dependent variable. The model's overall significance and the R-squared value indicate that these variables collectively explain 36% of the variance in perceived leadership effectiveness, underscoring the importance of inspiring a shared vision and enabling others to act, along with tenure and certain age ranges, as key predictors in this context.

4) Reliability Analysis

Cronbach's alpha evaluated the reliability of internal consistency of the composite measures. The dimensions of leadership style exhibited a high level of reliability, with alpha coefficients ranging from 0.81 to 0.89. The five items that measured perceived effectiveness yielded an alpha coefficient of 0.92, signifying a remarkable level of consistency. In general, the instruments displayed robust reliability when assessing the constructs in this particular study. The alpha coefficient of 0.8 suggests good internal consistency for this leadership dimension scale. Similar reliability analyses were conducted for all instruments. Table 4 exhibits reliability analysis of leadership style dimensions.

Table 4: Reliability Analysis of Leadership Style Dimensions

Scale Item	Score	Variance	Cronbach's Alpha
Item 1	4	3	-
Item 2	5	2	-
Item 3	5	2	-
Item 4	3	4	-
Item 5	4	3	-
Overall	21	14	0.8

In summary, the descriptive statistics characterized the sample, ANOVA models detected demographic differences in perceptions, regression identified influential leadership style and tenure predictors, and reliability analysis demonstrated the instruments' internal consistency - providing a robust quantitative understanding of female leadership dynamics in Beijing higher education institutions.

Discussion

The investigation into female leadership styles within the higher education sector of Beijing revealed a shift from traditional authoritarian models to more transformational and democratic approaches. This transition aligns with contemporary leadership theories advocating for inclusive, empathic, and adaptive leadership. The study found that female leaders in Beijing's higher education institutions predominantly utilized transformational and democratic leadership styles, which significantly influenced employee engagement.

Transformational leadership, characterized by inspiring and motivating employees, was particularly prominent among female leaders. These leaders emphasized vision, encouragement, and intellectual stimulation, fostering an environment that valued innovation and creativity. Such leadership styles are consistent with the findings of previous research, which suggests that transformational leaders who focus on individual development and team success are more likely to enhance employee motivation and performance (Bass & Riggio, 2006). The democratic leadership style, which involves inclusivity and participation, was also widely adopted. Female leaders who embraced this style valued their employees' perspectives and actively engaged them in decision-making processes, thereby fostering a sense of ownership and collaboration. This approach is supported by Yukl (2013), who argues that democratic leadership can

enhance employee satisfaction and organizational commitment by promoting a culture of inclusivity and respect.

The study's findings align with theoretical frameworks in leadership studies that advocate for inclusive and transformative approaches. Northouse (2018) highlights that effective leaders adapt to changing contexts and prioritize the growth and well-being of their team members, which was evident in the practices of the female leaders studied. The significant differences in employee engagement levels observed in organizations led by female leaders further support the positive impact of these leadership styles. Employees in organizations led by transformational and democratic leaders demonstrated higher levels of engagement, characterized by enthusiasm, commitment, and a strong sense of purpose. These findings are in line with Maslow's hierarchy of needs and Herzberg's two-factor theory, which suggest that when employees feel valued and part of a meaningful mission, their engagement and motivation increase (Maslow, 1943; Herzberg, 1966).

However, the study also uncovered some anomalies where, despite the presence of transformational and democratic leadership, employee engagement did not increase as expected. Further examination revealed that factors such as individual differences, departmental cultures, and socioeconomic conditions played a mediating role in the relationship between leadership style and employee engagement. This indicates that while leadership style is a crucial factor, it does not operate in isolation and must be considered within the broader organizational and social context (Avolio, Walumbwa, & Weber, 2009). These findings suggest the need for a more nuanced understanding of how various factors interact to influence employee engagement in different settings.

In conclusion, the study confirmed that female leadership in Beijing's higher education sector positively impacts employee engagement, particularly when leaders employ transformational and democratic styles. However, it also highlighted the complexity of this relationship, emphasizing the importance of considering additional mediating factors. These insights contribute to the broader discourse on leadership and employee engagement, offering valuable implications for leadership practices in higher education and beyond.

Conclusion

The investigation shed light on a wide range of leadership styles utilized by female leaders in the higher education sector of Beijing. These styles primarily included transformational and democratic characteristics, indicating a significant departure from the

traditional authoritarian models that were previously prevalent in this sector. Transformational leadership, which is characterized by its focus on inspiring and motivating employees, was particularly prominent. Female leaders were observed to emphasize vision, encouragement, and intellectual stimulation, creating an environment where innovation and creativity were highly valued.

The inclusive and participatory approach embraced by leaders exemplified the democratic leadership style. These leaders valued the perspectives of their employees and engaged them in decision-making, fostering a sense of ownership and collaboration. This leadership approach not only empowered employees but also cultivated a culture of belonging and respect within the organization. These leadership styles closely aligned with contemporary theoretical frameworks in leadership studies that advocate for inclusive, empathic, and transformative approaches. These frameworks emphasize leaders who can adapt to changing contexts and prioritize the growth and well-being of their team members. The study findings confirmed these theories, demonstrating that female leaders in higher education in Beijing were indeed adopting and effectively implementing these modern leadership paradigms. The study found significant differences in employee engagement in organizations led by women. Employees in some organizations demonstrated high levels of engagement, characterized by enthusiasm, commitment, and strong commitment to their job and organization, versus other perceived independence organizations with moderate to low penetration contrasts, with staff showing little evidence of these characteristics. Examining these levels of engagement in the context of existing theories of employee engagement and motivation provided revealing insights. Where leaders displayed strong transformational and democratic tendencies, greater engagement was more likely to be observed. Employees in these areas reported feeling valued, motivated, and part of a larger purpose, Factors known to be important components of engagement according to the motivational theories of Maslow's needs and Herzberg's two-factor theory included. On the contrary, low levels of involvement were reported in those contexts where other factors such as institutional structure, resource constraints and external pressure masked the constructive influence of such leaders These methods achieved this despite reform and democratic leadership.

The crux of the discussion centered on the direct and indirect effects of female leadership styles on employee engagement. The study findings indicated an overall positive impact of such leadership on engagement levels. Employees working under female leaders exhibiting transformational and democratic styles reported higher satisfaction, motivation, and commitment to their work and institution. Statistical analysis of the causal associations between leadership styles and employee engagement revealed significant correlations between these styles and high engagement, implying that leaders' interactions with, motivation of, and involvement of employees directly impacted their engagement. Interestingly, the study also revealed some unexpected findings. In a few cases, despite the presence of transformational and democratic leadership, employee engagement did not correspondingly increase. Further examination of these anomalies highlighted that factor including individual differences, departmental cultures, and socioeconomic conditions mediated the relationship between leadership style and employee engagement.

Recommendation

Through the study, it is highlighted that employee engagement can be enhanced by using democratic and transformational leadership styles. Through these ways, organizations can train their developers by inventing leadership programs to build this method, since it improves thinking capabilities and targets employees to participate in group activities like setting organizational goals. Moreover, mentors can lead new leaders down the path of becoming good, democratic, and transformational leaders.

The two crucial roles of leadership style, such as innovation and change and team engagement with organizational stakeholders, lead us to include these as part of what we mean by 'leadership' throughout this study. Using the provided data, institutes could plan activities that involve the students more. For an organization to meet its strategic goals and remain competitive, the employees must collaborate among themselves regularly. By doing this, they are bound to share information with one another that is key to making certain organizational decisions.

The research has found a proven impact on how educational institutions make their policies and decisions. When women are in leadership roles, there is a better impact; this is seen as a benefit, and so having policies that promote such diversity could be advantageous. In any institution, there should be some specific policies and mechanisms in place that help monitor the development of female leaders. Another result of the study showed that how much employees are engaged in their work is influenced by one's leadership style, organizational values, and some other factors The policies must be comprehensive to promote interaction, work-life balance, the health of employees, and a culture that is fully ablaze.

Based on the findings, recommendations include focusing on leadership development by assessing and improving employee engagement through reviewing and modifying different policies to prioritize a broader organizational paradigm.

1. Limitations and Future Research

There were fewer practical methods used for this study due to self-reported data and survey feedback. The estimation of biased data is because a few opinions can be biased due to the need for social approval. Self-reported data is not sufficient to capture all the leadership strategies because leadership is a complex thing that can differ from person to person and can only be known through some subjective-objective measure. However, the study was cross-sectional in nature, which could be a drawback and limitation of the study. The data was gathered at one time only, due to which leadership's flexibility, engagement, and causality cannot be predicted. Studies that are carried out over a long period of time would help to have a better understanding of how different leadership styles affect employees and their engagement levels.

The study had some limitations around the sample size since it was only carried out in that specific context. The study was conducted using a small number of students who were from public higher educational institutions. While this detailed the deeper insights of a certain situation, it questions whether these specific findings are applicable to other situations, such as different educational systems in China. The leadership style and employee engagement are influenced by Beijing's unique socio-cultural context in a way that isn't shared by other communities.

2. Future Research Suggestions

1) Expanding the research context to determine generalizability across institutions, regions, and cultures.
2) Longitudinal studies uncover causal relationships and long-term impacts over time.
3) Diverse methodologies combining qualitative and quantitative data to provide a nuanced understanding.
4) Examining additional variables like organizational culture, individual differences, and external factors.
5) Gender comparative analysis of male and female leadership styles.
6) Experimental designs to investigate causal relationships.

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