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Impact of Leader–Member Exchange and Glass Ceiling on Career Satisfaction and Employee Work Engagement

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Abstract

Despite progress in workplace equality, women continue to encounter barriers that hinder their advancement to higher-level positions, commonly referred to as the glass ceiling. One significant challenge arises from organizational factors, such as gender stereotypes, which limit women's access to managerial roles. In this context, leaders play a vital role in fostering strong relationships with subordinates to help mitigate glass ceiling effects. Research examining gender discrimination through the lens of social exchange between leaders and employees remains limited. This study investigates how leader–member exchange influences career satisfaction and work engagement by addressing the glass ceiling. Data were collected from 469 female employees across various companies in Indonesia. The measurement model was validated through convergent and discriminant validity tests, and hypotheses were assessed using partial least squares analysis. Findings indicate that leader–member exchange negatively impacts the glass ceiling, while the glass ceiling itself negatively affects career satisfaction and work engagement. Furthermore, the glass ceiling mediates the relationship between leader–member exchange and both career satisfaction and work engagement. These results suggest that leaders should cultivate high-quality relationships with employees to reduce the barriers imposed by the glass ceiling.

Keywords: Work engagement, Leader-member exchange, Satisfaction, Glass ceiling, Career

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Introduction

Women continue to face challenges in attaining senior managerial roles, a phenomenon observed globally due to the numerous obstacles encountered in their career advancement [1]. Social role theory [2] suggests that women may have their leadership abilities questioned or face professional limitations because they are often attributed feminine traits (communal, expressive) rather than masculine traits (independent, assertive, competent). Consequently, women tend to occupy fewer leadership positions compared to men [3], and males dominate middle and senior management roles [4, 5]. This situation is commonly described as the glass ceiling—a metaphor illustrating the invisible barriers hindering women's career advancement. Although women can perceive these barriers, the phenomenon is often difficult to define [6]. The glass ceiling represents discriminatory practices that limit women's promotion opportunities [7], and is defined by Kiaye and Singh [8] as an invisible, seemingly insurmountable obstacle preventing women from reaching top management. This issue persists in organizations across both developed and developing countries [9].

Previous research has explored causes of the glass ceiling, including workplace discrimination, bias, and insufficient mentoring and networking opportunities [10]. Psychological factors also act as barriers that prevent women from attaining high-level leadership positions [11]. Gender stereotypes and sex-based categorization often lead decision-makers to perceive women as less competent, while in-group favoritism results in men preferentially selecting other men for promotion [12].



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Powell and Butterfield [13] categorize glass ceiling barriers into personal, organizational, and social impediments shaped by cultural norms, where traditional beliefs about women's roles at home may hinder their career growth [6]. Such beliefs can negatively affect employee performance and organizational outcomes, emphasizing the importance of understanding perceptions of the glass ceiling in workplace contexts [14].

Research by Smith *et al.* [15] indicates that perceptions of the glass ceiling significantly influence women's career success. Despite increasing workforce participation and demonstrated readiness for leadership roles, women still encounter limited opportunities for managerial positions [16]. This indicates that career advancement for women continues to be challenging, reinforcing the perception of a glass ceiling and its effect on career satisfaction. Additionally, Balasubramanian and Lathabhavan [17] highlight that such perceptions play a critical role in determining work engagement, as women's awareness of career barriers can reduce their engagement at work. Prior studies confirm that unfair treatment and perceived discrimination associated with the glass ceiling negatively affect women's work engagement [18, 19].

The quality of leader-member exchange (LMX) is a key factor influencing perceptions of the glass ceiling within supervisor-subordinate relationships. LMX theory posits that supervisors develop varying levels of relationship quality with employees, resulting in differences in formal and informal evaluations [20]. Studies also suggest that supervisor support significantly influences individual career success, and high-quality LMX relationships are crucial for subjective career achievements [21, 22]. However, few studies examine gender differences in career success perceptions through the lens of leader-employee social exchange [20]. Therefore, this study investigates how LMX affects the perceived glass ceiling and, in turn, impacts career satisfaction and work engagement.

In Indonesia, female employees continue to experience the glass ceiling. According to the Indonesian National Workforce Survey [23], female workforce participation is 51.88%, lower than male participation at 82.69%, reflecting a disparity in engagement relative to the working-age population. Male predominance is partly due to traditional roles as breadwinners, while household responsibilities and gender discrimination contribute to lower female workforce participation [24]. BPS data further show that women's average salaries are generally lower than men's across both urban and rural areas.

The McKinsey Global Institute [25] reports high levels of gender inequality in Indonesia, scoring 0.52 for workplace inequality and 0.30 for managerial positions, highlighting persistent barriers for women in accessing employment, fair wages, and leadership opportunities. Even younger generations, such as female millennials, face similar challenges, with workforce participation around 50% compared to over 80% for male millennials [24]. This study aims to examine how Indonesian women perceive the glass ceiling across various industries and its effects on career satisfaction and work engagement.

Literature Review and Hypothesis Development

Social role theory and role congruity theory

Eagly's [2] social role theory asserts that widely held gender stereotypes emerge from societal divisions of labor, where women are typically expected to handle domestic responsibilities while men are assumed to fulfill roles outside the home. These stereotypes link agency with men and communion with women. Male-associated agency encompasses traits such as independence, assertiveness, and competence, whereas women are often socialized to display communal or expressive traits—being nurturing, unselfish, and expressive—while suppressing aggression, which can lead to perceptions of women as less capable leaders [26]. In mixed-gender groups or in tasks culturally aligned with a specific gender, these stereotypes can directly influence members' expectations and behavior.

Social role theory explains that men and women act according to societal expectations based on gender [2]. Within organizations, this framework suggests that managers anticipate employees to perform in line with socially defined roles [27]. Consequently, women may be overlooked for managerial promotions because they are perceived as lacking masculine traits [28]. These role-based expectations often lead to unequal representation across job positions, with women underrepresented in leadership roles [29, 30].

Stereotypes in the workplace can impede career progression, shape perceptions of leaders, and influence evaluations of gendered abilities [29]. Nadler and Stockdale [31] note that gender stereotyping and role perceptions continue to obstruct women's advancement into leadership. Even when women reach middle management, men typically surpass them in further advancement opportunities [32], highlighting the impact of insufficient promotion of gender diversity on women's career trajectories.

Eagly and Karau [33] extended social role theory through role congruity theory, which examines how societal gender stereotypes affect role expectations and evaluations. Role congruity theory posits that women are positively evaluated when their behaviors align with cultural expectations of femininity but face criticism when they deviate from these norms. Prejudice against women in leadership arises when their traits conflict with stereotypical expectations of leaders, resulting in lower evaluations, less favorable perceptions, and increased barriers to career advancement. Together, social role and role congruity theories explain why women frequently encounter the glass ceiling, facing structural and perceptual obstacles in their professional advancement.

Social exchange theory

Blau's [34] Social Exchange Theory (SET) proposes that human behavior is driven by cost-benefit analyses in social interactions, with social life comprising exchanges of tangible and intangible resources [35]. The quality of social relationships is influenced by reciprocal exchanges, where mutually beneficial interactions foster positive outcomes such as enhanced performance [36]. Individuals are more likely to engage in behaviors when perceived benefits exceed the associated costs, and conversely, will refrain when costs outweigh rewards.

SET further posits that when one person provides a benefit to another, the recipient is morally obligated to reciprocate, though the timing and manner of repayment are unspecified [34]. Trusting and mutually advantageous relationships develop through these exchanges [37]. In organizational settings, SET underscores the importance of balancing employee contributions with rewards; equitable exchanges increase job satisfaction and promote higher engagement and commitment.

The glass ceiling exemplifies gender bias, whereby men and women are treated differently in the workplace, leading women to perceive systematic disadvantages [38]. SET suggests that inequitable treatment stemming from discriminatory policies triggers negative employee responses [39]. Conversely, organizations that implement inclusive diversity management practices—ensuring fairness, safety, and equality—can elicit greater employee commitment and engagement.

Leader–Member Exchange (LMX)

LMX theory evolved from the Average Leadership Style (ALS), which emphasizes uniform leadership behavior toward all employees in a department, and was later developed to explore dyadic, vertical relationships between supervisors and subordinates [40]. The theory suggests that leaders form distinct relationships with a select group of subordinates [41], creating unique social exchanges that vary in quality across employees [42]. Low-quality LMX typically involves economic-based exchanges limited to formal employment contracts, whereas high-quality LMX extends beyond contractual obligations, emphasizing trust, mutual obligation, and emotional attachment [43]. High-quality LMX is associated with positive employee behaviors, as leaders who cultivate strong relationships with subordinates can enhance workplace outcomes [42].

Numerous studies highlight the significant influence of LMX on work-related outcomes. For instance, a meta-analysis by Mazur [44] demonstrates a positive relationship between LMX and both individual and team performance [45], while employees engaged in high-quality LMX exhibit superior performance [46]. Overall, these findings indicate that stronger LMX relationships generate more positive employee responses.

Glass ceiling

The glass ceiling represents invisible career barriers preventing women from attaining higher organizational positions [16, 47]. Kiaye and Singh [8] similarly define it as an intangible obstacle that hinders women from progressing into senior management. The concept emerged in the 1980s as a response to systemic gender and racial inequalities, with the term "glass ceiling" first appearing in a 1986 Wall Street Journal article by Hymowitz and Schelhardt [48]. It metaphorically describes the frustration women face when striving for executive roles but encountering invisible, impenetrable barriers.

Research has identified several factors contributing to the glass ceiling, including family responsibilities [49], motherhood [50], and gaps between educational qualifications and professional experience [8]. The perception of a glass ceiling intensifies in male-dominated environments, where men may disregard women's dual roles or feel threatened by female authority, reinforcing gender discrimination and limiting career advancement [16].

Career satisfaction

Career satisfaction is a subjective measure of career success, encompassing both work-related and psychological outcomes derived from employment [51]. It reflects employees' contentment with their career management and strongly influences their intention to remain with an organization [52]. Career satisfaction also represents personal well-being and the perceived quality of one's career experiences [53, 54].

This construct arises from individuals' evaluations of their career growth and achievements while fulfilling job responsibilities [55]. Career satisfaction is typically assessed through employees' perceptions of salary, career trajectory, and professional development opportunities [56]. Al-Ghazali and Sohail [57] note that it reflects the cumulative effects of experiences across different roles and the progress achieved over time. As a key indicator of subjective career success, career satisfaction significantly relates to employees' overall job attitudes and engagement [58].

Work engagement

Work engagement is a positive, fulfilling state of mind characterized by vigor, dedication, and absorption in work [59]. Highly engaged employees exhibit enthusiasm, energy, and pride in their work, often losing track of time due to deep immersion in their tasks [43]. Engagement reflects a strong emotional connection to one's job and organization [41], and is expressed through physical, cognitive, and emotional involvement in work roles [60, 61]. It encompasses deliberate and focused effort, including dedication, absorption, and passion for one's work [62].

Research frames work engagement as a dynamic flow characterized by energy, dedication, and absorption [63]. Engagement is strongly associated with positive organizational outcomes, such as enhanced workplace performance [64, 65], greater organizational commitment [66], and increased citizenship behaviors [67]. Engaged employees also contribute to higher productivity, profitability, lower turnover, stronger organizational commitment [65], and improved work-family satisfaction [68].

Hypotheses development

Employees who develop high-quality LMX relationships with their leaders are likely to receive greater support and form stronger emotional connections with their work compared to those with low-quality LMX [40]. Goldman [69] noted that leader support can influence employees' perceptions of workplace discrimination, while Schaffer and Riordan [70] argue that perceived unequal treatment is indicative of discrimination. When employees observe biased treatment and gender stereotypes in their organizations, it signals the presence of a glass ceiling. Additionally, research shows that stress caused by unfavorable work conditions can be mitigated when positive supervisor-subordinate relationships exist. According to Rosen *et al.* [71] employees with strong LMX often feel that their leaders will protect them in situations where they might otherwise be disadvantaged.

H1: LMX negatively affects the glass ceiling.

Gender role congruity theory [33] explains how alignment or misalignment between gender and leadership roles influences perceptions, prejudice, and detrimental behaviors. In the workplace, the glass ceiling reflects such role incongruities and affects outcomes like work engagement and career satisfaction. From a social exchange theory perspective, female employees may view the glass ceiling as a misalignment between the effort they invest and the rewards they receive, as gender discrimination prevents them from attaining senior positions despite full commitment, potentially reducing both satisfaction and engagement. Prior studies have confirmed that perceptions of the glass ceiling negatively impact work engagement, as women experience work differentiation and gender-based inequities that undermine engagement [18, 19, 72]. However, research on work engagement from a gendered perspective remains limited, with most studies focusing on Western contexts [73].

H2: The glass ceiling negatively influences work engagement.

The perceived glass ceiling also affects career satisfaction. Women's career progression often stagnates at higher levels, and they encounter more obstacles than male colleagues or junior female peers [16]. Despite performing similar work as men, women frequently face salary disparities, reduced authority, and fewer opportunities for international mobility [74]. The glass ceiling limits access to certain positions, affects compensation, and increases the burden of balancing family responsibilities, thereby hindering career advancement and lowering career satisfaction [16].

H3: The glass ceiling negatively affects career satisfaction.

The influence of the glass ceiling on work outcomes is closely tied to the quality of leader-employee relationships. Goldman [69] emphasized that leader support shapes employees' perceptions of workplace discrimination, while Schaffer and Riordan [70] identified unfair treatment as a key indicator of such discrimination. Park *et al.* [40] further demonstrated that gender-based discrimination in recruitment, evaluation, promotion, and reward processes negatively affects organizational performance and employees' career success. Women who experience discrimination perceive that the organization favors men in career advancement, diminishing their self-efficacy and fostering negative work attitudes. Thus, differential treatment is influenced by the quality of LMX, and high-quality LMX can help reduce perceptions of inequity. This aligns with LMX theory's core principle that fostering mature, reciprocal leader-employee relationships enhances desired organizational outcomes [42].

H4: The glass ceiling mediates the relationship between LMX and both work engagement and career satisfaction.

Methodology

Data collection

Data were gathered from female employees holding permanent positions across various industries through an online survey. The study employed snowball sampling, where initial respondents recruited additional participants via their social networks. Snowball sampling is particularly useful when traditional sampling methods are impractical or costly, allowing researchers to study specific populations effectively [75]. Given the diverse company types and geographic locations across Indonesia, this method proved most feasible. Using a cross-sectional design, several key participants were initially recruited to complete the online questionnaire, and they were subsequently asked to forward it to female colleagues. Out of 469 responses, 291 were usable after excluding incomplete, duplicate, or inconsistent responses, yielding a response rate of 62.05%.

The final sample encompassed female employees across eight age groups: under 20 years (2%), 21–25 years (44%), 26–30 years (29%), 31–35 years (11%), 36–40 years (7%), 41–45 years (2%), 46–50 years (3%), and over 50 years (2%). Regarding marital status, 62% were unmarried, 37% married, and 1% divorced. Concerning dependents, 70% had no children, 15% had

one child, 10% had two children, 3% had three children, and 1% had four or more children. Educational qualifications included 12% high school graduates, 16% with an associate degree, 64% with a bachelor's degree, 7% with a master's degree, and 1% with a doctoral degree. In terms of tenure, 71% had worked 1–5 years, 18% 6–10 years, 7% 11–15 years, and 4% more than 15 years. These demographics indicate that the majority of respondents were millennials (born 1980–1995), characterized by career ambition, work-life balance orientation, and pursuit of professional advancement [76].

Measures

Leader-member exchange (LMX) was measured using a six-item scale developed by Graen and Uhl-Bien [42], with responses on a 5-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). The glass ceiling was assessed with a four-item scale adapted from Foley *et al.* [77], also on a 5-point Likert scale, measuring perceptions of gender-based unfair treatment. Work engagement was evaluated using a nine-item scale from Balducci *et al.* [78], and career satisfaction was measured using a five-item scale from Greenhaus *et al.* [56], with a 5-point Likert scale ranging from 1 ("Very Dissatisfied") to 5 ("Very Satisfied").

Data analysis

Partial least squares structural equation modeling (PLS-SEM) was employed to test the research hypotheses, as it allows simultaneous evaluation of multiple variable relationships [79]. Compared to covariance-based SEM, PLS-SEM is preferable for predictive research, smaller sample sizes, and non-normally distributed data [80]. PLS-SEM analysis followed two stages: measurement model assessment and structural model evaluation. Measurement model quality was assessed via internal consistency reliability, convergent validity, and discriminant validity. Constructs met internal consistency requirements if composite reliability exceeded 0.70. Convergent validity was confirmed if indicator outer loadings were above 0.70 or if the average variance extracted (AVE) exceeded 0.50. Discriminant validity was assessed using the heterotrait-monotrait ratio (HTMT), with values below 0.90 indicating acceptable discriminant validity [80].

Results

Preliminary analyses

Table 1 presents the descriptive statistics, including minimums, maximums, means, standard deviations, and zero-order correlations. The analysis supported the proposed hypotheses. LMX had a significant negative correlation with the glass ceiling ($r = -0.34$, $p < 0.01$) and was positively correlated with career satisfaction ($r = 0.36$, $p < 0.01$) and work engagement ($r = 0.37$, $p < 0.01$). Perceived glass ceiling was significantly negatively correlated with career satisfaction ($r = -0.23$, $p < 0.01$) and work engagement ($r = -0.34$, $p < 0.01$). Career satisfaction was positively correlated with work engagement ($r = 0.42$, $p < 0.01$).

Table 1. Minimums, maximums, means, standard deviations (SD) and inter-correlations of variables

Variable	Minimum	Maximum	Mean	Std. deviation	LMX	GC	CS
Leader-member exchange (LMX)	2.00	5.00	3.77	0.55			
Glass ceiling (GC)	1.00	4.00	1.86	0.69	-0.34*		
Career satisfaction (CS)	1.00	5.00	3.63	0.68	0.36*	-0.23*	
Work engagement (WE)	2.00	5.00	4.06	0.53	0.37*	-0.34*	0.42*

*Correlation is significant at the 0.01 level (1-tailed).

Measurement model evaluation

As shown in **Table 2**, all constructs exhibited composite reliability values exceeding 0.70, indicating that they met the criteria for internal consistency reliability. Additionally, after removing several items with loadings below 0.70, the remaining indicators all had loadings above 0.70. The average variance extracted (AVE) for each construct also surpassed the 0.50 threshold, confirming that all constructs satisfied the requirements for convergent validity.

Table 2. Assessment result for the measurement model

Construct	Item	Factor loading	Composite reliability	AVE
Leader member exchange (LMX)	LM1	0.717	0.871	0.574
	LM2	0.737		
	LM3	0.787		
	LM4	0.776		
	LM5	0.769		
Glass ceiling (GC)	GC1	0.852	0.916	0.733
	GC2	0.885		

	GC3	0.863		
	GC4	0.823		
	CS1	0.774		
	CS2	0.830		
Career satisfaction (CS)	CS4	0.807	0.885	0.657
	CS5	0.830		
	WE1	0.839		
Work engagement (WE)	WE2	0.869	0.897	0.687
	WE3	0.842		
	WE7	0.761		

As presented in **Table 3**, the HTMT values for all constructs were below the 0.90 threshold, indicating that the constructs met the criteria for discriminant validity. Therefore, the results from **Tables 2 and 3** confirm that all constructs fulfilled the necessary standards for reliability and validity, allowing them to proceed to the subsequent phase of analysis.

Table 3. Discriminant validity (HTMT_{0.90} criterion)

Constructs	LMX	GC	CS
LMX			
GC	0.405		
CS	0.445	0.274	
WE	0.453	0.392	0.505

Structural model evaluation

The structural model was assessed by testing the hypotheses through a bootstrapping procedure with 1,000 resamples [80]. The results of this evaluation are presented in **Figure 1** and **Table 4** (**Figure 2**).

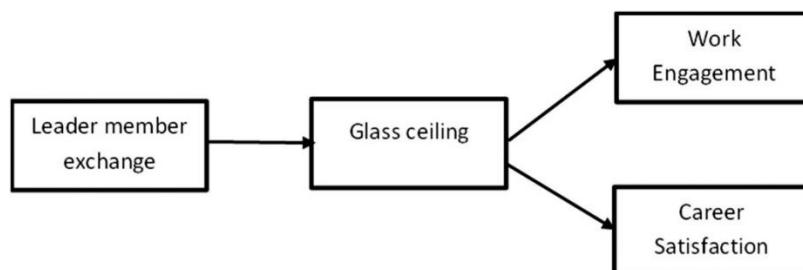


Figure 1. Theoretical model

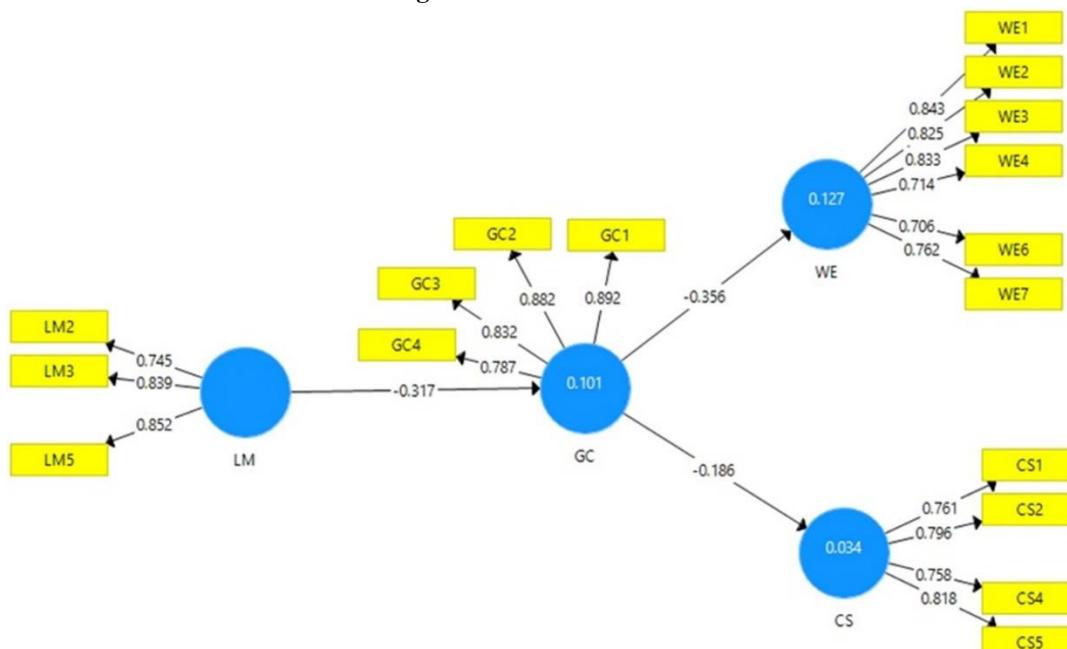


Figure 2. Structural model.

Table 4. Summary of results. (Table view)

Path coefficients	Standard deviation	T statistics	p values

Direct effect					
Leader member exchange --> Glass ceiling	-0.349	0.052	6.668	0.000	H1 is supported
Glass ceiling --> Work engagement	-0.347	0.056	6.195	0.000	H2 is supported
Glass ceiling --> Career satisfaction	-0.242	0.062	3.893	0.000	H3 is supported
Indirect effect					
Leader member exchange --> Glass ceiling --> Career satisfaction	0.084	0.029	2.914	0.004	H4 is supported
Leader member exchange --> Glass ceiling --> Work engagement	0.121	0.030	3.975	0.000	

H1 proposed that LMX negatively influences the perceived glass ceiling. The structural model analysis (**Table 4**) indicated that LMX had a significant negative effect on the perceived glass ceiling ($\beta = -0.349$, $p < 0.01$), thus supporting H1. The analysis also revealed that the perceived glass ceiling negatively and significantly affected work engagement ($\beta = -0.347$, $p < 0.01$) and career satisfaction ($\beta = -0.242$, $p < 0.01$), supporting H2 and H3.

Indirect effect analysis showed that the perceived glass ceiling mediated the relationship between LMX and career satisfaction ($\beta = 0.084$, $p < 0.01$) as well as work engagement ($\beta = 0.121$, $p < 0.01$). Since LMX had a direct impact on career satisfaction and work engagement, the glass ceiling was found to fully mediate these relationships, supporting H4.

Discussion and Conclusion

Both researchers and practitioners have long noted that men and women perceive career success differently, especially within the context of social exchange between employees and supervisors. Female employees continue to face the glass ceiling, which can hinder career progression. This study examined how LMX affects the glass ceiling and, in turn, influences career satisfaction and work engagement.

The findings indicate that higher-quality LMX reduces the perceived glass ceiling among female employees. A strong leader-subordinate relationship fosters trust and support, which helps employees feel protected from workplace discrimination. This aligns with Goldman [69], who highlighted the role of employer support in shaping employees' perceptions of discrimination, and Park *et al.* [40], who found that high-quality LMX reduces discrimination in employment and promotion decisions.

Moreover, the study demonstrates that the glass ceiling negatively impacts career satisfaction and work engagement. Women perceiving a glass ceiling feel they are treated unfairly compared to male colleagues, independent of their competence, which diminishes career satisfaction and engagement. These results support prior research indicating that perceived workplace barriers correlate with lower career satisfaction and engagement [15, 18, 19, 72].

The study also shows that the glass ceiling mediates the relationship between LMX and work-related outcomes. High-quality LMX reduces perceptions of the glass ceiling, thereby enhancing career satisfaction and work engagement. This highlights the importance of strong leader-employee relationships in mitigating perceived discrimination and promoting positive work attitudes.

Implications of the study

This research provides valuable insights into how LMX quality interacts with the glass ceiling to influence career satisfaction and work engagement. Unlike previous studies, it examines the glass ceiling through the lens of leader-subordinate relationship quality. The study contributes theoretically by demonstrating the relevance of social exchange theory [34] in explaining LMX effects and social role theory [2] in understanding the glass ceiling, offering a combined perspective on workplace behavior.

From a practical standpoint, organizations should develop policies to prevent the glass ceiling, emphasizing the importance of leaders maintaining high-quality relationships with employees. Such relationships can be strengthened by addressing employee needs, actively listening to their concerns, and protecting them from discrimination and gender bias. Ensuring women feel supported and valued in the workplace can enhance career satisfaction and work engagement, ultimately fostering a more inclusive and productive organizational environment.

Limitations and recommendations for future research

This study has several limitations that should be acknowledged. First, the cross-sectional design limits the ability to draw definitive conclusions about causality among the variables. Future studies are encouraged to adopt a longitudinal design to provide more accurate insights into the relationships between variables. Second, all data were collected via self-report surveys,

which may introduce common method bias. Nevertheless, the use of well-established measurement scales helps mitigate this potential bias [81]. Finally, the research focused solely on female employees in the private sector, which restricts the generalizability of the findings. Future research could expand to other sectors, such as public or government organizations, to further enrich the literature.

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