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Gender Differences in Leadership Evaluation: An Empirical Study Based on Theory X and Theory Y in the Public Sector

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Abstract

This study explores how employee gender impacts perceptions of leadership style (the perceived leadership orientation according to McGregor's Theory X and Theory Y), when employee and supervisor genders are considered. Data were collected using a 15-item questionnaire regarding perceived leadership orientation from public sector employees (N = 271). Responses were analyzed using descriptive statistics and a two-way ANOVA to test the interaction between employee and supervisor gender. Results show a consistent pattern of interaction: male employees rate female supervisors historically less favorable than males, but women employees rated female supervisors marginally better. While the interaction effect did not attain conventional statistical significance (p = .063), it is trending toward significance and is consistent with previous studies that have investigated biased perceptions of leadership roles by sex. No statistically significant main effects were discovered, supporting previous results that there are overall gender differences in leadership effectiveness (in terms of subordinate rating) and that those differences tend to be small. The results indicate that leadership assessments are considered through not only managerial conduct, but relational expectations informed by gender. The findings help elucidate how social context and implicit bias impact leadership evaluation and decision-making within public sector organizations.

Keywords: Gender Differences; Leadership Evaluation; Theory X and Theory Y; Public Sector

JEL classification: J16, M12, H83

1. Introduction

Hawthorne is hailed as a foundational piece in developing modern management theory because its experiment focused on productivity through the lens of Taylor's scientific management. All of these studies found that productivity improved independently of any changes in physical working conditions, leading researchers to conclude that broader social-psychological factors—especially attention and group dynamics—are central to worker performance (Holzer and Schwester, 2015). These results revealed that employee motives were going beyond economic factors and companies act as social institutions. This realization led to a critique of classical management theories, which were seen as unsuitable for practical application in the workplace due to their inability to capture the nuances of human behaviour and environmental interaction.

This marked a departure that became important for the development of the human relations movement, which focused on motivation and social factors in organizations. In this context, Maslow proposed a hierarchy of needs that states individuals are motivated by lower-order needs (physiological and safety) to higher-order needs (belonging, esteem, self-actualization) (Holzer and Schwester, 2015). That opens up the view that motivation is not principally about money but psychological and social satisfaction.

Within these ideas, Douglas McGregor developed Theory X and Theory Y as two contrasting groups of assumptions about human nature and employee disposition (Robbins and DeCenzo, 2001). According to Lawter et al. (2015), these concepts were first published in 1957 and then elaborated on in McGregor's work from 1960. Theory X is based on an unfavourable viewpoint of human nature, meaning that people are inherently lazy and tend to avoid responsibility as well as need close supervision and control. These assumptions fit in with a traditional management approach characterized by vertical authority and external control (Martin, 2005; Gray et al., 2004).

By comparison, Theory Y offers a more positive alternative by postulating that people can enjoy work and are able to direct themselves, act responsibly and contribute creatively in the right environment (Lawter et al., 2015; Robbins and DeCenzo, 2001). Employees are considered motivated by higher-order needs such as esteem and self-actualization, and might also see work as a source of satisfaction (Gray et al., 2004). According to Van Dam and Marcus (2012), these theories reflect managerial perceptions rather than objective organizational realities, indicating that leadership behaviour derives from fundamental assumptions of employees.

Theory X and Theory Y closely align with Maslow's hierarchy of needs, as it relates to lower-level needs associated with Theory X and higher-order needs reflected in Theory Y (Mills et al., 2006). While not without its own issues in terms of relatively limited empirical validation, the model has proven influential regarding managerial approaches, especially with Theory Y typically aligned with more participative and development focused practice (Mantle and Lichty, 2012).

2. A Gendered Bias in Subordinate Assessments of Leadership

While these frameworks provide key insights, leader evaluations are not entirely rooted in managerial behavior, but also reflect socially constructed norms about expected leader behavior, especially those particular to gender. Role congruity theory suggests that prejudice is founded on the difference between roles, which in this specific case are gender roles and leader roles (Eagly and Karau, 2002).

But empirical evidence tells a more complicated story. Gender differences in perceived leadership effectiveness are small overall, yet women receive higher ratings than men, when evaluated by others, whereas men tend to rate themselves more positive in self-evaluations (Paustian-Underdahl et al., 2014). This indicates that subordinate evaluations may, in some contexts, subvert traditional stereotypes.

Male subordinates are likely to view female leaders less favourably if they demonstrate transformational leadership behaviours, although the gender of the subordinate appears to have a weaker or non-significant effect on evaluations of male leaders (Ayman et al., 2009). Likewise, perceptions of fairness and trust vary across gender dyads under tight control conditions, as employee evaluations of supervisors differ depending on the gender combination of leader and subordinate (Johansson and Wennblom, 2017).

Survey evidence indicates that most individuals report no preference regarding the gender of their supervisor; however, among those expressing a preference, a greater proportion favor male leaders, suggesting that traditional gender expectations regarding leadership persist (Elsesser and Lever, 2011). Further research shows that gender stereotypes can also affect perceptions of people in leadership roles, as well as attributions for successes and failures on a leadership level, with men being seen as more agentic and women more communal (Eagly and Wood, 2012), while traits relevant to a good leader are still predominately associated with masculine characteristics (Heilman, 2001). This is a pattern that also carries through into educational spaces, where male professors are viewed as more capable than their equivalents (Boring, 2017).

In sum, subordinate evaluations of leaders are a function of management assumptions and leadership behavior as well gender-based expectations.

Still, the empirical research that applies McGregor's Theory X and Theory Y within public sector organizational contexts is relatively sparse, whereas studies show significant associations between managerial assumptions, leadership behavior, and employee outcomes. Research on managerial beliefs shows that leaders' assumptions about employee motivation are associated with differences in communication style, the extent to which they invest in participatory decision making, and their expectations regarding responsibility and performance (Kopelman et al., 2008; Sager, 2008). Drawn from empirical findings, Theory Y-oriented assumptions emphasizing employee self-direction and intrinsic motivation are positively related to participative leadership styles as well as performance outcomes (Russ, 2011; Lawter et al., 2015). While indeed much of this research has been conducted in general organizational settings, the implications are relevant for public administration, where leaders have to balance formal accountability structures with increasing demands for employee voice, professional autonomy, and collaborative governance.

The study found that participative management practices at the organizational level in public sector organizations have a positive relationship with job satisfaction, organizational commitment, and perceived managerial support (Kim, 2002). Research exploring leadership behaviors within government institutions by Trottier et al. (2008) illustrates associations between transformational and participatory leadership styles with employee engagement, levels of trust in supervisors, and perceived organizational effectiveness. Research on public sector leadership goes on to emphasize the importance of leaders, who place a higher priority on communication, fairness, and professional development in terms of promoting stronger leader–member relationships and more positive employee attitudes (Van Wart, 2013). These findings suggest that leadership assumptions consistent with Theory Y are relevant in contemporary public management

environments characterized by complex demands from multiple stakeholders and heightened expectations of performance.

There is also a significant literature examining how gender shapes perceptions of leaders in public sector organizations. Leadership judgements are affected not only by observable managerial behavior but also socially constructed gender role expectations, according to research (Eagly and Karau, 2002; Lee and Park, 2021). According to role congruity theory, people are evaluated more favorably, when they behave in ways consistent with stereotypic expectations related to their gender role. And because agentic qualities like assertiveness and authority have often been granted to leadership roles, female leaders may receive more negative evaluations when their behavior is perceived as inconsistent with these traditional expectations (Heilman, 2001; Koenig et al., 2011). Simultaneously, research demonstrates that female leaders are often seen embodying leadership styles which feature collaboration, communication, and participative decision making aligned with transformational behavior's (Eagly and Johannesen-Schmidt, 2001).

In the context of public administration, transformational leadership behaviors are positively related to satisfaction, commitment and trust towards supervisors (Trottier et al., 2008). Building upon social identity theory, the demographic similarity between supervisors and subordinates may also be significant for leadership evaluations, considering that individuals typically show positive attitudes towards members of their perceived in-group (Tajfel and Turner, 2001). Empirical work shows that demographic similarity, including gender similarity, may influence perceptions of trust and quality of leader–member relationships (though effects are typically small and more dependent on organizational context (Tsui and O'Reilly, 1989). Additionally, evidence exists to indicate female public managers may be favorably evaluated when leadership effectiveness is tied into fairness, communication, and interpersonal competence (Van Wart, 2013), which are aspects related to participative leadership styles.

New academic research explains how gender equality in public administration is not only effective through institutional means, but also has important ramifications for the way leaders are perceived regarding legitimacy and effectiveness. Gender-inclusive leadership behaviors lead to higher levels of workplace fairness and organizational identification among employees (Munive et al., 2023). Yet, modernizing analyses reveal that structural limitations and gender stereotypes remain linked to views on leadership competence in public administration; indeed, may still be relevant even within institutions with formal equality policies (Al-Farsi and Al-Kindi, 2024).

Amassing existing literature suggests that the perception of leadership style in public sector is formed through interaction of managerial assumptions on employee motivation and institutional context with gender-based norms surrounding appropriate leadership behavior. While we have seen limited empirical studies directly exploring the relationship between Theory X/Y and gender differences in public sector leadership, the evidence points towards evaluations of leaders being a function of managerial beliefs as well as socially constructed gender norms (Kopelman et al., 2008; Lawter et al., 2015; Sager, 2008; Russ, 2011; Eagly and Karau, 2002) — this dual dynamic might be particularly rich and complex when applied to public sector contexts (Van Wart, 2013). Hence, the purpose

of this study is to explore how the interaction between employee gender and supervisor gender affects leadership style perception in this context.

3. Methodology

3.1 Research Design and Instrument

A quantitative research design was used in order to empirically test the relationship between gender and leadership perception, using the conceptual framework of Theory X and Theory Y. A structured questionnaire was administered to employees, who evaluated their immediate supervisors; data were collected.

The instrument was developed with 15 items that capture managerial behaviors anchored correctly on Theory X and Theory Y assumptions. Respondents rated all statements on a six-point Likert scale from 0 (never) to 5 (always). The overall score, from 0 to 75, indicates leadership orientation; higher scores correspond with Theory Y or participative managerial practices (Bernold and AbouRiz, 2010).

3.2 Sample Characteristics

The sample included 271 respondents in the public sector. Respondent ages varied, with both junior and senior members of staff included in the sample, providing some level of diversity to attitudes towards evaluating leaders. The highest level of education completed: Most respondents held an EQF level 4 qualification (such as an advanced vocational or specialized secondary qualification). Moreover, a significant percentage of respondents held higher levels of qualifications, with EQF Level 5 referring to short-cycle tertiary or advanced vocational education, and EQF Level 6+ denoting bachelor's degree level and above academic degrees.

3.3 Data Analysis

The independent variables were employee gender and supervisor gender. Analysis was conducted using descriptive statistics and two-way ANOVA to test interaction effects.

4. Results

The descriptive analysis highlights systematic differences in leadership evaluations according to the supervisor–subordinate gender combination. Mean, standard deviation, and group sizes are displayed for each combination of genders (Table 1).

The results show that male employees also have a higher rating for the male supervisor (M = 46.52) than for the female supervisor (M = 41.01). The aforementioned effect of 5.51 points is the largest ever recorded that indicates male subordinates consider male leaders to be much aligned in range with Theory Y assumptions such as participative decision-making, trust, and supporting autonomy for employees.

Female workers showed a somewhat different pattern. Female respondents gave female supervisors (M = 46.01) a slightly higher rating than their male counterparts (M = 43.77). The gap, while smaller than that found among male workers, is (consistent with) an in-group preference — what this suggests is that workers rate supervisors who share their gender more favorably.

Group standard deviations vary between 10.47 and 12.48; suggesting relatively similar spread of answers across gender combinations. This means that each group has different insights into the leader's style but consistent overall patterns.

The group sizes vary by the categories, with the largest one being male employees rating male supervisors (n = 120) and the smallest one female employee rating female supervisors (n = 31). This imbalance may reduce statistical power, but the direction of the pattern observed was consistently in line with descriptive results that lend confidence to early findings reported here.

In order to find out if these types of differences are statistically significant, a two-way ANOVA was performed with independent variables, being employee gender and supervisor gender, while dependent variable was perceived leadership orientation.

There were no statistically significant main effects of employee gender ($p = .607$) or supervisor gender ($p = .191$). This suggests that when gender is examined independently of its likeness grouping, overall assessments of leadership style do not vary.

However, the interaction effect of employee gender by supervisor gender reached trend level significance ($p = .063$), while this value does not meet the traditional threshold for significance ($p <. 05$), which indicates a potentially significant interaction pattern. In other words, the efficacy of leadership style seems to be perceived differently according to the gender constellation of the supervisor–subordinate dyad.

This interaction tendency implies that gender identity not only shapes relational expectations which may influence leadership perceptions, but also that managerial behavior shapes this process.

Table 1: Leadership Evaluation by Gender Combination

Employee Gender	Supervisor Gender	Mean (M)	Standard Deviation (SD)	n
Male	Male	46.52	11.35	120
Male	Female	41.01	10.47	52
Female	Male	43.77	12.48	68

Female	Female	46.01	12.37	31

Source: Authors' own research.

These descriptive findings are in line with the pattern reported above and demonstrate a slight same-gender preference for evaluations of leadership. More specifically, men rated men higher than women, while women did (to a lesser extent) the same (higher ratings for female managers than male).

Interpreted through the lens of Theory X and Theory Y, these results indicate that participative and trust-based leadership behaviours can be at least partly interpreted via gendered expectations. And so, a supervisor of the same-sex whose behaviours align with Theory Y is more likely to see theory y-related behaviours perceived positively vs when their gender does not line up with the evaluator's expectations.

In general, they illustrate that gender is not the only consideration when it comes to ratings of supervisors. Instead, the most significant influence on perceptions of leadership style may be in the interaction between employee gender and supervisor gender.

5. Conclusion

This study explored how gender influences perceptions of leadership style within the basic construct of McGregor's Theory X and Theory Y in the public sector. Wielding theoretical insights from Theory X and Theory Y, role congruity theory as well as social identity theory, the study sought to explore if the gender of an employee interacts with their supervisor's gender and impacts leadership orientation assessments. Results support the view that perceptions of leaders involved not only through the lens of managerial behaviour but also through role-based expectations related to gender structures in leadership.

The empirical findings suggest that the perception of leadership orientation based on gender alone was not statistically significant: there were no main effects for employee gender or supervisor gender. This finding is consistent with earlier work that suggests differences in evaluations of leadership effectiveness for men versus women tend to be small on average, when gender is examined independently. However, the interaction effect of employee gender and supervisor gender exhibited a consistent trend nearing statistical significance, suggesting that supervisory-gender composition in the supervisor–subordinate dyad may shape evaluations of leadership.

Results indicated that male employees rated male managers higher than females' managers, especially on Theory Y-type leadership behaviors (e.g., participative, trusting treatment of employees and support for autonomy). Women gave slightly better ratings to women supervisors than they did to men supervisors. This pattern aligns with findings that suggest demographic similarity between supervisors and subordinates may shape perceptions of leadership. This pattern would be consistent with social identity theory, positing that individuals view those whom they see as being in the same social category

as themselves with increased trust and more favorable evaluations (Stetz and Ford, 2010; Rink et al., 2019).

The findings are in line with role congruity theory, which proposes that expectations for the appropriate behavior for men and women as leaders can shape evaluations of their leadership. The results thus suggest that the perceptions of leadership orientation may reflect both managerial beliefs regarding what drives their employees and the expectations associated with gender.

While the overall interaction effect was not significant at conventional levels, results suggest an explanatory pattern, whereby the gender of both employee and supervisor may shape how leadership behaviors related to Theory X versus Theory Y are perceived. In other words, perceptions of Theory X and Theory Y-related leadership behaviors could may vary depending on gender composition. The results reaffirm a need to examine perceptions of leadership in public sector organizations using, at minimum, relational context.

Several limitations should be acknowledged. Interaction effects would have been under-powered by the small subgroup sizes, limiting statistical power. In addition, this research focuses on perceptual measures of leadership orientation instead of objective indices of leadership success. Future studies may explore these relationships in larger samples and different organizational contexts.

In conclusion, this study adds to the existing body of literature by exploring Theory X and Y in terms of gender patterns in public sector leadership assessment. The results indicate that perceived leadership style may be a function of the combination between employee gender and supervisor gender, suggesting that traditional views about the gendered expectations of leadership behavior still impact our interpretation of leadership behavior.

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