



Appraisal of Leadership Styles of Female Managers and Employees' Performance in the Nigerian Manufacturing Sector

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Abstract

Variations in employees' performance remain a global challenge despite the continuous effort to close the gaps with leadership styles and leadership gender identified as contributory factors. Against this backdrop, this study examined female managers' leadership styles and employees' performance in the Nigerian manufacturing sector. To achieve the purpose of the study, a descriptive survey was conducted comprising employees who at any point in their career worked under female managers in the manufacturing sector. The source of data was primary data, which was collected through a structured questionnaire, and one hundred and thirty-eight respondents participated in the survey. The data gathered were analyzed using descriptive and inferential statistics. The study established that female managers' democratic leadership style has a significant effect on employees' performance; female managers' autocratic leadership style affects employees' performance; there is a significant relationship between female managers' use of laissez-faire leadership style and employees' performance, and the transformational style of leadership adopted by female managers significantly determines employees' performance. The study concludes that female managers' leadership styles, considered in this study, contribute to employees' performance, but with variation. Female managers with transformational leadership styles contribute more to employees' performance and followed by those female managers who adopted a democratic leadership style.

Keywords: *Employee performance, Female manager, Leadership styles, Manufacturing firm, Nigeria*

INTRODUCTION

Globally, the manufacturing sector has been playing a leading role in sustaining economies through job creation and revenue, among others (Rahardjo et al., 2023). The Nigerian manufacturing sector has positively impacted the country's economy. For instance, the Central Bank of Nigeria attributed 15% Gross Domestic Product (GDP) growth to the manufacturing sector in 2022. However, it is found to be insignificant compared to what is expected because the employees in the sector have not improved greatly. Employees are an input into manufacturing activities and contribute significantly to the sector's performance. By this, it can be deduced that employee performance is a strong determinant of manufacturing sector performance, and this can be attributed to the level of employees' performance.

In the words of Abioro et al. (2018), employee performance is linked to getting worthwhile work done. As a result, Akinbode et al. (2020) mentioned this as the reason why metrics of employees' performance are represented as excellent, good, average, and poor. In this study,

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employee performance represents actual output against expected output within a defined period. This implies that employee performance is measured in terms of what an individual has met within his or her job description. For the manufacturing sector that often produces tangible items, the employee's quality of work is a crucial aspect of determining, first, the performance of the employee and second, that of the sector, as the product must meet customers' expectations. Therefore, employee quality of work is perceived as the match between defined job roles and what the employee has achieved.

Employees' performance in the manufacturing sector has been observed to be subject to various influences, among which are workmates, motivation, leadership, and the manager, and specifically, the gender of the manager (Boada et al., 2023). Gender issues have been widely discussed, and this discussion continues as it remains open for further insight. The place of female managers in the workplace, as it relates to different leadership styles, exists; the adoption of these leadership styles by female managers, which is influenced by their features, appears to have determined variations in the styles of leadership beyond the conventional leadership styles (Dong et al., 2024). A quick description of these styles will provide insight.

Leadership style is the adopted leader's approach to achieve desired influence (Karnan & Marimuthu, 2021). Sarkar et al. (2023) admitted that leaders deploy different leadership styles like democratic, bureaucratic, laissez-faire, charismatic, autocratic, transformational, and transitional. This study specifically chooses democratic, autocratic, laissez-faire, and transformational leadership styles based on what the literature revealed in the context of this study. However, gender effects on the preferred choices of leadership styles have been given less attention in the literature. Most of the extant studies reported male gender at the helm of affairs in the manufacturing industry, with fewer female managers in charge.

Even with the increased consideration of gender's role in leadership research, the literature still offers limited insight into how female managers impact employees' performance through leadership style, particularly in male-dominated industries like manufacturing. Most existing studies have either focused on male leadership or adopted a gender-neutral stance, thereby ignoring the subtle leadership behaviours and competencies that female managers display in organisational settings (Hoobler & Wilson, 2022; Kim & Kim, 2023). Furthermore, most of the recent empirical research lacks contextual embeddedness, failing to examine how socio-cultural and institutional contexts, such as entrenched patriarchal values, gender stereotypes, and limited access to leadership positions, shape and limit leadership expressions and perceptions in countries like Nigeria (Adeleye et al., 2022; Oludayo et al., 2023). These limitations locate a priority research gap: the need for context-specific studies that disaggregate and explore the leadership approaches employed by women managers and the resultant effects on employee outcomes. With the underrepresentation of women among managers in Nigeria's manufacturing sector and the sector's strategic importance to economic development, addressing this gap is both opportune and relevant to informing inclusive leadership practice and policy transformation.

Female managers with any leadership style will no doubt exert influence of different kinds on employees' performance (Chukwusa, 2019; Likert, 1967; Tannenbaum & Schmidt, 1958). These leadership styles adopted by female managers appear different and tend to influence their subordinates' performance. Therefore, the study assessed specific leadership styles deployed by female managers as they relate to their subordinates' performance in selected Nigerian manufacturing firms.

Research Questions

- i. What effect does female managers' democratic leadership style have on employees' performance?
- ii. How does a female manager's autocratic leadership style affect employees' performance?
- iii. To what extent has female managers' use of *laissez-faire* leadership style contributed to employees' performance?
- iv. What is the employees' performance level when female managers adopt a transformational leadership style?

In this regard, the manufacturing sector is provided with information on one of the factors responsible for the decline in the performance of employees who work under female managers. Also, the extant literature and theories of leadership and employee performance are strengthened. Lastly, the study becomes a reference point for female managers to learn about their choice of leadership style that will drive the performance of their subordinates. Therefore, this study addresses the limited female managers' leadership studies in the Nigerian manufacturing sector. This study became germane due to the increasing number of females in managerial positions in the manufacturing sector. This is a paradigm shift in practice in this part of the world

LITERATURE REVIEW

Conceptual Review

Female Manager Leadership Styles

The term 'leadership', as defined by [Northouse \(2021\)](#) is the practice in which someone in a group affects other people in the group to accomplish a mutual interest. From the definition, process, influence, group, goal achievement, and mutuality of goals by both the leaders and followers are fundamental components. Definitions of leadership from authors such as [Akinbode et al \(2024\)](#) and [Bhatti and Irfan \(2024\)](#) emphasized the process adopted to influence others to achieve entity objectives. Studies have also shown that influencing others requires the personal traits and behaviour of a leader who oversees people, groups, or organisations ([Veliu et al., 2017](#)). These traits of leadership can be associated with any gender. The notion of 'female leadership' has been delineated, as per Universidad Internacional de Valencia in 2021, as the involvement of women in various managerial capacities, wherein they make managerial choices, head management teams, and implement organizational strategies through their leadership abilities.

Female leadership represents an ongoing and dynamic discourse aimed at combating workplace discrimination, opposing corporate policies and cultures that are prejudicial to women. These transformations are geared toward establishing more equitable structures and enhancing interpersonal relationships ([Santander, 2022](#)). The arguments have been that gender does not matter and that female leadership should be allowed to lead in the corporate world. [World Visión \(2022\)](#) concluded that the promotion of female leadership broke gender inequalities and brought in soft skills of women in corporate governance. The account of [Boada et al. \(2023\)](#) features of female leadership strengthened the arguments around the benefits of female leadership. According to the authors, female leaders are empathetic and people-oriented.

Studies ([Dong et al., 2024](#); [Liu & Gu, 2024](#); [Muijs, 2021](#); [Yukl, 2021](#); [Hussain et al., 2018](#); [Sunil, 2018](#); [Fischbacher-Smith, 2015](#); [Rees and French, 2013](#); [Tannenbaum and Schmidt, 1958](#)) have identified different styles of leadership that females have adopted. These leadership styles are explored below:

- i. Female manager's democratic leadership style is participatory leadership, which entails female leaders making the ultimate decisions while actively involving others in the group

in making decisions. This style is characterized by leaders encouraging the participation of their subordinates, thereby incorporating their contributions into the decision-making process ([Amanchukwu et al, 2021](#)).

- ii. Female manager's autocratic leadership style is coercive and delegates tasks to team members without seeking input from subordinates ([Dotse & Asumeng, 2014](#)). According to [Mihai et al. \(2017\)](#), leaders with this style are someone who order and expect strict compliance. The authors further described such an individual as being rigid and positive, but often leads with the capability to give rewards or withhold, and even punish.
- iii. The laissez-faire female manager revolves around minimal involvement in the decision-making process, largely entrusting matters to their followers. The characteristics of a laissez-faire leadership style entail: delegation of authority by leaders to followers or subordinates.
- iv. Female manager transformational leadership style involves increasing staff motivation to attain higher levels of performance and nurturing and revealing their commitment and beliefs in the organization. The transformational leader possesses the ability to elevate followers beyond their minor concerns and unite them around a shared purpose to achieve previously unattainable goals.

Concept of Employee Performance

Performance is an attractive and important aspect of every industry, including the manufacturing sector. Before delving into the performance of employees in the sector, performance implies the extent to which actual and target meet, such as attaining what the sector anticipates ([Rovi et al., 2024](#)). Therefore, what determines the sector's performance is partly the employees' performance. Employee performance is defined as how well he/she performs job responsibilities and completes assigned tasks ([Idris et al., 2023](#)). It refers to the output's efficacy, quality, and efficiency. The evaluation of employees' value is connected to their performance. Each employee is a considerable investment for a firm; thus, the return on that investment must be substantial. The contribution of employees is to achieving goals ([Shamsuddeen & Shukurat, 2023](#)).

There are many ways through which employee performance can be measured. This includes but is not limited to speed and efficiency, quality and depth of work, trust and consistency, units produced, response rate to demand, and error rate.

Determinants of Employee Performance in the Manufacturing Sector

- i. Employee productivity: This refers to the relationship between the output and the inputs within a given period. It reflects the quantity of goods and services generated concerning the resources employed. Alternatively, it signifies the effectiveness with which output is created by a specific set of inputs. Typically, productivity is assessed through the output-to-input ratio. An increase in this ratio implies an enhancement in productivity, while a decrease indicates a decline in productivity. For example, employee productivity is usually measured as the output of labour divided by the input, considering both the monetary value of the production and the input costs. This measure of productivity is distinct from profitability metrics.
- ii. Operations efficiency: The pace with which a set of economic activities is carried out is of interest in manufacturing operations. This captures operation efficiency in terms of getting customers' orders from them promptly within the allocated cost. [Drucker \(1963\)](#) summarised this as "doing things right". In the position of [Eskandari \(2007\)](#), the concept is about the optimum utilisation of resources. Operational efficiency has been tied to leadership in business as it confirms a firm's status based on the level of output using minimal input ([Ghebreorgis & Atewebrhan, 2016](#)).

- iii. Product delivery: This is considered because production is not complete until products get to the final consumer. Thus, getting the product to the end users represents product delivery (Ciani & Mau, 2021). Whereas, when customers get the product at the expected time, this is called 'timely delivery of product'. This made delivery time to have become the fundamental measure of employees' performance.

Theoretical Review

Four theories, namely Trait Theory, Great Man theory, Rational Cultural Theory, and Theory of Sex-Role Orientation.

- i. Trait Theory Trait theory is anchored on the premise that leadership is based on individual possession of superior qualities that differentiate such individuals from others (Mann, 1959; Stogdill, 1948). It concentrates on different behavioural traits to which leaders might be dedicated. Traits like knowledge, energy, optimism, appearance, honesty, height, weight, intelligence, power, self-confidence, and creativity have been identified as the theory (Northouse, 2021; Yukl, 2011). The possession of these traits qualifies an individual to be a leader, while the extent of the trait's possession determines a leader's effectiveness. Therefore, the basic assumption of this theory is that leadership might not emerge from birth as suggested by the great man theory; it can be gained and learnt. Advocates of traits theory believe that the existence of some character traits promotes effective leadership. Drawing from the above position, the leadership description can be expanded. Mann (1959) identified 1400 features of a leader, and according to Harrison (2018), gender, maturity, height, weight, persuasion, openness, knowledge, domination, determination, vision, and self-confidence are listed as strong features. Gender input is of interest in this study
- ii. Great Man Theory This philosophy contends that leaders are born and not made. Originally put forward by Carlyle (1949) with the proposition that great leaders will emerge when the need arises and that such leadership characteristics are born and not made. Therefore, the premise is that individuals must possess some traits to be a leader (Uslu, 2019). The fundamental assumption of this theory is that what makes such an individual the leader is the possession of a set of innate features. This suggests that leadership is genetic, as reported by some studies; it is a 'genetic theory' because these are unique sets of features that are inborn that distinguish great men from ordinary people.
- iii. Rational Cultural Theory This theory was premised on gender role expectations and sex based (Eagly & Wood, 2012). This traces nurturing, empathetic, and understanding features to females and connects them to leadership roles. It was suggested that leadership behaviours that encourage follower participation are pronounced in female followers. Writers have challenged the effectiveness of this theory in explaining females in leadership positions, considering different leadership styles. To explore preference for female leadership styles, the importance of female gender in determining leadership behaviour becomes imperative.
- iv. Theory of Sex-Role Orientation This theory was propounded by Bem (1974) to explain bipolar dimensions as a phenomenon among people as regards gender. Expressive traits were identified as feminine, which defines this gender as their gender identity. The proposition is that feminine features are interpersonal and expressive. This was proved in the study of Ayman and Korabik (1989), which was premised on the Sex-Role Inventory among thirty women in managerial positions in Canada. Also, Powell (1993) acknowledged that the leadership style of females differs, and debunked males are better managers than females.

This study is premised on sex-role orientation theory, as it satisfactorily explains the consideration of female managers in leadership positions, exploring their adoption of different leadership styles because the styles are not exclusive to males alone. The study through this theory can better explain why females with specific leadership styles have been able to drive employees' performance, and explain further the preference for certain leadership styles among the female leaders who have achieved excellent employee performance under their leadership.

Empirical Review

Extant studies ([Boada et al., 2023](#); [Omeka & Onah, 2021](#); [Ababneh & Athamneh, 2018](#)) have found diverse views on the nexus between the variables under study. For instance, [Ababneh and Athamneh's \(2018\)](#) research, which examined styles of leadership of women in the public entity of Jordan on followers commitment through quantitative methods involving 554 respondents and found that women leaders displayed a strong priority for the laissez-faire leadership style while in an earlier study conducted in the private sector by [Alzougool et al. \(2015\)](#), Jordanian followers perceived significant differences in the application of transformational leadership style between women and men leaders.

[Omeka and Onah's \(2021\)](#) study explored principals' leadership styles and job satisfaction of teachers in secondary schools to establish disparities among male and female teachers as determined by principals' leadership styles and their job satisfaction. The authors employed a survey approach with a sample population of 280 teachers. Data was collected through copies of the questionnaire, while the collected data were analyzed with descriptive statistics, and a t-test was used to test the hypothesis. It was found that secondary school principals utilized various leadership styles, with autocratic leadership being the dominant style. However, a democratic leadership style positively impacted teachers' job satisfaction. Furthermore, the study found that irrespective of gender, the teachers unanimously acknowledged the positive effect of a democratic leadership style on job satisfaction.

The study of [Cuadrado et al. \(2012\)](#) observed that female leaders in a different context displayed a strong inclination toward an autocratic leadership style. In contrast, a study conducted by [Boada et al. \(2023\)](#) in Ecuador found that female leaders in their sample tended to adopt transformational and transactional leadership styles.

Hypotheses Development

H₀1: Female managers' democratic leadership style has no significant effect on employees' performance

H₀2: Female managers' autocratic leadership style does not affect employees' performance

H₀3: There is no significant relationship between female managers' use of laissez-faire leadership style and employees' performance.

H₀4: Employees' performance level is not determined by the adoption transformational leadership style of female managers.

RESEARCH METHOD

This study adopted a survey design with a descriptive option. This made it easy for the study to assess how female managers use their leadership styles to determine employees' performance. The population for this study comprises employees who have at any point in their career worked under female managers in the manufacturing sector. The available data as of July 2024 in the targeted manufacturing firms in Lagos, Nigeria (The manufacturing hub of the nation), put it at one hundred and fifty-two (152). Therefore, only employees in this category who have worked in

manufacturing firms were covered. The census sampling technique was adopted, implying that the entire targeted population is purposively involved (152). This defines the inclusion and exclusion criteria, that is, only employees in the five manufacturing firms who have worked under the leadership of female managers.

Data was collected with a structured questionnaire administered to the respondents. The questionnaire was adopted with a few modifications from the works of [Boada et al. \(2023\)](#) and [Cuadrado et al. \(2012\)](#). The questionnaire was divided into six sections, each addressing issues in the study, and the questions were structured. Section A centres on the respondents' demographic data; Section B examined female managers' democratic leadership style in the selected manufacturing firms; Section C items were on female managers' autocratic leadership style in the selected manufacturing firms; Section D examined female manager laissez-faire leadership style in the selected manufacturing firms; Section E items were on female managers transformational leadership style in the selected manufacturing firms; and Section F items were centred on employees' performance in the selected manufacturing firms. The questions constitute structured questions. The structured questions adopted the 5-point Likert scale, where questions are used to solicit responses related to the objectives of the study from the respondents. The Likert scale ranges from strongly agree to strongly disagree to generate responses from the respondents regarding the variables under study. Strongly Agree – 5 points, Agree – 4 points, Undecided – 3 points, Disagree – 2 points, and Strongly Disagree – 1 point.

The validity of the research instrument requires the instruments to be subjected to various tests (content and construct reliability). The validity of the research instrument was established through a pilot study with experienced female directors and managers in the manufacturing sector. The items in the research instrument were examined, and each item intended to be measured was decided on.

Table 1. Reliability Coefficients

Variables	Cronbach's Alpha	Number of Items	Level of Significance
Female manager's democratic leadership style	.711	4	.000
A female manager's autocratic leadership style	.810	4	.000
Female manager laissez-faire leadership style	.722	4	.000
Female manager's transformational leadership style	.818	4	.000
Employees' performance	.824	5	.000

Source: Researchers' Pilot Survey 2024.

Table 1 represents the overall reliability scale used to measure the variables. All the items returned a Cronbach alpha coefficient of 0.7 or more; therefore, they were considered reliable for the study. The individual items in the instruments measure a single construct and give a highly correlated result.

The actual data collection was via the validated instrument for the study. A total of one hundred and thirty-eight (138) duly completed copies of the questionnaire were retrieved from the one hundred and fifty-two (152) administered. Response rate stood at 91%, which is significant for data analysis. Data was collected via self-administration of copies of the questionnaire, and this exercise lasted eight (8) weeks. This made it possible to attain a 91% response rate. Data analysis

was processed with the IBM SPSS version 29. The analysis made use of inferential statistics (regression and correlation). The assumption is that the relationship between employees' performance is linear. That is, $Y = f(X)$. Where Y = Employees' performance, and X is leadership styles.

FINDINGS AND DISCUSSION

Findings

Demographic Data of Respondents

Table 2. Demographic Data of Respondents

	Items	Frequency	Percent	Valid Percent	Cumulative Percent
Age Group	18 – 27 years	6	4.3	4.3	4.3
	28 – 37 years	35	25.4	25.4	29.7
	38 – 47 years	79	57.2	57.2	86.9
	48 years & above	18	13.1	13.1	100.0
	Total	138	100.0	100.0	
Highest Educational Qualification	1 st Degree	61	44.2	44.2	44.2
	2 nd Degree	48	34.8	34.8	79.0
	3 rd Degree	29	21.0	21.0	100.0
	Total	138	100.0	100.0	
Marital Status	Single	35	25.4	25.4	25.4
	Married	101	73.2	73.2	98.6
	Divorced	2	1.4	1.4	100.0
	Total	138	100.0	100.0	

Source: Computed data (2024)

Table 2 reveals the three demographic details of the respondents, starting with the age group; 4.3% of the respondents were between 18- 27 years of age, 25.4% were between 28-37 years, 57.2% were between 38-47 years, while 13.1% were 48 years and above. With most respondents (57.2%) between 38-47 years of age, the expected maturity exists to work with female managers. Furthermore, the highest educational qualification of the respondents shows that 44.2% possess a 1st Degree certificate, 34.8% had a 2nd Degree certificate, and 21% had a 3rd Degree certificate. This confirms that average respondents possessed the literacy level to understand the importance of the study and provided objective responses to items. Lastly, the marital status of the respondents was captured. 25.4% were single, 73.2% were married, and 1.4% were divorced. This shows that a significant number of the respondents understand the gender issue and the female component of the study is centered on, and will strengthen views and feedback on the study.

Test of Hypotheses

H₀₁: Female managers' democratic leadership style has no significant effect on employees' performance

Table 3. Model Synopsis of Female Manager's democratic leadership style and employees'

performance				
Model	R	R ²	Adjusted R ²	Std. Error Est.
1	.428 ^a	.142	.089	1.02218

Predictor: (Constant), female manager, democratic leadership style

Source: Computed Data, 2024

Table 3 model summarizes the change in the level of employees' performance as a result of female managers' democratic leadership style. With R².142, the percentage is 14.2%. This reveals 14.2% all things constant, a female manager's democratic leadership approach determines employees' performance level in the sector.

Table 4. ANOVA^b of Female managers' democratic leadership style and employees' performance

Model	Sum of Squares	Df	Mean ²	F	Sig.
1 Regression	11.202	1	11.202	8.782	.000 ^a
Residual	216.541	137	1.580		
Total	227.743	138			

a. Predictor: (Constant), female manager, democratic leadership style

b. Dependent variable: Performance of employees

Source: Computed Data, 2024

Table 4 reveals the ANOVA significance (0.000). With an F-value of 8.782, the H₀ was rejected and H₀₁ was accepted. By implication, female managers' democratic leadership style has a significant effect on employees' performance.

H₀₂: Female managers' autocratic leadership style does not affect employees' performance

Table 5. Model Synopsis of Female managers' autocratic leadership style and employees' performance

Model	R	R ²	Adjusted R ²	Std. Error Est.
1	.211 ^a	.110	.101	1.01211

a. Predictor: (Constant), Female manager, autocratic leadership style

Source: Computed Data, 2024

Table 5 regression model revealed that employees' performance is explained by female managers' autocratic leadership style by an R².110 and in percentage 11%. This implies 11% variance in the performance of employees in the sector is caused by female managers' autocratic leadership style.

Table 6. ANOVA^b of Female managers' autocratic leadership style and employees' performance

	Model	Sum of Squares	Df	Mean ²	F	Sig.
1	Regression	31.221	1	31.221	11.514	.000 ^a
	Residual	142.415	137	1.040		
	Total	173.636	138			

a. Predictor: (Constant), female manager's autocratic leadership style

b. Dependent variable: Performance of employees

Source: Computed Data, 2024

As presented in the ANOVA Table 6, the significance is (0.0000) and the F-value is 11.514. This confirms rejection of H_0 and acceptance of H_1 . Therefore, female managers' autocratic leadership style affects the performance of employees.

H_{03} : The relationship between female managers' laissez-faire leadership style and the performance of employees is not significant.

Table 7. Relationship between female managers' use of laissez-faire leadership style and the performance of employees

		Laissez-faire leadership style	Employees' performance
Laissez-faire leadership style	Pearson Correlation	1	.128**
	Sig. (2-tailed)		.000
	N	137	137
Employees' performance	Pearson Correlation	.128**	1
	Sig. (2-tailed)	.000	
	N	137	137

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Computed Data, 2024

Table 7 correlation result revealed the extent of the nexus between the female managers' laissez-faire leadership option and the performance of employees. At $r = 0.128$, a weak positive relationship exists between the two variables. It suggests a very insignificant coefficient of determination when $r^2 \times 100\%$ equals 1.28%. By implication, female managers' laissez-faire leadership option contributes 1.64% to employees' performance.

H_{04} : Employees' performance level is not determined by the adoption transformational leadership style of female managers.

Table 8. Model Synopsis of Employees' performance level is not determined by the adoption transformational leadership style of female managers

Model	R	R ²	Adjusted R ²	Std. Error Est.
1	.577 ^a	.312	.199	.057

a. Predictor: (Constant), Transformational leadership style of female manager

Source: Computed Data, 2024

To explore the level of employees' performance determination by the transformational leadership style of female managers, the regression model was applied. It was established that a .312 equivalent of 31.2% explains the variation of employees' performance as a result of the transformational leadership style of female managers. Therefore, H_0 was rejected and H_1 was accepted. By implication, the transformational leadership style of female managers significantly determines employees' performance.

Discussion of Findings

Empirical evidence from the inferential analyses revealed that all the proxies of female managers' leadership styles considered are germane to the performance of employees. Firstly, the study established that female managers' democratic leadership style significantly contributes to the performance of employees. This finding suggests that female managers' democratic leadership style promotes employees' performance. With employees' involvement in critical decisions, it promotes inclusion and teamwork, which are fundamental to performance. This finding corroborates the positions of [Onwuegbuna et al. \(2022\)](#) and [Kalu and Okpokwasili \(2018\)](#) in their separate studies, which affirmed that such a leadership style contributes positively to the impressive performance of employees.

Secondly, female managers' autocratic leadership style was reported to have a significant effect on the performance of employees. This result suggests that female managers' autocratic leadership style works at times. This finding is not different from the positions of [Oranefo \(2022\)](#) and [Cuadrado et al. \(2012\)](#), which acknowledged female autocratic leadership style to be impactful on the performance of employees. However, the study disagrees with [Demirtas and Karaca \(2020\)](#), which suggests autocratic leadership style drives employees' performance.

Furthermore, female managers who adopted a laissez-faire leadership style were examined against the performance of employees, and this was established to exist, but was weak. Offering management support can improve workplace attitude. Negative work attitude can be eliminated with job autonomy and manager support, while management support can reduce turnover intentions and job dissatisfaction. This finding supports the claim of [Dharejo et al. \(2021\)](#) that laissez-faire leadership style does not encourage employees' performance as expected.

Lastly, female managers' transformational leadership style determines the performance of employees significantly. This result embraces the positions of [Boada et al. \(2023\)](#) and [Alzougool et al. \(2021\)](#) in their separate findings. In the case of [Alzougool et al. \(2015\)](#), transformational leadership options by women leaders differ from men, while the study of [Boada et al. \(2023\)](#) in Ecuador found female leaders to have adopted transformational leadership styles, which greatly impacted their followers.

Practical Implications

While the debate on leadership style and employee performance makes theoretical contributions, practical implications must be derived that will inform organisational practice. For organisations, the conclusion underscores the need for adopting inclusive leadership development practices in diversity, valuing, and encouraging different styles of leadership, particularly those exhibited by female managers. This includes building facilitatory contexts where visibility in women-in-leadership positions is augmented by their empowerment to lead truthfully. To HR professionals, the research draws attention to gender-sensitive evaluations through recruitment, training, and systems of performance management. Tailor-made leadership programs built from an assessment of differing leadership styles, like transformational or democratic forms of leadership, have the potential to drive the level of workers' involvement as well as work productivity. Managers should reflect on their leadership style and how adapting it to team dynamics can support communication, trust, and outcomes. The promotion of continuous feedback and an emotional intelligence and empathy culture, common characteristics of effective female leaders, are other means by which team performance may be even more significantly enhanced. Such implications are critical to developing inclusive, high-performing workplaces within Nigeria's manufacturing sector and beyond.

CONCLUSIONS

Leadership styles have been widely discussed, but when it comes to adopting these styles among female managers, little or less has been discussed, especially concerning how they have impacted their subordinates. This study has considered female managers' choices of leadership styles and how it has impacted employees' performance. It was established that female managers with a preference for transformational and democratic styles were able to increase their subordinates' performance than those with autocratic and laissez-faire leadership styles. The study concludes that female managers should give preference to both transformational and democratic leadership styles to take employees' performance to peak. Therefore, this study strengthens [Bem's \(1974\)](#) Sex-Role Orientation theory as it adds gender roles to leadership.

Against the backdrop of the findings from the study, the following recommendations were suggested: Democratic leadership style of female managers should be promoted more in the manufacturing firms to increase employees' performance; autocratic leadership style of female managers should be discouraged as it plays little contributions to employees' performance in the manufacturing firms studied; it is not good not to have leadership direction. Therefore, the laissez-faire leadership style of female managers should be strongly discouraged as it will do the manufacturing firms no good; and it is also expedient for female managers to increase the tempo on the choice of transformational leadership style in the manufacturing firms because of the benefits associated with it, among which is increased employee performance.

LIMITATION & FURTHER RESEARCH

Future studies may attempt to investigate excluded leadership styles in the constructs of the present study, such as collaborative leadership style, bureaucratic, charismatic, transactional, and idiographic, among others, against employees' productivity. Also, a more diverse sample could provide more coverage and offer a holistic perspective on the issues examined in the study, and or offer findings different from what was obtained in this study.

While this study has attempted to capture female managers' views on leadership styles and their subordinates' performance for primary data, it will not be out of place for future researchers to introduce contextual factors like culture and economic conditions to observe the issues of leadership styles and employees' performance. Also, considering a mixed-methods research

approach is likely to produce robust results for future studies. Lastly, using structural equation modeling can offer beyond linear direction for the study.

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