

A Cultural Context Approach to Leadership Effectiveness in Healthcare: Evidence from Ghana

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ABSTRACT

This study investigates the relationship between leadership styles and employee performance within hospitals in the Effutu Municipality, Ghana. Targeting nurses, healthcare administrators, allied health professionals, and domestic staff from four purposefully selected hospitals, a sample size of 384 participants was determined using the Cochran formula. A stratified random sampling technique ensured a proportional representation of the distinct subgroups. A final usable sample of 300 participants was achieved after thorough data checking and screening. Data were collected using a questionnaire developed from established leadership constructs, exhibiting high reliability with a Cronbach's Alpha of 0.87. Descriptive and inferential statistical analyses were conducted using SPSS version 25.0, including multiple linear regression to assess the impact of various leadership styles on employee performance. The findings indicate that all examined styles—transactional, leadership bureaucratic, autocratic, transformational, democratic, participative, and laissez-faire—had significant positive effects on employee performance. These results challenge the notion of a single "best" leadership style, suggesting that the effectiveness of leadership approaches is context-dependent. The study's limitations include geographical scope, with recommendations for future research to explore contextual factors, long-term effects, and cross-cultural comparisons to enhance the understanding of leadership impacts in diverse healthcare settings.

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Introduction

Extensive research has explored the influence of leadership styles on employee performance across various organizational contexts (Anderson, 2017; Kotamena et al., 2020). These studies underscore the importance of leadership in motivating employees, enhancing job satisfaction, and driving organizational

success (Baig et al., 2021). However, despite these contributions, there remains a significant gap in understanding how leadership dynamics operate within the healthcare sector of developing countries, particularly Ghana (Donkor & Zhou, 2020).

The healthcare industry presents a unique and complex leadership landscape. Healthcare professionals work in high-pressure environments, requiring them to make critical decisions under time constraints, all while managing the emotional toll of constant exposure to human suffering (Harrison et al., 2015). Moreover, the diverse backgrounds and specializations of healthcare teams demand leadership that not only fosters collaboration but also leverages this diversity to enhance overall team performance (Cummings et al., 2018). Given these challenges, the role of leadership in shaping the work experience of healthcare professionals is crucial, influencing not only employee performance but also the quality of care provided to patients (Buchan, 2019).

Despite the global recognition of these dynamics, the specific leadership styles that effectively address the challenges within the Ghanaian healthcare context remain underexplored. This study aims to fill this gap by investigating how different organizational leadership styles impact employee performance in selected hospitals within the Effutu Municipality, Ghana. By focusing on this underrepresented context, the research aims to provide a nuanced understanding of the interplay between leadership and employee performance in the Ghanaian healthcare sector. The study is guided by two primary objectives:

- 1. To identify the predominant leadership styles employed within the selected hospitals in the Effutu Municipality, establishing a baseline understanding of current practices and identifying areas for potential improvement.
- 2. To analyze the effects of these leadership styles on employee performance, with a particular focus on their influence on motivation, engagement, and overall effectiveness within the Ghanaian healthcare setting.

This research aims to contribute to a deeper understanding of leadership dynamics within the Ghanaian healthcare sector through these objectives. The findings will offer insights into developing leadership strategies that optimize employee performance and enhance the quality of patient care.

Literature Review

Theoretical Review

Transformational Leadership Theory emphasizes inspiring and motivating followers to achieve exceptional performance. Leaders act as role models, fostering individual development and organizational commitment, enhancing job satisfaction and patient care quality (Bass & Riggio, 2010; Judge & Piccolo, 2004). In a Ghanaian hospital, a charismatic leader could inspire healthcare professionals to deliver exceptional patient care, improving outcomes.

Transactional Leadership Theory focuses on the exchange relationship between leaders and followers, setting clear performance expectations and offering rewards for meeting them (Khan, 2017; Antonakis & House, 2014). This style aligns well with healthcare's emphasis on compliance, patient safety, and efficiency (Skendzel et al., 2019). For example, a transactional leader in Ghana might set performance metrics for nurses and offer bonuses for exceeding them, ensuring adherence to protocols and enhancing patient safety.

Path-Goal Theory suggests that effective leaders clarify paths to goals, reduce obstacles, and support followers' needs (House, 1971). Directive leadership ensures adherence to protocols, supportive leadership fosters positive work environments, and achievement-oriented leadership sets challenging goals (House, 1971). In Ghanaian hospitals, a supportive leader emphasizing teamwork could enhance job satisfaction and patient

care, while an achievement-oriented leader might set goals for reducing infections, motivating continuous improvement.

Trait and Behavioral Leadership Theories offer complementary perspectives. Trait Theory identifies inherent traits associated with strong leadership (Verawati & Hartono, 2020), while Behavioral Theory emphasizes learnable behaviors like task-orientation and people-orientation (Sahu et al., 2020). Trait theory can help identify potential leaders in healthcare (Judge et al., 2009), and behavioral theory provides a framework for training leaders to communicate effectively, make decisions, and build strong teams (Allen, 2018; Northouse, 2021). Understanding how traits and behaviors shape leadership styles can improve employee performance in healthcare (Nawaz & Khan, 2016).

The Leader-Member Exchange (LMX) Theory focuses on the quality of relationships between leaders and their followers, which significantly impacts performance, job satisfaction, and organizational outcomes (Martin et al., 2018). LMX theory is relevant as it explores interpersonal dynamics between leaders and healthcare professionals.

These theories provide a comprehensive understanding of how different leadership styles can enhance employee performance in healthcare settings.

Leadership Styles and Employee Performance in Healthcare

Studies consistently highlight the positive influence of transformational leadership on employee performance in healthcare (Alfadhalah & Elamir, 2019; Afolabi, 2022; Fenta-Kebede et al., 2023; Kassim, 2023; Singh et al., 2023). This style, characterized by inspiring and motivating followers, fosters innovation, higher performance, and job satisfaction (Kassim, 2023). It can also lead to improved patient safety through a positive organizational culture (Singh et al., 2023). Transactional leadership, with its focus on exchanges and rewards, also demonstrates a positive impact on employee performance in healthcare settings (Afolabi, 2022; Sao et al., 2022). However, studies suggest that the effect of transformational leadership is stronger (Afolabi, 2022).

Other leadership styles also play a role. Participative leadership is associated with positive effects on employee performance and retention in healthcare (Abor & Kwame, 2022; Ofei & Paarima, 2022). For example, a study by Ofei & Paarima (2022) in Ghana found that nurse managers who exhibited a participative leadership style fostered staff inclusiveness, which in turn contributed to higher nurse retention rates. Democratic leadership styles are also linked to improved performance (Taylor-Ghampson, 2020). Autocratic leadership can have both positive and negative effects depending on the context (Fenta-Kebede et al., 2023; Taylor-Ghampson, 2020). Laissez-faire leadership, with minimal intervention, may hinder performance (Fenta-Kebede et al., 2023; Taylor-Ghampson, 2020).

Several studies emphasize the importance of leadership flexibility and using styles that fit specific situations (McNeil, 2020; Taylor-Ghampson, 2020). For instance, research by McNeil (2020) suggests that radiology managers who adapt their leadership styles based on the situation can be more effective. Leadership styles significantly influence employee outcomes beyond performance. Studies highlight the impact on job satisfaction. Transformational and participative leadership styles are associated with higher job satisfaction among healthcare employees (Adunola, 2023; Ofei & Paarima, 2022). Conversely, toxic leadership behaviors can negatively impact job satisfaction (Ofei et al., 2022). Transformational leadership can positively impact patient safety through a more positive work environment (Singh et al., 2023). Nurse managers' leadership styles can also influence patient care through their impact on nurse performance (Alharbi, 2017).

This review highlights the significant influence leadership styles have on healthcare employee performance, job satisfaction, and ultimately, patient care quality. Transformational leadership, characterized by inspiration and motivation, emerges as the most impactful style, fostering innovation, higher performance, and a positive work environment linked to improved patient safety. While other styles like participative and

democratic leadership also hold promise, healthcare leaders in the Effutu Municipality likely benefit most from adopting a flexible approach.

Methodology

Research Design

This study employs a descriptive research design. This design allows researchers to gain insight into a specific context without influencing the respondents or their environment (Jenkins et al., 2021). Often referred to as "observational studies," it permits observing participants in their natural settings. Descriptive research holds a vital role in quantitative research because it offers flexibility in data collection (Rhodes, 2015). Researchers can utilize quantitative, qualitative, or both data types depending on availability. Due to this adaptability, descriptive designs are widely used.

The choice of a descriptive design in this study is primarily driven by its goal of providing an overview of the phenomenon under investigation. Furthermore, the quantitative approach aligns well with a descriptive design. As defined by Atmowardoyo (2018), descriptive research aims to provide an accurate portrayal of the subjects, events, or situations being studied. It seeks a comprehensive understanding of an existing phenomenon. Descriptive research offers advantages like gathering numerous responses from diverse participants, generating reliable statistical conclusions, and facilitating the formulation of relevant research questions (Masood et al., 2018).

Population, Sample Size, and Sample Size Determination

The study population encompasses all nurses, healthcare administrators, allied health professionals, and domestic staff employed within four purposefully selected hospitals in the Effutu Municipality. These hospitals were chosen to represent a diverse range of healthcare environments within the municipality.

This study selected four hospitals to provide diverse insights into healthcare delivery and leadership dynamics within the Effutu Municipality. The first hospital, a central healthcare facility, offers a comprehensive range of general medical services and serves as the primary point of care for the community. The second hospital, renowned for its specialized trauma care, provides valuable perspectives on leadership and performance within high-pressure medical environments. The third facility, a mid-sized hospital offering general and specialized services, contributes a balanced understanding of healthcare delivery and workforce management. The final hospital, also mid-sized with a community-centered approach, sheds light on leadership and performance dynamics in smaller, more intimate healthcare settings focused on community-oriented care.

Selecting these hospitals ensures the study captures various hospital types, sizes, and service scopes, providing a holistic understanding of leadership styles and employee performance across different healthcare contexts within the Effutu Municipality.

The study employed the Cochran formula to determine the appropriate sample size (Cochran, 1977). This formula is particularly suitable for situations with large populations (Krejcie & Morgan, 1970) and is well-suited for this study due to the substantial number of healthcare workers within the four selected hospitals. The Cochran formula considers the desired level of precision (margin of error), the estimated proportion of the population with the attribute of interest (p), and the confidence level (z-value).

The formula is expressed as:

$$n=\frac{Z^2pq}{e^2}$$

where:

n = desired sample size

z = z-value corresponding to the chosen confidence level (1.96 for a 95% confidence level)

p = estimated proportion of the population with the attribute of interest (assumed to be 0.5 in this study)

$$q = 1 - p$$

e = desired margin of error (0.05 in this study)

Using a margin of error (e) of 0.05, an estimated p of 0.5 (q = 1 - 0.5 = 0.5), and a z-value of 1.96, the calculated sample size for the study is:

$$n = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384$$

Therefore, the study utilized a sample of 384 healthcare workers, including nurses, administrators, allied health professionals, and domestic staff.

Sampling Technique

A stratified random sampling technique was used to select study participants, ensuring a proportional representation of the four distinct subgroups: nurses, healthcare administrators, allied health professionals, and domestic staff (Koyuncu & Kadilar, 2009). This method is suitable as the target population can be categorized into these distinct subgroups, each with unique roles and perspectives.

The study allocated 31% of the total sample (n = 384) to both Hospital A and Hospital B, while 19% was assigned to Hospital C and Hospital D. Within each hospital, further stratification reflected typical staffing structures: nurses (50%), administrators (20%), allied health professionals (20%), and domestic staff (10%). Random sampling within each stratum ensured a representative sample.

After data collection, a thorough screening process ensured data accuracy and completeness, resulting in a final usable sample of 300 participants. This sample size maintains statistical power for planned analyses while being manageable for data collection and analysis (Krejcie & Morgan, 1970). The final sample preserved the proportional representation of the four subgroups from the target population.

Data Collection Instrument

Drawing from recognized theories and frameworks in leadership research, the instrument was designed to comprehensively cover various leadership styles and their impact on employee performance (Perez, 2021; Manion, 2005). To evaluate the reliability and validity of the developed questionnaire, a pre-test was conducted with a small sample group representative of the target population. The pre-test data was analyzed to assess the instrument's internal consistency using Cronbach's Alpha coefficient. The resulting Cronbach's Alpha for the overall questionnaire was 0.87, indicating high internal consistency and reliability (DeVellis, 2017). Subscale analyses revealed Cronbach's Alpha coefficients of 0.85 for Transformational Leadership, 0.83 for Transactional Leadership, 0.80 for Participative Leadership, 0.78 for Autocratic Leadership, 0.82 for Laissez-Faire Leadership, 0.79 for Bureaucratic Leadership, 0.84 for Charismatic Leadership, and 0.86 for Employee Performance, all suggesting satisfactory reliability.

In addition to reliability testing, the instrument underwent a rigorous content validity assessment. Experts in leadership and organizational behavior reviewed the questionnaire to ensure it captured the full range of constructs related to leadership styles and employee performance. Their feedback was used to refine the instrument further, addressing any ambiguities or redundancies to strengthen content validity (Polit & Beck, 2017). The systematic review and refinement process ensured that the questionnaire items were aligned with

the research objectives and comprehensively covered the relevant constructs. This thorough approach to instrument development and validation ensured that the data collected would be reliable and valid, supporting the study's overall integrity.

Data Analysis

A quantitative approach was used for data analysis in this study, utilizing the Statistical Package for the Social Sciences (SPSS) version 25.0. Data from the questionnaires were coded and entered into the software for analysis, employing both descriptive and inferential statistics to address the research objectives. Descriptive statistics summarized the data's characteristics, using measures of central tendency (frequency counts, percentages) and dispersion (mean, standard deviation). The Relative Importance Index (RII) was also used to analyze the prominence of specific leadership styles, assigning higher weights to more positive responses based on their frequency.

Inferential statistics examined the relationships between variables to address the research objectives:

- Objective 1: Identifying Leadership Styles: Descriptive statistics (mean, standard deviation, RII) identified the dominant leadership styles within the selected hospitals.
- Objective 2: Leadership Styles and Employee Performance: Multiple linear regression analysis explored how leadership styles influence employee performance. Employee performance (dependent variable) was regressed on various leadership styles (independent variables), including transformational, transactional, bureaucratic, autocratic, democratic, participative, charismatic, and laissez-faire. Principal component analysis (PCA) was used to create composite indices for both employee performance and leadership styles to mitigate multicollinearity before running the regression.

This comprehensive data analysis approach facilitated a thorough examination of the research questions and generated meaningful insights.

Ethical Considerations

This study was conducted per the University of Education, Winneba Research and Ethical Policy, ensuring strict adherence to ethical principles throughout the research process. Before participation, informed consent was obtained from all hospital staff involved in the study. The consent process thoroughly communicated the study's objectives, participants' rights, and the voluntary nature of their involvement, in line with best practices for ethical research (Polit & Beck, 2017). To further safeguard participant privacy, all data were anonymized at the point of collection and remained anonymous throughout the analysis and reporting phases, as emphasized in the guidelines by Creswell & Creswell (2018). This ensured full confidentiality and protection of participants' identities.

Results and Discussion

Sociodemographic Characteristics of Respondents

Understanding the demographic profile of research participants is crucial for interpreting the generalizability and potential biases within the study findings (Polit & Beck, 2017). This section presents the sociodemographic characteristics of the 300 healthcare workers who participated in the study as shown in Table 1.

Table 1: Socio-Demographic Characteristics of Respondents

Socio-Demographic Characteristics	Frequency	Percentage (%)
Sex	-	
Male	98	32.7
Female	202	67.3
	300	100
Age group		
18-24 years	65	21.7
25-34 years	130	43.3
35-44 years	74	24.7
45-54 years	20	6.7
55 years and above	11	3.7
	300	100
Educational Qualification		
High School	8	2.7
Certificate	25	8.3
Diploma	95	31.7
Bachelor's Degree	107	35.7
Master's Degree	45	15.0
Doctorate Degree	20	6.7
	300	100
Years of Experience in Healthcare		
Less than a year	12	4.0
1-5 years	59	19.7
6-10 years	98	32.7
11-15 years	81	27.0
More than 15 years	50	16.7
·	300	100
Department/Unit		
Nursing	120	40.0
Administration	90	30.0
Allied Health	57	19.0
Domestic	33	11.0
	300	100

The sample consisted predominantly of females (67.3%, n = 202), reflecting the trend of a higher proportion of females in healthcare professions (Buchan et al., 2018). The age distribution indicated a relatively young workforce, with the largest group aged 25-34 years (43.3%, n = 130), followed by 35-44 years (24.7%, n = 74), 18-24 years (21.7%, n = 65), 45-54 years (6.7%, n = 20), and 55 years and above (3.7%, n = 11), suggesting varying leadership preferences based on career stage (Crowley et al., 2015). Educationally, most respondents held Bachelor's Degrees (35.7%, n = 107), followed by Diplomas (31.7%, n = 95), Master's Degrees (15.0%, n = 45), Certificates (8.3%, n = 25), Doctorate Degrees (6.7%, n = 20), and High School diplomas (2.7%, n = 8), indicating a well-educated workforce likely influencing their perceptions of leadership effectiveness (Judge et al., 2004). Work experience varied, with the largest group having 6-10 years (32.7%, n = 98), followed by 11-15 years (27.0%, n = 81), 1-5 years (19.7%, n = 59), more than 15 years (16.7%, n = 50), and less than a year (4.0%, n = 12), offering insights into leadership preferences across different career stages (Avolio et al., 2009). Departmentally, most respondents worked in Nursing (40.0%, n = 120), followed by Administration (30.0%, n = 90), Allied Health (19.0%, n = 57), and Domestic staff (11.0%, n = 33), enabling a comprehensive analysis

of leadership perceptions across various hospital functions. In summary, the participants were predominantly female, relatively young, well-educated, with diverse experience levels and departmental affiliations, providing valuable context for understanding leadership style impacts on employee performance in Effutu Municipality hospitals.

Leadership Styles in Selected Hospitals

This section addresses the first objective of the study: identifying the dominant leadership styles within the selected hospitals in the Effutu Municipality. Leadership style significantly influences the work environment, impacting employee morale and overall organizational performance (Den Hartog, 2016). Understanding these styles provides insights into how hospital management shapes staff behavior, motivation, and productivity.

Descriptive statistics (mean, standard deviation) and the Relative Importance Index (RII) were used to analyze the prevalence of various leadership styles. The RII incorporates response frequencies, assigning higher weights to positive responses, for a clearer picture of dominance (Johnson & LeBreton, 2004). Table 2 and Figure 1 illustrate the findings.

Table 2:	Leadership	Styles in	Selected	Hospitals

Leadership Style	Mean	Std. Deviation	RII	Rank	N
Transactional Leadership	4.66	0.48	0.95	1	300
Bureaucratic leadership	4.47	0.92	0.89	2	300
Autocratic Leadership	4.17	0.88	0.84	3	300
Transformational Leadership	4.04	1.04	0.79	4	300
Democratic Leadership	3.34	1.32	0.71	5	300
Participative Leadership	3.21	0.86	0.69	6	300
Charismatic Leadership	3.13	0.82	0.67	7	300
Laissez-Faire Leadership	2.67	1.29	0.58	8	300

Mean Ranges: 1.00-1.44= Strongly Disagree, 1.50-2.44= Disagree, 2.5-3.44=Neutral, 3.50-4.44=Agree, 4.50-5.0=Strongly Agree



Figure 1: A Chart Showing the Mean Score and RII of Leadership Styles in the Selected Hospitals

Figure 1 compares the mean scores and Relative Importance Index (RII) of various leadership styles across selected hospitals. Mean Score (in blue) represents the prevalence of each leadership style, ranging from

1 (strongly disagree) to 5 (strongly agree). RII (in orange) shows the relative importance of each leadership style, ranging from 0 to 1.

The results show transactional leadership (mean = 4.66, RII = 0.95) as the most prevalent style. This indicates a strong agreement among respondents regarding the presence of clear expectations and performance-based rewards in their hospitals. Bureaucratic leadership (mean = 4.47, RII = 0.89) ranks second, highlighting the importance of rules and procedures, suggesting a structured and hierarchical decision-making approach. Autocratic leadership (mean = 4.17, RII = 0.84) follows, indicating a presence of centralized decision-making and some level of control exerted by leaders. Transformational leadership (mean = 4.04, RII = 0.79) occupies the fourth position, suggesting a moderate presence of leaders who motivate and inspire employees. Democratic leadership (mean = 3.34, RII = 0.71) and participative leadership (mean = 3.21, RII = 0.69) are practiced to a lesser extent, indicating the involvement of employees in decision-making to a moderate and neutral degree, respectively. Charismatic leadership (mean = 3.13, RII = 0.67) suggests a neutral perception of leaders who inspire through vision and enthusiasm. Finally, laissez-faire leadership (mean = 2.67, RII = 0.58) is the least prevalent, with respondents disagreeing with the presence of minimal guidance from leaders.

Overall, the findings reveal that transactional and bureaucratic leadership styles dominate the selected hospitals. Autocratic and transformational styles also play a significant role, while democratic, participative, and charismatic styles are less prominent. Laissez-faire leadership is the least practiced. This leadership landscape within the hospitals has the potential to influence employee performance in various ways, which will be explored in subsequent sections of this research.

Effects of Leadership Styles on Employee Performance

The second objective of the study sought to examine the influence of various leadership styles on employee outcomes within healthcare institutions in the Effutu Municipality. Multiple linear regression analysis was utilized to explore the relationships between different leadership styles and employee performance. Each leadership style served as an independent variable, while employee performance, assessed through various dimensions, represented the dependent variable. Principal component analysis (PCA) was employed to mitigate potential multicollinearity issues among the independent variables by creating indexes for each leadership style.

Independent Variables (Leadership Styles)

The study examined eight distinct leadership styles, each characterized by unique traits and behaviors that influence organizational dynamics. Table 3 presents a comprehensive overview of these leadership styles, highlighting the key attributes and behaviors that define each approach. This classification provides a clear understanding of how different leadership styles impact employee performance and management practices.

Table 3: Leadership Styles and Their Key Constructs

Leadership Style	Construct
Transactional	Rewards and punishments are based on performance.
Bureaucratic	Emphasis on strict adherence to rules and procedures.
Autocratic	Unilateral decision-making with high control by leaders.
Transformational	Inspiring employees to go beyond self-interests for the team or organization.
Democratic	Involves employees in decision-making processes.
Participative	Delegation of tasks and shared decision-making authority.
Charismatic	Leadership through idealized charisma, intellectual stimulation, and individualized
	consideration.
Laissez-faire	Minimal direction and extensive delegation of decision-making to employees.

Dependent Variable: Employee Performance

Employee performance was evaluated using five critical dimensions, each measured through Likert scale items. These dimensions were integrated into a composite index to provide a holistic assessment of overall performance. Table 4 presents a summary of the constructs used to gauge employee performance, detailing the core criteria that define each performance aspect for a clearer understanding of the evaluation framework.

Table 4: Employee Performance Dimensions and Their Key Constructs

Performance Dimension	Construct
Quantity	The amount of work completed within a specific timeframe
Quality	The degree of excellence or adherence to established standards.
Timeliness	The ability to meet deadlines consistently.
Cost-Effectiveness	Efficiency in the use of resources to achieve performance goals.
Team Inputs	Collaboration, communication, and overall contribution to team efforts.

Analysis Approach

Using PCA, the study transformed the leadership styles and performance dimensions into continuous variables, addressing multicollinearity concerns and improving the regression analysis's accuracy. This allowed for a precise examination of how each leadership style impacts the different aspects of employee performance.

Results

Residual Normality Test

Table 5 (shown below) presents the residual statistics which confirm that the assumption of normality for the residuals is satisfied. The residuals are centered around zero, and their distribution does not deviate significantly from normality. This validates the subsequent multiple linear regression analysis.

Table 5: Residual Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.7605	3.1993	3.0024	0.12306	300
Residual	-0.57821	0.67179	0.00000	0.26482	300
Std. Predicted Value	-1.965	1.600	0.000	1.000	300
Std. Residual	-2.171	2.522	0.000	0.994	300

The normality assumption can also be further confirmed through visual inspection of a histogram or a P-P plot of the residuals.

Visual inspection of the P-P plot of the standardized residuals (Figure 2) strengthens the assumption of normality for the residuals. The data points on the plot exhibit a generally linear pattern, which suggests that the model's linearity assumption has not been violated. In other words, the relationship between the independent and dependent variables can be accurately represented by a straight line within the context of this model. This adherence to linearity strengthens the validity of the regression analysis results.



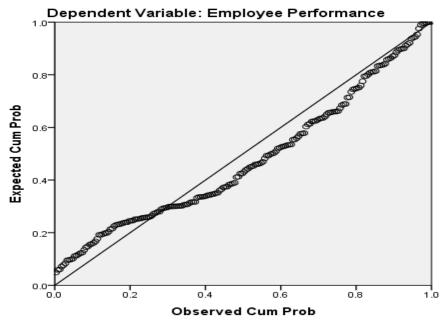


Figure 2: Normal P-P Plot of Regression Standardized Residual

Multicollinearity Test

Multicollinearity is a potential issue in regression analysis when independent variables are highly correlated. Table 6 below shows the correlation matrix. All correlation coefficients fall well below the 0.8 threshold, indicating an absence of significant multicollinearity among the independent variables.

Table 6. Correlation Matrix

	TsL	\mathbf{BL}	\mathbf{AL}	\mathbf{TfL}	\mathbf{DL}	\mathbf{PL}	\mathbf{CL}	\mathbf{LfL}
TsL	1	0.088	-0.149*	0.054	-0.053	0.097^{*}	-0.039	0.009
BL	0.088	1	0.014^{*}	0.515^{**}	-0.677**	-0.101	-0.586**	0.049^{*}
\mathbf{AL}	-0.149*	0.014	1	0.060	-0.027*	-0.117*	0.010^{*}	0.108^{*}
\mathbf{TfL}	0.054^{*}	0.515	0.060^{*}	1	-0.671	-0.136	-0.668	-0.094
\mathbf{DL}	-0.053*	-0.477	-0.027	-0.671**	1	0.020^{*}	0.204^{**}	-0.045*
PL	0.097	-0.101	-0.117	-0.136	0.020^{*}	1	0.006	0.038
\mathbf{CL}	-0.039	-0.786**	0.010	-0.668**	0.194^{**}	0.006^{*}	1	-0.006
LfL	0.009	0.049	0.108	-0.094	-0.045	0.038	-0.006	1

^{*.} Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

The multiple linear regression analysis provides critical insights into the relationships between various leadership styles and employee performance within the selected hospitals. The analysis reveals that several leadership styles significantly affect performance, highlighting the diverse ways leadership can influence organizational outcomes. The results are presented in Table 7.

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

Table 7. Regression of Leadership Styles on Employee Performance

Independent Variable	β	Std. Error	t	Sig.	Tolerance	VIF
(Constant)	1.832	0.197	9.290	0.000		
Transactional Leadership	0.495	0.169	2.937	0.004	0.994	1.006
Bureaucratic Leadership	4.843	0.688	7.044	0.000	0.339	2.952
Autocratic Leadership	0.194	0.079	2.446	0.015	0.865	1.155
Transformational Leadership	0.753	0.096	7.851	0.000	0.311	3.218
Democratic Leadership	0.363	0.110	3.298	0.001	0.546	1.831
Participative Leadership	0.120	0.032	3.814	0.000	0.151	2.601
Charismatic Leadership	0.003	0.004	0.861	0.390	0.837	1.194
Laissez-Faire Leadership	0.197	0.027	7.174	0.000	0.121	3.236

The results show that various leadership styles demonstrated statistically significant positive effects on performance, underscoring the complex interplay between leadership and employee outcomes. Transactional Leadership, with its focus on rewards and addressing poor performance, showed a strong positive effect (coefficient: 0.495, p-value: 0.004), indicating that performance-based incentives contribute to a positive work environment and improved performance. Bureaucratic Leadership, emphasizing structure and adherence to procedures, also had a strong influence (coefficient: 4.843, p-value < 0.001), suggesting that well-defined processes support efficiency in healthcare settings.

Although Autocratic Leadership, which involves unilateral decision-making, was expected to have a more neutral or negative impact, it exhibited a positive influence on performance (coefficient: 0.194, p-value: 0.015). However, its lower coefficient suggests that autocratic leadership is effective in limited, specific situations such as emergencies, where swift decision-making is crucial.

Transformational Leadership, which motivates employees to transcend personal interests for the team or organization, had a strong positive impact (coefficient: 0.753, p-value < 0.001). This aligns with the established importance of motivational leadership in driving employee engagement and excellence. Similarly, Democratic and Participative Leadership styles, which emphasize shared decision-making and task delegation, were positively correlated with performance (democratic: coefficient: 0.363, p-value: 0.001; participative: coefficient: 0.120, p-value < 0.001). These styles foster employee ownership and accountability, contributing to better performance outcomes.

An unexpected finding was the positive effect of Laissez-Faire Leadership (coefficient: 0.197, p-value < 0.001), a style typically associated with minimal supervision and decision-making delegation. In the Ghanaian healthcare context, this result warrants further exploration. Laissez-faire leadership may have contributed positively due to the presence of highly skilled, self-motivated employees capable of operating effectively with minimal oversight. In particular, healthcare professionals in Ghana may thrive in environments that allow for autonomy and self-direction, especially in departments where experienced staff are expected to manage their responsibilities without constant supervision.

Moreover, the cultural context in Ghana, which often emphasizes respect for authority, could lead employees to value the autonomy provided by laissez-faire leaders, viewing it as a sign of trust and confidence in their abilities. This finding suggests that, in certain healthcare settings, especially those with skilled and experienced professionals, a laissez-faire approach can foster a sense of empowerment, enhancing performance.

Cultural Context and Leadership Effectiveness

Ghanaian cultural norms deeply influence the effectiveness of various leadership styles in the workplace. A core cultural value in Ghana is the respect for hierarchy and authority, which can explain why Transactional and Bureaucratic Leadership styles are highly effective. These leadership approaches align with the expectation

of employees for structured, rule-based systems where authority figures provide clear directives and rewards. The tendency to accept and follow authority reinforces the positive response to leaders who utilize transactional exchanges and bureaucratic controls to maintain order and performance.

Similarly, Transformational Leadership may resonate well with healthcare workers in Ghana, as it reflects the communal nature of Ghanaian society. The emphasis on collective welfare over individual interests is a key cultural trait, making leadership that motivates teams to achieve shared goals particularly appealing. Leaders who inspire through vision and shared purpose are likely to find success in environments where collective progress is prioritized, reflecting the broader Ghanaian value of community cohesion.

Moreover, Democratic and Participative Leadership styles align with Ghanaian cultural values of collaboration and inclusivity. In this collectivist society, involving employees in decision-making fosters a sense of ownership and belonging, which is important for maintaining harmony within the group. The importance of interpersonal relationships and group involvement means that employees value leaders who consult and integrate their input.

Although Autocratic Leadership is generally less favored, its influence in Ghana may still be notable in certain contexts, particularly in high-pressure situations such as medical emergencies. The Ghanaian cultural respect for authority figures in these contexts can lead to a willingness to accept top-down, directive leadership when swift, decisive actions are required. This may explain why autocratic leadership, though less prevalent, can still have a positive impact in specific situations where quick decision-making is essential.

The intersection between Ghanaian cultural values and leadership styles highlights a nuanced understanding of leadership effectiveness. While hierarchical and communal values foster acceptance of transactional, transformational, and collaborative leadership, context-specific factors allow for the occasional effectiveness of more autocratic approaches. The following table summarizes the multiple linear regression model used to examine the effects of leadership styles on employee performance, including the correlation coefficient (R), coefficient of determination (R Square), adjusted R Square, and standard error of the estimate.

Table 8. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.893	0.798	0.780	0.22739

The model summary reveals a strong correlation (R = 0.893) between leadership styles and employee performance. Leadership styles collectively explain nearly 80% of the variance in performance, with the low standard error confirming the model's reliability. Table 9 presents the Analysis of Variance (ANOVA) results for the regression model.

Table 9. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	577.864	7	82.552	57.089	0.000
Residual	277.636	192	1.446		
Total	855.500	199			

The ANOVA results show a statistically significant model (F = 57.089, p < 0.001), confirming the predictive power of leadership styles in influencing employee performance.

Discussion

This study examined leadership styles and their effects on employee performance in hospitals within the Effutu Municipality, Ghana. The findings revealed that transactional and bureaucratic leadership styles were the most prevalent, emphasizing structure, rules, and performance-based rewards. These results align with

previous research (Afolabi, 2022; Lynn, 2022), demonstrating the importance of structured leadership in healthcare environments.

Transformational leadership, though less common, played a significant role in motivating employees, consistent with studies showing its strong positive effects on employee engagement and innovation (Kassim, 2023; Adunola, 2023). Democratic, participative, charismatic, and laissez-faire leadership styles were used less frequently, which could be due to the fast-paced nature of healthcare environments that require quick decision-making (Harms et al., 2018; Rivers, 2019). These results are consistent with transactional and transformational leadership theories (Avolio & Yammarino, 2013) and bureaucratic theory (Downs, 1965).

The second objective of this study explore the effects of various leadership styles on employee performance. Surprisingly, all leadership styles, including transactional, bureaucratic, autocratic, transformational, democratic, participative, and laissez-faire, had significant positive effects. The positive influence of bureaucratic leadership likely stems from adherence to established protocols (Afolabi, 2022). Transformational leadership was effective in inspiring employees and fostering innovation and commitment (Adunola, 2023). Transactional leadership successfully reinforced desired behaviors through rewards (Sao et al., 2022), while autocratic leadership was beneficial in emergencies requiring swift action (Harms et al., 2018).

An unexpected finding was the positive effect of laissez-faire leadership, particularly for highly skilled and self-motivated employees (Sao et al., 2022). This challenges the traditional view of laissez-faire leadership as ineffective, suggesting that in healthcare settings with experienced professionals, autonomy can foster performance.

Practical Recommendations for Healthcare Leaders

Adapting Leadership Styles to Contextual Needs

Healthcare leaders should recognize that a one-size-fits-all approach to leadership is ineffective. Instead, they should assess the specific needs, skills, and experiences of their teams to determine the most appropriate leadership style. For instance, transformational and participative leadership may be more effective in fostering engagement and motivation among employees, while transactional and bureaucratic leadership are more suited for environments requiring strict adherence to protocols and procedures.

Empowering Employees Through Autonomy

The findings of this study suggest that granting skilled employees autonomy can enhance their performance and job satisfaction. This is particularly relevant in departments with experienced staff who possess the necessary knowledge and skills to work independently. By providing employees with a sense of ownership and control over their work, leaders can foster a more positive and productive work environment.

Balancing Structure with Employee Engagement

While bureaucratic leadership is essential for ensuring procedural compliance and maintaining order in healthcare settings, it should be balanced with participative elements that involve employees in decision-making. By incorporating employee input, leaders can improve both efficiency and job satisfaction, as employees are more likely to be motivated and engaged when they feel valued and empowered.

Harnessing the Power of Transformational Leadership

Transformational leadership, which focuses on inspiring and motivating employees to exceed expectations, can be a powerful tool for healthcare leaders. By emphasizing shared goals, values, and the

collective impact of quality patient care, leaders can create a positive and supportive work environment that encourages employees to go above and beyond in their roles.

Tailoring Leadership Styles to Emergency Situations

In high-pressure situations, such as during emergencies or crises, autocratic leadership may be necessary to ensure quick and decisive action. However, leaders must also be adaptable and able to shift between leadership styles based on the demands of the situation. By understanding the strengths and weaknesses of different leadership styles, leaders can better respond to the challenges and opportunities that arise in the healthcare setting.

Theoretical Contributions to Leadership Theory in Healthcare

This study makes several important contributions to existing leadership theories, offering new insights into how different styles perform within the healthcare context, especially in Ghana. By linking the findings to established frameworks, the study both reinforces and extends leadership theory in significant ways.

Reevaluating Laissez-Faire Leadership

This study challenges the traditionally negative view of laissez-faire leadership by demonstrating that, under certain conditions, it can have a positive impact. Specifically, in highly skilled healthcare environments where employees possess specialized expertise, allowing autonomy can foster empowerment and job satisfaction. This finding adds depth to the Contingency Leadership Theory, which posits that the effectiveness of leadership styles is highly context-dependent. In this case, laissez-faire leadership proves beneficial in scenarios where empowered employees can excel without constant supervision, suggesting that this style may not be universally detrimental, as often portrayed in the literature.

Transactional and Bureaucratic Leadership in Healthcare

The study's findings strongly support the principles of Path-Goal Theory in the context of healthcare. The positive effects of transactional and bureaucratic leadership observed in the study reinforce the theory's central argument: leaders improve employee performance by clarifying goals, offering rewards, and removing obstacles. In the complex, regulated environment of healthcare, where patient safety is critical, leadership styles that provide clear structures, well-defined processes, and consistent guidance are especially effective. This highlights the essential role of leadership in maintaining operational efficiency and ensuring compliance with safety protocols, thus extending the relevance of path-goal theory to the healthcare sector.

Contextualizing Transformational Leadership

The study contributes a cultural dimension to Transformational Leadership Theory, particularly in the Ghanaian context. The strong positive impact of transformational leadership in Ghanaian hospitals can be attributed to the collectivist nature of the society, where shared goals and communal values are highly valued. This finding suggests that transformational leadership may be more effective in collectivist cultures, where leaders who inspire and foster a collective vision resonate deeply with employees. By introducing this cultural factor, the study broadens the scope of transformational leadership theory, suggesting that its effectiveness may be enhanced in environments where communal values are predominant, thus offering a fresh perspective on the role of culture in leadership effectiveness.

Supporting Leadership Flexibility

This study also lends support to the Behavioral Flexibility Model of Leadership, which advocates for leaders to adapt their style according to situational needs. The varied healthcare settings explored in this study,

from high-pressure trauma units to community-based hospitals, illustrate the importance of flexible leadership. Leaders who can switch between directive styles (e.g., transactional or autocratic) in high-stakes situations and more collaborative styles (e.g., participative or transformational) when fostering teamwork show higher effectiveness. This underscores the need for leadership adaptability in dynamic environments like healthcare, where both operational and relational challenges must be navigated effectively. The study, therefore, extends this model by providing empirical evidence of the importance of situational adaptability in healthcare leadership.

This study not only confirms existing leadership theories such as Contingency Leadership Theory, Path-Goal Theory, Transformational Leadership Theory, and the Behavioral Flexibility Model but also extends these frameworks by incorporating cultural and contextual insights specific to the healthcare sector, particularly within the Ghanaian cultural setting.

Limitations and Future Direction

Limitations

The cross-sectional design of this study, confined to the Effutu Municipality of Ghana, restricts the ability to establish definitive causal links between leadership styles and employee outcomes. This geographical limitation raises concerns about the generalizability of findings to diverse healthcare settings with varying cultural contexts, systems, and patient populations.

Future Directions

Strengthening future research and enhancing our understanding of causal relationships can be achieved through several alternative approaches: 1. Tracking changes in leadership styles and employee outcomes over time can provide more robust causal inferences. 2. Controlled Experiments: Manipulating leadership styles in controlled environments can offer strong evidence of causality, though implementation in real-world healthcare settings may be challenging. 3. Quasi-Experimental Studies: Examining naturally occurring variations in leadership styles can be a practical approach to studying causal relationships. 4. Multicultural Research: Conducting research across diverse healthcare settings can help establish the generalizability of findings and identify contextual factors influencing the relationship between leadership styles and employee outcomes.

Future research should explore the following specific questions: 1. How do variations in transformational leadership practices influence employee engagement and performance across different healthcare settings? 2. What is the role of situational factors (e.g., emergency versus routine care) in determining the effectiveness of various leadership styles? 3. How do employee outcomes vary with different leadership styles in multicultural healthcare environments?

Future research can significantly enhance our understanding of the relationship between leadership styles and employee performance by addressing these limitations and pursuing alternative approaches. This will contribute to a more comprehensive and nuanced understanding of how leadership styles impact the quality of healthcare environments.

Conclusion

This study underscores the significant effects of leadership styles on employee performance in hospitals within the Effutu Municipality, Ghana. The findings highlight that leadership effectiveness is highly context-dependent, influenced by both organizational and cultural factors. Leaders who adopt flexible, culturally sensitive approaches—balancing structure with autonomy and engagement—are better positioned to foster motivation, enhance performance, and create a high-quality healthcare environment.

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