

Assessment of Leadership Styles in Managing Administrative Workflows in Civil Engineering Projects

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Abstract: Administrative functions play a crucial role in the successful delivery of civil engineering projects. From documentation and coordination to scheduling and permit processing, the efficiency of these workflows directly affects overall project performance. This study aims to assess the leadership styles practiced by civil engineering professionals in managing administrative workflows and to examine their influence on task efficiency, communication, and staff coordination. Using a descriptive quantitative research design, data was gathered through survey questionnaires administered to civil engineering professionals involved in office-based project management. The study focused on how leadership behaviors—such as delegation, communication style, and decision-making—affect administrative outcomes like timely report submission, accurate documentation, and inter-departmental collaboration. The findings revealed that participative and transformational leadership styles are more closely associated with efficient workflow management and team satisfaction. The study provides actionable insights for project managers and engineering leaders aiming to strengthen administrative practices in the civil engineering sector.

Keywords: Administrative efficiency, civil engineering, leadership assessment, leadership styles, project documentation, workflow management.

1. Introduction

In the field of civil engineering, effective project execution is not limited to technical design and field supervision. A significant portion of project success is driven by administrative functions such as documentation, report preparation, procurement coordination, permit processing, and interdepartmental communication. These functions form the foundation for decision-making, compliance, and progress tracking. However, the efficiency of these administrative workflows often depends on the leadership style employed by engineers, project managers, and team supervisors.

Leadership style influences how tasks are delegated, how feedback is delivered, and how teams are motivated to meet deadlines and maintain quality. In civil engineering offices, particularly those handling multiple ongoing projects, poor administrative management may result in delays, rework, or miscommunication between stakeholders. As such, leadership

becomes a key determinant in ensuring that administrative systems run smoothly and that teams remain organized and aligned with project goals.

This study focuses on assessing the leadership styles that are commonly observed in civil engineering project offices, particularly within the context of managing administrative workflows. By evaluating the relationship between leadership behavior and task efficiency, the research aims to provide valuable insights for improving project management practices. The findings may serve as a guide for current and future civil engineering professionals in refining their leadership approaches to enhance operational performance in both public and private sectors.

2. Review of Related Literature

Leadership has long been recognized as a critical factor in the success of project-based organizations, particularly in the field of civil engineering. It plays a vital role in shaping team dynamics, decision-making, administrative coordination, and overall project outcomes. Northouse (2019) emphasized that leadership style significantly influences team behavior, task execution, and organizational effectiveness, especially in structured environments like civil engineering offices. Here, leadership affects how administrative responsibilities—such as documentation, permit processing, and internal communication—are performed, ultimately impacting project efficiency and accuracy.

Transformational leadership, as described by Bass and Avolio (1994), promotes participation, motivation, and innovation, leading to increased team satisfaction and productivity. In contrast, transactional leadership emphasizes structured procedures, performance monitoring, and reward systems, which support order and task clarity but may hinder flexibility in fast-paced project environments (Judge & Piccolo, 2004). Both styles have relevance in civil engineering offices, particularly when balancing technical requirements with administrative demands.

Multiple studies have explored the relationship between leadership style and project success. Yang, Huang, and Wu

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(2011) examined how project managers' leadership directly affects teamwork and the ability to keep projects on track. Similarly, Chan, Liu, and Fellows (2014) found that effective leadership enhances innovation within construction companies, particularly in managing administrative systems like scheduling and documentation—functions that are often overlooked but essential for smooth project execution.

Nguyen *et al.* (2017) found that administrative errors, poor documentation, and miscommunication are major contributors to delays and cost overruns in construction. Their study highlighted the need for strong leadership to guide administrative staff, monitor deliverables, and facilitate consistent updates across project teams.

In more recent literature, there has been a growing emphasis on leadership styles that promote sustainability, adaptability, and long-term planning. Tabassi and Bakar (2016) investigated leadership in environmentally focused construction projects, finding that effective leadership extended beyond traditional project oversight to embrace broader sustainability goals. Zaman (2021) emphasized that in complex construction projects, leadership significantly influences both project performance and the flow of information among teams. Amoah (2022) compared autocratic, democratic, and transformational leadership styles, identifying which approaches are most effective in improving construction performance. Ibrahim (2023) further stressed that transformational leadership fosters team resilience and adaptability—traits essential in high-pressure engineering projects. Meanwhile, Piwowar-Sulej and Iqbal (2024) argued that effective leadership in sustainable construction projects should aim beyond simply meeting deadlines and instead focus on long-term impacts.

In the Philippine context, Lucido and Dizon (2020) emphasized that civil engineering offices are often challenged by a combination of bureaucratic and technical responsibilities. Leadership in this setting must align not only with engineering standards but also with administrative accountability, making it vital for supervisors to facilitate smooth documentation, reporting, and task coordination among internal teams and stakeholders.

Collectively, past and recent studies confirm that leadership style has a measurable impact on both technical and administrative aspects of project performance. While earlier research highlighted teamwork and communication, newer studies underscore the importance of innovation, adaptability, and sustainability. This study builds upon that foundation by focusing specifically on how leadership influences the administrative workflows within civil engineering projects—bridging the gap between engineering management and operational execution in both public and private sector settings.

3. Methodology

A. Research Design

This research employed a quantitative-descriptive research design, which is appropriate for studies aiming to observe, describe, and analyze patterns without manipulating variables. The descriptive approach allowed the researchers to assess the

perceived leadership styles in civil engineering offices and evaluate how these styles influence administrative workflows such as document management, report submission, permit processing, and team coordination. The study is non-experimental in nature, relying on observable behaviors and attitudes through structured survey responses. The design was chosen to facilitate data collection from a range of professionals while enabling comparative analysis across responses.

B. Research Locale

The research was conducted in Nueva Ecija, Philippines, particularly within civil engineering offices of both public and private organizations. These included local government engineering departments, construction firms, and consultancy offices engaged in planning, designing, or managing infrastructure projects. The selected institutions were accessible to the researchers and representative of typical civil engineering project environments where administrative tasks such as permit processing, report generation, communication handling, and team coordination are regularly performed.

C. Population and Sampling

The target population consisted of civil engineering professionals directly involved in administrative functions of project management. These include, but are not limited to, office engineers, project coordinators, document controllers, and administrative assistants. A purposive sampling technique was employed, selecting respondents based on their work roles and availability during the data gathering period. A total of 20 respondents were selected to ensure diversity in experience and organizational context. All participants had at least six months of relevant experience in administrative roles in civil engineering.

D. Research Instrument

The main research instrument used in this study was a structured questionnaire developed by the researchers to assess leadership styles and their perceived influence on administrative workflow performance in civil engineering offices. The questionnaire consisted of three parts.

Part I focused on gathering the respondents' demographic profile, which included their age, gender, job position, type of organization, and length of experience in administrative functions. This section was designed to contextualize the responses and identify any trends related to background variables.

Part II measured the leadership styles of the respondents' immediate supervisors. It contained statements that reflected three common leadership types: transformational, transactional, and directive. Respondents were asked to rate their level of agreement with each statement using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Part III assessed the perceived efficiency of administrative workflows. It included items related to documentation accuracy, timeliness of report submissions, task coordination, and internal communication. The same Likert scale was used to evaluate how leadership style was reflected in administrative performance.

The questionnaire underwent expert validation to ensure content relevance and was pilot tested with a small group of respondents to check for clarity and reliability. Revisions were made accordingly before the instrument was finalized and distributed for data collection.

E. Data Collection

The survey was distributed both online and in printed form to maximize accessibility. Respondents were given one week to complete the instrument, and the researchers conducted follow-ups to ensure a high response rate. Prior to answering the questionnaire, all participants received a brief explanation of the study's purpose and were assured of the confidentiality and anonymity of their responses. Participation was entirely voluntary.

F. Data Analysis

The data collected from the respondents were carefully encoded, tabulated, and analyzed using descriptive statistical tools. These included frequency, percentage, weighted mean, and standard deviation, all computed through Microsoft Excel. These tools allowed the researchers to summarize the data and interpret the patterns related to leadership styles and administrative workflow efficiency.

For demographic data and categorical responses, the percentage technique was applied to measure the distribution of answers for each question. The formula used was:

$$\% = \frac{F}{N} \times 100$$

Where:

% = percentage

F = frequency of a specific response

N = total number of respondents

This enabled the researchers to determine the proportion of respondents belonging to specific roles, organizations, or experience levels.

For Parts II and III of the questionnaires, which used Likert-scale items, the weighted mean (WM) was calculated to determine the average perception of respondents toward each leadership behavior and administrative performance indicator. The formula was:

$$WM = \frac{\sum f \cdot x}{n}$$

Where:

f = frequency of each response

x = scale value (1 to 5)

n = total number of responses

The results were interpreted using the following scale:

Table 1	
Range	Interpretation
4.21 – 5.00	Strongly Agree
3.41 – 4.20	Agree
2.61 – 3.40	Neutral
1.81 – 2.60	Disagree
1.00 – 1.80	Strongly Disagree

The standard deviation (SD) was also computed to determine the level of variability in responses. The formula is as follows:

$$SD = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

Where x is each score, $\bar{x}$ is the mean, and n is the number of observations.

All findings were summarized in tables and figures for clarity. These statistical tools allowed for an in-depth interpretation of the relationship between leadership practices and administrative workflow efficiency in civil engineering offices.

4. Result and Discussion

A. Presentation, Analysis, and Interpretation of Data

1) Leadership Style Assessment

Table 2 summarizes the responses related to leadership behaviors as observed by the respondents. The items were designed to capture transformational, transactional, and directive leadership elements.

The leadership style assessment focused on how respondents perceived the behaviors of their immediate supervisors in areas such as motivation, clarity of communication, feedback, and delegation. Among the statements, the highest combined percentage of "Agree" and "Strongly Agree" was observed for "My supervisor communicates a clear vision of the work process" (90%), followed closely by "My supervisor inspires and motivates the team to achieve goals" and "My supervisor encourages team input and collaboration" with both scoring 85%. The lowest rating was observed for "My supervisor maintains close supervision during administrative operations" with 70%.

The data suggest that most respondents view their supervisors as participative and directive. A significant 90% agree or strongly agree that their supervisor communicates a clear vision, while 85% feel their supervisors inspire and motivate the team. These indicate the presence of transformational leadership behaviors in the civil engineering workplace. The relatively lower percentage (70%) for close supervision may reflect a preference for empowerment over micromanagement.

2) Administrative Workflow Efficiency

Table 3 presents the respondents' perceptions of administrative workflow efficiency under their supervisor's leadership. The statements measured the effectiveness of communication, task delegation, documentation, and timeliness of administrative outputs.

The administrative workflow assessment evaluated the extent to which leadership practices influenced the efficiency and effectiveness of office operations. The statement with the highest combined agreement was "Task assignments are clear and well-coordinated" with 85%, followed by a set of statements including "Administrative tasks are completed on time due to effective leadership" and "Leadership contributes to efficient project documentation," both with 80%. The lowest

Table 2
Leadership style assessment

Statement	Agree (%)	Strongly Agree (%)	Total (Agree + Strongly Agree)
My supervisor inspires and motivates the team to achieve goals.	45.0	40.0	85.0
My supervisor communicates a clear vision of the work process.	50.0	40.0	90.0
My supervisor provides feedback that encourages professional growth.	40.0	40.0	80.0
My supervisor rewards team members for completing tasks efficiently.	45.0	35.0	80.0
My supervisor enforces rules and policies consistently.	50.0	30.0	80.0
My supervisor clearly defines the tasks and responsibilities of each member.	45.0	35.0	80.0
My supervisor consults the team before making important decisions.	50.0	35.0	85.0
My supervisor encourages team input and collaboration.	45.0	40.0	85.0
My supervisor gives direct and specific instructions regularly.	50.0	35.0	85.0
My supervisor maintains close supervision during administrative operations.	40.0	30.0	70.0

Table 3
Administrative workflow efficiency

Statement	Agree (%)	Strongly Agree (%)	Total (Agree + Strongly Agree)
Administrative tasks are completed on time due to effective leadership.	50.0	30.0	80.0
Report submissions are consistent and accurate.	50.0	25.0	75.0
Task assignments are clear and well-coordinated.	50.0	35.0	85.0
Communication within the administrative team is well-managed.	45.0	35.0	80.0
Problems encountered in document processing are addressed quickly.	50.0	30.0	80.0
Office workflow runs smoothly even under pressure.	45.0	30.0	75.0
Roles and responsibilities are clearly explained.	50.0	25.0	75.0
Deadlines are monitored and met.	50.0	25.0	75.0
I feel guided and supported in performing administrative tasks.	45.0	25.0	70.0
Leadership contributes to efficient project documentation.	50.0	30.0	80.0

combined agreement was for *"I feel guided and supported in performing administrative tasks,"* which scored 70%.

The results show that the respondents generally perceive their supervisors as effective in maintaining organized and efficient administrative operations. The highest-rated item (85%) pertains to the clarity and coordination of task assignments. Meanwhile, a slightly lower score (70%) was seen in the perception of feeling guided and supported, indicating a possible gap in one-on-one leadership or coaching. Nonetheless, scores across all items indicate that leadership positively supports workflow in civil engineering offices.

Overall, the findings indicate a strong alignment between positive leadership behaviors and efficient administrative workflow in civil engineering settings. Supervisors who exhibit clear communication, participative decision-making, and consistent supervision contribute significantly to timely document processing, report submission, and team coordination. These results support existing literature that links transformational and directive leadership with improved administrative outcomes in technical environments.

B. Discussion

This study assessed the leadership styles of supervisors in civil engineering project offices and their influence on administrative workflow efficiency. Based on the survey responses of 20 professionals working in both public and private organizations, the findings revealed a strong presence of transformational and directive leadership behaviors. Respondents generally perceived their supervisors as motivating, communicative, and clear in delegating responsibilities.

The leadership style most observed was a blend of participative and directive approaches, characterized by structured communication, defined task assignments, and team involvement in decision-making. Notably, a high percentage of respondents agreed that their supervisors clearly communicated

expectations, inspired team performance, and coordinated tasks effectively.

In terms of administrative workflow, the results indicated that leadership plays a significant role in ensuring the timely completion of tasks, consistency of documentation, and overall coordination within project offices. Although most participants reported smooth operations, a few areas such as personal guidance and performance feedback showed relatively lower levels of agreement, suggesting room for improvement in one-on-one leadership practices.

These findings support the notion that effective leadership is a vital component in administrative success within civil engineering contexts. When supervisors demonstrate strong communication and organizational skills, the result is a more efficient, responsive, and collaborative work environment.

C. Recommendation

Based on the results of the study, the following recommendations are proposed:

- *Promote Transformational Leadership Training:* Engineering offices should provide leadership development programs focusing on transformational skills such as motivation, vision-sharing, and employee engagement.
- *Encourage Feedback-Oriented Supervision:* Supervisors should increase their efforts in giving constructive feedback to administrative staff, fostering professional growth and personal accountability.
- *Enhance Role Clarity and Delegation Practices:* Leaders should continue clarifying roles and expectations to minimize duplication of tasks and improve time management across projects.
- *Implement Regular Administrative Performance Reviews:* Periodic evaluations of workflow efficiency and communication patterns may help identify

administrative bottlenecks and allow for timely interventions.

- *Support Leadership Mentoring Programs:* Engineering offices may consider developing peer mentoring systems, where experienced leaders can guide younger supervisors in effective administrative management.

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