

# Determining the Preferred Leadership Style Among DPWH Pampanga 2nd District Engineering Office Employees: A Comparative Study of Autocratic, Democratic, and Laissez Faire Approaches

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**Abstract:** This study investigates the preferred leadership style of the employees at DPWH Pampanga 2nd District Engineering Office among autocratic, democratic, and laissez-faire approaches. It is also the aim of this study to determine whether the age, gender and job position of the employee influences their leadership preference. The Leadership Style Questionnaire (LSQ) by Peter G. Northouse was utilized by this study to reveal their leadership preference. The demographic profile of the respondents was also collected to examine its relationship in leadership preference. The Fisher-Freeman-Halton Exact Test and Monte Carlo Simulation using IBM SPSS Statistics 27.0.1 was used to analyze the data. Results showed that 82.4% of the respondents preferred democratic style of leadership which is a style in which leaders involve team members in decision-making, promoting participation and collaboration. Furthermore, the results also showed that employee's demographic profile particularly their age, gender, and job position influence their leadership preference.

**Keywords:** Autocratic Leadership, Democratic Leadership, Laissez-Faire Leadership, Demographic Profile, DPWH, Leadership Styles, Fisher-Freeman-Halton Exact Test.

## 1. Introduction

Leadership is a crucial element in the effective administration of any organization, including government agencies such as the Department of Public Works and Highways (DPWH). The Pampanga 2nd District Engineering Office (DEO), a district branch of DPWH, is tasked with executing national infrastructure projects and ensuring efficient public service delivery. In such a work environment, leadership style can significantly influence employee motivation, organizational efficiency, job satisfaction, and overall productivity.

Three classical leadership styles—autocratic, democratic, and laissez-faire—are often referenced in organizational

behavior literature. Each has distinct characteristics and varying degrees of applicability depending on organizational culture and workforce dynamics. Autocratic leadership centralizes decision-making and exerts strong control over employees. Democratic leadership encourages participation and values input from subordinates. Laissez-faire leadership, meanwhile, delegates authority and allows employees high levels of independence.

Although many studies have assessed the influence of leadership styles in corporate and academic settings, limited literature exists that explores preferred leadership styles within Philippine government agencies, particularly district engineering offices like the DPWH Pampanga 2nd DEO. This study aims to fill that gap by identifying and comparing the preferred leadership style among employees in the context of autocratic, democratic, and laissez-faire approaches.

The objective of this research is to determine which leadership style is most preferred by the employees of DPWH Pampanga 2nd District Engineering Office. By identifying patterns in leadership preference, the study aims to provide insights for leadership development, policy formulation, and internal management strategies to enhance overall organizational performance.

## A. Literature Review

Leadership style plays a fundamental role in shaping organizational dynamics and influencing employee behavior. Lewin, Lippitt, and White (1939) were among the first to formally categorize leadership into autocratic, democratic, and laissez-faire styles—classifications that continue to serve as the foundation for contemporary leadership research.

Autocratic leadership is characterized by centralized decision-making, limited employee input, and a strong

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emphasis on authority and discipline. This style is often effective in high-pressure or crisis situations where quick decisions are necessary. However, it can lead to employee dissatisfaction, reduced innovation, and increased turnover when used inappropriately (Chaudhry & Javed, 2012).

Democratic leadership, on the other hand, involves employees in the decision-making process. Leaders in this category encourage collaboration, open communication, and shared responsibility. Research by Bhatti *et al.* (2012) suggests that democratic leadership enhances job satisfaction, boosts morale, and promotes organizational commitment, especially in public sector institutions.

Laissez-faire leadership provides subordinates with high autonomy, minimal supervision, and freedom to make decisions. While it can lead to innovation and job satisfaction among highly skilled and self-motivated employees, it may also result in confusion, lack of direction, and inefficiency when applied to teams requiring more guidance (Skogstad *et al.*, 2007).

In the Philippine public sector, research on leadership styles is still emerging. Studies by Mendoza and Rabanal (2019) and De Guzman and Tan (2021) reveal that while democratic leadership is generally favored in government agencies, contextual factors—such as administrative mandates and bureaucratic culture—often necessitate a hybrid approach. Particularly in technical offices like DPWH, leadership style must align with both operational demands and employee preferences to be effective.

This study, therefore, seeks to investigate the leadership style most preferred by employees of the DPWH Pampanga 2nd DEO. Through comparative analysis of autocratic, democratic, and laissez-faire approaches, the research aims to contribute empirical data to support organizational leadership strategies within the Philippine public infrastructure sector.

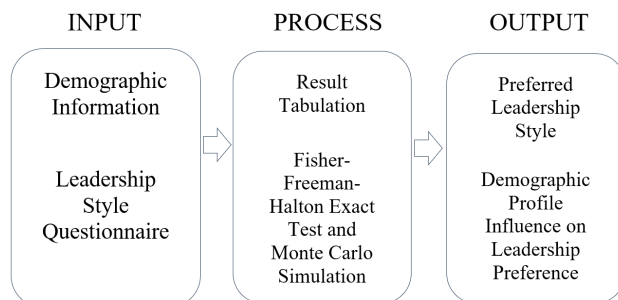


Fig. 1. Conceptual framework

### B. Conceptual Framework

Fig. 1 shows the Input-Process-Output (IPO) model framework of the study. The input consists of the demographic information and the leadership style questionnaire which serves as the data in this study. After collecting the needed data, the researchers used Fisher-Freeman-Halton Exact Test and Monte Carlo Simulation to analyze and interpret the data to reveal the preferred leadership style of the employees at DPWH Pampanga 2<sup>nd</sup> District Engineering Office.

### C. Objectives

- To identify the preferred leadership style (autocratic, democratic, laissez-faire) of the employees in the Department of Public Works and Highways Pampanga 2<sup>nd</sup> District Engineering Office.
- To determine whether respondents' demographic characteristics (gender, age, and position) influence their choice of preferred leadership style

### D. Significance of the Study

The results of this study will be beneficial to the administrators of the DPWH Pampanga 2<sup>nd</sup> DEO as they will be able to identify the preferred leadership style of their subordinates. The administrators will be able to improve their current leadership style and adapt the practices of a specific leadership style that employees deem effective.

## 2. Methods

### A. Research Design

Quantitative approach was utilized in this study with descriptive and correlational methods. Descriptive methods were used to identify the preferred leadership style of the employees using a Likert scale survey. Furthermore, the researchers used Fisher-Freeman-Halton Exact Test and Monte Carlo Simulation to assess whether the demographic information of the respondents influence their preference in leadership style.

### B. Samples and Sampling Procedures

The researchers used non-probabilistic sampling technique called purposive or judgment sampling. According to Bullard (2024), this sampling technique intentionally select participants based on specific characteristics relevant to the study. A total of 107 employees out of 147 was selected as respondents of this study. Raosoft software was used to calculate the sample size needed for this study. This software utilizes a formula based on Cochran's 1977 formula. This formula incorporates a finite population correction to determine the necessary sample size for surveys. (Jelinek *et al.*).

### C. Research Instrument

This study used an established questionnaire to determine the preferred leadership style of the employees at DPWH Pampanga 2<sup>nd</sup> DEO namely, the Leadership Style Questionnaire (LSQ) by Peter G. Northouse. The questionnaire was composed of two parts which the demographic profile part which includes the gender, age, and position of the respondents, followed by the LSQ part. According Cayan *et al.* (2025), the LSQ was found to have a Cronbach's alpha of 0.82 and a test-retest reliability of 0.78, which means that the questionnaire has good reliability and produces consistent results. The LSQ was also validated to correlate with other leadership style measurement tools such as Multifactor Leadership Questionnaire. The researchers also included the demographic profile.

#### D. Data Gathering Procedure

The researchers opted to use Google Forms to create the questionnaire. As cited in the study of Vasantha Raju et al. (2016), the free availability of the tool and automatic recording of user response in its spreadsheet have made data collection and analysis simple. The link directing to the survey questions was sent to the respondents through their e-mail and Facebook Messenger. The respondents were informed about the purpose of the study and were assured the confidentiality of the information given. Upon collecting the required number of responses, the researchers generated the results and were summarized, evaluated and analyzed.

#### E. Data Analysis and Technique

The questionnaire used utilizes Likert Scale items ((ranging from 1 = Strongly Disagree to 5 = Strongly Agree) to identify the preferred leadership style of the respondents. LSQ was composed of eighteen (18) questions wherein questions 1, 4, 7, 10, 13 and 16 corresponds to autocratic style of leadership. Furthermore, questions 2, 5, 8, 11, 14, and 17 corresponds to democratic style of leadership while questions 3, 6, 9, 12, 15 and 18 was for laissez-faire style of leadership. The scores were tabulated to reveal the preferred leadership style of each respondent. For the test on relationship of the demographic information of the respondents and their preferred leadership style, the Fisher-Freeman-Halton Exact Test and Monte Carlo Simulation using IBM SPSS Statistics 27.0.1 was used. According to Ozturk et al. (2023), the Fisher-Freeman-Halton test statistic gives the exact p-value, which is calculated from sequentially generated contingency tables until one of the cells in the given margin is equal 0. This method becomes computationally intensive as the sample size increases. To overcome this problem, the researchers used the Monte Carlo approach that selects samples randomly from the contingency tables.

### 3. Results and Discussions

This study explored how age, gender, and job position relate to individuals' preferred leadership styles among 102 participants. Due to low expected frequencies in several cells, robust methods such as Monte Carlo simulations and the Fisher-

Freeman-Halton Exact Test were used to validate the statistical associations.

Democratic leadership was the most preferred style, selected by 84 participants (82.4%). The data suggest that the majority of respondents value a leadership environment where their voices are heard and their contributions matter—highlighting the importance of empowerment and transparency in leadership practices.

Laissez-faire was chosen by 12 participants (11.8%). The relatively low percentage indicates that most respondents favor some level of active involvement and guidance from leaders, rather than total freedom.

Autocratic leadership, which is more directive and centralized, had the least support, with only 6 participants (5.9%). It implies that general resistance to rigid, top-down control. This may reflect modern expectations of workplace culture, especially in settings where autonomy, creativity, and team dynamics are emphasized.

A Chi-square test of independence using Monte Carlo estimation revealed a statistically significant association between age range and preferred leadership style,  $\chi^2(8, N = 102) = 26.58, p = .000$  (Monte Carlo), 99% CI [0.000, 0.044]. Due to low expected frequencies in over 70% of cells, the Fisher-Freeman-Halton Exact Test also confirmed significance,  $p = .020$ .

These findings suggest that age plays a meaningful role in shaping leadership preferences, possibly reflecting generational differences in values, workplace experiences, and leadership expectations.

A Chi-square test of independence showed a statistically significant association between gender and leadership preference,  $\chi^2(2, N = 102) = 7.71, p = .029$  (Monte Carlo method). Due to low expected frequencies in 50% of cells, the Fisher-Freeman-Halton Exact Test was also performed and confirmed significance ( $p = .029$ ), supporting the conclusion of a non-random association.

These findings imply that men and women may differ in their leadership style preferences, which could be influenced by social conditioning, leadership exposure, or perceived effectiveness of different leadership behaviors.

Halton exact test revealed a statistically significant

Table 1  
Statistical tests result for the relationship of respondents' age and their leadership preference

	Value	df	Asymptotic Significance (2-sided)	Monte Carlo Sig. (2-sided)
Pearson Chi-Square	26.582a	8	.001	.000b
Likelihood Ratio	19.920	8	.011	.020b
Fisher-Freeman-Halton Exact Test	16.949			.020b

Table 2  
Statistical tests result for the relationship of respondents' gender and their leadership preference

	Value	df	Asymptotic Significance (2-sided)	Monte Carlo Sig. (2-sided)
Pearson Chi-Square	7.709a	2	.021	.029b
Likelihood Ratio	10.120	2	.006	.000b
Fisher-Freeman-Halton Exact Test	7.509			.029b

Table 3  
Statistical tests result for the relationship of respondents' job position and their leadership preference

	Value	df	Asymptotic Significance (2-sided)	Monte Carlo Sig. (2-sided)
Pearson Chi-Square	42.286a	14	.000	.010b
Likelihood Ratio	25.399	14	.031	.010b
Fisher-Freeman-Halton Exact Test	22.167			.029b

association between job position and preferred leadership style,  $p = .029$ . Due to 50% of expected cell counts being below 5, the Monte Carlo method was also used, confirming significance ( $p = .029$ , 99% CI [0.000, 0.073]).

This suggests that an individual's organizational level or role significantly influences their leadership preferences, potentially due to differences in experience, responsibilities, and exposure to various leadership approaches.

Across all three demographic variables studied, significant associations with preferred leadership styles were found. These results underscore the importance of considering individual differences when designing leadership development programs or assigning leadership roles.

Taken together, these findings show a clear preference for leadership styles that balance guidance with employee involvement, reinforcing the growing value placed on inclusive and adaptive leadership in today's diverse and evolving work environments.

#### 4. Conclusion

This study aimed to identify the leadership style preferred by employees at DPWH Pampanga 2nd District Engineering Office (DEO) and to examine whether demographic factors—specifically age, gender, and job position—affect these preferences. The findings revealed that democratic leadership was the most favored style, with 82.4% of respondents indicating this preference. This suggests that employees value participatory leadership, where they feel engaged in decision-making, recognized for their contributions, and supported in their professional growth—factors that enhance ownership and organizational commitment.

These findings are consistent with the study by Florencondia et al. (2023), which also highlighted the preference for transformational and participative leadership styles among public works employees, noting their impact on motivation and performance in government organizations.

Additionally, the study found that age, gender, and job position significantly influenced leadership preferences, underscoring the importance of acknowledging demographic diversity when designing leadership development initiatives or

assigning leadership roles. These insights can inform more inclusive and effective management strategies within the organization.

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