

MASTERING PROJECT MANAGEMENT: THE LEADER-TEAM CONNECTION

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Purpose: The research examines the relationship between transformational leadership, team cohesion, and project objectives' achievement rate in public organizations.

Design/methodology/approach: The survey selected 18 offices in Poland's voivodeship capitals and included all 269 departments and faculties. Directors nominated employees for a questionnaire focusing on projects needing diverse skills. 70 employees (and projects) were selected, with 50 responding to the subsequent survey conducted via computer-assisted telephone interviewing (CATI).

Findings: Understanding and implementing transformational leadership is essential in public administration for fostering team cohesion and project success. Although team cohesion is currently lacking, enhancing communication and collaboration can improve it. Transformational leadership encourages idea generation and team representation, yet its direct impact on project objectives is minimal. Public organizations should invest in leadership development to address project needs and navigate bureaucratic challenges effectively.

Research limitations/implications: Limitations of research include potential self-selection bias among participants and unaccounted external variables like political pressures, funding constraints, and policy changes that could affect the relationship between leadership styles, team cohesion, and project success. Future research should address these factors for a more comprehensive understanding of effective leadership in public administration.

Practical implications: Practical implications suggest investing in leadership development programs to cultivate transformational leadership qualities, fostering team cohesion, and aligning goals with organizational missions. Leaders should prioritize integrity, transparency, and accountability to navigate the unique challenges of the public sector, enhancing project performance through collaborative and supportive team environments.

Social implications: Socially, promoting transformational leadership fosters collaboration and inclusivity within public organizations, enhancing team dynamics and potentially improving service delivery to the public. Encouraging leadership qualities like empowerment and transparency contributes to a more accountable and socially responsible public sector.

Originality/value: This paper contributes by highlighting the significance of transformational leadership in public administration, shedding light on its positive impact on team cohesion and suggesting avenues for organizational improvement in project performance.

Keywords: transformational leadership, public sector innovation, team cohesion.

Category of the paper: Research paper.

1. Introduction

In the dynamic area of innovation within the public sector, distinct from the profit-oriented private sector, the spotlight is on fostering collaborative government and adopting post-bureaucratic organizational structures. Public sector entities, driven by a mission to enhance public services and deliver social value, differ from their private counterparts. This shift has led to the prominence of multidisciplinary teams with complementary skills and high interdependence, addressing the complex challenges faced by public organizations.

In this context, the significance of leadership styles cannot be overstated, as they play a crucial role in influencing organizational effectiveness. The hierarchical structure of the public sector places ethical leadership at the forefront, with leaders serving as vital sources of ethical guidance. Transformational leadership, marked by the ability to inspire and motivate followers toward organizational progress, emerges as a powerful style for achieving institutional targets. Specifically in the area of public service management, transformational leadership aligns organizational goals with community-oriented missions, emphasizing vision, mission, and personalized attention to employees.

This paper deals with the research methodology and findings of a study examining the connections among transformational leadership, team cohesion, and the achievement of project objectives within the framework of project management in public administration. The purpose for this paper is to investigate the relationships among transformational leadership, team cohesion, and project objectives' achievement within the context of project management in public administration. The research, funded by the National Science Center, explores the maturity of local government public administration in implementing solutions related to team self-management processes in Poland. The paper presents three hypotheses and six research questions, with the aim of unraveling the dynamics between leadership styles, team cohesion, and project success. Findings explain the complex interplay of these variables and offer valuable insights for researchers and practitioners in the public sector. This paper makes a significant contribution by emphasizing the importance of transformational leadership within public administration. It illuminates how such leadership positively influences team cohesion and proposes strategies for enhancing organizational performance in project delivery.

2. State of the art

In contrast to the private sector, innovation in the public sector is not driven by the pursuit of profit but rather by the goal of improving public services and delivering value to society (Feltynowski, 2012; Moore, Hartley, 2008; Torfing, Triantafillou, 2016). This shift towards collaborative government and post-bureaucratic organizational structures has led to an increased emphasis on multidisciplinary teams. These teams are characterized by their complementary skills and high interdependence, making them well-suited to tackling the complex challenges faced by public organizations (Van der Voet, Steij, 2021).

In this evolving landscape, the significance of leadership styles comes to the forefront due to their profound impact on organizational effectiveness (Warrick, 1981; Van Eeden et al., 2008; Yahaya, Ebrahim, 2016). Telukdarie (2018) contends that effective leadership involves self-regulation and a natural commitment to correctness for the benefit of the organization (Sosik, Dionne, 1997; Politis, 2001; Skogstad, 2007). Scholars such as Du et al. (2013), Nanjundeswaraswamy and Swamy (2014), and Bag et al. (2021) emphasize a leader's responsibility to cultivate positive relationships with organizational stakeholders, fostering motivation, commitment, and sustainability. Dhamija and Bag (2020) further explore the positive correlation between leadership, organizational commitment, and performance (Dhamija et al., 2023). Ethical leadership gains prominence in the public sector, given its hierarchical structure. Treviño et al. (2005) argue that leaders in public organizations serve as critical sources of ethical guidance due to their influential role within the hierarchical framework. The literature underscores the importance of ethical leadership, referencing authentic leadership (Van Eeden et al., 2008; Munir et al., 2013; Yahaya, Ebrahim, 2016), servant leadership (Brewer, 2010), and transformational leadership (Ali et al., 2015; Ardi et al., 2020) as integral components.

Transformational leadership, characterized by inspiring and motivating followers to contribute to organizational progress (Bass, 1999; Bass et al., 2003, Hill et al., 20212), emerges as a potent style for achieving institutional targets. Regardless of individual demographics, transformational leadership proves effective in organizational strategies related to manpower management, influencing workforce behavior toward adopting transformative, charismatic, and visionary leadership (Saeed et al., 2014; Ali et al., 2015; Novak et al., 2020). Moreover, participative and authoritative leadership styles exhibit positive correlations with interpersonal skills (Bass et al., 2003). A study by Abasilim et al. (2019) reveals a positive relationship between employee commitment and transformational leadership, contrasting with a slightly negative link between commitment and transactional leadership. Role ambiguity and role conflict are identified as detrimental to work performance. Hasan Al Khajeh (2018) finds that charismatic, transactional, and bureaucratic leadership styles negatively impact organizational performance, while transformational, autocratic, and democratic styles have positive effects.

In the specific context of public services management, transformational leadership proves crucial, aligning organizational goals with community-oriented missions. Bass's model of transformational leadership identifies four dimensions, emphasizing vision, mission, and personal attention to employees. Public management research underscores the significance of transformational leadership behaviors, resulting in enhanced individual, group, and organizational performance. Trust in leaders, intrinsic motivation, and team cohesion emerge as mediating variables in the relationship between transformational leadership behaviors and follower behaviors. Transformational leaders, capable of addressing both material and psychological needs, play a pivotal role in fostering teamwork and team performance. While transformational leadership has been linked to enhanced team performance, little research delves into the specific mechanisms by which transformational leaders influence team interaction. Team cohesion, influenced by transformational leaders, becomes a crucial factor in achieving higher perceived performance and satisfaction within teams.

3. Research Methodology

The article results from a research project financed by the National Science Center (Miniatura 5 number: 2021/05/X/HS4/00171). The research project was designed to gain knowledge on the maturity of local government public administration to implement solutions related to team self-management processes in Poland. The selection of units to be surveyed from the general population was complete; consequently, surveys were planned in 18 offices in the capital cities of voivodeships in Poland. The study covered all 269 departments and faculties. In the beginning, the first questionnaire survey was sent to directors or deputy directors of all departments. Their task was to identify a project that required the involvement of a team with various skills, experience, and knowledge, and to select a person from this team to conduct further research. Managers selected a total of 70 employees (and 70 projects) who met the adopted assumptions. Then a second questionnaire survey was sent to them. A total of 50 responses were received. The choice of where to conduct the research is dictated by city offices that are the capitals of voivodeships should implement advanced organizational and functional solutions in their activities. The designed research was quantitative and was carried out using the computer-assisted telephone interviewing (CATI).

In addition to the author's methodologies, leadership and team cohesion scales were used when constructing the survey (Tuckman, Jensen, 1997; Super, 2020; Turaga, 2022). A -2 to 2 scale was used for Leadership and team cohesion-related expressions: -2 = Very Poor, -1 = Poor, 1 = Good, 2 = Very Good. Moreover, A Likert type 1 to 5 scale was used for project objectives' achievement rate-related expression: 1 = 20%, 2 = 40%, 3 = 60%, 4 = 80%, 5 = 100%. In this regard, the main research questions were evaluated using mean, median, and correlation analysis.

The primary research goal for this paper is to investigate the relationships among transformational leadership, team cohesion, and project objectives' achievement within the context of project management in public administration. In contemporary project management, the successful realization of project objectives is of paramount importance for organizations striving for competitiveness and excellence. However, the dynamic nature of projects often demands effective leadership and cohesive teamwork. The interplay between leadership styles, team cohesion, and project success has drawn the attention of researchers and practitioners alike. Three hypotheses and six research questions were formulated (Table 1).

Table 1.
Research questions and hypotheses

Research Questions	Hypotheses
<p>RQ1. To what extent has the project objectives' achievement rate been realized?</p> <p>RQ2. Is there a significant level of team cohesion observed in project management?</p> <p>RQ3. Is transformational leadership adopted as the predominant leadership style during project management?</p> <p>RQ4. Can team cohesion be identified as a determining factor influencing project objectives achievement rate?</p> <p>RQ5. Is there a discernible correlation between leadership style and team cohesion in the project setting?</p> <p>RQ6. Can the leadership style be recognized as a factor potentially affecting the project objectives' achievement rate?</p>	<p>H1: The presence of transformational leadership in project management positively contributes to team cohesion</p> <p>H2: Team cohesion plays a pivotal and statistically significant role in realizing project objectives.</p> <p>H3: The application of a transformational leadership style contributes positively to the achievement of project objectives.</p>

Source: own compilation.

4. Findings

Research Model

The figure 1 visually delineates the investigation's findings on the interplay among Transformational Leadership, Team Cohesion, and Attaining Project Objectives. In our research, we used factor analysis because encompasses diverse multivariate statistical methods with the primary objective of elucidating the underlying structure inherent in a given data matrix (Alpar, 2011). To assess the suitability of the dataset, two distinct methods are employed: the Bartlett test (Bartlett, 1937) and the Kaiser-Meyer-Olkin (KMO) test (Kaiser, 1970). The Bartlett sphericity test provides insights into the presence of a satisfactory level of correlation among variables. If the p-value derived from the Bartlett test is below the 0.05 significance threshold, it signifies a notable relationship among variables, indicating suitability for conducting factor analysis. The KMO value, ranging from 0 to 1, evaluates the sampling adequacy and the appropriateness of inter-variable correlations for factor analysis. A KMO value equal to or exceeding 0.50 is considered acceptable, indicating sufficient sampling adequacy (Durmuş, Yurtkoru, Çinko, 2013; Kalaycı, 2014).

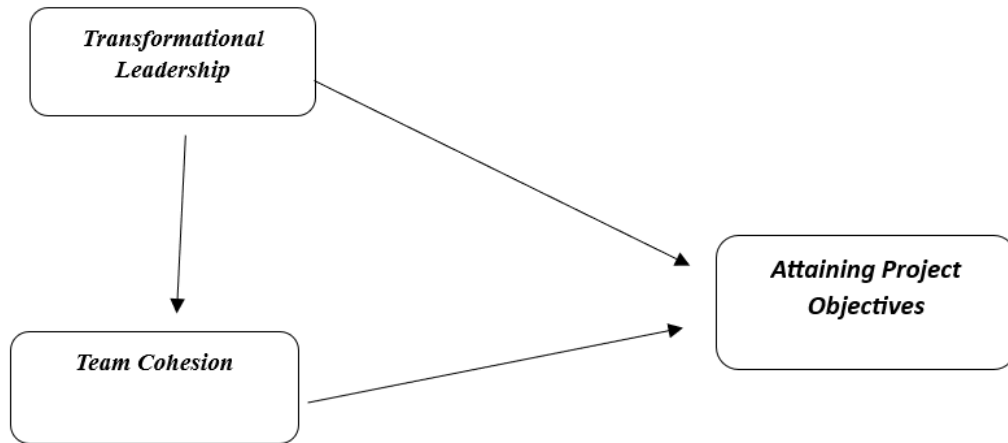


Figure 1. Research Model.

Source: Own prepared.

The gathered data were analysed in two ways: exploratory factor analysis using the principal component analysis method and descriptive statistics using the frequency and correlation analyses (see figure 2 below).

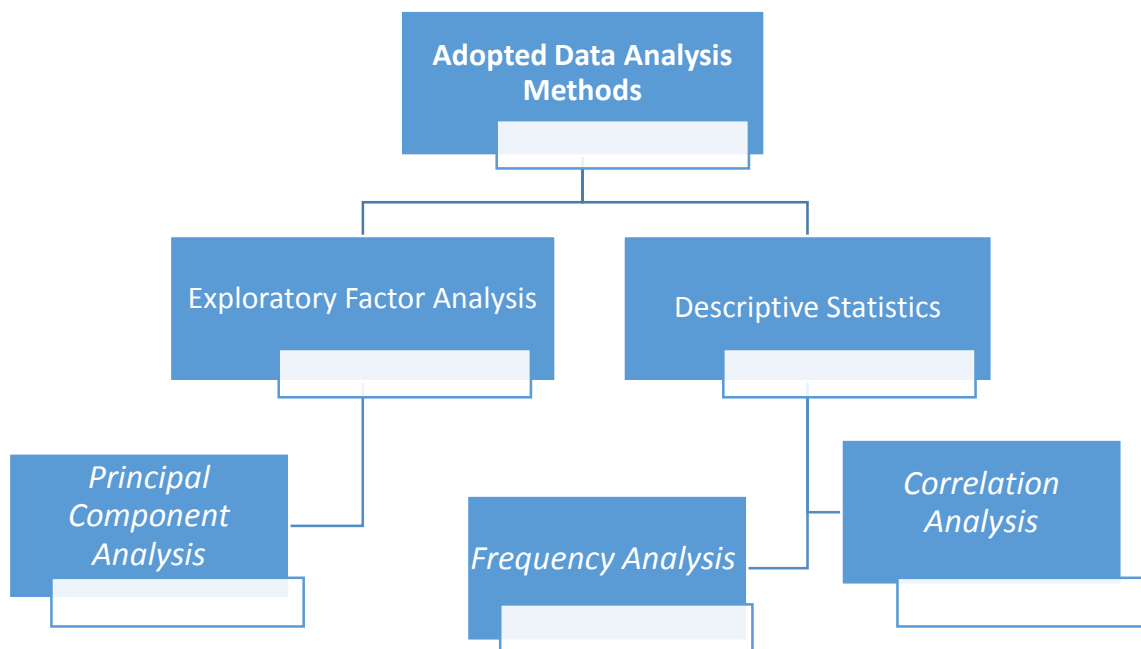


Figure 2. Adopted methods for analysing data obtained from surveys.

Source: own prepared.

5. Results

Exploratory Factor Analyses

In this part, factor analysis will be employed to delineate the underlying structure of the study's data matrix.

Transformational Leadership

The eligibility of the data for factor analysis was assessed through the Kaiser-Meyer-Olkin coefficient and the Bartlett Sphericity test, revealing a KMO value of 0.744 and significant results for the Bartlett Sphericity test ($\chi^2 = 127.480$, $p < 0.001$). Given these outcomes, it was deemed appropriate to proceed with factor analysis for the data about Transformational Leadership construction. To this end, Principal Component Analysis (Pearson, 1901) served as the estimation method, complemented by the Varimax Rotation Method (Kaiser, 1958).

Table 2.

Results of the Exploratory Factor Analysis Related to Transformational Leadership

Corresponding Items	Transformational Leadership
Encouraged employees to come up with their ideas	0.851
Encouraged you to look for better ways of doing things and to come up with your ideas	0.783
He/She was a source of new ideas, thought-provoking; you could learn a lot from him/her	0.747
Encouraged group discussions and implemented solutions adopted by the group	0.741
He/She was a good representative of the interests of the team he was leading towards higher superiors	0.678
Able to defuse tensions and misunderstandings within the team	0.585
Ensured that employees were informed about the goals of the team and their role in the organization	0.504
Total Variance Explained	49.99%

Source: own prepared.

A total of 7 expressions related to the one-dimensional construction in the study were subjected to factor analysis. The analysis revealed the existence of one dimension with an eigenvalue exceeding 1. This dimension accounts for a total variance of 49.99%.

Team Cohesion

The eligibility of the data for factor analysis was assessed through the Kaiser-Meyer-Olkin coefficient and the Bartlett Sphericity test, revealing a KMO value of 0.718 and significant results for the Bartlett Sphericity test ($\chi^2 = 86.533$, $p < 0.001$). Given these outcomes, it was deemed appropriate to proceed with factor analysis for the data about Team Cohesion construction. To this end, Principal Component Analysis (Pearson, 1901) served as the estimation method, complemented by the Varimax Rotation Method (Kaiser, 1958).

Table 3.*Results of the Exploratory Factor Analysis Related to Team Cohesion*

Corresponding Items	Team Cohesion
Most people identified with the group	0.900
There was cooperation and synergy in the work	0.821
Team members willingly and emotionally expressed personal opinions and views	0.782
People expressed similar views on how to achieve the objective	0.769
Total Variance Explained	67.17%

Source: Own prepared.

A total of 4 expressions related to the one-dimensional construction in the study were subjected to factor analysis. The analysis revealed the existence of one dimension with an eigenvalue exceeding 1. This dimension accounts for a total variance of 67.17%.

Table 4.*Reliability of Research Instruments*

Instruments	Cronbach's Alpha Value
Transformational Leadership	0.821
<i>Team Cohesion</i>	0.825

Source: Own prepared.

Upon scrutiny of the Cronbach Alpha values provided above for the instruments utilized in this study, it becomes apparent that each dimension demonstrates reliability in terms of internal consistency. In addition, Attaining Project Objectives has been evaluated regarding independent expression 'In your opinion, to what extent has the project's objective been achieved?'. Therefore, it was excluded from the factor and reliability analyses.

In this part, the main research questions and hypotheses are evaluated in the order presented in Table 1. In the following, the project objectives' achievement is evaluated, and results are presented in Table 5.

Table 5.*Evaluation of project objectives achievement*

Corresponding Item	Mean	Median	Skewness	Kurtosis	Std Dev.
<i>Project Objectives' Achievement</i>	4.40	5.00	-0.79	-0.67	0.72

Source: own prepared.

According to mean and median values (frequency analysis), public organizations' *Project Objectives Achievement* is very high. In other words, public organizations execute a significant portion of the project goals effectively. This finding lets us positively answer research question 1 (*RQ1. To what extent has the project objectives' achievement rate been realized?*) that the project objectives' achievement rate is high in public organizations. In the following, team cohesion is evaluated, and results are presented in Table 6.

Table 6.*Evaluation of the team cohesion*

Corresponding Item	Mean	Median	Skewness	Kurtosis	Std Dev.
<i>Team Cohesion</i>	-0.97	-1.00	1.60	2.97	0.66

Source: own prepared.

The findings show that public organizations' team cohesion is insignificant during project implementation, and there is room for improvement. In this regard, research question 2 (*RQ2. Is there a significant level of team cohesion observed in project management?*) was negatively evaluated. Leadership style is evaluated in the following, and results are presented in Table 7.

Table 7.*Evaluation of the leadership style*

Corresponding Item	Mean	Median	Skewness	Kurtosis	Std Dev.
<i>Transformational Leadership</i>	-1.28	-1.42	1.12	0.61	0.57

Source: own prepared.

The result exhibits that transformational leadership is not the predominant leadership style in public organizations. In this regard, research question 3 (*RQ3. Is transformational leadership adopted as the predominant leadership style during project management?*) was negatively evaluated. In the following, correlation analysis is presented to evaluate the relationship between research variables in Table 5. Tabachnick and Fidell (2013) and George (2011) indicate that If Skewness and Kurtosis's results are between +1.5 and -1.5, it can be concluded that data has normally been distributed. In the study, only the *Team Cohesion* variable is unsuitable for this criterion. In addition, when a small sample size is considered, it is seen that non-parametric tests can be appropriate for the study. Therefore, Spearman correlations have been applied.

Table 8.*Correlation analysis regarding research variables*

Variables	Mean	Median	SD	1.	2.	3.
<i>1. Project Objectives' Achievement</i>	4.40	5.00	0.72			
<i>2. Team Cohesion</i>	-0.97	-1.00	0.66	-0.148		
<i>3. Transformational Leadership</i>	-1.28	-1.42	0.57	-0.142	0.428**	

Note: Spearman's correlation applied, ** $p < 0.01$, $n = 50$.

Source: own prepared.

The findings show that a significant and positive relationship exists between team cohesion and transformational leadership ($r = 0.428$, $p > 0.01$). In addition, no significant relationship exists between other variables. According to correlation analysis results, research question 4 (*RQ4. Can team cohesion be identified as a determining factor influencing project objectives achievement rate?*) has negatively evaluated that team cohesion is not a determining factor influencing project objectives achievement rate. On the other hand, research question 5 (*RQ5. Is there a discernible correlation between leadership style and team cohesion in the*

project setting?) has been positively evaluated that there is a discernible correlation between transformational leadership style and team cohesion in the project setting ($r = 0.428$, $p > 0.01$). Lastly, research question 6 (*RQ6. Can the leadership style be recognized as a factor potentially affecting the project objectives' achievement rate?*) has been negatively evaluated, and there is no significant relationship between leadership style and the project objectives' achievement rate.

As a result, only Hypothesis 1 (*H1: The presence of transformational leadership in project management positively contributes to team cohesion*) has been verified that transformational leadership in project management positively impacts team cohesion. Hypothesis 2 (*H2: Team cohesion plays a pivotal and statistically significant role in realizing project objectives*) and Hypothesis 3 (*H3: The application of a transformational leadership style contributes positively to achieving project objectives*) has been rejected because there is no significant relationship between related variables.

6. Conclusion and discussion

The findings demonstrate the importance of understanding and implementing transformational leadership in order to promote team cohesion and achieve project objectives in public administration. The study used multiple correlation analysis to investigate the complex interplay between leadership styles, team cohesion, and the achievement of project objectives. It was found that team cohesion in public organizations during project implementation is currently insignificant and requires improvement. This indicates that there is a need for organizations to focus on enhancing team cohesion in order to enhance project performance. It can be achieved through fostering open communication, promoting collaboration, and creating a supportive team environment (Levasseur, 2017).

The study reveals no significant relationship between team cohesion and the achievement rate of project objectives. However, when teams have a high level of cohesion characterized by members identifying with the group, cooperating and synergizing at work, and expressing similar views on achieving objectives, they can be more likely to focus on project goals altogether (Kozlowski, Ilgen, 2006, 2018).

Furthermore, the research acknowledged that transformational leadership is not the predominant leadership style in public organizations. This suggests that there may be a gap between the leadership practices in the public sector and the optimal leadership style required for successful project management. The findings revealed that transformational leadership positively contributes to team cohesion. This suggests that when leaders exhibit transformational qualities such as encouraging employees to come up with their own ideas, being a source of new ideas and thought-provoking discussions, and representing the interests

of the team, it fosters a sense of cohesion among team members. This finding aligns with previous research indicating that transformational leadership enhances team dynamics and collaboration. (Sihite et al., 2020; Hapsari et al., 2021). Public organizations should invest in leadership development programs that promote transformational leadership qualities, such as inspiring and motivating employees, fostering empowerment, and aligning goals with the organization's mission.

Additionally, the research highlighted no significant relationship between transformational leadership and the achievement rate of project objectives. In other words, adopting a transformational leadership style neither positively nor negatively contributes to achieving project objectives. However, when leaders employ transformational leadership techniques, it creates an environment that promotes team cohesion. Public organizations should prioritize leadership approaches that value integrity, transparency, and accountability (Herasymiuk et al., 2020). Leaders should also be mindful of the public interest and foster a sense of social responsibility. The unique nature of the public sector requires a tailored approach to project management. Public organizations should consider the specific challenges and dynamics of the public administration context, such as bureaucratic structures, regulatory requirements, and stakeholder involvement. Project management methodologies and practices should be adapted to suit the public sector's needs. However, further research is needed to explore these factors in different contexts and across a larger sample size. This would enrich the understanding of effective leadership strategies and project management practices in the public sector. Participants who volunteered to participate in the study may differ systematically from those who did not participate, leading to potential self-selection bias. Research limitations encompass potential self-selection bias among participants and unaddressed external variables such as political pressures, funding constraints, and policy changes, which could impact the interplay between leadership styles, team cohesion, and project outcomes. Future studies ought to tackle these factors to attain a more holistic grasp of effective leadership within public administration. The study may not have accounted for all relevant external variables or contextual factors that could influence the relationships between leadership styles, team cohesion, and project success. Factors such as external political pressures, funding constraints, or changes in public policy could confound the results and should be considered in future research.

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