

Research Article

## The Effectiveness of Leadership Styles with Worker Characteristics in Building Construction Projects in the Surabaya Area

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### Abstract

This study aims to explore the effectiveness of leadership styles within the context of building construction projects in Surabaya, considering the characteristics of the workers involved. The background of this research is based on the importance of leadership in managing human resources in complex and dynamic construction projects. This study adopts a descriptive qualitative approach, using data collection techniques such as in-depth interviews, field observations, and documentation. The findings indicate that the effectiveness of leadership styles heavily depends on the alignment between the applied leadership style and the characteristics of the workers on-site. Transformational leadership is effective in motivating result-oriented and experienced workers, while an authoritarian style is more appropriate for new workers who require clear direction. Participative leadership is considered effective in enhancing workers' loyalty and engagement in the work process.

**Keywords:** Leadership Styles, Worker Characteristics, Construction Projects, Effectiveness.

### INTRODUCTION

Infrastructure development is the backbone of a nation's progress (Foster, Gorgulu, Straub, & Vagliasindi, 2023) In the context of globalization and economic growth, physical development such as buildings, roads, and public facilities has become a symbol of progress and a means of accelerating social and economic activities (He, Zhou, Ma, & Chow, 2020). In Indonesia, infrastructure development is one of the national priorities to support connectivity between regions and equitable development (Utomo, 2020).

Surabaya, as the second-largest metropolitan city in Indonesia, plays a strategic role in the development of Eastern Indonesia. The rapid economic and population growth in this city has driven the demand for office facilities, vertical housing, and



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other commercial buildings (Sardi, 2025). This phenomenon has resulted in a surge of building construction projects involving various parties, including project owners, contractors, consultants, and on-site labor (Putri, 2025).

However, the acceleration of development brings its own challenges, particularly in human resource management. Construction projects, especially multi-story building projects, require intensive coordination and collaboration between individuals and teams (Czerniawski, Ma, & Fernanda, 2021). This is where leadership plays a crucial role in ensuring that all project elements align with the planning (Wied, Koch-Orvad, Welo, & Oehmen, 2020).

A project manager's leadership style has been proven to be one of the determining factors for project success. Leaders who can adapt their leadership style to the situation and characteristics of their workers tend to be more successful in building effective communication, increasing work motivation, and creating a conducive work environment. Leadership is not only about instructions and supervision but also the ability to understand the people being led (Santoso, Transformational Leadership and Employee Motivation in Construction Projects, 2020).

The characteristics of workers in construction projects vary greatly. A project team may consist of workers of different ages, educational backgrounds, work experience, and personal preferences in carrying out tasks. Some workers are more obedient to direct instructions, while others tend to be independent and require space to take initiative. These variations necessitate an adaptive and contextual leadership approach (Putra, 2020).

Various leadership styles, such as transformational, transactional, authoritarian, and democratic, each have their advantages; however, their effectiveness highly depends on their alignment with the team's characteristics. For instance, a transformational style is generally more effective with highly competent teams, while a directive style is more suitable for teams that need clear and firm guidance. Therefore, understanding the dynamics between leadership styles and worker characteristics is essential in the context of construction projects (Wijaya, 2024).

The context of building construction in Surabaya also presents the complexity of projects in terms of time pressure, technical risks, and resource limitations. In such situations, project leaders are required to make decisions quickly, while still considering the psychological and social conditions of their teams. Misalignment between leadership styles and worker characteristics can lead to conflicts, demotivation, and even decreased productivity (Lee, 2021).

Given the importance of understanding the relationship between leadership styles and worker characteristics in the context of construction projects, particularly in rapidly developing areas such as Surabaya, it is necessary to explore, in a broader and more contextual manner, the perceptions, experiences, and interactions between individuals involved in building construction projects (Pramesti, 2013).

Therefore, this study aims to explore the effectiveness of leadership styles in adapting to worker characteristics in building construction projects in Surabaya. It is expected that this research will provide theoretical contributions to the development of project management knowledge, as well as practical contributions to project leaders in enhancing team effectiveness and overall project success (Santoso, Effectiveness of Leadership Styles on Project Success: A Case Study of Building Projects in Indonesia, 2021).



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## METHOD

This study employs a qualitative approach with a descriptive method. The descriptive method in this research aims to provide a real depiction of the leadership practices that occur in the field. This research relies on empirical data obtained directly from informants through observation and interviews.

The study uses purposive sampling, a technique for selecting informants based on specific considerations. According to Sugiyono (2018), purposive sampling is a technique for selecting data sources based on certain criteria, such as informants who are considered to have the most knowledge about what the researcher expects, or those who hold positions of authority, thereby facilitating the researcher in exploring the object or social situation under investigation.

**Table 1.** Overview of Project Roles, Responsibilities, and Employment Duration

Position	Main Tasks	Number of People	Length of Employment
Project Manager	<ol style="list-style-type: none"> <li>1. Plan, organize, and control all project activities.</li> <li>2. Make strategic decisions and ensure the project meets time, cost, and quality targets.</li> </ol>	1 person	2 Years
Site Engineer	<ol style="list-style-type: none"> <li>1. Prepare work methods and technical reports.</li> <li>2. Supervise the implementation of technical work on-site.</li> </ol>	2 people	1 Year
Foreman	<ol style="list-style-type: none"> <li>1. Organize and supervise daily workers on-site.</li> <li>2. Convey instructions from management to workers.</li> </ol>	3 people	2 Years
Field Supervisor	<ol style="list-style-type: none"> <li>1. Ensure the work complies with technical specifications and quality standards.</li> <li>2. Record daily progress of work.</li> </ol>	2 people	2 Years
Project Administrator	<ol style="list-style-type: none"> <li>1. Manage documents, financial reports, and project administration.</li> <li>2. Assist with internal coordination.</li> </ol>	1 person	2 Years
Skilled Workers	<ol style="list-style-type: none"> <li>1. Carry out construction work in their respective fields of expertise.</li> <li>2. Complete technical details on-site.</li> </ol>	20 people	2 Years
Daily Workers/Labor	<ol style="list-style-type: none"> <li>1. Assist with physical tasks on-site, such as transporting materials, cleaning areas, and supporting craftsmen.</li> </ol>	30 people	2 Years

## RESULT AND DISCUSSION

Based on field observations and in-depth interviews, it was found that the leadership styles implemented by project managers are dynamic and contextual. There is no single style that is absolutely the most effective; rather, the effectiveness of leadership styles highly depends on the alignment between the project phase, worker characteristics, and challenges faced on-site. Three main leadership styles identified are authoritarian, participative, and transformational. The authoritarian style tends to dominate in the early stages of the project when new workers join and still require detailed direction and close supervision. This style is also considered effective in maintaining discipline and ensuring compliance with safety and quality standards. In contrast, as workers become more accustomed to the project and it enters the technical development phase, the participative style begins to be applied. This style has proven



effective in fostering collaboration, building a sense of ownership towards the project, and encouraging innovative ideas, especially among communicative and initiative-driven workers.

Furthermore, in the final phase of the project or when dealing with highly motivated and achievement-oriented workers, the transformational leadership style becomes the most effective approach. Leaders who implement this style are able to inspire the team, push challenging targets, and provide space for professional growth. This approach fosters loyalty, boosts work enthusiasm, and results in higher quality work. However, the findings also show that the most successful approach is a combined leadership style, known as a leadership mix, where the leader is able to shift styles adaptively according to situational needs. This approach is reinforced by interviews with HRD contractors and project supervisory consultants who revealed that adjusting leadership style to the dynamics of the project and worker characteristics is key to managerial effectiveness.

Leadership effectiveness in a project is not only influenced by the style applied but also by understanding worker characteristics. New workers generally require an authoritarian and structured leadership style, while experienced workers prefer a participative style that allows them space for contribution. Workers with high motivation respond very positively to transformational leadership as they feel valued and driven to develop.

Meanwhile, the results of this study also confirm the findings of Sihombing, which emphasized the importance of situational leadership in construction projects (Sihombing, 2022). In this study, project managers were found to successfully adapt their leadership styles from authoritarian to participative and then transformational, according to the project's development and the individual characteristics of team members. This flexible approach not only improved work efficiency but also created a conducive work environment for growth and collaboration. Adjusting leadership style, accompanied by open communication, also proved to minimize worker resistance to change.

Herdiana highlighted that worker characteristics significantly affect the effectiveness of certain leadership styles. The findings of this study support this view, where the authoritarian style is more effective for new workers who require structured direction, while the participative style is better suited for experienced workers who expect involvement in decision-making (Herdiana, 2020). Meanwhile, workers with high motivation showed a positive response to the transformational style, which allows for challenges and self-development. These varying responses indicate that a deep understanding of worker characteristics is a prerequisite for effective leadership implementation.

Furthermore, Susilawati emphasized that the effectiveness of leadership styles is heavily influenced by the project's context and work culture (Susilawati, 2022). The findings of this study on urban building projects reinforce this observation. The dynamic and high-risk construction work environment demands assertiveness and adaptive leadership. In the early phases of a project, which are pressured by deadlines and high demands, an authoritarian style is essential to maintain operational stability. However, as the project progresses and a collaborative work culture is formed, the participative and transformational styles become more effective. This indicates that changes in the work context drive shifts in leadership approaches.

Next, Sutanto, Koswandi & Andi (2022) found that leadership with intellectual stimulation and open communication significantly increases team trust in



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construction projects in Surabaya. The findings of this study support this assertion. The application of a participative leadership style, combined with technical discussion forums and recognition of ideas, effectively builds trust among team members and project leaders. Especially in the middle phase, a combination of the initial authoritarian style and the participative approach proved effective in creating a cohesive and supportive work environment.

Fuqhoha (2021) demonstrated that transformational leadership is highly effective in enhancing employee motivation and performance during the pandemic, when uncertainty was high. The results of this study align with these findings: in the final phase of a project or in environments requiring adaptive work, transformational leadership was proven to inspire rational and professional workers. Leaders who set challenging targets and empower workers strengthen commitment and improve the final quality of work.

Cahyono (2024) highlighted the importance of participative leadership in increasing motivation and loyalty among construction workers in Sidoarjo. This finding is supported by the results of this study. In the middle phase of building projects, a participative approach involving workers in technical decision-making and providing regular feedback successfully enhanced enthusiasm, engagement, and innovation among experienced workers. This style also impacted loyalty to the project and a sense of team participation.

Finally, Setiawan emphasized that the participative style tends to be more effective in large and complex projects (Setiawan, 2023). This aligns with the findings of this study, where the application of a participative style by project managers proved to increase a sense of ownership, involvement, and innovation, especially among experienced workers and during the implementation phase of complex projects. This style facilitates the flow of ideas and collective problem-solving, which is crucial for handling technical challenges in large-scale projects. Overall, this research not only supports previous findings but also reinforces the importance of adaptive leadership that responds to field conditions, individual characteristics, and the dynamics of the project phase. A leadership strategy that is inflexible or not contextual tends to reduce team effectiveness. Therefore, project leaders need to have high social diagnostic skills and strong interpersonal communication abilities to apply the right leadership style at the right time.

## CONCLUSION

The most effective leadership style for building construction projects is one that is flexible and adapted to the characteristics of the workers as well as the project's phase. At the beginning of the project, the authoritarian style is appropriate as new workers still require clear direction and strict supervision. As the team gains experience, the participative style becomes more effective because workers want to be involved in decision-making and feel more valued. Meanwhile, in the final stages of the project, the transformational style helps to boost morale and work quality, especially for highly motivated workers. Therefore, there is no single leadership style that is always effective. Project leaders must be able to adjust their leadership style to the conditions and characteristics of the workers to ensure optimal team performance and the achievement of project targets.



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