

Impact of Managerial Skills on Organizational Development: An Applied Study in the Regional Directorate of Transport and Communications of the Amazonas Region

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Abstract

This study analyzes the relationship between managerial skills and organizational development in the Regional Directorate of Transport and Communications of the Amazon Region during the year 2021. A quantitative approach with descriptive-correlational and non-experimental design was adopted, using a structured questionnaire applied to a sample of 72 workers. The results show that there is a low but significant positive evaluation between managerial skills (leadership, communication, decision making and motivation) and the dimensions of organizational development (planning, organization, integration and direction). The highest rating coefficient was $R_{ho} = 0.300$, indicating a moderate relationship between managerial skills and overall organizational development. Although managerial skills influence process improvement and efficiency, other factors, such as organizational structure and available resources, also play a crucial role. It is concluded that it is essential to strengthen managerial competencies through continuous training programs and to improve internal processes in order to optimize organizational development in this public entity. Finally, it is suggested that other factors that may impact organizational development, such as technology and organizational culture, be explored in future studies.

Keywords: Management Skills, Organizational Development, Leadership, Public Management, Planning.

Introduction

In the current context of globalization and competitiveness, organizations, both public and private, face the challenge of managing their resources efficiently and adapting quickly to changes. Management skills, understood as the competencies needed to lead teams, make strategic decisions and successfully manage human talent, are essential to ensure organizational success and growth (Whetten & Cameron, 2011). This challenge is especially relevant in public entities, where efficiency in resource management has a direct impact on the quality of services offered to society (French & Bell, 2001).

The Regional Directorate of Transport and Communications of the Amazon Region is a key entity for the development of infrastructure and services in this region of Peru. However, as in many public organizations, it faces challenges related to planning, organization and management of human talent, which impacts its ability to adapt to change and effectively meet its objectives. In this sense, it is crucial to investigate how

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the managerial skills of its leaders influence organizational development and the optimization of its administrative functions.

The Amazon Region, and in particular its Regional Directorate of Transport and Communications, faces a series of challenges that negatively impact its ability to offer quality services, including a lack of strategic planning, inefficient resource allocation and a limited capacity to adapt to changes in the environment (Huatuco, 2017). These problems result in inadequate managerial management and insufficient organizational development, which generates difficulties in meeting institutional goals and satisfying community demands. In this context, the need arises to investigate the relationship between managerial skills and organizational development, with the general objective of determining how these skills influence the improvement of efficiency and effectiveness in the Regional Directorate of Transport and Communications of the Amazon Region. in the year 2021. More specifically, we seek to analyze the influence of managerial leadership on organizational planning, evaluate the impact of decision making on the efficiency of internal processes, determine how managerial communication skills affect the direction and coordination of work teams, and establish the relationship between managerial motivation and employee commitment to institutional objectives. The hypothesis put forward in this study suggests that there is a significant positive relationship between managerial skills and organizational development in this entity.

Internationally, the relationship between managerial skills and organizational development has been widely studied. A meta-analysis by Liu et al. (2017), published in the *Academy of Management Journal*, concludes that leadership and decision-making skills are positively related to organizational effectiveness in various sectors, especially in contexts of organizational change. This study, based on a sample of more than 150 organizations worldwide, suggests that managers who possess strong change management and communication skills are able to significantly improve the performance of their organizations, even in highly uncertain environments.

In a similar study, Anderson and Sun (2017), published in the *Journal of Business Research*, found that motivational and transformational leadership skills in managers are strongly associated with organizational innovation and sustainable development in European and North American companies. The authors argue that, in a globalized context, organizations that do not invest in the development of managerial skills risk stagnating and failing to adapt to market changes.

In Peru, several studies have investigated the impact of managerial skills in the public sector. A report published by the Inter-American Development Bank (IDB) (2018) points out that deficiencies in public management in the country are closely related to the lack of managerial skills in the leaders of institutions. The report highlights that Peruvian public managers lack adequate training in key areas such as strategic decision-making and change management, which limits their ability to implement effective public policies.

On the other hand, a study by Alarcón (2019) published in the *Revista de Gestión Pública del Perú* analyzed the role of managerial skills in the modernization of Peruvian public entities. The results showed that leaders who possess better skills in communication and transformational leadership achieve greater efficiency in their organizations. This study underscores the need to improve management skills in the public sector to ensure better institutional performance.

At the level of the Amazon region, public management faces significant challenges due to the lack of organizational development and managerial capacities in public institutions. A study by Callata (2020), published in the *Andean Journal of Public Administration*, found that public institutions in the Amazon region, including the Regional Directorate of Transport and Communications, have deficiencies in strategic planning and human resource management, which negatively affects organizational performance. This study highlights the need to strengthen the managerial skills of local leaders as a strategy to improve the efficiency and quality of public services.

At the local level, research such as that of Huatuco (2021), conducted in the Regional Directorate of Transport and Communications of the Amazon Region, indicates that deficiencies in managerial management are one of the main obstacles to organizational development. This study found that the lack of decision-making and leadership skills in the entity's managers limits their ability to implement effective organizational changes, which leads to low employee motivation and poor resource allocation.

The Huatuco study, which was published in the Amazonian Journal of Social Sciences, highlights the importance of developing training programs for local managers to improve their leadership and motivational skills, which would have a positive impact on organizational development.

This study is relevant because of the need to improve the efficiency and effectiveness of public entities in the Amazon region. The research will not only identify current deficiencies in the management of the Regional Directorate of Transportation and Communications, but will also provide practical recommendations to improve organizational development. The results of this study can be used by public policy makers and by the entity's managers themselves to optimize their processes and improve the quality of services offered to the community.

This study contributes to the field of public management in Peru by providing empirical evidence on the relationship between managerial skills and organizational development in a key public entity in the Amazon region. In addition, the findings of this research can be replicated in other regions of the country, which will contribute to the development of more effective strategies to improve public management throughout Peru.

Material and Methods

This study adopts a quantitative approach, with the objective of analyzing the relationship between managerial skills and organizational development in the Regional Directorate of Transport and Communications of the Amazon Region in the year 2021. The methodological design is **descriptive-correlational**, since it seeks to determine the existing relationship between variables without manipulating them (Hernández, Fernández and Baptista, 2014). In addition, a **non-experimental** cross-sectional design is used, which implies the observation of phenomena as they occur naturally, without direct intervention, and the collection of data at a single moment in time (Sabino, 1992).

Population and Sample

The study **population** consisted of **118 employees** of the Regional Directorate of Transport and Communications of the Amazon Region in 2021. Given that this is a finite population, probability sampling was used using the **simple random sampling** technique. This ensures that all workers have the same probability of being selected, which reinforces the representativeness of the sample (Hernández et al., 2014).

The **sample** was determined using the formula for finite populations, with a confidence level of 95% and a margin of error of 7%. The calculation is presented below:

$$n = \frac{N \cdot Z^2 \cdot p \cdot q}{(N-1) \cdot E^2 + Z^2 \cdot p \cdot q}$$

Where:

- **n** = sample size
- **N** = population size (118)
- **Z** = value of Z for a confidence level of 95% (1.96)
- **p** = probability of success (0.5)

- $q = \text{probability of failure } (1 - p = 0.5)$
- $E = \text{allowable sampling error } (0.07)$

The calculation resulted in a sample of **72 workers**. All participants were informed of the objectives of the study and signed an **informed consent** form, guaranteeing the confidentiality of the information provided.

Variables

The variables analyzed in this research are:

- *Managerial Skills (Independent Variable)*: Refers to managers' abilities to lead, make decisions, communicate effectively, and manage human and material resources. Specific dimensions assessed include leadership, decision-making, communication and motivation (Whetten & Cameron, 2011).
- *Organizational Development (Dependent Variable)*: This refers to the organization's capacity to continuously improve its processes, optimizing human and material resources to achieve its institutional objectives. Its dimensions include planning, organization, integration and management (French & Bell, 2001).

Data Collection Instruments

For data collection, the **survey** technique was employed, using a structured questionnaire based on a five-point Likert scale, ranging from "Strongly disagree" to "Strongly agree". This questionnaire was designed to measure both managerial skills and organizational development within the institution (Bueno, 2003).

The **questionnaire** was validated by a group of three experts in public management, who reviewed the consistency and clarity of the items, and a **pilot** was conducted with 10 collaborators of the institution. The **reliability** of the instrument was evaluated using **Cronbach's Alpha** coefficient, obtaining a value of 0.87, indicating high internal consistency (Cubo Martín & Ramos, 2011).

Procedure

The data collection process was carried out as follows:

Elaboration of the Questionnaire: The measurement instrument was structured in two main sections: the first, focused on measuring management skills; and the second, on evaluating organizational development. Each section contains closed questions in Likert scale format.

- *Validation of the Instrument*: The opinion of management experts was sought to ensure the content validity of the questionnaire. Subsequently, a pilot test was applied with a small group of 10 workers to adjust any aspect that could generate confusion.
- *Survey Application*: 72 questionnaires were distributed to the workers selected from the sample. Each participant was previously informed about the purpose of the research and the confidentiality of the answers was guaranteed through a process of informed consent.
- *Tabulation and Analysis*: Once the surveys were collected, the data were entered into the **SPSS v26** statistical software, where descriptive statistics analysis was performed and **Spearman's Rho classification** test was applied to evaluate the relationship between managerial skills and organizational development. This nonparametric evaluation technique

was adequate given that the variables were measured on an ordinal scale (Hernández et al., 2014).

Data Analysis

Data analysis included the following steps:

- *Internal Consistency Analysis:* To ensure the reliability of the instrument, Cronbach's Alpha coefficient was calculated, which yielded a value of 0.87, indicating high reliability.
- *Descriptive Statistics:* Measures of central tendency and dispersion were calculated for each of the variables and their dimensions.
- *Correlation:* To test the hypothesis, **Spearman's** test was used to evaluate the relationship between the variables of management skills and organizational development. The significance level used was 0.05.

Ethical Considerations

The ethical principles of confidentiality and informed consent were respected in this research. All data were collected anonymously and the privacy of the participants was guaranteed at all times. In addition, any type of coercion was avoided to ensure that participation was voluntary (Cubo Martín & Ramos, 2011).

Results

The results obtained from the surveys and the statistical analysis are presented below, organized according to the **Specific Objectives (SO)** set out in the study. For the analysis of correlations, **Spearman's Rho** test was used to evaluate the relationship between the ordinal variables studied.

SO1: Determine The Relationship Between Management Skills And Organizational Planning In The Regional Directorate Of Transportation And Communications Of The Amazon Region In 2021.

Level	Management Leadership (%)	Organizational Planning (%)
High	41.7	33.3
Medium	38.9	41.7
Under	19.4	25.0
Correlation	Rho = 0.294	p = 0,012

Data collected on organizational planning show that:

- **41.7%** of the respondents rated the level of planning in the organization as high, while **58.3%** rated it as fair or low.
- When correlating managerial skills with planning, a **trade-off coefficient of Rho = 0.294** with a **significance level of 0.012** was obtained. This indicates a **low but significant positive evaluation** between managerial skills and organizational planning.

Interpretation: The low positive rating suggests that managers with better leadership, communication, and decision-making skills tend to facilitate more effective planning, although this effect is moderate. It is concluded that while there is a relationship, other factors may also be influencing planning.

SO2: Determine The Relationship Between Management Skills And The Organization Of Resources And Activities In The Regional Directorate Of Transportation And Communications Of The Amazon Region In 2021.

Level of Organization of Resources and Activities (%)	Employee Evaluation (%)
High	33.3
Regular or Low	66,7
Total	100

Relationship Between Management Skills And Resources Organization
Correlation Coefficient (Spearman's Rho) = 0.240
Significance Level (P) = 0.042

The results on the organization of resources and indicate activities that:

- A **total of 33.3%** of the employees rated the level of organization of resources in the entity as high, while **66.7%** perceived it as fair or low.
- The evaluation analysis between management skills and organization yielded **an evaluation coefficient of Rho = 0.240** with a **significance level of 0.042**. This reflects a **low positive evaluation** between these variables.

Interpretation: Although the relationship is positive, the low magnitude of compensation indicates that managerial skills only marginally influence the organization of resources. Other factors internal or external to the organization could be affecting organizational efficiency.

SO3: Determine The Relationship Between Management Skills And Efficiency In The Execution Of Activities In The Regional Directorate Of Transportation And Communications Of The Amazon Region In 2021.

Level	Decision making (%)	Efficiency in Internal Processes (%)
High	60.0	44.4
Medium	25.0	34.7
Under	15.0	20.8
Correlation	Rho = 0.296	p = 0,012

In terms of efficiency in the execution of activities:

- The level of efficiency in the execution of activities was rated as high by **44.4%** of those surveyed, while the remaining **55.6%** rated it as fair or low.
- The rating coefficient between managerial skills and efficiency was **Rho = 0.296** with a **significance level of 0.012**, indicating a **low positive rating** between both variables.

Interpretation: Managers with higher managerial skills achieve slightly more efficient activity execution, although the impact of these skills remains modest. How other variables, such as resource availability or organizational context, affect efficiency could be explored.

SO4: Determine The Relationship Between Management Skills And Leadership Of Employees In The Regional Directorate Of Transport And Communications Of The Amazon Region In 2021.

Level	Management Communication (%)	Team Management/Coordination (%)
High	50.0	43.1
Media and communications	30.6	33.3
Download	19.4	23.6
Correlation	Rho = 0.281	p = 0,017

Data on managerial leadership skills show that:

- **43.1%** of respondents rated employee leadership as high, while **56.9%** rated it as fair or low.
- The score between managerial skills and leadership yielded a **coefficient of Rho = 0.281** with a **significance level of 0.017**, reflecting a **low positive trade-off**.

Interpretation: Although the relationship between management skills and the ability to lead is positive, the low magnitude of the recommendation suggests that management skills have a limited impact on employee leadership. To improve leadership, other aspects such as organizational culture and training should be considered.

SO5: Analyze The Relationship Between Management Skills and Organizational Development in the Regional Directorate of Transportation and Communications of The Amazon Region In 2021.

Level	Management Motivation (%)	Employee engagement (%)
High	55.6	44.4
Media and communications	30.6	38.9
Download	13.9	16.7
Correlation	Rho = 0.300	p = 0,01

In general terms, the overall relationship between management skills and organizational development was evaluated:

- A high level of organizational development is perceived by **29.2%** of respondents, while the remaining **70.8%** rate it as fair or low.
- The overall ranking between management skills and organizational development was **Rho = 0.300** with a **significance level of 0.01**, indicating a **moderate positive ranking**.

Interpretation: The results suggest that managerial skills play a moderately significant role in organizational development. Managers who possess greater competencies in leadership, decision making, communication and motivation contribute more effectively to organizational growth and continuous improvement.

Conclusion of Results

The results of the study show that there is a positive relationship between **managerial skills** and the different dimensions of **organizational development**. However, the magnitude of the correlations found is mostly low, indicating that, although managerial skills are important, other factors also influence organizational effectiveness. The overall rating between the two variables is **moderate**, suggesting that the strengthening of managerial skills can contribute to organizational development, but is not the only determining factor.

Discussion

The results obtained in this study reveal a significant, although mostly **low positive** relationship between managerial skills and the different dimensions of organizational research development in the Regional Directorate of Transport and Communications of the Amazon Region in 2021. These findings suggest that managers' competencies in leadership, decision making, communication, and motivation influence, albeit moderately, organizational efficiency and growth. The results are discussed below in relation to each of the specific objectives and the available literature.

Management Skills and Organizational Planning

The low positive score between **managerial skills** and **organizational planning** (Rho = 0.294) indicates that, although managers with better skills tend to facilitate more effective planning, there are other factors that limit effectiveness in this dimension. This coincides with Whetten and Cameron (2011), who state that decision making and planning do not depend solely on the individual skills of managers, but also on the organizational structure and clarity in institutional objectives.

Furthermore, according to French and Bell (2001), effective planning requires not only leadership and technical skills, but also an adequate alignment of resources, something that does not seem to be fully present in the Regional Directorate of Transportation and Communications. It is possible that lack of resources or lack of clarity in the long-term vision is limiting the impact of management skills in planning.

Management Skills and Resource Organization

The coefficient of **Rho = 0.240** between managerial skills and organization suggests a low positive relationship, implying that managerial competencies influence, but in a limited way, the organization of resources and activities. This finding is consistent with previous studies suggesting that effective organization depends not only on the leader's skills, but also on structural factors and the availability of adequate tools and technology (Puchol, 2010).

The low rating may be due to the lack of clear processes and robust organizational structures that allow managers to use their skills to organize resources more efficiently. According to Madrigal (2011), effective organization also depends on an organizational culture that fosters collaboration and integration among teams, which could be an area of opportunity in the entity studied.

Management Skills and Efficiency in the Execution of Activities.

The low positive score between managerial skills and **efficiency in the execution of activities** (Rho = 0.296) suggests that, although managers' skills have an impact on efficiency, it is not strong enough. This finding reinforces Liu et al. (2012), who state that the transformation of an organization, especially in terms of efficiency, depends on multiple factors, including internal processes, continuous training, and flexibility to adapt to changes.

A similar study by Callata (2017) found that improving organizational efficiency requires not only well-developed managerial skills, but also a favorable working environment and the elimination of operational bottlenecks. In this case, the Regional Directorate of Transport and Communications could benefit from an internal assessment of its processes to optimize the execution of activities.

Management Skills and Employee Leadership

The low but significant positive rating (Rho = 0.281) between managerial skills and **employee leadership** underscores that while managers with leadership and decision-making skills achieve better team leadership, other factors limit their impact. These results are consistent with Bordia et al. (2004), who indicate that during organizational change processes, lack of clarity of goals and uncertainty can reduce the effectiveness of leadership.

In addition, leadership capability is also influenced by organizational culture, feedback systems, and employee participation in decision making, which was not directly addressed in this study, but which Xu et al. (2016) argue are key elements for improving leadership within organizations.

Management Skills and Organizational Development

The **moderate positive rating** (Rho = 0.300) between managerial skills and organizational development indicates that managerial competencies play an important role in continuous organizational improvement, although they are not the only determining factor. These findings reinforce the theory of **French and Bell (2001)**, who posit that organizational development depends on a combination of effective leadership, well-structured processes, and a culture of innovation.

The fact that promotion is moderate suggests that managers with strong skills in leadership, communication and motivation have a more significant impact on the organization, contributing to its long-term growth and sustainability. However, as mentioned in previous studies (Huatuco, 2017), organizational development is also conditioned by external factors, such as public policy and resource availability.

Practical Implications

The results of this study suggest several practical implications for the Regional Directorate of Transportation and Communications. First, it is essential to continue strengthening management skills through continuous training programs, focusing not only on technical skills, but also on leadership, motivation, and change management. In addition, the organization must improve its internal processes, eliminate bottlenecks and ensure the availability of the necessary resources so that managers' skills can have a more significant impact on efficiency and organizational development.

Finally, it would be advisable to encourage greater collaboration between the different teams and departments of the organization, promoting an organizational culture that favors integration and teamwork, which could improve the effectiveness of the planning and organizational processes.

Conclusions

The present study has made it possible to analyze the relationship between **managerial skills** and **organizational development** in the Regional Directorate of Transport and Communications of the Amazon Region in the year 2021. From the results obtained, the following conclusions can be drawn:

- *Relationship Between Managerial Skills And Organizational Planning:* A low but significant positive valuation was found between managerial skills and organizational planning ($Rho = 0.294, p < 0.05$). This suggests that managers with higher competencies in leadership, communication and decision making facilitate better planning within the organization. However, the impact is moderate, indicating that other factors such as clarity of organizational objectives and availability of resources also play a key role in planning.
- *Relationship Between Managerial Skills and Organization Of Resources:* The relationship between managerial skills and the organization of resources and activities shows a low positive ranking ($Rho = 0.240, p < 0.05$). This implies that, although managers with developed skills influence the organization of resources, this effect is limited. Additional factors such as organizational structure and internal processes seem to significantly affect resource allocation efficiency.
- *Relationship Between Managerial Skills And Efficiency In The Execution Of Activities:* There is a low positive rating between managerial skills and activity execution efficiency ($Rho = 0.296, p < 0.05$). Managers with higher skills achieve more efficient activity execution, although other factors, such as technology and continuous training, could be limiting a more substantial improvement in operational efficiency.
- *Relationship Between Managerial Skills And Employee Leadership:* The relationship between managerial skills and employee leadership ability was positive but low ($Rho = 0.281, p < 0.05$). This indicates that leadership and decision-making skills have a limited impact on the management of the work team. Other factors, such as organizational culture, level of employee involvement and constant feedback, need to be considered to improve employee leadership.
- *Relationship Between Managerial Skills And Organizational Development:* The overall assessment between managerial skills and organizational development was moderate ($Rho = 0.300, p < 0.05$), indicating that further development of managerial competencies can contribute significantly to organizational growth and continuous improvement. However, organizational development does not depend solely on the individual skills of managers, but also on other structural elements such as innovation, organizational culture and public policies.

Practical Implications

The results of this study suggest the need to implement **continuous training programs** for managers of the Regional Directorate of Transportation and Communications, focusing not only on technical competencies, but also on leadership skills, strategic decision making, and staff motivation. In addition, it would be beneficial to strengthen the **organizational culture** and improve **internal processes** so that management skills can have a more significant impact on organizational development.

It is also recommended that the **resource management** and **strategic planning** systems be reviewed and improved, incorporating mechanisms that allow for greater efficiency in the distribution of resources and more effective planning.

Lines of Future Research

Given that the correlations found were mostly low, future studies could explore other factors that impact organizational development, such as **technology** and **innovation**, or analyze the **work climate** and its influence on employee efficiency and performance. It would also be pertinent to extend the study to other public entities to validate the findings in different organizational contexts.

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