

RESEARCH ARTICLE

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# EXPLORING THE ROLE OF LEADERSHIP AND ORGANIZATIONAL CULTURE IN ENHANCING PUBLIC SECTOR INNOVATION IN MEDAN: AN SEM-PLS STUDY

Kepler Sinaga

HKBP Nommensen University, Indonesia

Email: - kepler.sinaga@uhn.ac.id

## Abstract

The purpose of this study is to find out and analyze the extent to which leadership variables and organizational culture affect the quality of public sector services through increasing public sector innovation as an intervening variable. The subject of this study is the population of Medan City, where the variables in this study are independent variables, namely leadership and organizational culture, dependent variables, namely public sector service quality variables, and intervening variables are variables that increase public sector innovation. The results of data analysis were carried out by SEM analysis using SMART PLS 4.0 software. The data collection technique is by observation and documentation studies. The research method uses a quantitative descriptive method of data analysis using the structural equation model (SEM) method, where the results of data processing using the SEM method are carried out with the PLS 4.0 application. From the results of the study, the existing conclusion is that partially, leadership variables and organizational culture affect the quality of public sector services and affect the improvement of public sector innovation. Simultaneously, leadership and organizational culture affect the quality of public sector services through the variable of increasing public sector innovation as an intervening variable. The more leadership serves, the more innovation will grow in public sector services which will eventually change the organizational culture that tends to be flexible and serve which makes the quality of public sector services improve its performance.

**Keywords** Leadership, organizational culture, creativity, quality of public-sector services, improvement, innovation.

## INTRODUCTION

Public sector service millets are one of the efforts that must be made by the Government, where the public sector needs service improvements and changes in creating a paradigm that is in accordance with what is expected, where this public sector service can increase community participation and can create a breakthrough if there is a mistake and deep error from the services provided (Alshahrani, Albandari, Dennehy, Denis and Mäntymäki, 2021). Public sector services refer to various services provided by the government or

public bodies to meet the needs of the community and promote public welfare. These services cover a wide range of fields, such as education, health, transportation, security, and public administration (Colovic, 2022).

These public sector services include services provided through the making of ID cards, KK and documents related to population administration, public transportation services for transportation, services for security carried out by security apparatus, health services by medical personnel

and doctors, and educational services carried out by government apparatus in the education office (Pólvara, Alexandre and Nascimento, 2021).

To implement maximum public sector services, there must be exemplary leadership, as well as an organizational culture that supports services, where these two factors will provide something good to increase public sector innovation related to services in order to improve the quality of qualified services (Keränen, Anne, 2023).

Good leadership must be leadership that is willing to serve, who is able to guide the apparatus, and who is able to organize and create something new that is able to make the service carried out well without any effort to hinder the service and prolong the service (Alnuaimi, Bader K., Singh, Sanjay Kumar and Harney, 2021). Serving leadership can create innovations that can be taken to create a form of service that serves the community, where the creation of innovations is carried out in order to create the quality of public sector services (Cortés-Denia, Daniel, 2023).

Leadership in the public sector has unique characteristics and challenges that are different from those in the private sector. Effective leadership in the public sector is key to ensuring efficient, responsive, and public-interest-oriented services. Public sector leaders must have a strong commitment to serving society and advancing public welfare (Clean, Erstu Tarko and Ning, 2023).

Serving leaders can manage limited resources while having to meet the needs of a growing society. Serving leaders can maintain good relationships with the public and ensure community participation in the decision-making process. Leaders who serve are able to formulate a long-term vision and design strategies to achieve it, so that innovation is needed on how to serve the community well through the creation of a culture of service and adjusted to the leader's strategy, so as to produce a form of quality service (by Adro, Francisco José Nave and Leitão, 2020).

Serving leadership can regulate the work in an institution, where leadership will have an impact on changing the culture or work culture in the

organization of an agency, where changes in the culture and work culture in a government institution can occur due to the vision carried out by the leader to change work procedures and change the thinking mindset of the government apparatus in order to create existing innovation and creativity, so that it can improve regular and targeted services and keep the quality of service maintained (Klein, 2023).

Leaders who serve and protect effectively communicate with various stakeholders, including the community, employees, and policymakers, where the effectiveness of the existing communication process can create innovative alternative solutions on how this maximum service must actually be organized and carried out properly to improve the quality of good service (Dosi, Giovanni, 2023).

Serving leaders have the ability to analyze complex problems and find innovative and practical solutions. Leaders also strive to simplify procedures and increase transparency in public administration through creative and innovative policies in order to create a form of service that provides a reality that the institution can serve customers wholeheartedly (Sergio, Ivan, Iandolo & and Ferragina, 2023).

Leaders who serve have the ability to be creative and innovative in integrating sustainability principles in the planning and implementation of public policies, where innovations that emerge from public sector services start from planning and also implementing policies in the field, where this will make the services to be implemented will increase in quality and capacity, where with an increase in quality and qualified capacity services will create fast service and different from other agencies, because it has a culture of serving the community quickly (Ravi Shankar, J., 2023).

Leaders who serve always create an environment that supports innovation and creativity in public service. Increasing innovation in creating a culture of service will create a form of service that has good quality and always prioritizes the community, where leaders must be willing to listen to public

complaints about public sector service efforts that have not been maximized (Vasalo, Jarrod P., 2023).

The maximum effort of this innovative service will be able to create significant changes in the organizational structure, way of working, procedures, and procedures of the leadership in dealing with the apparatus under it, as well as the procedures of the leadership in dealing with public complaints, as well as the procedures of the leadership in dealing with the community and the procedures of the apparatus in dealing with the community, all of which will create their own innovations by modifying existing services, thus changing all existing organizational cultures (Pedraza-Rodríguez, José A., 2023).

Changes in the culture of ekra are very important to change the thinking of the apparatus below to always work to serve the community well and quickly, and not delay the length of service provided, so that the quality of service is maintained and can lead to innovation in the form of communication between the apparatus and the community and between the leadership and the community (Lam, Long, 2021).

Medan has a population of 2,494,512 people, where the services provided by the Medan City Government cannot all be carried out properly, because the existing leadership is not able to create a maximum service innovation, and even tends to still apply the old style of serving, so that it has an impact on the unchanging work culture and the process of creating innovations that tend to be less than optimal which makes the quality of services provided to the community less than optimal and has an impact on a decrease in public trust in the Medan City Government

## **LITERATURE REVIEW**

### **Leadership**

Leadership in the public sector has unique characteristics and challenges that are different from those in the private sector. Effective leadership in the public sector is key to ensuring efficient, responsive, and public-interest oriented services (Malibari, Mashaal Abdul Aziz Adan

Bajaba, 2016). Strong and visionary leadership in the public sector is essential to address the challenges faced and to improve the quality of services provided to society (Yang, Mingjun, Luu, Tuan Trong and Qian, 2021). Leadership indicators are:

1. Spurring enthusiasm to serve the community
2. Improves the ability to motivate subordinates
3. Increase commitment to serve
4. Increase maximum efforts to serve the community (Jabber, Mohammad Abdul, Sakib, Md Nazmus and Rahman, 2023)

### **Organizational Culture**

Organizational culture is a collection of values, norms, beliefs, and practices that shape the way members work and interact in an organization. This culture reflects the identity of the organization and influences the behavior and performance of all its members (Alalawamleh, Mohammad, 2023). A strong and positive organizational culture can be a significant competitive advantage, helping the organization to attract and retain talent, as well as achieve its strategic goals (Jaboob, Mohammed, Salim Ba Awain, Ali Mohsin and Al-Ansi, 2023).

The indicators of organization culture are:

1. Leadership and management
2. Work environment
3. Innovation and creativity
4. Community satisfaction
5. Coordination (Damn, Muhammad Adnan, 2023)

### **Quality of Public Sector Services**

The quality of public sector services is a measure of how well the services provided by government agencies meet the needs and expectations of the community (Zada, Muhammad, 2023). This quality is very important to ensure public trust and satisfaction, as well as to improve the effectiveness and efficiency of public services (Naqshbandi, M.

Muzamil and Tabche, 2018). Indicators of the quality of public sector services are:

1. Efficiency
2. Effectiveness
3. Reliability
4. Accountability
5. Innovation (Khan, Naseer Abbas and Khan, 2019)

### **Increasing Public Sector Innovation**

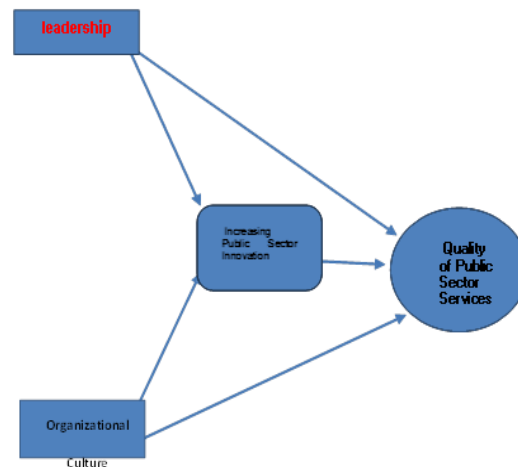
Increased innovation in the public sector is essential to meet modern challenges, improve efficiency, and provide better services to society. Innovation in the public sector can cover a wide range of aspects, from the application of new technologies to the reform of work processes and policies (Lemphers, Nathan, 2022). Increasing innovation in the public sector requires

commitment and cooperation from various stakeholders, including the government, the private sector, and the community. By implementing the right strategies and fostering a culture of innovation, the public sector can become more responsive, efficient, and effective in meeting the needs and expectations of society (Zhang, Qiang and Ma, 2021). The indicators of increasing public sector innovation:

1. Public engagement
2. User satisfaction (society)
3. User feedback
4. Performance or results (Agarwal, Renu, 2021).

### **CONCEPTUAL FRAMEWORK**

The conceptual framework of the research is:



**Figure 1 Conceptual Framework**

### **Hypothesis**

1. Leadership has an effect on the quality of public sector services in Medan City
2. Organizational culture affects the quality of public sector services in Medan City
3. Leadership has an effect on increasing public sector innovation
4. Work culture affects the improvement of public sector innovation
5. Increasing public sector innovation affects the quality of public sector services in Medan City
6. Leadership has an effect on the quality of public sector services in the city of Medan through increasing public sector innovation as an intervening variable
5. Organizational culture affects the quality of

public sector services in Medan City through increasing public sector innovation as an intervening variable

**RESEARCH METHODS**

This research method was carried out using a quantitative descriptive method using method analysis Structural Equation Model (SEM), where according to (Triguero-Sánchez, Rafael, Peña-Vinces, Jesús and Ferreira, 2022) SEM analysis is a data analysis method intended to create change through the influence between existing construction variables. The population in this study is 2,494,512 residents of Medan City in 2023, where the sampling method is carried out using the accidental sampling, which according to (Triguero-

Sánchez, Rafael, Peña-Vinces, Jesús and Ferreira, 2022) sampling method using accidental sampling is a sampling method that is adjusted through data obtained from the research site.

The number of samples taken can be done using the slovin formula as follows:

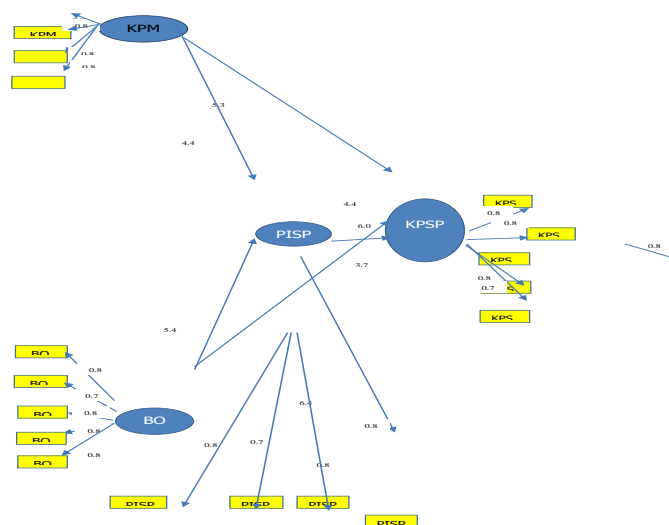
$$n = N / ( 1 + Ne^2 ) = 2,494,512 / ( 1 + 2,494,512 \times 0.1^2 ) = 99.99 = 100$$

people of Medan City consume renewable energy products.

**RESEARCH AND DISCUSSION**

**RESEARCH RESULTS**

The output of the SEM test can be described through the following Bootstrapping diagram:



**Figure 2 Bootstrapping Diagram**

**Convergent Validity Analysis**

(Triguero-Sánchez, Rafael, Peña-Vinces, Jesús and Ferreira, 2022) states that the analysis convergent

validity It is wrong to describe how valid the data is when this research process is available. The test results convergent validity In this study, it is as follows:

**Table 1 Convergent Validity Test**

Variable	Indicator	Outer Loading
Leadership (X1)	MOE 1	0,858
	MOE 2	0,878

	MOE 3	0,868
	MOE 4	0,801
Organizational Culture (X2)	SET 1	0,886
	SET 2	0,775
	SET 3	0,837
	GROUP 4	0,873
	GROUP 5	0,865
Quality of Public Sector Services (Y)	KPSP 1	0,843
	KPSP 2	0,853
	KPSP 3	0,873
	KPSP 4	0,860
	KPSP 5	0,755
Increasing Public Sector Innovation (Z)	PISP 1	0,882
	PISP 2	0,769
	PISP 3	0,824
	PISP 4	0,835

**Source : Results of Data Processing with PLS 3.0, 2024**

The table above states that the data of each variable has met the elements of validity and is suitable for data processing.

**Analysis of Average Variant Extracted (AVE)**

(Triguero-Sánchez, Rafael, Peña-Vinces, Jesús and

Ferreira, 2022) stated that the AVE test is one of the tests aimed at finding out that it is suitable and suitable for data processing (it is valid). The test results Average Variant Extracted (AVE) is in the following table:

**Table 2 AVE Test**

Variable	AVE
Leadership (X1)	0,835
Organizational Culture (X2)	0,875
Quality of Public Sector Services (Y)	0,845
Increasing Public Sector Innovation (Z)	0,855

**Source : Data Processing Results with PLS 4.0, 2024**

The table above describes the Average Variant Extracted (AVE) value greater than 0.5 which means that the data distribution can be said to be suitable and suitable for data processing.

According to (Triguero-Sánchez, Rafael, Peña-Vinces, Jesús and Ferreira, 2022) Testing Composite Reliability It is an analysis to explain whether the existing data is reliable or suitable for processing existing data. This can be seen in the following table:

**Composite Reliability Analysis**

**Table 3 Composite Reliability Test**

Variable	AVE
Leadership (X1)	0,835
Organizational Culture (X2)	0,875
Quality of Public Sector Services (Y)	0,845
Increasing Public Sector Innovation (Z)	0,855

**Source : Data Processing Results with PLS 4.0, 2024**

The table above states that the composite reliability value is greater than 0.6, where the existing data can be said to be good and suitable for data processing.

equation modeling (SEM), the validity analysis of discrimination is how much the relationship between variables occurs comprehensively (Triguero-Sánchez, Rafael, Peña-Vinces, Jesús and Ferreira, 2022). The results of the analysis Discriminant Validity can be seen in Table 5 below:

**Discriminant Validity Analysis**

In confirmatory factor analysis (CFA) or structural

**Table 5 Discriminant Validity Analysis**

	Quality of Public Sector Services Moderating Effect 1	Quality of Public Sector Services Moderating Effect 2	Quality of Public Sector Services Moderating Effect 3	Quality of Public Sector Services Moderating Effect 4
Leadership	.755	1.000	.755	.625
Organizational Culture	.665	.734	1.000	.725
Quality of Public Sector Services	.755	.784	.835	1.000
Increasing Public Sector Innovation	1.000	.746	.665	.634

**Source: PLS Data Processing Results, 2023**

Based on the table above, it can be seen that the value is in the category of discriminant validity.

As for the path coefficient test, it can be found through the following table:

**Path Coefficient Testing**

**Table 6 R Square Test**

Variable	R Square
Leadership (X1)	0,886
Organizational Culture (X2)	0,855
Quality of Public Sector Services (Y)	0,867
Increasing Public Sector Innovation (Z)	0,851

**Source : Data Processing Results With PLS 3.0, 2023**

The R Square value of the public sector service quality variable can be explained by the variables of leadership, organizational culture and the increase in public sector innovation by 86.7%, while the remaining 13.3% can be explained by

other variables that are not listed in the study.

**Hypothesis Test**

The results of hypothesis testing can be seen through the following table:

**Table 7 Hypothesis Test**

Hypothesis	Influence	T-Statistics	P-Value	Result
H1	Leadership in the quality of public sector services	5,362	0,000	Accepted
H2	Information organization culture on the quality of public sector services	6,425	0,000	Accepted
H3	Leadership towards the quality of improving public sector innovation	4,245	0,002	Accepted
H4	Work culture towards initiatives to increase public sector innovation	5,431	0,000	Accepted
H5	Increasing public sector innovation towards the quality of public sector services	6,022	0,001	Accepted
H9	Leadership in the quality of public sector services through increasing public sector innovation as an intervening	4,434	0,002	Accepted



	variable			
H10	Organizational culture on the quality of public sector services through increasing public sector innovation as an intervening variable	3,716	0,000	Accepted

**Source : Data Processing Results With PLS 3.0, 2023**

According to the table above, partially, leadership variables and organizational culture affect the quality of public sector services and affect the improvement of public sector innovation. Simultaneously, leadership and organizational culture affect the quality of public sector services through the variable of increasing public sector innovation as an intervening variable.

**DISCUSSION**

**Leadership Affects the Quality of Public Sector Services**

The results of the study stated that Leadership affecting the quality of public sector services. This is in accordance with research (Maqdliyan, Rohana and Setiawan, 2024) which states that good leadership will always create good service to its citizens and will create the quality of public sector services to satisfy its citizens to use the services that have been provided by the existing leaders.

**Organizational Culture Affects the Quality of Public Sector Services**

According to the results of the existing research Organizational Culture affecting the quality of public sector services. This is in accordance with research (Larios-francia, Rosa Patricia and Ferasso, 2023) who stated that the more civilized and able to follow the direction of the leadership to serve the community, the more the quality of the service provided by the leadership will be improved.

**Leadership Affects the Increase in Public Sector Innovation**

According to the results of the existing research Leadership affecting the increase in public sector innovation. This is in accordance with research (Bhutto, Sana Arz, Jamal & and Ullah, 2023) which

states that leadership that is able to serve will tend to create innovations for public sector services in order to improve institutional performance so that it is known and demanded by the public.

**Organizational Culture Affects Increasing Public Sector Innovation**

According to the results of existing research, organizational culture variables have an effect on increasing public sector innovation. This is in line with research (Stremersch, Stefan, 2022) which states that organizational culture will influence the emergence of innovation on work in the institution to always serve well.

**Increasing Public Sector Innovation Affects the Quality of Public Sector Services**

The results of the study stated that the increase in public sector innovation has an effect on the quality of public sector services. This is in accordance with research (Sarwar, Uzma, 2023) which explains that the more creative innovations in serving, the more it will create the quality of public sector services and will be more in demand by the public to always use the public external services.

**Leadership Affects the Quality of Public Sector Services through Increasing Public Sector Innovation as an Intervening Variable**

The results of the study explain that the variable Leadership affect the quality of public sector services through increasing public sector innovation as an intervening variable. This is in accordance with research (Damn, Muhammad Adnan, 2023) who explained that the better the existing leadership, the more he will always make comprehensive innovations to the performance of public sector services, so that it will contribute to improving the quality of public sector services

owned by institutions, so that it will increase the performance of existing leaders and institutions.

### **Organizational Culture Affects the Quality of Public Sector Services through Increasing Public Sector Innovation as an Intervening Variable**

The results of the study explain that the variable Organizational Culture affect the quality of public sector services through increasing public sector innovation as an intervening variable. This is in accordance with research (Bastidas, Viviana, 2023) which states that the better and serves the organizational culture in carrying out its work, the better the innovation of public sector services in a region and will improve the quality of services owned

### **IMPLEMENTATION**

The more leadership serves, the more innovation will grow in public sector services which will eventually change the organizational culture that tends to be flexible and serve which makes the quality of public sector services improve its performance.

### **CONCLUSION**

From the results of the study, the existing conclusion is that partially, leadership variables and organizational culture affect the quality of public sector services and affect the improvement of public sector innovation. Simultaneously, leadership and organizational culture affect the quality of public sector services through the variable of increasing public sector innovation as an intervening variable.

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