

# THE EFFECT OF DIGITAL TRANSFORMATION ON ORGANIZATIONAL PERFORMANCE WITH INNOVATION AS A MEDIATION VARIABLE AT HERMINA PEKALONGAN HOSPITAL

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## Abstract

The primary objective of this research is to examine the impact of digital transformation on the performance of Hermina Pekalongan Hospital, while considering innovation as a mediating variable. Digital transformation refers to the application of advanced digital technology across all facets of an organization, leading to substantial changes in operational methods, interactions, and customer service delivery. The participants in this study consist of the staff members at Hermina Pekalongan Hospital. To analyze the data, this research employs simple regression analysis along with interaction tests, also known as Moderated Regression Analysis (MRA). The data collection process involves the utilization of a questionnaire. The findings of this research demonstrate that digital transformation exerts a positive and noteworthy influence on organizational performance.

**Keywords:** Digital transformation, Innovation, Organizational Performance

## INTRODUCTION

In this ever-evolving era, digital transformation has become an important factor in improving organizational performance in various sectors, including in the health sector. Hermina Pekalongan Hospital as one of the hospitals operating in the digital era also faces challenges and opportunities in adopting digital transformation to improve its performance. Digital transformation is the use of digital technology that is innovative and integrated in all aspects of the organization to produce significant changes in the way organizations operate, interact and provide services to customers.(Kurniawan et al., 2021). Implementing digital transformation in hospitals can involve more efficient use of information systems, digital technology, data analytics, and communications.

One important factor that can mediate the effect of digital transformation on organizational performance is innovation (Ridwan & Musjid, 2019). Innovation in the hospital context can include developing medical technology, using sophisticated

information management systems, developing new service models, and updating business processes. This innovation can help hospitals improve efficiency, service quality, and patient satisfaction.

Hermina Pekalongan Hospital, as one of the hospitals in the digital era, needs to recognize the importance of digital transformation and innovation to improve its performance. In this context, this study aims to investigate the effect of digital transformation on the performance of Hermina Pekalongan Hospital, with innovation as a mediating variable. Through this research, it is hoped that the relationship between digital transformation, innovation, and organizational performance at Hermina Pekalongan Hospital will be revealed. The results of this study can provide valuable insights for hospitals and hospital management in adopting digital transformation and utilizing innovation to improve performance and competitiveness in the digital era.

This study will use quantitative research methods and collect data through questionnaires distributed to hospital staff and patients at Hermina Pekalongan Hospital. The collected data will be analyzed using appropriate statistical analysis techniques to test the research hypothesis. It is hoped that this research will make a positive contribution to the understanding of the effects of digital transformation and innovation on organizational performance, especially in the context of hospitals.

## LITERATURE REVIEW

### *Digital Transformation*

Digital transformation is a concept explained by various experts with variations, but generally refers to the use of digital technology and innovation to fundamentally change the way an organization operates, interacts with customers, and creates added value. According to (Zhai et al., 2022) digital transformation is the use of technology to improve the way businesses and services operate to be more effective. Meanwhile according to (Berman & Bell, 2018). Digital transformation is the process by which organizations adopt digital technologies to create new value for customers, change internal ways of working, and build the capabilities needed to compete in the digital age. This involves using digital technologies such as data analytics, artificial intelligence, cloud computing and other related technologies to create innovations, improve operational efficiency and transform business models. What emerges is that digital transformation involves using digital technology and innovation to transform the organization as a whole to become more adaptive, efficient, innovative and customer-oriented in the digital age. Indicators that can be used to measure the progress and success of an organization's digital transformation are technological maturity, digital culture.

### *Organizational Performance*

Organizational performance is the ability of the organization to achieve the desired results through the use of resources effectively and efficiently, organizational performance is focused on the capabilities and capabilities of the organization to efficiently utilize available resources to achieve achievements that are consistent with the goals set (Ardito et al., 2021). In research (Ridwan & Mus'id, 2019) conducted a literature review on the factors that influence organizational performance in the context of public sector organizations. They analyze the influence of factors such as leadership, organizational culture, and performance management on the performance of public sector organizations. Measurement of organizational performance can be carried out using various methods and indicators that are in accordance with the goals and context of the organization. Organizational performance indicators generally cover financial, operational and strategic aspects, such as income levels, operational efficiency, customer satisfaction levels, market share, and so on.

### *Innovation*

Innovation is the development or implementation of new products, services or processes that significantly increase value for customers or users, or provide the same value at a lower or more effective cost (Falakhussyaifusoni et al., 2022). Innovation as the introduction, development or application of something new and valuable in a business, production or organizational context. Innovation can involve changes in products, services, processes, methods or business models that result in added value, competitive advantage or improvements in efficiency or effectiveness. The result of an introduction of a new way of innovation has a very large impact on comparing the use value test of the benefits of a product produced by the company and the price set by the manufacturer. Indicators that influence

product innovation are product quality, product variants, product style and design (Mamengko et al., 2023).

### ***The Effect of Digital Transformation on Organizational Performance***

Digital transformation has a significant influence on organizational performance. Some of the effects of digital transformation on organizational performance are: Increasing Operational Efficiency, Increasing Productivity, Increasing Innovation, Increasing Speed of Response and Adaptability, Increasing Customer Experience, and Increasing Competitiveness. In line with research (Kurniawan et al., 2021) and research (Mayasari, 2023), states that digital transformation has a positive and significant effect on organizational performance.

H1: Digital transformation has a positive effect on organizational performance

### ***Innovation Mediates The Effect of Digital Transformation on Organizational Performance***

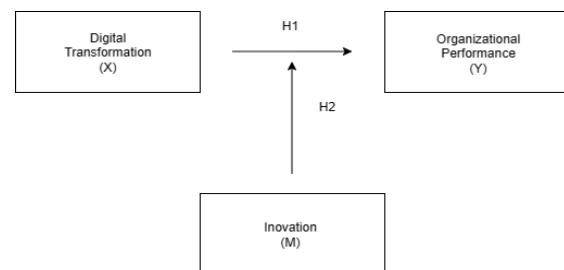
Innovation can serve as a mediating variable between digital transformation and organizational performance. Digital transformation can provide the technology foundation and tools needed to drive innovation within organizations. With digital transformation, organizations can take advantage of new and sophisticated technologies to generate innovative ideas, develop new products or services, and improve business processes.

When digital transformation succeeds in driving innovation, this innovation can have a positive impact on organizational performance. Innovation can help organizations create added value, differentiate themselves from competitors, increase customer satisfaction, and improve operational efficiency. In other words, innovation can become a bridge that connects digital transformation with better organizational performance results. In line with research (Chen & Kim, 2023), states that the innovation variable can mediate the

influence of digital transformation on organizational performance.

H2: Innovation has a positive effect on the relationship between digital transformation and organizational performance.

**Figure 1: Research Model**



## **METHOD**

The type of research used in this research is quantitative. This study aims to determine the effect between digital transformation and organizational performance and the influence of innovation on the relationship between digital transformation and organizational performance. This research uses simple regression analysis and interaction test or Moderated Regression Analysis (MRA). Respondents in this study were 65 staff working at the Pekalongan Hermina Hospital.

## **RESULTS AND DISCUSSION**

### **Processing and Analysis of Data**

#### **Gender**

	frequency	percent	Valid Percent	Cumulative Percent
Valid Man	27	41.5	41.5	41.5
Woman	38	58.5	58.5	100.0
Total	65	100.0	100.0	

#### **Age**

	frequency	percent	Valid Percent	Cumulative Percent
Valid Age < 20 years	7	10.8	10.8	10.8
Age 20 - 25 years	19	29.2	29.2	40.0
Age 26 - 30 years	18	27.7	27.7	67.7
Age > 30 years	21	32.3	32.3	100.0
Total	65	100.0	100.0	

	Length of work		Valid Percent	Cumulative Percent
	frequency	percent		
Valid < 1 year working	14	21.5	21.5	21.5
2 - 5 years working	33	50.8	50.8	72.3
> 5 years working	18	27.7	27.7	100.0
Total	65	100.0	100.0	

Source: Primary data processed 2023

Based on the table, it can be seen that female respondents are larger than male, namely 58.5%. The respondents consisted of various age ranges, but the majority of respondents were aged > 25 years. Judging from the table of length of work, most of the respondents have been working in the vulnerable 2-5 years.

## Hypothesis Test Results

### Model 1 Regression Test Results

Model	Coefficients				
	Unstandardized Coefficients	Standardized Coefficients			
	B	std. Error	Betas	t	Sig.
1 (Constant)	10.435	2.116		4.931	.000
TD	.501	.112	.489	4.454	.000

a. Dependent Variable: Organizational Performance  
R<sup>2</sup> 0.408  
R 0.639  
F-value 21.371 (p<0.05)

Source: Primary data processed in 2023

Based on the table, the following equation can be written:

$$KO = 10.435 + 0.501TD$$

A constant value of 10.435 means that if the Digital Transformation variable is zero (0) or fixed, then the organizational performance is 10.435. And Digital Transformation of 0.501 means that every increase of one digital transformation factor will increase organizational performance by 0.501TD. Based on the table, the significance value of the digital transformation variable is 0.000. Because

the significance probability value is < 0.05 so that H1 is supported, it means that the digital transformation variable has a positive effect on organizational performance variables.

Based on the table, it shows that the coefficient of determination for the value of Adjusted R Square (R<sup>2</sup>) is 0.408, this means that 40.8% of organizational performance variables can be explained by digital transformation variables. While the remaining 59.2% is explained by other reasons outside the model. Based on the F test, the calculated F value is 21.371 with a significance level of 0.000 (< 0.05), because the probability is much smaller than 0.05, this regression model is significant and can be used to predict organizational performance through digital transformation.

### Model 2 Regression Test Results

Model	Coefficients				
	Unstandardized Coefficients	Standardized Coefficients			
	B	std. Error	Betas	t	Sig.
1 (Constant)	6.100	13.155		.464	.645
TD	.239	.711	.234	.336	.738
Inv	.482	.834	.371	.578	.565
TD*Inv	.005	.044	.131	.119	.906

Dependent Variable: Organizational Performance  
R<sup>2</sup> 0.239  
R 0.498  
F-value 19.836 (p<0.05)

Source: Primary data processed in 2023

Based on the table, the following equation can be written:

$$KO = 6.100 + 0.239TD + 0.482Inv + 0.005TD*Inv$$

Based on the table, the significance value of the TD\*Inv variable is 0.906. because the probability value is > 0.05 so H2 is not supported, meaning that the TD\*Inv variable (interaction between digital transformation assessment and innovation) has no positive effect on digital transformation assessment variables and organizational performance.

Based on the table shows that the coefficient of determination for the value of Adjusted R Square ( $R^2$ ) is 0.239, this means that only 23.9% of organizational performance variables can be explained by the independent variables of digital transformation, innovation and TD.Inv. While the remaining 76.1% is explained by other reasons outside the model. Based on the F test, the calculated F value is 19.836 with a significance level of 0.000 ( $< 0.05$ ), because the probability is much smaller than 0.05, this regression model is significant and can be used to predict digital transformation of organizational performance through innovation.

## CONCLUSION

The main objective of this study was to determine the effect of digital transformation on organizational performance, as well as to determine the effect of innovation as a moderating variable on the relationship between digital transformation and organizational performance in Pekalongan Hermina Hospital staff. The results of this study indicate that digital transformation has a significant effect on organizational performance. This shows that the digital transformation carried out by Hermina Hospital staff will have an impact on organizational performance in the next period because staff will assess digital transformation as providing convenience in operational efficiency, increasing response speed and others. This study also found that innovation did not affect the relationship between transformation. digital and organizational performance.

The implications and suggestions expected from this research are that this research is expected to provide benefits both theoretically and practically, namely:

### 1. Theoretical advice:

- a. Increasing efficiency: Through digital transformation, Hermina Pekalongan Hospital can adopt technology and information systems that can increase efficiency in

operational processes. For example, the use of electronic data management systems can replace the use of time-consuming physical files and speed up information access, data processing, and coordination between departments.

- b. Improving service quality: With the adoption of digital technology, Hermina Pekalongan Hospital can improve the quality of service to patients. For example, implementing telemedicine or remote medical consultation through digital platforms allows patients to get fast and effective services without having to come to the hospital in person.
- c. Increased innovation: Digital transformation can provide encouragement for Hermina Pekalongan Hospital to innovate in terms of product, service and process development. Technologies such as big data analytics and machine learning can help hospitals identify trends and patterns that can be used to improve decision making and provide better solutions for patients.

### 2. Practical advice:

- a. Reduction of operational costs: By adopting digital transformation, Hermina Pekalongan Hospital can reduce operational costs associated with manual processes, such as document printing, physical storage, or inventory management. In addition, the improved efficiency can reduce unnecessary wastage of resources and costs.
- b. Improving patient accessibility and comfort: Through the implementation of digital transformation, Hermina Pekalongan Hospital can provide better accessibility for patients. For example, the use of online portals or mobile applications allows patients to make appointments, access medical records, or communicate with



medical personnel more easily and quickly.

- c. Better decision making: With the adoption of advanced digital and analytical technologies, Hermina Pekalongan Hospital can collect and analyze data more effectively. This can assist in making better and strategic decisions in managing resources, increasing operational efficiency, and improving the quality of services provided.

In the context of research which concludes that innovation has no effect on the relationship between digital transformation and organizational performance, the practical benefit is that Hermina Pekalongan Hospital can focus on implementing transformation.

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