

## The Relationship between Management Information Systems and Digital Organizational Culture

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### ABSTRACT

This study aims to analyze the relationship between Management Information Systems (MIS) and digital organizational culture in supporting organizational transformation in the digital era. The approach used was quantitative with an associative research design. Data were collected through questionnaires distributed to 80 respondents who were active employees using MIS, using a purposive sampling technique. The research instrument used a Likert scale and had undergone validity and reliability tests. Data analysis was performed using descriptive statistics, Pearson correlation, and simple linear regression with the help of IBM SPSS Statistics software. The results showed that the level of implementation of MIS and digital organizational culture was in the high category. The correlation test showed a strong and significant relationship between MIS and digital organizational culture with a correlation coefficient of 0.68. The results of the regression test showed that MIS had a positive and significant effect on digital organizational culture with a coefficient of determination of 46%. These findings indicate that the success of MIS implementation is not only determined by technological aspects, but also greatly influenced by an organizational culture that is adaptive to digital change. Therefore, organizations need to integrate information system development with the formation of a strong digital culture to improve performance and competitiveness.



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## INTRODUCTION

The rapid development of information technology has encouraged organizations to transform towards a digital-based work environment (Rakovic et al., 2022). (Kudyba, 2020) This transformation is not only related to technology adoption, but also involves changes in the way of thinking, behaving, and interacting within the organization, known as digital organizational culture (Grover et al., 2022). In this

context, Management Information Systems (MIS) play an important role as the backbone in managing data (Gürkan & Çiftçi, 2020), information, and integrated business processes (“Digital Organizational Culture: Contributions to a Definition and Future Challenges,” 2022).

A Management Information System (MIS) is a system designed to provide relevant, accurate, and timely information (Rosadi, 2022) to support managerial decision-making (Torres et al., 2022). With an MIS, organizations can improve operational efficiency, transparency, and their ability to respond to dynamic environmental changes (Rafli, 2024). However, the success of MIS implementation is determined not only by the sophistication of the technology used (Nadia & Nasution, 2024), but also by the readiness of the organizational culture to accept and utilize the technology (Nuragustin & Nasution, 2023).

A digital organizational culture reflects values (Maulana, 2022), norms, and work practices that support the optimal use of digital technology (Handayani et al., 2025). This culture emphasizes collaboration, innovation, openness to change, and high adaptability (Nuriani & Firdaus, 2024). In organizations with a strong digital culture, MIS use will be more effective because it is supported by positive employee attitudes toward technology and change (Solekha et al., 2025).

The relationship between Management Information Systems and digital organizational culture is mutually influential (Tumanggor et al., 2025). On the one hand, MIS can shape and strengthen digital culture by providing a platform that encourages collaboration and transparency (Nurfadilah & Ilham, 2024). On the other hand, a conducive digital organizational culture will accelerate the adoption and optimization of MIS use within the organization (Sari et al., 2024). Therefore, the integration of technological and cultural aspects is key to achieving sustainable digital transformation (Nuriani & Firdaus, 2024).

Based on this background, this study aims to examine the relationship between Management Information Systems and digital organizational culture (Fahmi, 2024), and how both contribute to improving organizational performance and competitiveness in the digital era (Pradana et al., 2022). This research is expected to provide theoretical and practical contributions to the development of MIS implementation strategies that align with digital organizational culture (Agustin, 2025).

## METHOD

This study uses a quantitative approach with an associative research design, aiming to analyze the relationship between Management Information Systems (MIS) and digital organizational culture. This approach was chosen because it can objectively and systematically measure the level of relationship between variables through statistical analysis.

The population in this study was all employees in organizations that have implemented Management Information Systems in their operational activities. The sampling technique used purposive sampling, with respondents being employees who actively use information systems in their daily work. The sample size was determined based on the analysis requirements, with a range of 50–100 respondents to ensure representative data.

The type of data used in this study is primary data obtained through questionnaire distribution. The research instrument was constructed using a five-point Likert scale, ranging from strongly disagree to strongly agree. The Management Information System variable was measured using indicators such as system quality, information quality, and ease of use, while digital organizational culture was measured using indicators of innovation, collaboration, adaptation to technology, and openness to change.

Prior to analysis, the research instruments were tested for validity and reliability using Pearson correlation and Cronbach's alpha. Data that met the criteria for validity and reliability were then analyzed using descriptive and inferential statistical analysis techniques. Pearson correlation analysis was used to test the relationship between variables, while simple linear regression analysis was used to determine the effect of independent variables on the dependent variable.

Data processing was performed using statistical software such as IBM SPSS Statistics. The analysis results were then interpreted to answer the research questions and test the established hypotheses.

With this method, it is hoped that the research can provide an empirical picture of the relationship between Management Information Systems and digital organizational culture accurately and scientifically accountable.

## RESULTS AND DISCUSSION

This study involved 80 respondents who were active employees who used Management Information Systems (MIS) in their daily work activities. Based on the descriptive analysis, the level of MIS implementation was found to be high, with an average score of 4.12. Meanwhile, digital organizational culture was also high, with an average score of 4.05. This indicates that the organization has adequate technological and cultural readiness to support digital transformation.

The results of the correlation test indicate a strong and significant relationship between Management Information Systems and digital organizational culture, with a correlation coefficient ( $r$ ) of 0.68 and a significance value ( $p$ -value)  $<0.05$ . This indicates that the better the implementation of MIS, the stronger the digital organizational culture that is formed.

Furthermore, the results of a simple linear regression analysis indicate that Management Information Systems have a positive and significant effect on digital organizational culture with a regression coefficient value of 0.72 and a significance value of 0.000. The coefficient of determination ( $R^2$ ) value of 0.46 indicates that MIS is able to explain 46% of the variation in digital organizational culture, while the rest is influenced by other factors outside the study.

**Table 1.** Analysis Results

Variables	Mean	Coefficient ( $r/\beta$ )	Sig.	Information
Management Information System	4.12	0.68	0,000	Strong relationship
Digital Organizational Culture	4.05	0.72	0,000	Have a significant impact

Coefficient Determination (R <sup>2</sup> )	of	-	0.46	-	Influence 46%
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The research results show that Management Information Systems play a significant role in shaping and strengthening a digital organizational culture. Effective MIS implementation can improve information accessibility, accelerate communication processes, and encourage collaboration among employees. This aligns with the concept of digital transformation, which emphasizes the integration of technology into all aspects of an organization.

A strong digital organizational culture is characterized by openness to change, adaptability to new technologies, and increased innovation in the workplace. In this study, high digital culture scores indicate that employees not only use technology as a tool but have also incorporated it into their daily work patterns.

The strong relationship between MIS and digital organizational culture also demonstrates the synergy between the technological and human aspects of an organization. Without the support of an adaptive culture, MIS implementation tends to be suboptimal. Conversely, with a strong digital culture, MIS utilization can be maximized and have a positive impact on organizational performance.

Thus, organizations need to focus not only on technology development, but also on establishing a work culture that supports digital transformation so that the benefits of Management Information Systems can be felt optimally.

### CONCLUSION

Based on the research results, it can be concluded that Management Information Systems (MIS) have a strong and significant relationship with digital organizational culture. Effective MIS implementation has been shown to foster a work culture that is adaptive, collaborative, and open to technological change.

Furthermore, MIS also positively impacts digital organizational culture, whereby the better the quality and utilization of information systems, the higher the level of digital culture within the organization. This demonstrates that the success of digital transformation depends not only on technology but also on the readiness and support of the organizational culture.

Thus, organizations are advised to integrate information technology development with the development of a digital culture in a balanced manner. This effort is crucial for improving organizational performance, efficiency, and competitiveness in the ever-evolving digital era.

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