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Exploring Factors Influencing ERP System Adoption and Its Influence on Operational Efficiency: A Case Study of a Medical Equipment Supplier

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ABSTRACT

The implementation of an Enterprise Resource Planning (ERP) system serves as a crucial strategy for companies looking to enhance their efficiency, effectiveness, and competitive edge. This study aims to identify the factors that influence ERP system implementation and their subsequent impact on work effectiveness. To achieve this, the research employs a quantitative descriptive method, which involves distributing questionnaires to collect data from respondents.

The collected data undergo various analyses, including validity tests, normality tests, and multiple linear regression tests. The findings reveal that organizational characteristics, information quality, and management support significantly and positively influence work implementation. Conversely, the HR competency variable did not demonstrate a significant or positive effect.

Additionally, the study reveals that ERP implementation positively affects work effectiveness. This indicates that adopting an ERP system allows companies to streamline their data processing, ultimately leading to improved work performance. By integrating these systems, organizations can enhance their operational efficiency, thereby fostering a more productive work environment. Overall, the study highlights the importance of leveraging ERP systems to bolster work effectiveness and underscores the critical role that organizational factors play in this process.

Keywords: Organizational Characteristics, HR Competencies, Information Quality, Management Support, ERP Implementation, Work Effectiveness

INTRODUCTION

The growing competition in today's business landscape, coupled with the swift advancement of technology, places greater demands on companies to enhance their operational performance, particularly in business management. One effective strategy for achieving improved performance is to increase efficiency by integrating systems across the entire business process, thereby facilitating the accomplishment of business objectives (Alvianto et al., 2022).

Enterprise Resource Planning (ERP) serves as a solution to the demand for cohesive information systems. It is designed to unify all business processes and departments within an organization, utilizing a single data entry point (Katuu, 2020). This integration occurs through a centralized database that is accessible to all application programs. ERP systems function online and in real-time, ensuring that the information generated reflects the current conditions accurately.

To be effective, an ERP system must adeptly handle vast quantities of data. Moreover, it should possess essential characteristics such as being open, robust, highly adaptable, and easy to configure and manage. Maintaining a high level of data integrity is vital for the organization. By implementing such a comprehensive system, businesses can streamline their operations and improve overall efficacy, helping them thrive in a competitive environment.

Our study focuses on companies that have utilized an Enterprise Resource Planning (ERP) Information System since 2019 as a method for data processing. By integrating all departments through the implementation of an ERP system, organizations aim to boost productivity while maintaining quality, adherence to time standards, and satisfaction among both consumers and employees. To prepare staff for new challenges and fully leverage the benefits of this technology, companies must also comprehend the system's implementation from the user's viewpoint. This understanding enables employees to effectively learn and master the use of the technology (Chofreh et al., 2020).

Through our observations, we identified several issues related to ERP implementation. One significant problem is inadequate training for end users, which complicates ERP

acceptance. As a result, users who are not well-versed in new technologies or haven't mastered how to navigate the system may hinder the effective use of the ERP system. Furthermore, we noted issues with adaptive performance, primarily due to poor communication among employees. This lack of interaction leads to difficulties in data updates on the ground, which results in discrepancies between actual data and what is reflected in the ERP system.

Additionally, there seems to be a lack of awareness regarding communication practices among coworkers, adversely affecting employees' performance in using information systems. This communication gap ultimately impacts the overall performance of the organization. Research indicates that the estimated failure rate for ERP implementations remains high, ranging from 50% to 60%. Consequently, it is crucial to identify the factors that necessitate ERP adoption within a company, as understanding these elements can help avoid failures caused by the complexity of implementation. By addressing this complexity, organizations can improve their success rates in ERP implementation, thereby gaining a competitive edge in the marketplace.

Research by Purnomo, Hidayatullah, and Prasetya (2022) indicates that Information Quality, System Quality, and User Satisfaction significantly contribute to the effective use of ERP systems. Similarly, Aljarrah (2021) found that Information System Quality, Information Quality, User Satisfaction, and Human Resource Competence positively influence the successful implementation of ERP systems. Conversely, a study by Naibaho and Fatimah (2021) suggests that human resource or user competence does not impact the utilization of information systems. However, research conducted by Balić, Turulja, Kuloglija, and Pejić-Bach (2022) asserts that HR competence does play a role in the effective use of ERP systems.

Additionally, Khadrouf, Chouki, Talea, and Bakali (2020) reported that organizational characteristics significantly affect the successful implementation of ERP systems. Katuu (2020) highlights that management support is a crucial factor for successful ERP implementation. Furthermore, the findings from AlMuhayfith and Shaiti (2020) show an improvement in company performance following ERP implementation. Despite these insights, discrepancies exist within the research regarding the influence of HR competence on information system utilization.

Moreover, there has been a lack of comprehensive studies examining whether organizational characteristics, HR competence, and information quality, alongside management support as an additional variable, collectively have a positive impact on ERP implementation. It is also essential to investigate how these factors correlate with the effectiveness of work as a dependent variable post-ERP implementation in organizations. Addressing this gap could provide valuable insights into optimizing ERP systems for enhanced organizational performance.

This study aims to investigate several key factors that may influence the implementation of Enterprise Resource Planning (ERP) systems. The first research question focuses on whether organizational characteristics positively and significantly affect ERP system implementation. The next inquiry examines the role of human resource competencies in the ERP implementation process and seeks to determine if there is a positive and significant relationship between these competencies and successful ERP adoption.

Furthermore, the research explores the impact of management support on the implementation of ERP systems. It asks whether strong backing from management can lead to more effective ERP implementation. Another critical aspect of this study involves assessing the quality of necessary information. The research questions whether high-quality information has a positive and significant effect on the success of ERP implementation. Additionally, the study investigates the collective influence of organizational characteristics, HR competencies, management support, and information quality on ERP implementation. It asks if these four factors together significantly enhance the success of ERP system adoption. Lastly, the research seeks to determine whether these variables, when examined simultaneously, positively and significantly affect work effectiveness following ERP implementation.

METHOD

The researchers employ a quantitative approach for this study, utilizing a questionnaire as the primary data collection tool. They aim to directly gather samples from the relevant population, which helps expedite the research process conducted in February 2024. The

questionnaire consists of Likert scale questions, where responses range from "Strongly Disagree" rated as 1, "Disagree" rated as 2, "Neutral" rated as 3, "Agree" rated as 4, to "Strongly Agree" rated as 5. To streamline the distribution of surveys, the questionnaires are created using Google Forms.

The focus of this research is on employees working at a medical equipment supplier, and the sampling technique utilized is a saturated sample, resulting in a total of 34 respondents participating in the study. For data analysis, various techniques are applied, including checks for validity and reliability, as well as multiple regression analysis. This analysis incorporates the T-test, F-test, and the coefficient of determination to evaluate the data comprehensively. By combining direct sampling methods with structured questionnaire responses, the researchers strive to gather meaningful insights that reflect the perceptions and experiences of the employees within the sector. This methodical approach ensures a robust analysis of the relationship between the variables studied, contributing valuable findings to the field of research.

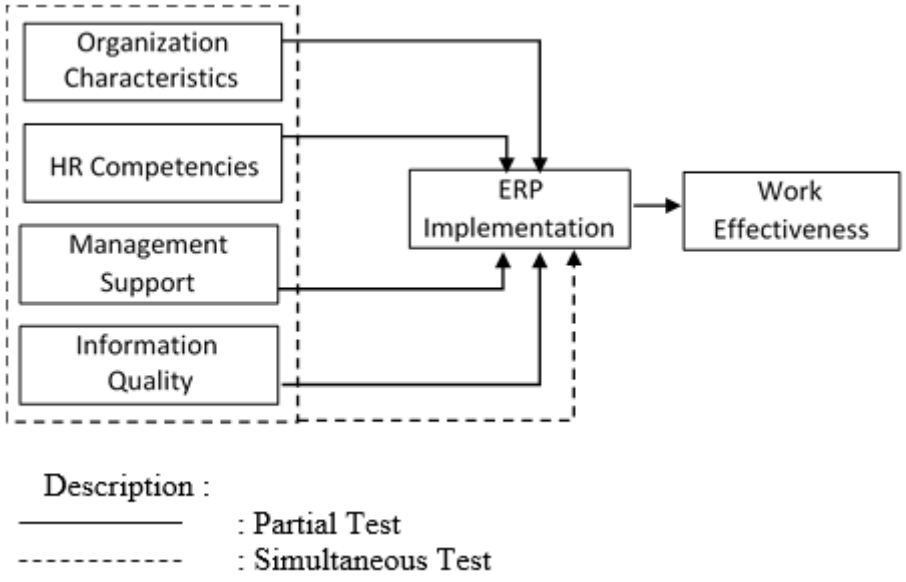

Figure 1. Research Framework

The framework of this study is grounded in the interrelatedness of various factors that influence the implementation of Enterprise Resource Planning (ERP) systems within organizations. Each hypothesis serves as a building block, outlining the expected

relationships and guiding the investigation into how these factors collectively impact ERP success and work effectiveness.

Starting with Hypothesis 1 (H1), the focus is on organizational characteristics. This hypothesis posits that elements such as organizational structure, culture, and size can significantly affect how effectively an ERP system is implemented. A strong alignment between these characteristics and ERP requirements can lead to smoother integration and better utilization.

Hypothesis 2 (H2) shifts the attention to human resource competencies. It suggests that the skills and knowledge of the employees play a critical role in the success of ERP implementation. High levels of HR competencies ensure that staff can effectively use the system, troubleshoot issues, and adapt to new processes introduced by the ERP.

Next, Hypothesis 3 (H3) emphasizes the importance of management support. This hypothesis asserts that strong backing from management teams is crucial for successful ERP implementation. When management is actively involved, it fosters a positive environment for change, provides necessary resources, and encourages staff buy-in.

Hypothesis 4 (H4) addresses the quality of information required for ERP implementation. It hypothesizes that high-quality, relevant, and timely information is essential for making informed decisions during the implementation process. Poor information quality can lead to errors and inefficiencies, undermining the whole implementation effort.

Moving on, Hypothesis 5 (H5) posits a collective perspective, suggesting that organizational characteristics, HR competencies, management support, and information quality work together to enhance ERP implementation. This hypothesis acknowledges that each factor is interdependent and that their combined influence is crucial for successful outcomes.

Finally, Hypothesis 6 (H6) examines the broader implications of these variables by proposing that the same factors contribute positively to work effectiveness after ERP implementation. By simultaneously considering organizational characteristics, HR competencies, management support, and information quality, this hypothesis explores not

only how these elements facilitate ERP adoption but also how they subsequently impact overall organizational performance.

The framework provides a comprehensive approach to understanding the multifaceted influences on ERP implementation. By investigating these hypotheses, the study aims to uncover the essential factors that drive successful ERP integration and enhance workplace effectiveness, contributing valuable insights for organizations looking to implement such systems.

RESULT AND DISCUSSION

The respondent characteristics were analyzed to provide insights into the demographic profile of the participants in this study. Starting with gender, the majority of respondents are male, comprising 56% of the sample, while female respondents represent 44%. This distribution indicates a male-dominated environment within the respondent group. In terms of age, the respondents are fairly distributed across different age brackets. The largest group is aged 31 to 40 years, accounting for 38%. Following this, 26% fall within the 41 to 50 years range, while 21% are aged 20 to 30 years. Lastly, 15% of the respondents are between 51 and 60 years old. This age distribution suggests a workforce primarily composed of individuals in their prime working years, with a significant portion of middle-aged employees.

When examining education levels, half of the respondents hold a bachelor's degree (S1), representing 50% of the sample. High school or vocational school graduates (SMA/SMK) account for 23%, while 18% have completed diploma programs (D1/D2/D3/D4). A smaller percentage, 9%, possess a master's degree (S2). This educational background highlights a skilled and educated workforce, with a significant emphasis on higher education.

Finally, regarding length of work, the tenure of respondents varies notably. The largest segment, 29%, has worked for between 5 and 10 years, followed closely by those with 2 to less than 5 years of experience, making up 21%. Additionally, 23% have worked for 10 to less than 15 years, and 18% have over 15 years of experience. Only 9% of respondents have a work tenure of less than 2 years. This distribution indicates a relatively experienced

workforce, with a considerable number of employees having over five years of professional experience.

Table 1. Respondent Profile

Description		Percentage
Gender	Male	56%
	Female	44%
Age	20-30 Years	21%
	31-40 Years	38%
	41-50 Years	26%
	51-60 Years	15%
Education	SMA/SMK	23%
	D1/D2/D3/D4	18%
	S1	50%
	S2	9%
Length of work	1 - <2 Years	9%
	2 - <5 Years	21%
	5 -<10 Years	29%
	10 - <15 Years	23%
	> 15 Years	18%

Overall, these respondent characteristics reflect a diverse demographic, showcasing a predominantly male, educated, and relatively experienced workforce.

Table 2. Validity and Reliability Test

Indicator	r count	r table	Indicator	r count	r table
KO1	0,416		KI1	0,587	
KO2	0,342		KI2	0,729	
KO3	0,428		KI3	0,504	
KO4	0,409		KI4	0,478	
KO5	0,591		KI5	0,581	
KS1	0,574		KI6	0,520	
KS2	0,452		IE1	0,628	
KS3	0,436		IE2	0,566	
KS4	0,490	0,339	IE3	0,688	0,339
KS5	0,382		IE4	0,556	
KS6	0,503		IE5	0,534	
KS7	0,556		EK1	0,589	
DM1	0,464		EK2	0,565	
DM2	0,664		EK3	0,673	
DM3	0,638		EK4	0,482	
DM4	0,527		EK5	0,492	
DM5	0,675		EK6	0,488	
Organization Characteristics	Cronbach Alpha	0,718	Information Quality	Cronbach Alpha	0,891
HR Competencies	Cronbach Alpha	0,770	ERP Implementation	Cronbach Alpha	0,699
Management Support	Cronbach Alpha	0,846	Work Effectiveness	Cronbach Alpha	0,821

Decisions regarding the validity test rely on comparing the calculated r value with the r table. If the calculated r value exceeds the r table, it is considered valid; if it falls below, it is deemed invalid. For the Cronbach Alpha Reliability Test, a reliability determination is made based on whether the Alpha value is greater than 0.60, in which case the measure is considered reliable.

Table 3. Comparison of T count and T table

Variables	Tcount	Ttable
Organization Characteristics → ERP Implementation	3,034	2,045
HR Competencies → ERP Implementation	0,342	2,045
Management Support → ERP Implementation	2,369	2,045
Information Quality → ERP Implementation	4,374	2,045
ERP Implementation → Work Effectiveness	7,702	2,027

Decision-making in the t-test involves comparing tcount with ttable. If tcount is greater than ttable, it indicates that the independent variable has an influence on the dependent

variable. Conversely, if tcount is less than ttable, it implies that there is no influence of the independent variable on the dependent variable.

Table 4. Anova & Model Summary

Predictors	Dependent Variables	Anova		R Square
		F	Sig.	
Organization Characteristics	ERP Implementation	24,330	0,000[b]	0,770
HR Competencies				
Management Support				
Information Quality				
ERP Implementation	Work Effectiveness	59,328	0,000[b]	0,650

Decision-making in the F test is based on the Sig value. If the Sig value is less than 0.05, then Ho is rejected and Ha is accepted, indicating that the independent variable significantly affects the dependent variable simultaneously. Conversely, if the Sig value exceeds 0.05, Ha is rejected and Ho is accepted, signifying that the independent variable does not have a significant effect on the dependent variable when considered together.

The findings of this research demonstrate that the Organizational Characteristics variable significantly and positively influences ERP system implementation. (H1) This is evident from the tcount value exceeding the ttable value, with a comparison of 3.034 to 2.045. Thus, it can be concluded that there is a meaningful positive relationship between organizational characteristics and ERP implementation. Contributing factors include various elements of organizational characteristics, such as resources, organizational culture, and structure, all of which must be interlinked to effectively support ERP implementation.

Prior research conducted by Khadrouf, Chouki, Talea, and Bakali (2020) supports this notion, asserting that organizational characteristics are critical determinants in the adoption of ERP systems. Companies that comprehend the benefits of ERP systems in enhancing efficiency and effectiveness are more inclined to make initial decisions favoring their implementation. Furthermore, for ERP systems to succeed in an organization, there must be a transformation in corporate culture and the establishment of new regulations that promote a conducive environment for all organizational members.

This research highlights the importance of aligning organizational characteristics with ERP implementation efforts. By fostering an environment that embraces change and adaptation, organizations can optimize their ERP systems, leading to improved performance and higher levels of operational success. Thus, organizational characteristics play a crucial

role in not only initiating ERP adoption but also ensuring that the implementation process is successful and sustainable in the long run.

The findings from this research suggest that the HR Competency variable does not significantly or positively influence ERP system implementation. (H2) This conclusion is evidenced by the tcount value of 0.342, which is less than the ttable value of 2.045. Therefore, we can deduce that there is no significant relationship between HR competency and the implementation of ERP systems.

While HR or user competence remains an essential aspect for companies to consider when implementing ERP systems, its lack of direct effect on ERP implementation outcomes can be attributed to several factors. Notably, the educational background of the respondents may influence the results, as 50% hold bachelor's degrees (S1) and 29% have work experience of 5 to 10 years. Additionally, the training provided by the organization appears to be inadequate, likely leading employees to rely more on their personal judgments instead of adhering to established protocols. These findings align with prior research conducted by Naibaho and Fatimah (2021), which also concluded that HR competency does not exert a significant effect on ERP implementation.

Contrastingly, Ruivo, Johansson, Sarker, and Oliveira (2020) highlight that HR competence does play a role in the effective use of ERP systems. This discrepancy underscores the complexity surrounding HR competency as a variable influencing ERP implementation. Nevertheless, it remains crucial for organizations to cultivate competent human resources, as the indicators of HR competency encompass self-development, professionalism, expertise, and technological proficiency.

As organizations continue to implement ERP systems, further investigation into HR competency as a determinant of successful implementation is necessary. It is essential to provide comprehensive training and clear explanations of the ERP system's implementation concepts. When employees possess a solid understanding of the system, they are better equipped to support its use and effectively integrate it into everyday operations.

Moreover, organizations should prioritize investing in employee development initiatives that enhance HR competencies. Establishing mentorship programs, regular training sessions, and collaborative learning environments can empower employees to strengthen their skills and adapt to changing technological landscapes. By doing so,

companies can foster a culture of competence and teamwork that is conducive to successful ERP implementation.

Ultimately, while the current study suggests that HR competency does not directly impact ERP system implementation, organizations should still view it as a vital component of their overall strategy. By aligning HR competencies with the goals of the ERP system, companies can enhance their chances of achieving successful implementation outcomes and ensuring long-term operational effectiveness. It is this strategic alignment that can help organizations harness the full potential of their ERP systems and improve overall performance.

The findings from this study reveal that the Management Support variable significantly and positively influences the implementation of ERP systems. (H3) This conclusion is supported by the tcount value, which of 2.369 is higher than the ttable value of 2.045. Therefore, we can assert that there is a substantial positive relationship between management support and ERP system implementation.

Management support plays a crucial role in the successful execution of ERP systems within organizations, as it directly affects the overall success rate of these implementations. This research aligns with earlier studies by Christiansen, Haddara, and Langseth (2022), which also demonstrate that robust management support significantly enhances the success of ERP system projects. The underlying reason is straightforward: the stronger the support from management, the more favorable the conditions for implementing the ERP system.

Management support comprises two main indicators: committed leadership towards the ERP implementation and the allocation of necessary resources, which include personnel, funding, and equipment. When management is actively engaged and provides the required resources, it fosters a conducive environment for ERP adoption, ultimately minimizing resistance from employees and enhancing buy-in from all organizational levels.

Moreover, effective management support is essential throughout the entire ERP implementation process. As the introduction of an ERP system usually entails a transition to a new operational framework, it is critical to communicate this change to all members of the organization. The commitment and determination of top management to establish new systems or cultural norms directly influence staff receptiveness and adaptability to these changes.

Additionally, management support helps to set clear expectations, objectives, and the vision for ERP implementation within the organization. When leaders provide guidance and exemplify their commitment to the new system, employees are more likely to be motivated to engage with the ERP platform actively. This helps reduce anxiety and uncertainty typically associated with adopting new technologies, facilitating a smoother transition.

In summary, while the study confirms the vital role of management support in promoting ERP system implementation, companies should ensure that this support is both visible and effective. This requires not only active participation from management but also ongoing communication regarding the ERP system's advantages and objectives. Organizations can further enhance this support by recognizing and addressing potential bottlenecks early in the implementation process and providing training and resources to equip employees for success. Strong management support is not only a catalyst for successful ERP implementation but also a critical component of fostering a culture that embraces change and innovation. As organizations continue to navigate the complexities of digital transformation, prioritizing effective management support can significantly enhance their ability to implement ERP systems successfully and achieve enhanced operational performance.

The findings of this study indicate that the Information Quality variable has a significant and positive effect on ERP system implementation. (H4) This conclusion is supported by the tcount value of 4.374, which exceeds the ttable value of 2.045, demonstrating a notable positive influence of information quality on the success of ERP implementation. These results align with previous research conducted by Purnomo, Hidayatullah, and Prasetya (2022), which also found that information quality significantly impacts ERP system implementation. Similarly, Jo and Bang (2023) reached comparable conclusions, affirming that information quality indeed affects the integration of ERP systems.

The consistency of these research findings underscores the importance of ensuring that users find the ERP system easy to navigate, thereby requiring minimal effort to utilize it effectively. When users can operate the system efficiently, they free up time to focus on other essential tasks. Information quality pertains to the output produced by the ERP system, which includes the accuracy, relevance, completeness, and clarity of the generated information. Users naturally expect that utilizing the ERP system will yield vital information that meets these criteria.

Furthermore, the accuracy of data during ERP implementation is crucial for achieving operational success and developing a sustainable business strategy. This study's results highlight that the information quality variable received the highest evaluation compared to other variables, emphasizing that without precise data, organizations cannot fully reap the benefits of their ERP systems. Inaccurate or incomplete data can lead to various challenges that negatively impact the organization and hinder its growth potential.

Additionally, high-quality information empowers decision-makers by providing them with reliable insights for strategic planning. When data is accurate and relevant, it reduces the uncertainty that often accompanies business decisions and fosters greater confidence among management and stakeholders. Moreover, enhancing information quality leads to increased user satisfaction, as employees receive the timely and pertinent information needed to perform their jobs effectively.

To maximize the advantages of ERP system implementation, organizations should, therefore, prioritize improving information quality from the onset. Implementing robust data management practices, investing in training for personnel, and fostering a culture of data accuracy are essential steps for ensuring that the information generated by the ERP system is of the highest quality. Continuous monitoring and evaluation of the information workflows will also contribute to sustaining high standards of data quality throughout the organization. The study reinforces that information quality is a critical determinant for successful ERP system implementation. Companies must recognize the vital role that accurate and accessible information plays in promoting effective ERP adoption and optimizing organizational performance. By focusing on enhancing information quality, organizations position themselves to overcome challenges and achieve long-term success.

The findings from the multiple regression analysis, particularly through the F test method, reveal a significant relationship among the variables of Organizational Characteristics, HR Competencies, Management Support, and Information Quality regarding ERP system implementation. (H5) The results indicate a significance value of 0.000, which is less than the threshold of 0.005, leading to the conclusion that these four variables collectively exert a significant influence on ERP implementation. Furthermore, the calculated F value of 24.330 exceeds the F table value of 2.69, reinforcing the notion that these variables together significantly impact ERP system adoption.

Additionally, the R-squared (R^2) Coefficient of Determination test showed a value of 0.770, suggesting that 77% of the variance in ERP implementation can be attributed to the combined effects of Organizational Characteristics, HR Competencies, Management Support, and Information Quality. This indicates that a considerable portion of the success of ERP system implementation depends on these specific factors. However, it also suggests that 33% of the variance is influenced by other variables not examined in this study, highlighting the complexity of ERP implementation processes.

These findings underscore the importance of viewing ERP system implementation as a multifaceted endeavor that requires attention to various integral components. By recognizing the significant influence of Organizational Characteristics, organizations can create an environment that fosters successful ERP integration. For instance, having a supportive organizational culture and structure enhances the readiness of employees to accept new technologies.

The analysis conducted in this study reveals that the ERP system implementation variable significantly and positively influences work effectiveness, as evidenced by a tcount value of 7.702, which surpasses the ttable value of 2.027. Furthermore, the F test conducted by the researchers confirms that ERP implementation has a significant impact on work effectiveness, demonstrated by a significance value of 0.000, which is lower than the threshold of 0.05. This conclusion is further supported by the comparison between Fcount and Ftable, with the Fcount value exceeding the Ftable value of 2.29. Thus, it is clear that ERP system implementation positively and significantly affects work effectiveness. (H6)

Additionally, the R-squared (R^2) Coefficient of Determination test reveals a value of 0.650, indicating that 65% of the variation in work effectiveness can be attributed to the ERP implementation variable. Meanwhile, the remaining 35% is influenced by other variables not examined in this study.

Implementing an ERP system provides companies with the capability to efficiently process various types of data, such as production, financial, and inventory information. This streamlined data processing leads to enhanced work effectiveness, ultimately improving overall organizational performance. These findings align with the research conducted by Ruivo, Johansson, Sarker, and Oliveira (2020), which asserts that ERP implementation positively contributes to work effectiveness, thereby boosting company performance, a sentiment echoed by AlMuhayfith and Shaiti (2020).

The positive relationship between ERP system implementation and work effectiveness underscores the critical role that such systems play in modern organizations. Companies that successfully implement ERP systems are likely to experience improved efficiency in their operations, enabling employees to better manage their tasks and collaborate effectively. By fostering an environment that prioritizes the adoption of ERP systems, organizations can harness the advantages of enhanced work effectiveness, ultimately driving greater productivity and competitiveness in today's dynamic business landscape. Additionally, recognizing that 35% of work effectiveness is influenced by other factors prompts organizations to explore and address these additional elements to achieve holistic improvements in performance.

CONCLUSION

Organizational characteristics, management support, and information quality are critical variables integral to successful ERP implementation within companies. The results of this study highlight that these three variables positively and significantly influence ERP implementation. Conversely, the HR competency variable does not demonstrate a significant effect. This lack of impact may stem from the respondent characteristics, as most participants hold advanced degrees (S1) and have over five years of work experience. However, the importance of HR competency should not be underestimated. It encompasses essential elements such as self-development, professionalism, expertise, and technological mastery—all of which are vital for facilitating effective ERP system implementation.

The study's findings also indicate that the ERP system's implementation significantly enhances performance effectiveness, accounting for 65% of the variance in outcomes. This improvement stems from the ERP system's ability to streamline data processing—covering aspects such as financial records, production metrics, and inventory management. By improving how data is handled and accessed, organizations can achieve greater operational efficiency, leading to more effective overall performance.

These findings carry important implications for organizations looking to implement or enhance their ERP systems. Firstly, companies should prioritize fostering an environment that emphasizes organizational characteristics, management support, and information quality to ensure successful ERP integration. By actively promoting effective

communication and collaboration among departments, organizations can create a more robust framework for ERP implementation.

Moreover, even though HR competency did not show a direct significant effect in this study, it remains a critical factor that organizations should develop. HR departments must focus on continuous training and skill development to cultivate a competent workforce that can adapt to new technologies and systems. This can be achieved through targeted professional development initiatives that enhance employees' technical and interpersonal skills.

The study underscores the interconnectedness of various factors in the implementation of ERP systems. By focusing on strengthening organizational characteristics, ensuring strong management support, and maintaining high information quality, firms can significantly boost their chances of achieving successful ERP implementation. Additionally, while HR competency did not exhibit a significant direct effect in this context, investing in human capital development is crucial for fostering an adaptable workforce capable of maximizing ERP system benefits and ultimately enhancing organizational performance.

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