

The Influence of System Quality, Information Quality, and Service Quality on the Enterprise Resource Planning (ERP) System Towards User Satisfaction at PT. Alam Bukit Tigapuluh

Muhammad Taufiq Hidayat^{1*}, Ari Setiawan²

^{1,2}Sekolah Tinggi Ilmu Ekonomi Harapan Bangsa, Indonesia

Emails: mm-23129@students.ithb.ac.id, ari_setiawan@ithb.ac.id

Abstract

This study aims to analyze the impact of system quality, information quality, and service quality on user satisfaction with the ERP system at PT Alam Bukit Tigapuluh. In the era of digitalization, ERP systems serve as strategic tools to enhance managerial efficiency within companies. Using a quantitative method with an explanatory research approach, data was collected through questionnaires distributed to 65 employees who have been using the ERP system for more than a year. The results indicate that system quality has a significant impact on user satisfaction, particularly due to its ease of use and reliability. Information quality is perceived as accurate but requires improvements in real-time data availability and relevance to effectively support strategic decision-making processes. Service quality, which includes responsiveness and reliability, positively influences user satisfaction but highlights the need for more comprehensive training and technical support. Overall, the ERP system contributes to improved operational efficiency; however, there is room for further optimization to address the evolving needs of the organization. To enhance system performance and user satisfaction, the study recommends that PT Alam Bukit Tigapuluh conduct regular evaluations of the ERP system, prioritize enhancements in real-time monitoring capabilities, and expand training programs for all users. These measures are expected to ensure the ERP system's alignment with the organization's dynamic requirements and improve its overall effectiveness.

Keywords: system quality, information quality, service quality

INTRODUCTION

In the current era of globalization, characterized by rapid advancements in information technology, companies worldwide face intense competition and rapid shifts in the business environment (Baldwin, 2016). Information Systems (IS), as a socio-technical system encompassing the interaction between humans and technology, are increasingly recognized as a crucial solution for enhancing corporate management's ability to adapt to these accelerating challenges (Amade et al., 2022).

One of the efforts to maximize company managerial with the use of technology is the adoption of the Enterprise Resource Planning (ERP) system in various companies in the world. ERP is an information system that interacts with users and is designed to provide useful

information to support strategy, operations, management analysis, and decision-making functions in an organization (AboAbdo et al., 2019).

The development and adoption of ERP systems have enabled various organizations, including businesses, to integrate their core processes with the aim of enhancing efficiency and remaining competitive in the business landscape (Bhatia et al., 2017). Recent findings indicate that approximately 78% of global companies utilize ERP consulting services for project implementation, primarily to reduce operational costs and optimize business process efficiency (Ali & Miller, 2017). The evolution of ERP systems reflects a significant expansion in functionality and scope, progressing from Material Requirements Planning (MRP) in the 1960s to modern cloud-based solutions that incorporate data analytics and Customer Relationship Management (CRM). Leading companies such as SAP, Oracle, and JD Edwards have spearheaded the development of these sophisticated systems, reinforcing their pivotal role in advancing organizational management (Solano Rodríguez et al., 2014).

The use of ERP systems is widely recognized for enabling company management to control various business activities, including sales, shipping, production, inventory management, quality management, and human resources. By integrating these functions, an ERP system facilitates seamless data and information sharing across different units within a business organization. Previous studies (Sari & Santoso, 2021) have identified critical modules in ERP implementation, such as sales and distribution, marketing, production planning, material management, budget control, project management, and finance. However, further exploration of ERP's impact on organizational performance, supported by additional references, would strengthen the theoretical foundation and connect this study to broader research in the field (AlMuhayfith & Shaiti, 2020).

PT Alam Bukit Tigapuluh is a private company that plays a crucial role in managing ecosystem restoration concessions. The company is responsible for the buffer zone of Bukit Tigapuluh National Park and critical sections of the Bukit Tigapuluh ecosystem, which represent the last remaining forest habitats for three endangered Sumatran species: the Sumatran Tiger (*Panthera tigris sumatrae*), Sumatran Elephant (*Elephas maximus sumatranus*), and Tapir (*Tapirus indicus*). Additionally, the area serves as a vital reintroduction site for the Sumatran orangutan (*Pongo abelii*), highlighting the company's commitment to biodiversity conservation and the restoration of critical habitats (PT Alam Bukit Tigapuluh, 2015). These efforts not only aim to preserve endangered species but also provide significant ecological, social, and economic benefits for local communities and global stakeholders concerned with sustainable ecosystem management.

Before implementing the ERP system, business management processes, such as procurement of goods for example, at PT Alam Bukit Tigapuluh used a manual system which required a lot of labor, high costs, and long time. Based on preliminary studies conducted by the author, PT faced several major obstacles before the implementation of the ERP system (Gessa et al., 2023). Alam Bukit Tigapuluh in procurement management activities, which can be seen from the three management contexts (in terms of labor, cost, and time). This research aims to look further into the implementation of the ERP system at PT Alam Bukit Tigapuluh, which has never been evaluated since it was first implemented in 2022.

RESEARCH METHODS

The methodology employed in this study is qualitative, utilizing questionnaires and interviews for data collection. Data and information were gathered from respondents through a questionnaire, and subsequently, data preparation and analysis were conducted using the Likert method.

In this study, the population to be studied is the employees of PT Alam Bukit Tigapuluh, totaling 65 people. The population criteria are all employees who work at PT Alam Bukit Tigapuluh. The sample selection criteria for respondents in this study are individuals who have used the ERP application for at least one year. The number of samples is determined based on the number of respondents who fill out the online questionnaire. The research period lasts from the time of distributing the questionnaires until the collected questionnaires are eligible for processing and analysis (Harris & Brown, 2019).

RESULT AND DISCUSSION

This research was conducted at PT Alam Bukit Tigapuluh, involving 65 employees who utilize the ERP system in their work activities. Data collection methods included a Likert scale-based questionnaire (1-5), interviews, and direct observations (Grayson-Sneed et al., 2017). The study focused on measuring three main variables: system quality, information quality, and service quality, as well as their relationship to ERP system user satisfaction. To enhance clarity and comprehension, the results are presented with detailed graphs and tables to provide a visual representation of the findings. Additionally, a comparative analysis with previous studies is included to highlight the uniqueness and implications of the results (Alghassab, 2024). Further discussion explores the practical applications and broader implications of these findings in improving ERP system performance.

System Quality

- a) Ease of Use: Most respondents (89%) strongly agreed that the ERP system is easy to use.
- b) Navigation: The system allows quick access to features and information, with 82% of respondents strongly agreeing.
- c) Speed of Response: Respondents gave a score of 75% (agree) regarding the speed of system response.
- d) Security: Only 54% of respondents moderately agreed that the ERP system has an adequate level of security.

Information Quality

- a) Accuracy: The information provided was rated as highly accurate by 86% of respondents.
- b) Timeliness: Respondents moderately agreed (57%) that the information is available on time.

- c) Relevance: Information was rated as moderately relevant (52%) to job needs.
- d) Informativeness: Respondents moderately agreed (50%) that the information provided was in-depth and useful.
- e) Competitiveness: Information from ERP is considered quite supportive (48%) of the company's competitiveness.

Service Quality

- a) Empathy: Most respondents (68%) agree that the ERP service team understands user needs.
- b) Reliability: The support team is considered reliable with a score of 70% (agree).
- c) Responsiveness: Respondents agreed (68%) that the support team responded quickly.
- d) Assurance: Most respondents (77%) feel secure with the ERP support team services.

User Satisfaction

- a) Efficiency: Respondents moderately agreed (58%) that ERP helps work efficiency.
- b) Effectiveness: The system enables more effective work with a score of 59% (moderately agree).
- c) Overall Satisfaction: Most users are moderately satisfied (56%) with the ERP system.
- d) Pride in Using the System: Respondents feel proud (60%) of the implementation of ERP in the company.

System Quality

The quality of the ERP system at PT Alam Bukit Tigapuluh is considered adequate in the aspects of ease of use, navigation, and speed of response. However, the security aspect requires more attention as many users only feel “moderately agree” that the system has adequate data protection (Gürsel et al., 2024).

Information Quality

ERP systems are considered accurate but face challenges in providing relevant real-time information to support strategic decision-making (Trigo et al., 2014). Timeliness and competitiveness of information are also major concerns.

Service Quality

ERP support services are adequate in terms of responsiveness and empathy to user needs, but uneven in the coverage of training and technical support across the organization.

User Satisfaction

Employees are overall quite satisfied with ERP, especially in supporting administrative efficiency (Costa et al., 2016). However, for strategic aspects such as program monitoring and real-time data on budget usage, the system has not fully met expectations.

This research reveals that ERP at PT Alam Bukit Tigapuluh has a strong foundation but requires significant improvements in security features, information relevance, and user training to optimize its benefits for the company.

CONCLUSION

This study aims to measure the effect of system quality, information quality, and service quality on the Enterprise Resource Planning (ERP) system on user satisfaction at PT Alam Bukit Tigapuluh. Based on the results of the research conducted, the ERP system is considered to have

ease of use, intuitive navigation, and adequate response speed, thus supporting the efficiency of company administration. The information generated by the ERP is rated accurate by the majority of users, indicating that the system can provide reliable data for operational needs. Going forward, it is recommended that companies continue to improve user training and update ERP features to adapt to dynamic business needs. In addition, further research can be conducted to explore the impact of ERP implementation on overall organizational performance.

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