

## IMPLEMENTATION OF ENTERPRISE RESOURCE PLANNING (ERP) SYSTEM AT NEW BALANCE COMPANY

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### Abstract

*This study aims to analyze the implementation of the Enterprise Resource Planning (ERP) system at New Balance, focusing on the implementation process, challenges faced, and its impact on operational efficiency and overall company performance. In the midst of increasingly tight global business competition, companies such as New Balance are required to improve operational efficiency and decision-making quality. One of the efforts made to achieve this is by implementing an integrated ERP system, especially SAP S/4HANA, to manage various business functions effectively. However, ERP implementation is often faced with various challenges, including data integration from legacy systems, employee adaptation to new systems, and the need to adjust the company's business processes to existing ERP features. This study uses a qualitative approach with a case study method, analyzing data from internal reports and interviews with staff involved in the implementation process. The results of the study show that although there were obstacles in the early stages of implementation, ERP implementation had a positive impact on supply chain management, real-time data processing, and more efficient decision-making. This study suggests that companies should focus more attention on IT infrastructure readiness, employee training, and selecting the right ERP system to minimize obstacles and maximize the long-term benefits of ERP implementation.*

**Keywords:** Enterprise Resource Planning (ERP), ERP Implementation, Operational Efficiency

### Introduction

Companies in the manufacturing and distribution sectors are increasingly relying on information technology, such as Enterprise Resource Planning (ERP) systems, to increase competitiveness. ERP integrates business functions into a single platform, improving operational efficiency, accelerating decisions, and optimizing resources. These systems also provide organizations with the agility to respond to market changes by streamlining processes and providing real-time data access (Huang et al., 2019; Saade & Nijher, 2016).

This research was conducted at PT Parkland World Indonesia, a global footwear manufacturing company and partner of leading brands such as New Balance. PT Parkland was chosen because of its complex operations and commitment to ERP technology for business integration. This study aims to analyze the implementation of ERP in complex manufacturing and identify its impacts and challenges.

ERP implementation at PT Parkland World Indonesia required major changes to the operational structure and organizational culture, including the adjustment from a decentralized to an integrated work system. This challenge is in line with the findings of Gupta and Kohli (2018) that adaptation of organizational culture is important for the success of ERP. Staff training is also crucial to ensure understanding and operation of the system. Once implemented, ERP improves information flow, inventory efficiency, and strategic decision making.

Previous studies have shown that ERP improves operational efficiency and provides strategic benefits for global companies such as New Balance. Saade and Nijher (2016) found that ERP integrates cross-departmental data, provides real-time information, accelerates response to market changes, and reduces operational costs. Chofreh et al. (2018) asserted that ERP supports supply chain integration, accurate planning, and efficient resource management. Meanwhile, Al-Mashari et al. (2015) highlighted the challenges of ERP implementation, such as cultural resistance, lack of management support, and system inconsistency, which require organizational readiness for adaptation and change for ERP to function optimally.

Previous research has explored the impact of ERP on operational efficiency and implementation challenges, but there are still some gaps in the New Balance context. No studies have specifically addressed ERP implementation in the footwear industry, the challenges of organizational culture in depth,

or the long-term impacts. This study contributes by exploring ERP implementation in PT Parkland World Indonesia, which has unique operational and supply chain needs, offering a new perspective compared to more general previous studies.

Theoretical studies provide the basis for this study. Huang et al. (2019) stated that ERP improves efficiency through data integration, while Gupta and Kohli (2018) highlighted the importance of adapting organizational culture. Chofreh et al. (2018) pointed out the role of ERP in accurate planning and resource management, and Al-Mashari et al. (2015) emphasized organizational readiness, collaborative culture, and employee training as the keys to ERP success. This study uses PT Parkland World Indonesia as a case study to fill the gap related to ERP implementation in footwear manufacturing.

The formulation of the research problem includes: (1) the ERP implementation process at PT Parkland World Indonesia, (2) the technical and organizational challenges faced, and (3) the impact of ERP on operational efficiency and business sustainability. The research aims to analyze the implementation of ERP at PT Parkland with a focus on implementation, challenges, and its impact in the global footwear industry. The results are expected to be a reference for other companies in adopting ERP to improve business efficiency and performance.

This study is based on the Integrated Information Systems Theory which emphasizes the importance of technology integration to support business operations. This theory highlights that effective information systems, such as ERP, must integrate data and processes to improve efficiency, reduce redundancy, and ensure consistency of information (O'Brien & Marakas, 2011). In addition, process standardization in ERP helps reduce operational variation and improve compliance with procedures. ERP also supports data-driven decision making by providing real-time information and analytics, enabling fast and accurate strategic decisions (Monk & Wagner, 2012).

The implementation of ERP at New Balance is relevant to integrate operational data from various locations and support complex supply chains. Standardizing processes through ERP increases efficiency and maintains product quality consistency. Research shows that ERP can improve operational efficiency, with Laudon and Laudon (2020) reporting improvements of up to 30% in multinational companies, and Sumner (2005) stating that 68% of companies managed to reduce operational costs after implementing ERP.

With this foundation, the application of Integrated Information System theory in the context of New Balance is expected to provide comprehensive insights into the benefits, challenges, and impacts of ERP implementation. This research not only contributes to academic development, but also provides practical guidance for other companies that want to utilize ERP technology to improve competitiveness in the manufacturing industry.

## Methods

This study uses a qualitative approach with a case study method to analyze the implementation of the Enterprise Resource Planning (ERP) system at PT Parkland World Indonesia. This approach was chosen because it is able to explore in depth the experience, challenges, and impacts of ERP implementation in the context of a complex manufacturing organization. The case study method allows for a detailed investigation of ERP implementation in the global footwear industry environment, making it relevant to the needs of this study (Yin, 2018). Data collection techniques used include in-depth interviews, observations, and documentation studies. Interviews were conducted with managers, staff directly involved in ERP implementation, and information system experts.

The semi-structured interview guideline covered five ERP indicators: data integration, ease of access to information, business process efficiency, organizational adaptation, and strategic impact. Direct observation was conducted on operations such as production, distribution, and inventory to assess the consistency of ERP implementation and its technical challenges. Document analysis, including implementation reports and internal data, was used to confirm the findings of the interviews and observations. This study used triangulation techniques to increase the validity of the data, combining interviews, observations, and documentation (Denzin, 2017).

This study used purposive sampling technique, which allows the selection of informants based on criteria of relevance to the study. Informants include; (1) Operational and IT managers responsible for ERP implementation; (2) Employees who use ERP in their daily tasks, such as production, logistics, and inventory staff; and (3) External experts in ERP systems to provide technical and strategic perspectives.

The collected data were analyzed using thematic analysis technique, which includes the following stages: (1) initial coding; (2) theme search; (3) theme review; and (4) interpretation.

**Results and Discussion**

The results of this research are divided into several subtopics according to the research objectives that have been determined.

**ERP Implementation Process at PT Parkland World**

ERP implementation at PT Parkland World Indonesia was carried out in stages, starting with planning and selecting an ERP vendor, namely SAP S/4HANA, to support cross-department integration. At the implementation stage, training was conducted for all employees and system testing in several branches. Although there were technical obstacles, such as difficulty integrating data from the old system, most of the problems were resolved in a short time.

**Table 1 ERP Implementation Process at New Balance**

Stage	Activity	Execution time	Main Challenges
Planning	ERP vendor selection and requirements analysis	January – March 2023	Selecting the appropriate system
Implementation	User training and system testing	April – June 2023	Data integration from legacy systems
Operationalization	ERP deployment across global branches	July 2023 - present	Minor technical issues and cultural adjustments

**Challenges Faced in ERP Implementation**

The biggest challenge in implementing ERP at PT Parkland World Indonesia is the problem of change management and resistance to change from some employees. The results of interviews with several staff revealed that many employees found it difficult to adapt to the new system, especially because of the significant differences in the way of working between the old system and the new ERP. To overcome this, the company took a change management approach that involved intensive communication and support from leaders to motivate employees to be more open to using ERP.

In addition, technical challenges also emerged in the data integration process, especially in combining existing production systems with new ERP modules. This obstacle caused a slight delay in data processing and production planning at the beginning of use.

**Diagram 1 Challenges Faced in ERP Implementation at New Balance**



(Source: Interview and Observation Data)

Based on the diagram above, it can be seen that the challenges faced in the ERP implementation process at New Balance consist of three, namely (1) employee resistance of 45%; (2) data integration delays of 35%; and (3) minor technology problems of 20%.

**Impact of ERP Implementation on Operational Efficiency**

After ERP was implemented, New Balance Companies such as PT Parkland World Indonesia experienced a significant increase in operational efficiency. Based on data obtained from the ERP system, there was a decrease in production cycle time and delivery of goods which previously took longer. The

raw material procurement process which was previously done manually can now be processed faster through the ERP procurement module which is integrated with inventory management.

This increase in efficiency is reflected in the reduction of the company's operating costs, which can be seen in the following table:

**Table 2 Comparison of Operational Costs Before and After ERP Implementation**

Category	Before ERP (2022)	After ERP (2023)	Percentage Decrease
Production cost	\$10,000,000	\$8,000,000	20%
Procurement Cost	\$5,000,000	\$3,800,000	24%
Shipping costs	\$3,000,000	\$2,400,000	20%

These results show that ERP helps optimize resource usage, speed up processes, and reduce unnecessary costs, thereby increasing the company's profit margin.

**Impact on Company Performance and Innovation**

The implementation of ERP has a positive impact on company performance, especially in making faster and more accurate decisions. ERP provides real-time information on raw material stock, production status, and availability of goods, allowing management to conduct more effective analysis and decisions, support product innovation and improve service quality. ERP also accelerates the launch of new products, reduces development time, and increases the company's competitiveness.



**Figure 1 Graph of the Influence of ERP on New Product Development Time**

**Long Term Impact Evaluation**

Overall, the results of the study show that the implementation of ERP at New Balance not only provides short-term benefits in terms of operational efficiency, but also contributes to the company's long-term performance, including the ability to adapt to market changes and increase product innovation. The implementation of ERP has provided a stronger foundation for the company to continue to grow in a competitive global market.

This study analyzes the implementation of ERP at PT Parkland World Indonesia, focusing on implementation, challenges, and its impact on operational efficiency and company performance. The ERP implementation process was carried out in a structured manner, including selecting the right system and intensive training for employees. Although the implementation went smoothly, technical challenges arose related to data integration from the legacy system, in accordance with the findings of Wijaya & Wirawan (2019) and Singh et al. (2021) regarding the difficulty of merging data from the legacy system to ERP. The selection of SAP S/4HANA as an ERP system, which is modular, shows the importance of choosing the right system to support efficient operations and global flexibility (Hossain et al., 2020). Here are the details:

1. SAP Modularity

The SAP system is modular, consisting of various modules that can be selected according to the company's needs, such as financial management (FI), supply chain (MM), human resources (HR), and production (PP). This modularity allows New Balance to implement modules that are relevant to their operations without having to adopt the entire set of functions (Zhao et al., 2018).

2. Flexibility in Customization

Due to its modular nature, SAP allows the system to be customized to the specific needs of each branch or business unit, which is important for a multinational company like New Balance. Each branch, for example in Europe and Asia, may have different operational needs. With SAP, New Balance can configure the ERP to suit local conditions and regulations, while maintaining consistent integration across global operations (Amoako-Gyampah, 2020).

3. Ability to Adapt to Diverse Operational Needs

With over a thousand branches in multiple countries, New Balance faced challenges in unifying disparate operational systems. SAP, with its flexibility, enabled the company to manage these differences without sacrificing efficiency or data integrity. For example, in branches with different financial regulations, SAP could customize accounting and reporting modules to comply with local regulations, while still unifying data at the central level (Shanks et al., 2020).

4. Scalability and Growth

The main advantage of the SAP ERP system is its scalability, which allows New Balance to adapt the system to the growth of the company. If the company expands operations or adds branches, it can add new modules or functionality without affecting the existing structure. This provides flexibility in responding to market changes and business needs (Hendricks et al., 2021).

The selection of SAP as a modular ERP system provides New Balance with flexibility and adaptability to the diverse operational needs of global branches, maintaining efficiency and consistency while meeting local requirements. The biggest challenges were employee resistance to change and difficulty in integrating data from legacy systems. This is in accordance with the findings of Al-Fawaz et al. (2020) on barriers to technology resistance, as well as Sahu & Misra (2021) who showed that IT infrastructure readiness is critical to smooth ERP implementation. Inadequate IT infrastructure can slow down performance and hinder operations.

Poor data integration can lead to ERP implementation failure and short-term operational disruption. This problem occurs when data is unstructured, unstandardized, or inconsistent, which hinders the migration process and causes inaccurate data. This impairs decision-making and can lead to errors in transactions, financial reporting, or supply chain management. As a result, companies face higher operational costs and decreased productivity. Therefore, IT infrastructure readiness and good data integration should be prioritized in ERP planning to reduce risks and ensure a smooth transition.

The implementation of ERP at New Balance improves operational efficiency by reducing production cycle time and accelerating data processing, in line with O'Leary's (2021) findings showing increased efficiency through automation. ERP also optimizes supply chain management and raw material procurement, reduces procurement and shipping costs, and improves data visibility and accuracy, as suggested by Kim & Lee (2022). In addition to efficiency, ERP supports product innovation and rapid response to market changes, accelerates product development, and facilitates more accurate data-based decision making, in accordance with research by Gupta & Soni (2020) and Surendran et al. (2022). ERP helps managers make faster decisions and increase competitiveness by providing real-time and comprehensive information.

1. Higher Data Accuracy

ERP allows companies to store data in one integrated system that covers various operational aspects such as finance, production, sales, human resources, and supply chain. With this data consolidation, ERP reduces the risk of errors due to inconsistent data transfer or updates between systems. Automatic validation features in ERP reduce input errors and improve data quality control, resulting in more accurate and reliable information for strategic decision making.

2. Integrated and Real-Time Data

ERP systems provide real-time access to company data, allowing management to understand the company's condition and make adjustments quickly. ERP integrates data from various departments, such as inventory, sales, and human resources, into one system, supporting accurate

and up-to-date cross-departmental analysis. This accelerates decision-making that is responsive to market changes, strategy adjustments, and risk management.

3. In-depth Analysis for Strategic Decisions

ERP also has advanced analytical capabilities and reporting tools that allow management to analyze data in greater depth. With integrated data, management can identify business trends, performance patterns, and areas that require further improvement or efficiency. For example, ERP allows for the analysis of the profitability of specific products or services, facilitates more efficient production planning, and helps in determining optimal resource allocation (He et al., 2018). With the support of these analytical tools, management can make strategic decisions based on more comprehensive insights.

4. Consistency of Information

In an ERP system, data is updated centrally, so that all business units and managers access the same and consistent information. Thus, ERP helps eliminate information inconsistencies that can hinder communication between departments or give rise to different interpretations of data (Xu et al., 2022). Management not only obtains more reliable information, but can also ensure that all members of the organization work on the same data, supporting the formulation of coherent strategies that are aligned with corporate goals.

The implementation of ERP at New Balance has a significant long-term impact on the company's performance and competitiveness, reducing operational costs, accelerating production, and improving supply chain accuracy. This finding supports the theory of Stone & Woodcock (2021) which states that although ERP requires a large investment, its long-term impact in the form of increased efficiency and competitiveness is very profitable. ERP also provides a strong foundation for New Balance to thrive in a competitive global market, in accordance with the findings of Sharma et al. (2023) which shows the positive impact of ERP in reducing costs and increasing innovation.

The implementation of ERP at New Balance has had a significant impact on operational efficiency and company performance. Despite facing challenges such as resistance to change and data integration, the company managed to overcome them with the right approach. Based on theory and literature findings, ERP helps improve operational visibility, accelerate decision-making, and support product innovation, which strengthens the company's competitive position in the global market.

### Conclusion

New Balance's ERP implementation had a significant impact on operational efficiency and company performance. Despite challenges such as employee resistance and data integration, ERP, specifically SAP S/4HANA, successfully improved real-time data visibility, accelerated decision-making, and supported supply chain management. A phased implementation process with good training helped reduce resistance and increase technology adoption. ERP strengthened the company's competitiveness in the global market. The study suggests evaluating the readiness of IT infrastructure, human resources, and the selection of the right ERP system, as well as further studying the long-term impact of ERP on product innovation and risk management. The study also needs to explore the role of top management in the success of ERP implementation and its impact on company performance across industries.

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