



# The Effect of Implementing a Corporate Resource Management System (ERP) in Improving PT's Supply Chain Management (SCM) Performance. Nusapersada Sat Tbk

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## Keywords:

Supply Chain Management, Enterprise Resource Planning

## Abstract

This research investigates the effect of implementing an Enterprise Resource Management System (ERP) on improving Supply Chain Management (SCM) performance at PT. Nusapersada Sat Tbk . With the research method in the form of interviews, information was obtained from the company owner. The results show that ERP implementation has a significant positive influence on SCM performance at PT. Nusapersada Sat. In facing global competition, SCM is an important key in achieving competitive advantage. ERP helps facilitate a company's internal integration, enabling more effective supply chain management. This study concludes that ERP integration provides significant benefits in increasing company operational efficiency, increasing customer satisfaction, increasing revenue and profits, and optimizing asset use. However, to improve overall SCM performance, wise decision making, effective communication, and good coordination between ERP and SCM are required. Therefore, continuous efforts are needed to improve the system to achieve more optimal results.

## 1. Introduction

In the face of global competition, companies naturally must innovate to arrange products and integrate information flows in supply chain management systems, or Supply Chain Management (SCM) (Richey et al., 2022). Supply Chain Management involves the distribution of goods and services, encompassing the process from raw materials to the final product (Sharma et al., 2022). The increase in global competition has prompted organizations to consider the necessity of cooperative partnerships within the supply chain, making process improvements a primary priority (Alshurideh et al., 2022). SCM also entails collaboration and integration among partners involved in the supply chain, encompassing information, products, and finance (Putro et al., 2021).

When a company integrates information technology internally and externally, implementing Supply Chain Management becomes much easier. A fully implemented Enterprise Resource Planning (ERP) system empowers human resources and enables companies to build strong relationships between each entity involved

(Min et al., 2019). This integration facilitates supply chain management by reducing production costs and providing an overview of internal conditions through periodic reports, from raw materials to effective material sourcing strategies (Marbun et al., 2020). Timely delivery from partners enables companies to plan sales, purchases, and inventory effectively (Management & Journal, 2018).

To meet current global competition, companies must enhance the quality of their services to consumers in an increasingly competitive environment. Integration is possible through an Enterprise Resource Planning (ERP) system, which integrates various systems within the company, including auditing, accounting, and supply chain management (Calystania et al., 2022). ERP comprises three main modules: accounting, operations, and human resource management (Subagyono, 2023). ERP technology handles logistics, production, finance, and sourcing, focusing on internal company coordination rather than consumer involvement (Qadri et al., 2022).



PT. Nusapersada Sat Tbk, a printed circuit board and mechanical component assembly supplier, commenced commercial operations on June 1, 1990, founded by Mr. Abidin Hasibuan (Khairunissa & Santosa, 2022). The company's production activities are closely related to supply chain activities, from standard material acquisition to consumer product delivery (Dewi & Suprapti, 2022). The objective of this study is to evaluate the Enterprise Resource Planning system implemented at PT. Nusapersada Sat Tbk to enhance supply chain management (Dewi & Suprapti, 2022).

Thus, the process of creating a brand orientation and company performance is crucial for the stability of PT. Nusapersada Sat Tbk, ensuring the company can avoid high lead times and distribution delays (Planning et al., 2022). Recognizing the importance of the relationship between Supply Chain Management and Enterprise Resource Planning can help PT. Nusapersada Sat Tbk achieve significant profits and minimize undesirable occurrences within the company (Planning et al., 2022). Therefore, this in-depth study addresses the influence of applying an Enterprise Resource Planning system on improving Supply Chain Management performance at PT. Nusapersada Sat Tbk.

## 2. Literature Review

### 2.1 Management Chain Supply (Supply Chain Management)

Supply Chain Management is already known as one of the most effective and efficient activities in standard management for maximizing profits in the procurement process or obtaining materials necessary for production until they become tradable goods, as well as for delivering products or services to customers. This process involves active activities from the business side to maximize customer satisfaction and gain a competitive edge in the market (Wullur et al., 2022).

According to Kumar (2017) in the book titled 'The Effect of Supply Chain Management Practices on Supply Chain and Manufacturing

Firms Performance' (Zai et al., 2022), managers in supply chain management must coordinate the logistics aspects of the supply chain, consisting of Planning, Sourcing, Making, Delivering, and Disposal. These five aspects are understood as follows:

1. Planning (Plan/strategy): This section explains the most efficient and strategic startup processes. It is also crucial to consider metrics for determining efficiency in terms of price, quality, and customer value (Craig & Driscoll, 2016).
2. Sourcing (Source): This section explains how to acquire the most profitable sources effectively.
3. Making (Manufacturing): This part explains the productivity and efficiency processes within the supply chain.
4. Delivering (Shipping and logistics): This section explains methods for arranging warehouse networks, determining delivery routes, and handling costs or payment issues.
5. Disposal (System returns): This section explains how to minimize disposals and implement a proper return system (Chain et al., 2022).

### 2.2 Objective Management Chain Supply (Supply Chain Management)

The objective of Supply Chain Management is to minimize uncertainties and associated risks within the supply chain. This can be achieved through methods such as minimizing inventory levels, reducing cycle times, improving business processes, and enhancing customer service, all of which can increase profits and enhance the company's competitive advantage (Romanto et al., 2022).

### 2.3 Benefit Application Management Chain Supply (Supply Chain Management)

According to Anwar (2018), the implementation of effective Supply Chain Management (SCM) can result in several profitable benefits. Among these benefits are:



1. Customer satisfaction: Every company aims to create satisfied customers who will repeatedly purchase their products or services. Customer loyalty and commitment are achieved when there is satisfaction with the quality of the products or services provided. Good SCM ensures that products reach customers without defects, leading to happy and satisfied customers who trust the company's offerings.
2. Increased revenue and profitability: Satisfied customers are more likely to make repeat purchases, leading to increased sales and, consequently, higher profits for the company.
3. Cost-effectiveness: Effective SCM maximizes cooperation and integration among different divisions within the company, minimizing unnecessary costs. Proper cost management ensures that resources are allocated efficiently according to the established plans.
4. Optimal asset utilization: SCM involves the efficient movement of assets within a company. With proper internal controls, SCM can enhance the knowledge and skills required to maximize the utilization of existing technology, leading to optimal asset utilization.
5. Company growth: Implementing the right SCM practices can improve the quality and production efficiency of a company, leading to increased profitability and enhanced reputation. Good SCM can also enable companies to offer a wider range of high-quality products at competitive prices, thereby attracting more customers and fostering company growth.

#### **2.4 Planning Source Corporate Power or Enterprise Resource Planning (ERP)**

Enterprise Resource Planning (ERP) is a data-based system utilized by companies to support their management processes effectively. The ERP system operates by collecting and managing inputted data within a database. ERP software can be found in various types of devices used by organizations or

companies to manage daily business activities such as procurement, accounting, project management, risk and compliance management, and supply chain operations. Essentially, ERP systems are employed to maximize the efficiency of internal controls within a company. The performance of a company largely depends on the quality of its internal controls. Better internal controls lead to improved company performance, whereas poor internal controls result in decreased company performance.

#### **3. Research Metode**

The research team utilized PT. Sat Nusapersada Tbk as the subject of their study for the article titled "Influence of Enterprise Resource Planning System (ERP) Application on Enhancing Supply Chain Management (SCM) Performance in a Company" (Sahid, 2022). The chosen research method was descriptive, deemed the most effective by the writing team, as it allows for a detailed description of current issues and incidents as they occur during the study period (Voicu et al., 2013).

Data collection techniques employed included unstructured interviews and observational data collection. The research team opted not to use a specific interview guide but focused on key problem areas they wished to explore with respondents/informants (Alshawabkeh et al., 2022). The research process involved initial observation of the selected research object, followed by the search for valid data relevant to PT. Sat Nusapersada Tbk's implementation of the Enterprise Resource Planning System (ERP) to enhance supply chain management performance in the company (Koberg & Longoni, 2019).

#### **4. Results and Discussion**

PT. Sat Nusapersada Tbk, commonly abbreviated as PT. Satnusa, was established on June 1, 1990, by Mr. Abidin Hasibuan. Mr. Abidin embarked on his entrepreneurial journey with determination and perseverance, overcoming various challenges along the way.



Over time, PT. Satnusa evolved into a prominent Printed Circuit Board (PCB) supplier, attracting interest from global electronic clients. Situated at Jl. Pelita VI No. 99, Kp. Pelita, District. Lubuk Baja, Batam City, Riau Islands 29443, PT. Satnusa now operates 11 factories and 2 subsidiary companies in Batam.

To enhance its market position, PT. Satnusa implements strategic business initiatives:

1. Strengthening company capital to negotiate favorable terms for direct material procurement at competitive prices.
2. Diversifying its customer base to reduce dependency on a single client.
3. Establishing representatives in Singapore and Japan to expand its business network.
4. Acquiring PT SME and PT SNB to bolster its competitive edge through integrated efforts in Surface Mounting Technology (SMT), Plastic Molding, Metal Stamping, PCBA, and Complete Set Assembly.
5. Embracing advanced technology to attract orders for high-end, high-margin products.

Despite facing challenges such as competition, declining revenue from certain clients, government expectations, and financial pressures, PT. Satnusa takes proactive measures to address them. To fortify its infrastructure and liquidity amid government expectations, PT. Satnusa secures a credit investment agreement with PT Bank Mandiri Persero Tbk. Additionally, to offset declining client revenue, PT. Satnusa optimizes production cost allocation to offer consumers the most competitive prices. Furthermore, PT. Satnusa adopts a cautious approach, conducting thorough research and analysis to make informed decisions.

The implementation of an ERP system yields positive outcomes, enabling PT. Satnusa to meet governance expectations and recover revenue from declining clients. Moreover, it positively impacts the company's supply chain management division. Previously, cost-cutting measures impacted supply chain management adversely. However, with the ERP system, PT.

Satnusa no longer needs to reduce material costs and can even offer lower prices to consumers, thereby enhancing supply chain management performance.

In addition to the need for continuous improvement in PT. Satnusa's supply chain performance, standardizing ERP systems can also streamline the company's operations, enhance employee productivity, improve quality and accuracy, optimize team performance, and reduce production time and costs. PT. Satnusa's supply chain management is not in doubt, as the company selects trusted suppliers of high-quality materials, enabling it to deliver the best products to consumers. Furthermore, PT. Satnusa ensures the efficient management of its standard materials, maintaining the quality of its products without compromise.

## 5. Conclusions

The conclusion drawn by the writing team is that while PT. Satnusa's supply chain and ERP performance are satisfactory, there is still room for improvement to enhance the company's overall performance and quality. Key to the success of PT. Satnusa's ERP and SCM systems are sound decision-making, seamless communication, and effective coordination. The implementation of ERP systems and supply chain management at PT. Satnusa has significantly streamlined the company's operations, with efficiency being the defining characteristic of their performance.

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