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The Application of SWOT Analysis to Improve Operational Efficiency in the Manufacturing Industry of PT. XYZ

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Abstract: This scientific article, titled "The Application of SWOT Analysis to Improve Operational Efficiency in the Manufacturing Industry of PT. XYZ", aims to analyze the implementation of the SWOT (Strengths, Weaknesses, Opportunities, Threats) method in enhancing operational efficiency at PT. XYZ, a leading automotive company in Indonesia. In the face of globalization and increasingly intense industrial competition, operational efficiency has become a key factor in maintaining the company's competitiveness. Using a qualitative-descriptive approach, data were collected through observations, interviews, and internal documentation studies. The SWOT analysis results show that PT. XYZ's main strengths lie in its integrated production system and advanced technology, although it still faces weaknesses such as limited process flexibility and dependence on certain supply chains. Opportunities to enhance efficiency include process digitalization and human resource development, while threats come from global market fluctuations and technological advancements by competitors. The strategic recommendations derived from this analysis are expected to serve as a reference for managerial decision making to sustainably improve operational performance.

Keywords: SWOT, Operational Efficiency, Manufacturing Strategy, PT. XYZ, Automotive Industry

INTRODUCTION

Background of the Problem

The manufacturing industry plays a vital role in driving national economic growth. PT XYZ, as one of the leading manufacturing companies in Indonesia, continuously strives to maintain its competitiveness by improving operational efficiency and product quality. However, along its journey, PT XYZ has faced various challenges stemming from both internal and external factors. These include limited utilization of digital technology, reliance on the domestic market, and increasing global competition.

On the other hand, significant opportunities are emerging through technological advancements such as industrial digitalization and the adoption of Industry 4.0 concepts, which open up potential for enhancing efficiency, expanding markets, and fostering innovation in product development. Therefore, a strategic approach is required to identify the strengths, weaknesses, opportunities, and threats faced by the company.

SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) serves as an effective managerial tool to formulate adaptive and competitive operational strategies. By implementing SWOT analysis appropriately, PT XYZ can develop relevant strategies to improve operational efficiency and minimize business risks amid the rapidly changing dynamics of the industry.

Research Objectives

1. Analyze the results of the identification of internal and external factors through a SWOT approach that affects the operational efficiency of PT XYZ.
2. Formulate the right strategy to increase operational efficiency for PT XYZ based on the results of the SWOT analysis.
3. Recommend the most appropriate SWOT strategy for PT XYZ in improving operational efficiency

METHOD

This study uses a qualitative approach with the literature review method. Data was collected through literature review of various scientific sources such as national and international journals, academic books, and official publications relevant to the topic of SWOT analysis and operational efficiency in the manufacturing industry. The focus of the study is directed to the basic concepts of SWOT, its application in the context of operational strategy, as well as previous studies that discuss the implementation of SWOT in manufacturing companies. The purpose of this method is to compile a theoretical synthesis and best practices that can be a reference in improving the operational efficiency of PT. XYZ.

RESULTS AND DISCUSSION

Result

Based on the background, objectives, problem formulation and methods that have been described, the following results are obtained:

The Results of the SWOT Analysis Obtained in Identifying Internal and External Factors That Affect the Operational Efficiency of PT XYZ

a. SWOT Analysis

Swot analysis is a strategic planning method used to evaluate the strengths, weaknesses, opportunities, and threats owned by a company. This analysis helps in identifying internal and external factors that affect the achievement of goals, as well as being the basis for the formulation of effective and targeted strategies.

1) Strengths: are internal strengths or abilities that the company has that can support the achievement of goals.
2) Weaknesses: there are internal shortcomings or limitations that can hinder the company's performance.
3) Opportunities: there are external factors that can be used by the company to grow and achieve profits.
4) Threats: are external factors that can hinder or endanger the sustainability and growth of the company.

By understanding these four elements, companies can maximize their potential, improve weaknesses, take advantage of existing opportunities, and anticipate various threats that may arise from the external environment.

SWOT Analysis has been researched by experts before including (Rindiani, & Ali, 2025) and (Pratama, & Ali, 2023).

b. Operational Efficiency

Operational efficiency is the ability of an organization to use resources optimally to produce maximum output at the minimum possible cost without reducing the quality of the products or services produced (Junaidi, 2018). In the context of the manufacturing industry,

this efficiency includes reducing production process time, minimizing material waste, and increasing labor productivity through the application of standardized technology and work systems (Ali & Nulestari, 2018). Operational efficiency is also an important indicator in assessing company performance because it has a direct impact on profitability and long-term competitiveness (Fitriana & Ali, 2025).

Operational efficiency has been researched by experts before including (Latif, & Ali, 2025), (Novita, & Zahra, 2024), and (Fitriana & Ali, 2025).

c. Operational Efficiency in the Manufacturing Industry of PT. XYZ

PT. XYZ, as one of the main players in the national automotive manufacturing industry, has implemented various strategies to improve operational efficiency, including through production line automation, implementation of lean manufacturing systems, and the integration of information technology in logistics and distribution systems (Paramarta, 2006). Despite this, companies still face challenges in terms of dependence on suppliers and the adaptation of the latest technologies, which leads to inefficiencies in some operational areas (Ali & Nulestari, 2018). Through SWOT analysis, companies can conduct strategic evaluations of internal and external factors that affect efficiency.

Operational efficiency in the manufacturing industry of PT. XYZ has been researched by previous experts including (Ali & Nulestari, 2018), (Novita, & Zahra, 2024), and (Simangunsong et al., 2025)

d. Strengths of PT. XYZ

PT. XYZ has a sophisticated production infrastructure with the support of automation systems and high-quality human resources, which can support the overall efficiency of the production process (Fitriana & Ali, 2025). In addition, the implementation of a work culture based on continuous improvement, such as Kaizen and Total Quality Management (TQM), is an internal force in maintaining operational stability (Womack & Jones, 1996). Strong research and development (R&D) capabilities also drive efficient product and process innovation (Zenvien et al., 2025).

The strengths of PT. XYZ have been researched by experts before including (Pratama, & Ali, 2023), (Mulyana, & Ali, 2024), and (Aulia, & Ali, 2025).

e. Weaknesses of PT. XYZ

Although it has many advantages, PT. XYZ faces several internal weaknesses that can reduce operational efficiency, such as a complex organizational structure and lack of flexibility in the face of market changes (Ali & Nulestari, 2018). High dependence on external suppliers for certain components also increases the risk of production delays in the event of supply disruptions (Paramarta, 2006). In addition, some production lines are still not fully digitized, so they have not been able to optimize real-time data processing for decision-making (Zenvien et al., 2025).

The weakness of PT. XYZ has been researched by previous experts including (Shobirin, & Ali, 2019), (Lawu, & Ali, 2022), and (Shobirin, & Ali, 2019).

f. Opportunities PT. XYZ

PT. XYZ has great opportunities in improving operational efficiency through the application of industry 4.0 technologies, such as the Internet of Things (IoT), Artificial Intelligence (AI), and Big Data Analytics (Zenvien et al., 2025). In addition, government policy support for the automotive sector and the growth of the electric vehicle market opens up the potential for more efficient and environmentally friendly product expansion (Fitriana & Ali, 2025). Companies also can increase strategic partnerships with global companies to strengthen access to technology and production resources (Ali & Nulestari, 2018).

Opportunities (opportunities) PT. XYZ has been researched by experts before, including (Sari, & Ali, 2019), (Noorcahyo, & Ali, 2025) and (Ali & Nulestari, 2018).

g. Threats of PT. XYZ

Several external threats that can hinder the operational efficiency of PT. XYZ, among others, is the increasing global competition, especially from Chinese and Japanese automotive manufacturers who offer more competitive prices (Paramarta, 2006). In addition, volatility in raw material prices, foreign exchange rates, and increasingly stringent environmental regulatory policies also add to operational burdens and demand rapid adaptation in terms of technology and production processes (Zenvien et al., 2025). Global geopolitical and logistical uncertainty also increases the potential for disruption to companies' supply chains (Ali & Nulestari, 2018).

Threats (threats) of PT. XYZ have been researched by experts before including (Paramarta, 2006), (Zenvien et al., 2025), and (Ali & Nulestari, 2018).

To understand the strategic position of the company in the face of increasingly complex industrial competition, an analysis is needed that can describe the company's internal and external conditions. SWOT analysis is used to identify strengths and weaknesses from within the company, as well as opportunities and threats from the external environment. The results of such identification are presented in the following Table 1:

Table 1. SWOT Analysis

STRENGTHS	WEAKNESS
1. Strong and high-quality product reputation 2. Experience and extensive manufacturing network 3. Standardized production system 4. Trained and reliable human resources	1. The use of digital technology is still not optimal 2. Dependence on the domestic market 3. Lack of promotion in the global market 4. Limited flexibility in product design innovation
OPPORTUNITIES	**THREATS**
1. The growth of digitalization and industrial automation 2. Expansion of global markets 3. Increased awareness of efficiency and sustainability 4. Adoption of Industry 4.0 technology	1. Fierce competition between global manufacturing manufacturers 2. Volatility of raw material prices 3. Rapid changes in consumer preferences 4. Dependence on global supply chains

h. Discussion

Based on theoretical studies and relevant articles, SWOT analysis is an effective method to formulate a strategy by identifying internal and external factors that affect the company's performance. By analyzing strengths, weaknesses, opportunities, and threats, companies can design adaptive strategies to deal with industry dynamics and improve operational efficiency in a sustainable manner (Ali & Limakrisna, 2013).

SWOT analysis formulates the right strategy to increase operational efficiency for PT XYZ

The results of the SWOT analysis that has been conducted on PT XYZ provide a comprehensive picture of the company's strategic position based on internal and external factors that affect its operational efficiency. Through the identification of strengths, weaknesses, opportunities, and threats, companies can develop operational strategies that are responsive and proactive to changes in the business environment.

PT XYZ's main strengths, such as superior product quality, extensive production and distribution network, and competent human resources, are important capital in facing competition. On the other hand, weaknesses such as limited adoption of digital technology and

lack of presence in the international market need to be addressed immediately so that they do not become obstacles in the long run.

The opportunities that have arisen, particularly through digitalization, industrial automation, and e-commerce expansion, allow PT XYZ to improve operational efficiency and significantly expand market reach. Meanwhile, external threats such as global competition, fluctuations in raw material prices, and changing consumer preferences are challenges that must be anticipated through adaptive strategies.

From the combination of the four SWOT elements, four main strategies are prepared as follows:

1) Strengths–Opportunity (SO) Strategy:

   This strategy leverages the company's internal strengths to capture external opportunities. For example, optimizing product quality to penetrate the export market, developing modern product designs that are environmentally friendly, and expanding sales through digital platforms and collaborations with designers or influencers to reach new markets more widely.

2) Weakness–Opportunity (WO) Strategy:

   This strategy is applied to address internal weaknesses by taking advantage of available opportunities. PT XYZ needs to invest in production technology to improve efficiency, train and develop innovative teams, and strengthen the use of digital platforms for more adaptive marketing and internal management.

3) Strengths–Threat (ST) Strategy:

   This strategy aims to deal with external threats with the company's strength. Efforts that can be made include investing in production technology to improve efficiency and competitiveness, diversifying products to reduce dependence on certain markets, as well as establishing strategic partnerships in the supply chain and actively monitoring and adjusting strategies to industrial dynamics.

4) Weakness–Threat (WT) Strategy:

   This strategy focuses on minimizing weaknesses while dealing with potential external threats. This strategy includes restructuring the production process to be more efficient and less dependent on manual labor, increasing brand awareness through aggressive digital marketing, and strengthening a strict and integrated quality control system and supply chain risk management.

This SWOT approach not only assists PT XYZ in formulating tactical steps for operational efficiency but also serves as a basis for long-term strategic decision-making oriented towards the company's competitiveness and sustainability amid the challenges of the manufacturing industry. The strategies resulting from the combination of SWOT elements are presented in Table 2 below.

Table 2. SWOT Strategy

Internal Factors / External Factors	STRENGTHS	WEAKNESS
	1. Strong and high-quality product reputation 2. Experience and extensive manufacturing network 3. Standardized production system 4. Trained and reliable human resources	1. The use of digital technology is still not optimal 2. Dependence on the domestic market 3. Lack of promotion in the global market 4. Limited flexibility in product design innovation
OPPORTUNITIES 1. The growth of digitalization and industrial automation 2. Expansion of global markets 3. Increased awareness of efficiency and sustainability 4. Adoption of Industry 4.0 technology	**STRENGTHS OPPORTUNITIES (SO)** 1. Optimize high-standard production processes to enter international markets 2. Leveraging digitalization to strengthen global distribution chains 3. Product innovation according to global trends with the strength of human resources 4. Improve brand positioning through the strength of product quality	**WEAKNESS OPPORTUNITIES (WO)** 1. Invest in digital systems and manufacturing automation 2. Development of a global market research team to adjust the preferences of overseas consumers 3. Improve digital promotion and e-commerce platforms 4. Optimization of product design innovations based on market trends
THREATS 1. Fierce competition between global manufacturing manufacturers 2. Volatility of raw material prices 3. Rapid changes in consumer preferences 4. Dependence on global supply chains	**STRENGTHS THREATS (ST)** 1. Diversify products to reach a wider market segment 2. Investment in adaptive technologies in the face of market uncertainty 3. Supply chain efficiency through technology and strategic partnerships 4. Strengthening human resource capabilities to adapt to technological and market changes	**WEAKNESS THREATS (WT)** 1. Restructuring business processes to be more flexible and adaptive 2. Increase internal digital literacy 3. Supply risk management and raw material costs 4. Development of standardized and technology-based quality management system

SWOT Strategy Recommendations at PT. XYZ

SO Strategy (Strength–Opportunities) is the most appropriate choice for PT XYZ because the company has strong internal strengths and great external opportunities. This strategy allows companies to improve operational efficiency through digitalization, product quality enhancement, and global market expansion.

As a support, the WO (Weakness-Opportunities) strategy also needs to be implemented to overcome weaknesses such as lack of technology adoption and global promotion, by strengthening digital systems and supply chains.

Meanwhile, the ST (Strength-Threats) and WT (Weakness-Threats) strategies can be used situationally as an anticipatory measure against competition and market uncertainty.

CONCLUSION

Based on the results of the SWOT analysis of PT XYZ, it is known that the company's operational efficiency is influenced by a combination of internal and external factors. The main strength lies in the high quality of the product, the efficiency of the production process, and the competent human resources. On the other hand, weaknesses such as limited use of digital technology and lack of global market penetration are concerns. Major opportunities that can be leveraged include the development of industrial digitalization, international market expansion,

and eco-friendly design trends. Threats such as global competition, market fluctuations, and regulatory changes must be strategically anticipated. This analysis proves that the SWOT method is very effective for formulating appropriate strategies and adapting to the dynamics of the manufacturing industry.

From the combination of SWOT elements, four main strategies were formulated, namely SO, WO, ST, and WT. The SO strategy is recommended as a priority because it optimizes the company's strengths to take advantage of opportunities, such as strengthening efficiency and quality through digitalization and product innovation. The WO strategy supports efforts to strengthen digital-based supply chain systems and management in overcoming internal weaknesses. Meanwhile, the ST and WT strategies can be applied situationally as a form of mitigation against external challenges and market uncertainty. Thus, the comprehensive implementation of the SWOT strategy can be the right step for PT XYZ in improving operational efficiency and strengthening competitiveness in the global market.

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