

## Business Strategy Development for Indonesian SMEs in Precision Manufacturing: A Case Study of PT. XYZ

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### Abstract

The rapid evolution of Industry 4.0, marked by advancements in automation, artificial intelligence (AI), and digital transformation, is reshaping global manufacturing competitiveness. Indonesia's manufacturing sector, a key driver of economic growth, faces increasing pressure to adapt to these technological changes while addressing internal inefficiencies and market challenges. This study focuses on PT. XYZ, a precision manufacturing company operating in the SME sector, which has encountered declining revenue and operational bottlenecks despite its strong industry reputation. This research employs a comprehensive strategic analysis using internal (resource analysis, VRIO, value chain analysis) and external (PESTLE, Porter's Five Forces, competitor analysis) frameworks to assess PT. XYZ's market positioning and business challenges. The study further integrates SWOT and TOWS analysis to formulate strategic business solutions that leverage PT. XYZ's core strengths, mitigate weaknesses, and capitalize on emerging opportunities in the precision engineering industry. Key findings indicate that PT. XYZ's competitive advantage lies in its custom job-order specialization and strong client relationships, yet it faces limitations in financial resilience, workforce capabilities, and digital adoption. Based on the analysis, this study proposes an integrated business strategy emphasizing operational efficiency, financial resilience, market expansion, and digital transformation. The recommended implementation plan outlines short-term, medium-term, and long-term initiatives, including supply chain optimization, workforce upskilling, lean manufacturing adoption, and strategic partnerships. The findings contribute to understanding how SMEs in Indonesia's manufacturing sector can navigate industry challenges, differentiate their offerings, and achieve sustainable growth in an increasingly competitive landscape.

**Keywords:** Industry 4.0; Competitive Advantage; Business Strategy; SMEs; Mechanical Manufacturer

### INTRODUCTION

The global manufacturing sector is experiencing a radical transformation driven by the adoption of Industry 4.0 technologies such as artificial intelligence (AI), robotics, the Internet of Things (IoT), and advanced data analytics. These technologies are enabling smarter production processes, automation, and real-time decision-making capabilities that enhance operational efficiency and product quality. Prominent global initiatives like "Made in China 2025" and France's

"Society 5.0" exemplify how leading countries are pushing for digital transformation to maintain industrial competitiveness and economic leadership (Statista Market Insights, 2023). According to IoT Analytics (2022), Investments in Industry 4.0 technologies have seen a significant increase, with funding for related startups growing by 319% between 2011 and 2021, reaching \$2.2 billion in 2021. This investment growth demonstrates the strong potential of technology-driven manufacturing solutions to overcome global challenges such as the COVID-19 pandemic. These developments set new benchmarks that influence manufacturing practices worldwide, including in developing countries like Indonesia, guiding them in formulating effective digital transformation strategies (Atieh et al., 2023).

In Indonesia, the manufacturing sector continues to be a key component of the national economy. Badan Pusat Statistik (2024) highlights consistent growth in GDP and per capita income within the sector, despite slight decelerations in year-over-year economic growth and manufacturing growth rates. This is indicative of a maturing economy facing moderate slowdowns but still maintaining a trajectory of growth. The Purchasing Manager's Index (PMI) that marked below 50 points for several months in 2024 provides further insight, with fluctuations that suggest periods of contraction followed by a rebound in manufacturing activity towards the end of the year, reflecting a recovery in demand and production levels. Furthermore, regional contributions to Indonesia's GDP from provinces like West Java underscore the strategic importance of manufacturing hubs. These regions benefit from a concentration of industrial activities, robust infrastructure, and skilled labor availability, driving regional competitiveness and economic growth (Badan Pusat Statistik, 2023). To align with global Industry 4.0 trends, Indonesia launched the "Making Indonesia 4.0" initiative in 2018, a strategic response to the global trend towards digitalization, aiming to modernize the Indonesian manufacturing sector by integrating digital technologies. This initiative targets key sectors such as food and beverages, textiles, automotive, chemicals, and electronics, aiming to enhance productivity, reduce import dependence, and foster economic resilience (Ministry of Industry Republic of Indonesia, 2018).

Despite these efforts, the Indonesian manufacturing industry still faces challenges in maintaining competitiveness, especially regarding product quality and price. Adam & Negara (2017) highlight that local producers struggle to balance cost reductions with quality due to fierce competition from low-cost imports, especially from China. Legowo & Indiarto (2021) revealed that digital transformation which includes the adoption of IoT, AI and automation has not been evenly distributed in all companies, especially in the SME sector which is hampered by limited financial and shortage of highly skilled human resources. This uneven distribution of technology, as noted by Irjayanti & Azis (2012), limits innovation and reinforces reliance on traditional, less efficient production methods. Similarly, Rezqianita & Ardi (2020) note that SMEs lag behind larger firms due to restricted access to investment and advanced technological capabilities. As companies are increasingly moving towards mass customization to meet consumer demand for personalized products, customers are willing to pay more for products tailored to their specific needs and tastes (Statista Market Insights, 2023).

PT. XYZ, one of manufacture established in 1992 in Bandung has grown from a basic milling and lathe operation to a precision metalworking specialist with advanced CNC machines and CAD tools. The company operates on a Made-to-Order basis, focusing on high customization and strict adherence to customer designs. Its services range from precision machining for various industries, metal fabrication, to maintenance and repair of industrial machines, along with tailored design engineering services. The company's vision is to lead in providing precision engineering components in Indonesia, driven by a mission to deliver high-quality products, develop skilled labor, ensure timely delivery, and uphold strong ethical standards. PT. XYZ employs a streamlined structure with 30 employees across Marketing, Engineering, Manufacturing, and Finance & Administration divisions, each supporting strategic goals and operational efficiency. PT. XYZ serves primarily Business-to-Business (B2B) clients across diverse industries and maintains competitiveness through high specialization in precision components. Strategic partnerships with organizations like Yayasan Dharma Bhakti Astra enhance its market access and production efficiency. The company's commitment to operational excellence has been recognized with awards in the SME Manufacturing Competition, reinforcing its reputation as a committed and efficient manufacturer in Indonesia's industrial sector.

PT. XYZ faces declining revenue, which dropped from IDR 6.1 billion in 2019 to IDR 5.4 billion in 2024. This downturn reflects the broader challenges within its internal capabilities, operational framework and market strategy, which directly impact its financial health. This business issue characterized by fluctuating production capacity, which leads to inconsistent lead times, delays in order fulfillment, and potential supply chain disruptions. These challenges are particularly critical as the company serves major companies with varying order patterns and urgency levels. Additionally, the company's reliance on imported raw materials and the Made-To-Order system makes it vulnerable to delays in raw material delivery, further complicating production schedules and impacting overall competitiveness. Addressing these operational inefficiencies is crucial for PT. XYZ to improve its market positioning, enhance customer satisfaction, and ensure long-term business sustainability in the competitive manufacturing landscape.

## LITERATURE REVIEW

### Strategy

According to Wandebori (2019), strategy is a set of integrated commitments, actions, and decisions used to leverage core competencies in achieving competitive advantage. Strategy is fundamentally about being different, and this differentiation enables sustainable competitive advantage as it is difficult for competitors to replicate an entire system of interrelated activities. An effective strategy requires continuous discipline and a clear understanding of how various activities reinforce each other to ensure long-term competitiveness and sustainability.

### External Analysis

External analysis is a critical component of strategic management that helps companies gain a deeper understanding of macro-environmental forces that may present opportunities and threats to their business. External analysis is

conducted to identify and assess opportunities and threats, where opportunities refer to environmental conditions that, if utilized and exploited effectively, can generate revenue and profit for the company. In contrast, threats are external conditions that, if ignored, may negatively impact a company's ability to generate income and achieve profitability (Wandebori, 2019). This research are conducted using general environment analysis (PESTLE), industry environment analysis (Porter Five Forces), and competitor analysis.

### **Internal Analysis**

According to Wandebori (2019) internal environmental analysis must assess a company's capabilities, specifically its ability to exploit resources effectively. Internal analysis provides insights into whether a company has the necessary capabilities to achieve its strategic goals and gain a competitive advantage. Internal analysis includes resource analysis and value chain analysis, which serve as the foundation for developing superior capabilities and core competencies to achieve a sustainable competitive advantage.

### **Market Analysis**

By conducting market analysis, companies can target relevant markets, leverage internal strengths, and avoid external threats. According to Kotler and Keller (2016), frameworks such as Segmenting, Targeting, and Positioning (STP) serve as a marketing strategy model that outlines essential steps in understanding and serving the market. STP is the foundation of marketing strategy aimed at creating a competitive advantage.

### **SWOT Analysis**

Kotler and Keller (2018) describe SWOT analysis as a tool for assessing internal and external forces that influence an organization. Benzagtha et al. (2021) state that strengths and weaknesses focus on internal capabilities, while opportunities and threats examine external environmental factors. They also suggest that SWOT analysis is more productive when integrated with other analytical techniques such as the PESTEL framework, Five Forces Model, AHP, and other methods to enhance accuracy. This analysis helps prioritize strategic objectives by leveraging strengths to capitalize on opportunities while mitigating weaknesses and threats (Nyarku & Agyapong, 2011).

### **TOWS Matrix**

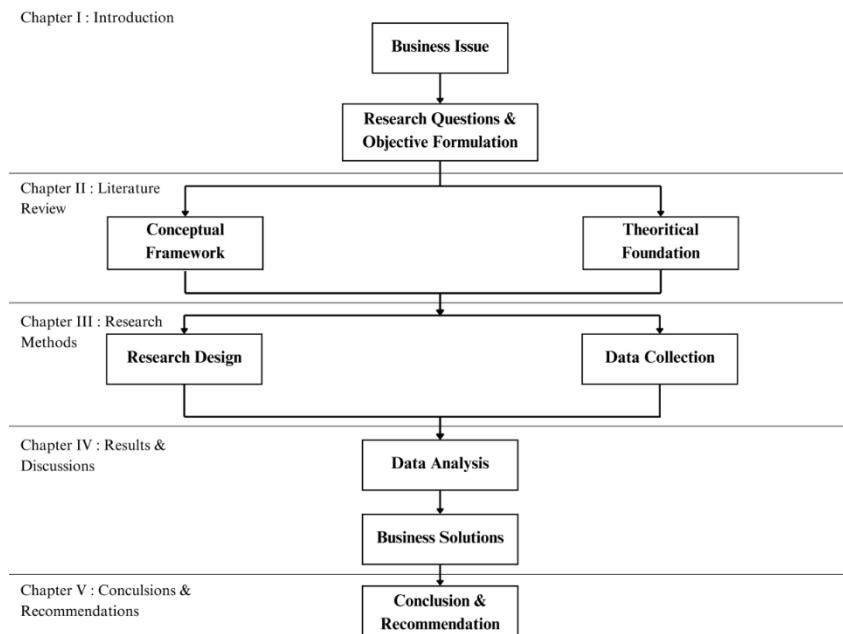
The TOWS matrix analysis helps organizations align their internal strengths and weaknesses with external opportunities and threats to develop strategic actions. It emphasizes leveraging strengths to seize opportunities and mitigate threats while addressing weaknesses to minimize risks. In short, this approach prioritizes strategies that optimize potential and reduce risks. According to Rufaidah (2012), the method encourages brainstorming to generate alternative strategies, fostering management initiatives for growth and risk reduction strategies.

### **Porter's Generic Strategy**

Michael Porter in his book *Competitive Startegy* (1980) introduced introduced the Generic Strategies framework to help companies achieve a competitive advantage in the market through three main approaches. Porter argues that a company must focus on one of these three strategies to attain sustainable competitive advantage.

## METHODS

The research design for this study is exploratory and qualitative, aimed at deepening the understanding of PT. XYZ's strategic issues without using hypotheses. According to Sekaran and Bougie (2016), this design acts as a structured blueprint that guides the collection, measurement, and analysis of data, addressing the research questions from the initial chapter. Techniques include observations and semi-structured interviews with PT. XYZ's management, along with the use of secondary data from company reports, industry publications, and academic literature, allowing for flexible yet detailed insights. Additionally, the study employs the IFAS (Internal Factor Analysis Summary) and EFAS (External Factor Analysis Summary) methodologies to systematically evaluate both internal and external factors affecting the company's performance and competitive edge. These factors are analyzed by weighting their importance, rating their performance, and calculating a weighted score to assess PT. XYZ's internal competitive strength.



**Figure 1. Research Design**

Source: Research Data, 2025

## RESULT

### External Analysis

#### General Environment Analysis

**Table 1. General Environment Analysis**

Factors	Impact	Explanation
Demographic	Opportunity	280M population, 55% under 30, urbanization to 67% by 2050; supports a dynamic labor market and diverse markets
Political/ Legal	Threat	Post election uncertainty, corruption, TKDN/P3DN laws, strict regulations; potential for business disruptions
Economic	Opportunity	Manufacturing 19% of GDP, investment up 52%; robust growth

SocioCultural	Opportunity	Digital transformation, high power distance, collectivism; favorable for tech adoption and teamwork
Technological	Opportunity	Industry 4.0 (IoT, AI, Automation), government incentives; enhances efficiency, despite SME investments challenges
Environmental	Threat	High pollution, strict regulations (PP 22/2021); compliance costs could impact businesses.
Global	Threat	Strategic ASEAN location, \$23.5B exports, risks from supply chain disruptions and geopolitical tensions.

Source: Research Data, 2025

This table evaluates the general environmental factors impacting Indonesia's market, categorizing them as opportunities or threats based on demographic, political/legal, economic, sociocultural, technological, environmental, and global influences. For instance, the demographic shift towards a younger, urbanized population presents opportunities for dynamic labor markets and consumer bases, while political and environmental challenges pose threats due to regulatory instability and high pollution levels.

### Industry Environment Analysis

**Table 2. Industry Environment Analysis**

Factors	Impact	Explanation
Threats of New Entrants	Low	High capital requirements, regulatory challenges, and the need for specialized expertise create significant barriers, keeping the threat of new entrants low for Indonesia's precision engineering industry.
Bargaining Power of Supplier	Moderate to High	Dependence on imported materials and few local alternatives give suppliers considerable bargaining power over manufacturers like PT. XYZ.
Bargaining Power of Buyers	Moderate to Low	PT. XYZ's provision of specialized, custom products limits buyer options and switching opportunities, reducing their bargaining power.
Threat of Substitute Products	Low	The specialized nature of PT. XYZ's products makes substitution difficult and costly, leading to a low threat of substitute products.
Rivalry among Competitor	Moderate to High	The niche market and rapid technological advancements fuel moderate to high competitive rivalry in Indonesia's precision mechanical manufacturing sector.

Source: Research Data, 2025

This analysis focuses on the specific industry factors affecting Indonesia's precision engineering sector, assessing the impact of threats from new entrants, bargaining power of suppliers and buyers, threat of substitute products, and rivalry among competitors. It notes that the high barriers to entry keep the threat of new entrants low, while the specialized nature of the products minimizes the threat of substitutes. However, supplier power is considered moderate to high due to reliance on imported materials, and competitive rivalry is described as moderate to high due to rapid technological advancements and a niche market focus.

**Table 3. External Factor Analysis Summary**

No	External Factors	Weight	Rating	Score	Comment
<b>Opportunities</b>					
1	Growth of manufacturing sector in Indonesia	0,16	3	0,49	expanding rapidly, offering market expansion opportunities
2	TKDN/ P3DN regulation	0,26	4,5	1,18	Government policies support local manufacturing,
3	Availability of young workforce & government vocational programs (BLK)	0,17	4	0,68	Large young workforce available, but skills gap remains a challenge
4	Expansion potential into B2C markets	0,18	3,6	0,65	Customers show interest, but marketing strategy is weak
5	Industry digitalization & Industry 4.0 incentives	0,23	4,2	0,95	Making Indonesia 4.0 : Advanced technologies (CNC, IoT, ERP) can boost efficiency and competitiveness
<b>Sub Total</b>		1	19,3	<b>3,94</b>	
No	External Factors	Weight	Rating	Score	Comment
<b>Threats</b>					
1	Intense competition with major players & low cost imports from China	0,21	2	0,41	Price and technology competition require KTN to be more innovative
2	High dependence on imported raw materials	0,24	2,7	0,65	Fluctuating raw material prices impact profit margins
3	Economic & political uncertainty post-2024 elections	0,22	2,5	0,56	Potential regulatory changes may affect investment and operations
4	Stricter environmental regulations	0,12	1,3	0,16	Compliance with waste management and emissions regulations is a challenge
5	Slow automation adoption in SMEs	0,21	2	0,41	Delays in implementing advanced manufacturing technologies reduce efficiency and hinder long-term scalability.
Sub Total		1	10,5	2,19	

Source: Research Data, 2025

Based on the analysis, total EFAS score is 6.13 (Opportunities: 3,94 and Threats: 2,19). PT. XYZ has growth potential with government support (TKDN), industri 4.0 adoption and available young workforce supporting growth, but must tackle import competition, supplychain risks, regulatory changes and slow automation adoption.

## Competitor Analysis

**Table 4. Competitor Analysis**

Aspect	PT. XYZ	KMM	SJM	Reiken
Established	1992	2014	1999	2005
Location	Bandung	Bandung	Cikarang, Bekasi	Cikarang, Bekasi
Specializations	Precision parts, fabrications, maintenance & repair	Metalworking, precision tools	Precision parts for automotive industry	Die casting moulds, plastic injection molds, precision parts
Certifications	-	-	ISO 9001	ISO 9001:2008
Partnerships	YDBA	Bina Mitra UMKM PLN		YDBA (Pra Mandiri - Mandiri) 2 years
Capacity	Job order	Job order	Mass product, job order	Mass product, job order
Facilities	3 CNC	Advanced machines (DMG Mori, Hartford, Hyundai, SKM ZNC models)	Multifactory (Cikarang, Jababeka, Tegal), Advanced tech CNC & robotics	Advanced machines CNC milling, CNC lathe, Wire Cut, EDM - ERP
Key Strengths	Strong customer relationships, partnerships with YDBA, updated machines	Updated machines, partnership with PLN	Robotics welding, CNC machining, digital inspection tools, collaboration with vocational schools in Gombong, dominated automotive spareparts market share	Partnerships with YDBA, Die casting mold market share of around 60%, 20% production of plastic injection molds, 20% production of precision parts, tools & jig fixtures

Source: Research Data, 2025

KTN is well-positioned in the high-precision manufacturing segment, but to stay competitive against larger players, it must invest in automation, improve production efficiency, and expand capacity while maintaining its core strength in specialized custom manufacturing.

## Consumer Analysis

**Table 5. Consumer Analysis**

B2B	<ol style="list-style-type: none"> <li>Geographic: National, focusing on regions with significant industrial activities like Central Java, Jabodetabek, Surabaya, Sumatera</li> <li>Industry-based segmentation: Serving various sectors, including automotive, electronics, aerospace</li> <li>Company size: Catering to both large-scale manufacturers needing bulk precision components and SMEs requiring custom-made parts or prototypes.</li> <li>Technological complexity: Clients needing high-precision components and those requiring basic mechanical parts</li> <li>Order Type: clients with long-term contract manufacturing (regular ordering patterns) and specialized project-based orders for sporadic needs</li> <li>Client Prioritization: Business who prioritize high-quality outputs and precision in components</li> </ol>
B2C	Specialized custom components for individuals or small businesses requiring high-quality precision parts for repair, modification, or innovation. Also, online platform for custom orders in small scale, automated order platform to handle limited B2C requests without disrupting B2B operations.

Source: Research Data, 2025

PT. XYZ employs a Concentrated Targeting (Niche Marketing) strategy, focusing exclusively on the B2B sector, particularly targeting industries such as automotive, electronics, aerospace, and heavy machinery that require high-precision components. The company caters to large-scale manufacturers for long-term contracts, ensuring steady volumes and revenue, while also serving SMEs needing custom, low-volume precision parts. This approach allows PT. XYZ to maintain flexibility and meet specialized needs without affecting mass production lines. Strategically positioned as a "Precision-driven manufacturing partner for high-quality custom mechanical solutions," PT. XYZ differentiates itself from competitors by offering tailored, low-to-medium volume engineering solutions across a variety of industries, reinforcing its commitment to quality, precision, and reliability.

### Internal Analysis

**Table 6. Internal Factor Analysis Summary**

No	Internal Factors	Weight	Rating	Score	Comment
<b>Strength</b>					
1	Custom job order based products with high specialization	0,19	4,6	0,85	Unique products make it difficult for customers to switch to competitors
2	Comprehensive after-sales service	0,10	3,8	0,38	They provide maintenance and repair services
3	Advanced CNC machines	0,13	4,5	0,60	KTN have 2 CNC machines, advanced software (AutoCAD, SolidWorks, CNC software, etc)
4	Positive organizational culture	0,12	4	0,48	Core values : KOMITMEN, won YDBA awards in 5R (Ringkas, Rapi, Resik, Rawat, Rajin)
5	Strong reputation & credibility	0,17	4,5	0,75	Established in 1992, being part of YDBA from 1995
6	Strong customer relationships	0,13	3,9	0,52	KTN frequently engages with customers to maintain retention
7	Support from YDBA (network & training)	0,17	4,2	0,70	Provides training and networking with major corporations (SIG & Triatra)
		Sub Total	1,00	25,30	3,56

Source: Research Data, 2025

No	Internal Factors	Weight	Rating	Score	Comment
<b>Weaknesses</b>					
1	Lack of investment in production technology	0,11	1,8	0,20	KTN lags behind competitors with more modernized production processes
2	High operational costs	0,14	2	0,28	Rising operational expenses by 23.6% due to its limited automation in production, which allows for higher defects.
3	Limited marketing & digital presence	0,08	1,8	0,15	Limiting its ability to attract new clients, especially in the B2C market
4	Organizational inefficiencies & high staff-to-operator ratio	0,16	2,7	0,43	The ratio is not ideal, requiring more operators for optimized production
5	Bottlenecks in production workflow	0,14	2,8	0,40	slow down manufacturing processes and create inefficiencies that delay order fulfillment
6	Limited product standardization & scalability issues	0,14	2,4	0,34	Difficult to optimize production for larger-scale operations.
7	Workforce shortages, and skill gaps	0,11	2,5	0,28	Leading to underutilization of machines and inefficiencies in production.
8	Cash flow instability due to unpredictable nature of job orders	0,11	2	0,21	Order fluctuations lead to unstable revenue streams
		Sub Total	1	18	2,30

Source: Research Data, 2025

## VRIO Analysis

**Table 7. VRIO Analysis**

Resources	Valuabl?	Rare?	Inimitable?	Organized?	Competitive Advantage
Intangible					
Custom job-order specialization (precision components)	Yes	Yes	Yes	Yes	Sustainable Competitive Advantage
Strong reputation & credibility	Yes	Yes	Yes	Yes	Sustainable Competitive Advantage
Tangible					
Advanced CNC machines & software	Yes	No	No	No	Competitive Parity
Production facilities (2 plants)	Yes	No	No	Yes	Temporary Competitive Advantage
Website & digital presence	No	No	No	No	Competitive Disadvantage
Financial stability & cash flow management	Yes	No	No	Yes	Temporary Competitive Advantage

Source: Research Data, 2025

Based on VRIO analysis, PT. XYZ's core competencies include specialized custom job-order manufacturing of precision components, strong industry reputation, and a strategic partnership with Yayasan Dharma Bhakti Astra (YDBA). These strengths enable PT. XYZ to provide tailored, high-precision solutions that are difficult for competitors to replicate, enhancing customer retention and attraction. The company's credibility and customer-centric approach foster long-term B2B partnerships and repeat business. Additionally, the longstanding relationship with YDBA enhances PT. XYZ's workforce skills, innovation capabilities, and production efficiency, setting it apart from competitors who might compete mainly on price.

## SWOT Analysis

**Table 8. SWOT Analysis**

Strength	Weaknesses
1. Custom job-order specialization (precision components) (S1) 2. Strong reputation & brand credibility (S2) 3. Production facilities & machines (S3) 4. Financial stability & cash flow management (S4) 5. Strong supplier & client relationships (S5) 6. Partnership with Yayasan Dharma Bhakti Astra (S6)	1. Organizational inefficiencies & high staff-to-operator ratio (W1) 2. Bottlenecks in production workflow due to job orders (W2) 3. Financial capabilities (stagnation in revenue, high operational costs) limiting investment in machinery and expansion (W3) 4. Workforce shortages & skill gaps (W4) 5. Limited marketing & digital presence (W5) 6. Limited product standardization & scalability issues (W6)

Opportunities	Threats
<ol style="list-style-type: none"> <li>1. Government incentives (TKDN, P3DN) (O1)</li> <li>2. Investment growth in the manufacturing sector (O2)</li> <li>3. Potential expansion in B2C market (O3)</li> <li>4. Adoption of Industry 4.0 (O4)</li> <li>5. Large and youthful labor force (O5)</li> </ol>	<ol style="list-style-type: none"> <li>1. Economic &amp; political uncertainty (T1)</li> <li>2. High reliance on imported raw material (T2)</li> <li>3. Intense competition from major players &amp; low-cost manufacturers from China (T3)</li> <li>4. Slow automation adoption among SMEs (T4)</li> <li>5. Stricter environment regulations (T5)</li> </ol>

Source: Research Data, 2025

## TOWS Matrix

**Table 9. TOWS Matrix**

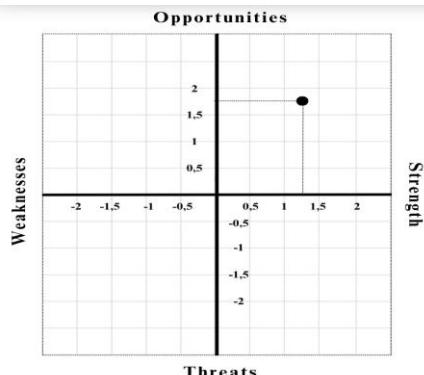
TOWS Matrix	Strengths (S)	Weaknesses (W)
Opportunities (O)	<ol style="list-style-type: none"> <li>1. Capitalize on PT. XYZ's specialization in custom job-order production to cater to the increasing industrial demands.</li> <li>2. Leverage strong reputation and secure government incentives (TKDN, P3DN) and manufacturing investments</li> <li>3. Strengthen partnerships with YDBA and vocational institutions to ensure a steady supply of trained operators.</li> <li>4. Use strong brand reputation and credibility to expand into B2C market (mass production) by utilizing machines</li> <li>5. Adopt more advanced CNC technology, ERP software to increase efficiency and maintain competitiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improve workforce allocation to resolve inefficiencies and the high staff-to-operator ratio with young labor force, training and development to reduce the skill gap, supported by government vocational programs (BLK)</li> <li>2. Invest in R&amp;D capabilities, process automation and technology 4.0 upgrades to eliminate bottlenecks that can lead to defect products.</li> <li>3. Develop marketing strategy and digital presence to attract and expand B2C customers.</li> <li>4. Standardize products to enhance scalability and meet the demands of a growing manufacturing sector.</li> <li>5. Secure Financial Support from Government &amp; Private Investments.</li> </ol>
Threats (T)	<ol style="list-style-type: none"> <li>1. Focus on PT. XYZ's niche in specialized precision components to differentiate from mass manufacturers</li> <li>2. Strengthen supplier relationships and secure alternative local supplier network</li> <li>3. Maintain financial stability through strong cash flow management</li> <li>4. Leverage existing advanced CNC technology and in-house expertise to gradually transition into full automation</li> <li>5. Adapt to political &amp; economic uncertainties with strong client relationships &amp; government support.</li> </ol>	<ol style="list-style-type: none"> <li>1. Improve cost efficiency and reducing reliance on manual processes through automation and lean manufacturing to remain price competitive</li> <li>2. Implement supply chain optimization and procurement planning to mitigate dependency risks</li> <li>3. Seek external funding and grants to accelerate digital transformation and workforce upskilling, and secure long-term contracts.</li> <li>4. Diversify product offerings to reduce dependency on fluctuating work orders</li> </ol>

Source: Research Data, 2025

## Porter Generic Business Level Strategy

PT. XYZ is best suited for a Focused Differentiation Strategy rather than Broad Differentiation because it targets a specific niche market rather than competing across a broad customer base. The company does not aim to serve mass-market manufacturing needs but rather focuses on high-value, technology-driven, and customized manufacturing solutions.

### Grand Matrix Strategy



**Figure 2. Grand Matrix Strategy**

Source: Research Data, 2025

The Grand Strategy Matrix for PT. XYZ places the company in Quadrant I (Strong Competitive Position & High Market Opportunities). This indicates that PT. XYZ has significant internal strengths and operates in an industry with high growth potential. The position suggests that aggressive strategies such as market expansion, product development, and strategic partnerships are the best approaches for future growth. The best business strategies for PT. XYZ:

1. Capitalize on Custom Job-Order Production: Leveraging specialization in custom job-order production to meet the growing demand for specialized, high-precision components, thereby enhancing market relevance and revenue potential.
2. Invest in R&D, Automation, and Industry 4.0 Technologies: Committing to R&D and automation upgrades, such as CNC machines and ERP software, to streamline production processes, reduce defects, and lower operational costs, making the company more efficient and competitive.
3. Develop a Strong Digital Presence and Marketing Strategy: Establishing a robust digital marketing strategy across platforms like LinkedIn, Instagram, and YouTube to improve brand visibility, enhance customer engagement, and penetrate deeper into existing B2B markets while attracting new markets.
4. Secure Financial Support from Government and Private Investments: Acquiring external funding through government incentives and private investments to finance technological upgrades, expansion efforts, and workforce development, thereby supporting the company's growth and maintaining a competitive edge.
5. Strengthen Workforce Development through Vocational Training and Industry Partnerships: Enhancing employee skills and addressing workforce shortages through partnerships with vocational schools and industry bodies. This strategy not only improves workforce capabilities but also prepares the

company for future technological advancements and market competitiveness.

### Business Solutions

After analyzing PT. XYZ with strategic tools, PT. XYZ must align its business solutions with its Value Chain Analysis (VCA) by optimizing primary and support activities to remain competitive. Below is a structured business solution based on PT. XYZ's internal challenges and external opportunities.

Supporting Activities	Firm Infrastructure					Profit Margin	
	Strengthening financial management, optimizing cost structures, and securing strategic investments (government grants & investor funding), Good Corporate Governance						
	Human Resource Management						
	Workforce optimization; training programs, employee structured career paths & retention, apprenticeship program with vocational institutions						
	Technological Development						
	Digital transformation through automation, ERP adoption, smart manufacturing systems						
Primary Activities	Procurement					Profit Margin	
	Securing supplier diversification, implementing vendor evaluation framework, negotiating long-term contracts with supplier						
Inbound Logistics		Operations	Outbound Logistics	Marketing & Sales	Services		
Strengthening supplier networks, ERP driven procurement, supply chain diversification		Implementing automation, lean manufacturing, advanced machines (CNC-EDM)	Optimising distribution channels through digital tracking, priority scheduling for high priority clients, and 3PL partnerships	Strengthening market penetration via digital marketing, LinkedIn company page, SEO, obtaining industry certifications (ISO 9001)	Enhancing after-sales support, responsive customer services, and automated client feedback systems		

**Figure 3. Business Solutions**

Source: Research Data, 2025

### Primary Activities

1. Inbound Logistics: Strengthening supplier networks and procurement efficiency
2. Operations: Enhancing process efficiency through standardization and automation.
3. Outbound Logistics: Optimizing distribution channels and customer fulfillment.
4. Marketing and Sales: Strengthening market penetration through digitalization and certification.
5. Service: Strengthening after-sales support and customer retention.

### Support Activities

1. Firm Infrastructure: Strengthening financial management, cost efficiency and strategic planning.
2. Human Resource Management: Workforce optimization, skills development, and talent retention strategies.
3. Technology Development: Digital transformation for process efficiency
4. Procurement: Securing supplier diversification and cost management.

In short, PT. XYZ should strengthen internal capabilities and a strong financial base. Without resolving this, any future expansion (market growth, automation, or diversification) will be unsustainable. These proposed business solutions help PT. XYZ in enhancing competitiveness and revenue growth

### Implementation Plan & Justification

To ensure the successful execution of PT. XYZ's strategic initiatives, the implementation plan is structured using the 5W+1H framework (What, When, Where, Who, Why and How) to provide clarity on objectives, responsibilities, and

execution timelines. This roadmap, categorized into short-term, medium-term, and long-term phases, is designed to strengthen internal capabilities, operational efficiency, financial resilience, market positioning, and technological adoption.

**Table 4. Implementation Plan & Justification**

Plan	Objectives	Action Plans	Key Results	2025				2026				2027				PIC
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
SHORT TERM	Optimize financial resources & secure investments	Conduct financial audits to evaluate expenditures & costs	Achieve positive cash flow for Q1-Q2													Finance
		Research government grants, external inventors (venture capital) for funding activities	Secure funding for future expansion													Finance, Management
	Enhance supplier & procurement efficiency	Evaluate existing suppliers & negotiate long-term contracts	Secure 3+ long term supplier agreements													Procurement, Finance
		Identify alternative local suppliers to reduce reliance	Reduce dependency on imported raw materials by 10%													Procurement, Management
	Improve production efficiency & reduce bottlenecks	Adopt lean manufacturing	Achieved 15% reduction in COGS													Production
		standardized production workflow management	Reduce error rate in production by 10%													Production
		Research and start implement ERP system to integrate activities (WORKWISE, SYSPRO, Odoo)	Improve administration tasks efficiency by 20%													G.A, Procurement, Management
	Maintain quality assurance and on-time delivery	Strengthen QA/QC monitoring systems to minimize rework	Achieve 95% on-time delivery rate													QA/QC, Compliance, Management
	Strengthen customer relationships & market expansion efforts	Launch targeted marketing campaigns (SEO, website optimization), establish LinkedIn	Increase sales inquiries by 35%													Marketing
MEDIUM TERM		Conduct client engagement programs (business networking)	Secure 3-5 new long terms B2B clients													Marketing
		Establish partnerships with new industrial clients for long-term contracts	Generate a 15% increase in revenue from new contracts													Marketing
	Plan	Objectives	Action Plans	Key Results				2025				2026				PIC
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
		Expand machines automation & tech updates	Invest in new modernize machines; CNC, EDM, etc	increased production efficiency & cost reduction												Production, Management
		Strengthen workforce training & talent retention	Launch formal apprenticeship programs	Reduce workforce shortages by 40%, more operator												HR
			Introduce structured career development paths	Improve employee retention by 20%												HR
			Conduct in-house CNC and manual training & certification programs	Reduced skill gap & workforce shortages												HR, Management
		Attain ISO certifications to strengthen market positioning	Obtain ISO 9001 (Quality Management)	Achieved Iso 9001 certifications												QA/QC, Compliance, Management
			Establish internal audit teams	Maintain 98% compliance with quality standards												QA/QC, Compliance, Management
Long Term	New product lines for B2C market expansion	Develop & implement R&D team - Business Development team - Sales team														R&D, Business Development
		Conduct market research	Identify 2 potential market segments													R&D, Management, Sales
		Design and prototyping	Develop 3 new own designed products													R&D
		Establish e-commerce channels	Generate 10% of total revenue from online sales													Marketing
		Develop strategic partnerships with retailer for offline distribution	Secure 3 retail distribution partnerships													Business Development, Sales
		Participate in industry networking & trade expos	Gain 5+ new leads per events													Sales, Marketing
	Expand production facilities and capacity	Upgrade existing facilities with gradually automated production lines	Scaled mass production capabilities and increased efficiency both in B2B and B2C production													Production & Operations
		Establish new manufacturing plant	Expand production capacity by 80%													Management, Operations

Source: Research Data, 2025

## CONCLUSION

The conclusion highlights PT. XYZ's strategic focus and future direction. Primarily engaged in the B2B sector, PT. XYZ excels in precision manufacturing for industries requiring specialized components such as automotive, electronics, aerospace, and industrial machinery through long-term and project-based contracts. They are exploring the B2C segment as a potential area for growth by offering standardized precision tools. Internally, the company's major strength lies in its ability to provide customized job-order production, though it is challenged by organizational inefficiencies and a high staff-to-operator ratio. Externally, it benefits from supportive TKDN/P3DN government regulations but faces risks from its reliance on imported raw materials. Strategically, PT. XYZ is committed to a Focused Differentiation strategy, aiming to leverage automation and Industry 4.0 technologies to enhance efficiency, improve market presence through digital marketing, and secure technological advancement through funding and partnerships, thereby ensuring its competitive edge and sustainability in the market. The best recommendations for PT. XYZ:

1. Enhancing Operational Efficiency: Implement Lean Manufacturing, automation, and ERP systems to streamline production, reduce defects, and improve workflow efficiency.
2. Strengthening Financial Stability: Secure funding through government grants, venture capital, and long-term contracts to ensure financial resilience and support growth initiatives.
3. Improving Market Positioning: Develop a strong digital presence, utilize SEO, and obtain ISO 9001 certification to enhance credibility, customer engagement, and competitiveness.
4. Workforce Development & Retention: Address skill shortages by partnering with vocational institutions, offering apprenticeships, and investing in employee career development.
5. Expanding Production & Technology Adoption: Invest in AI, smart manufacturing, and Industry 4.0 technologies to improve production capacity and product quality.

## REFERENCES

- Adam, L., & Negara, S. (n.d.). *Asean-China Free Trade Agreement: Tantangan Dan Peluang Bagi Indonesia*. 36, 1–24. <https://doi.org/10.14203/JMI.V36I2.633>
- Atieh, A. M., Cooke, K. O., & Osiyevskyy, O. (2023). The role of intelligent manufacturing systems in the implementation of Industry 4.0 by small and medium enterprises in developing countries. *Engineering Reports*, 5(3). <https://doi.org/10.1002/ENG2.12578>
- Benzaghta, M. A., Elwalda, A., Mousa, M. M., Erkan, I., & Rahman, M. (2021). SWOT Analysis Applications: An Integrative Literature Review. *Journal of Global Business Insights*, 6(1), 55–73. <https://doi.org/10.5038/2640-6489.6.1.1148>
- Broto Legowo, M., & Indiarto, B. (2021). Issues and Challenges in Implementing Industry 4.0 for the Manufacturing Sector in Indonesia. *International Journal of Progressive Sciences and Technologies*, 25(1), 650. <https://doi.org/10.52155/IJPSAT.V25.1.2831>

- Dr. Swarooprani. K. (2022). An Study of Research Methodology. *International Journal of Scientific Research in Science, Engineering and Technology*, 537–543. <https://doi.org/10.32628/IJSRSET2293175>
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2017). *Strategic Management: Competitiveness & Globalization* (12e ed.). Cengage Learning.
- Irjayanti, M., & Azis, A. M. (2012). Barrier Factors and Potential Solutions for Indonesian SMEs. *Procedia Economics and Finance*, 4, 3–12. [https://doi.org/10.1016/s2212-5671\(12\)00315-2](https://doi.org/10.1016/s2212-5671(12)00315-2)
- Kotler, P., & Armstrong, G. (2018). *Principles of Marketing* (17th ed.). Pearson.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15e ed.). Pearson Education.
- Shao, X. F., & Dong, M. (2012). Comparison of order-fulfilment performance in MTO and MTS systems with an inventory cost budget constraint. *International Journal of Production Research*, 50(7), 1917–1931. <https://doi.org/10.1080/00207543.2011.562562>
- Rezqianita, B. L., & Ardi, R. (2020). Drivers and Barriers of Industry 4.0 Adoption in Indonesian Manufacturing Industry. *ACM International Conference Proceeding Series*, 123–128. <https://doi.org/10.1145/3400934.3400958>
- Rufaidah, P. (2012). *Manajemen Strategik*. Unpad Press.
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.). Wiley & Sons.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Statista Market Insight. (2024). *Industry 4.0: in-depth market analysis Market Insights report INDUSTRIES & MARKETS*.
- Wandebori, H. (2019). *Manajemen Strategi Dalam Perspektif Indonesia*.
- Weihrich, H. (1982). The TOWS matrix—A Tool for Situational Analysis. *Long Range Planning*, 15(2), 54–66. [https://doi.org/10.1016/0024-6301\(82\)90120-0](https://doi.org/10.1016/0024-6301(82)90120-0).