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Strategic Management of Digital Transformation: Prioritizing Initiatives Using AHP in Indonesia's IT Sector

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Abstract

Purpose: The rapid pace of digital transformation has significantly impacted the IT services sector, particularly in emerging markets, such as Indonesia. This thesis explores the strategic challenges faced by Indonesian IT service providers as they navigate a competitive landscape characterized by evolving customer demands, technological advancements, and market dynamics. This research aims to prioritize strategic initiatives that align with market needs and enhance the competitive positioning of these providers.

Research Methodology: By integrating strategic management frameworks such as Porter's Five Forces, Value Chain Analysis, and SWOT Analysis with the Analytic Hierarchy Process (AHP), this study addresses the issue of stagnant revenue in PT ABC, a leading IT service provider in Indonesia.

The findings indicate that AI-based product innovation and the development of low-code solutions are critical strategies for driving sustainable growth and meeting the increasing demand for advanced technological solutions.

Conclusions: PT ABC should prioritize AI-based product innovation to meet the growing market demand for advanced and easily integrated technological solutions. The development of low-code platforms is essential to enhance customization capabilities and accelerate delivery times, addressing customer expectations for scalability and efficiency. Market Demand & Growth Potential, along with Operational Efficiency & Scalability, are the key strategic criteria guiding PT ABC's innovation and service enhancement priorities.

Limitations: This study underscores the importance of customer-centric approaches and continuous adaptation to maintain a competitive edge in a volatile, uncertain, complex, and ambiguous (VUCA) environment.

Contributions: This research contributes to the strategic management literature by demonstrating the practical application of AHP in the context of digital transformation within the IT services sector, and provides actionable insights for IT service providers in emerging markets facing similar challenges.

Keywords: *AI-Based Product Innovation, Analytic Hierarchy Process (AHP), Competitive Positioning, Digital Transformation, IT Services Sector, Indonesia, Strategic Management.*

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1. Introduction

The post-pandemic era has significantly transformed business and market behavior. The COVID-19 pandemic has accelerated digital transformation across industries, compelling companies of all sizes to rapidly adopt digital technologies to survive and thrive. During the pandemic, digital transformation

became a necessity and companies that lacked digital infrastructure found themselves at a severe disadvantage. This urgency has led to a massive wave of digital transformation efforts, particularly among large corporations with financial resources to swiftly implement sophisticated digital systems.
In parallel, the IT services sector, especially IT service providers and developers, has experienced significant growth. The increased demand for digital solutions has created a lucrative market for information technology (IT) service providers. These agencies not only catered to corporate clients but also supported government initiatives aimed at fostering digital transformation. Government regulations promoting technology adoption, the growth of small and medium-sized enterprises (SMEs), and the establishment of new data centers have further fueled the demand for IT services in Indonesia (Baron, 2023; Li, Phoon, Du, & Zhang, 2013).

However, this growth has also led to an increase in the number of IT service providers entering the market each year. Competition in the IT services sector is intensifying, with both established and emerging players striving to gain a market share. The landscape is described as highly competitive, with numerous firms deploying various strategies to enhance their competitive edge (modor intelligence) (Fortune Business Insights). For instance, the managed services market, a significant segment of IT services, is witnessing rapid expansion, with companies continuously developing new services to meet the evolving needs of businesses. Competitive pressure pushes these firms to innovate and differentiate their offerings, contributing to the overall dynamism and competitiveness of the market (Fortune Business Insight).

Given this trend, IT service providers and developers must strategize how to sustain their businesses in an increasingly volatile, uncertain, complex, and ambiguous (VUCA) environment. The challenge now lies in differentiating their offerings, providing innovative solutions, and adapting to the dynamic digital landscape to ensure their long-term survival and success.

The IT industry faces numerous challenges in the post-pandemic era. The rapid acceleration of digital transformation has drastically changed the landscape, with companies of all sizes adopting digital technology at an unprecedented rate. IT service providers such as PT ABC present both opportunities and challenges (Doloi, 2008; Sama, Adegbuyi, & Ani, 2021; Vial, 2021).

In the context of rapid digital transformation and increased competition, it is crucial for PT ABC to adapt its product and service offerings to align with evolving market demands. This research aims to thoroughly investigate the current digital needs of various industries, understand the competitive landscape, and gather customer feedback to enhance ABC's strategic positioning of PTABC. By employing the Analytic Hierarchy Process (AHP), this study provides a structured framework for decision-making and offers actionable insights and recommendations to help PTABC remain competitive and meet market expectations effectively.

The rapid pace of digital transformation has significantly impacted the IT services sector, particularly in emerging markets, such as Indonesia. This thesis explores the strategic challenges faced by Indonesian IT service providers as they navigate a competitive landscape characterized by evolving customer demands, technological advancements, and market dynamics. This research aims to prioritize strategic initiatives that align with market needs and enhance the competitive positioning of these providers.

2. Literature Review

2.1 Theoretical Foundation

2.1.1 Porter's Five Forces Analysis

Porter's Five Forces framework is instrumental in analyzing the competitive forces that shape an industry (M. Porter, 1979). Understanding these forces is vital for IT service providers in Indonesia to develop strategies that ensure long-term sustainability and growth.

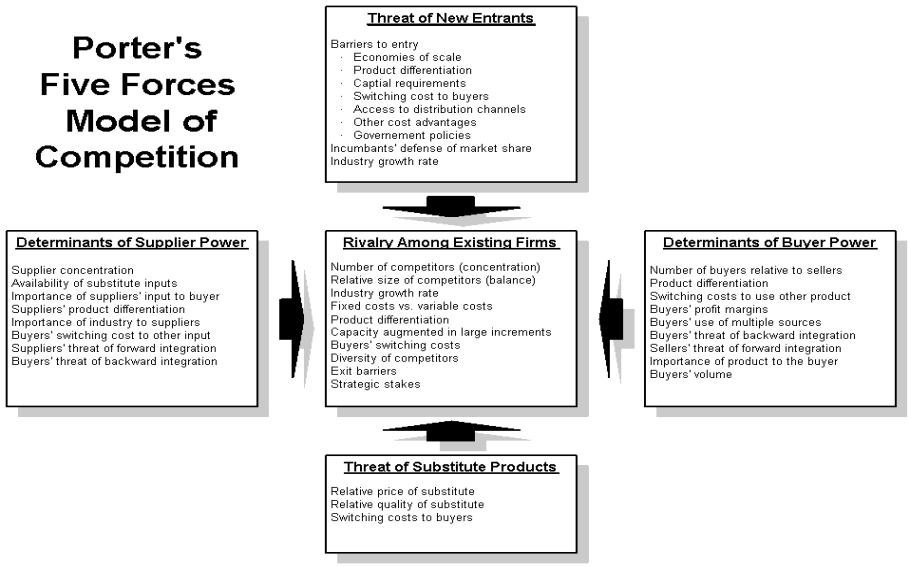

Figure 1. Porter's Five Framework
Source: M. Porter (1979)

2.1.1.1 Threat of New Entrants

In Indonesia, the IT sector has seen a surge in new entrants due to relatively low barriers to entry, such as minimal capital requirements and the availability of open-source technologies. However, regulatory hurdles and the need for local partnerships deter new players. Established companies such as PT ABC must leverage its brand loyalty, extensive networks, and regulatory expertise to maintain its market position (Grant, 2019; Ichdan, 2024).

2.1.1.2 Supplier bargaining power

The Indonesian IT industry relies heavily on global suppliers for hardware and specialized software. The bargaining power of these suppliers is significant, particularly for companies that do not have diverse supply chains. PT ABC can mitigate this by developing in-house capabilities and establishing strategic partnerships with multiple suppliers to reduce dependency on any single source (Hanson, Hitt, Ireland, & Hoskisson, 2016; Supheni, Ivada, Novianti, & Wiwin, 2022).

2.1.1.3 Buyers' bargaining power

Clients in the Indonesian IT market, ranging from large corporations to government agencies, have significant bargaining power because of the availability of multiple service providers. To differentiate itself, PTABC must focus on delivering high-quality, tailored solutions that meet specific client needs, thereby creating a strong value proposition (Barney, 1991).

2.1.1.4 Threat of Substitute Products or Services

The rapid pace of technological innovation in Indonesia has led to the emergence of new technologies and service models that could potentially substitute for traditional IT services. For example, the rise of low-code platforms has enabled businesses to develop applications without extensive coding knowledge. PT ABC should continuously innovate and expand its service offerings to include cutting-edge technologies such as AI, machine learning, and cloud solutions to remain relevant (Christensen, 1997; Wind & Saaty, 1980).

2.1.1.5 Industry Rivalry

Competition among IT service providers in Indonesia is intense, with numerous players vying for market share. PT ABC faces competition from both local and international companies that are expanding their presence in the region. To gain a competitive edge, PTABC must focus on differentiating its services through innovation, customer-centric approaches, and maintaining high service quality (Alamsyah, Wibisono, & Satriawan, 2023; M. E. Porter, 2008).

2.1.2 Value Chain Analysis

Value chain analysis allows companies to identify the specific activities that contribute to competitive advantage. Michael Porter's concept of the value chain highlights how a company's activities, ranging from inbound logistics to after-sales service, contribute to its overall value creation (M. E. Porter, 1985).

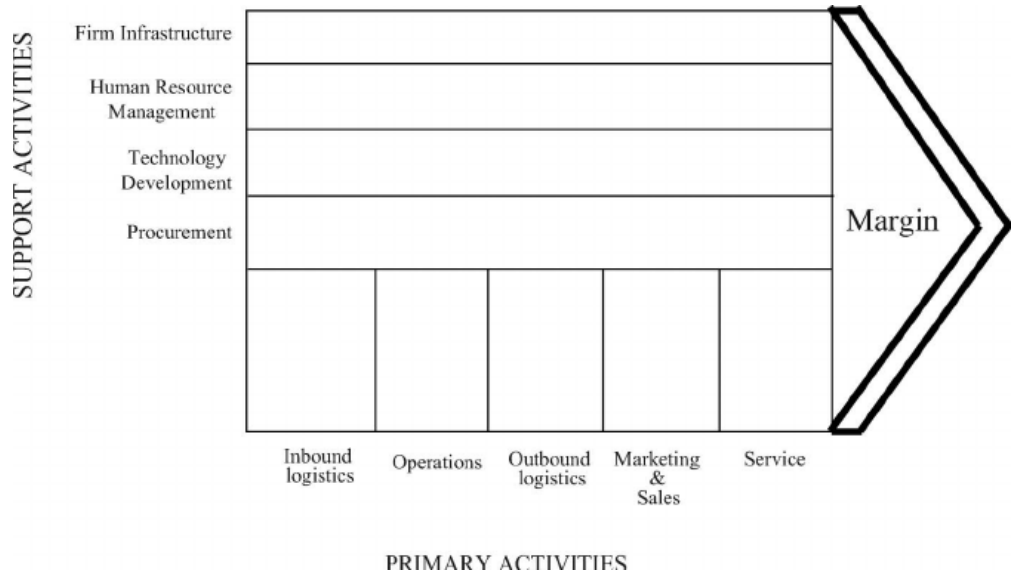

Figure 2. Value Chain Framework
Source: M. E. Porter (1985)

For PTABC, the value chain can be enhanced by optimizing its primary activities, such as software development processes and project delivery, to increase efficiency and reduce costs. Additionally, a company can focus on improving its support activities, such as technology infrastructure and human resource management, to better support its primary functions by continuously refining its value chain, which can create more value for its customers, thereby strengthening its competitive position in the market.

2.2 Customer Value Proposition (CVP)

A Customer Value Proposition (CVP) is a strategic tool that defines the unique value that a company promises to deliver to its customers. It is the foundation of a company's marketing strategy, as it clearly communicates the benefits that customers can expect from its products or services (Anderson, Narus, & van Rossum, 2006).

2.2.1 Core Components of CVP

2.2.1.1 Target Customer

Identifying a specific segment of the market that the company aims to serve. For PT ABC, the target customers could range from government institutions to private enterprises seeking ethical and customized IT solutions.

2.2.1.2 Pain Points

Understanding the challenges and needs of target customers. PTABC must identify the specific pain points of its clients, such as the need for secure, scalable, and cost-effective digital solutions.

2.2.1.3 Unique Benefits

Articulating the unique benefits that PT ABC offers, such as its commitment to halal software development, its strong expertise in mobile and web applications, and its customer-centric approach.

2.2.1.4 Differentiation

Highlighting what sets PT ABC apart from competitors, such as its focus on ethical business practices, deep understanding of the local market, and ability to provide tailored solutions.

A well-defined CVP allows PTABC to effectively communicate the value of its services to potential clients, thereby attracting and retaining customers in a competitive market. It also helps the company focus its resources on delivering value that resonates most with its target market, leading to greater customer satisfaction and loyalty.

2.3 Analytic Hierarchy Process (AHP) in Decision Making

The Analytic Hierarchy Process (AHP) is a decision-making framework that facilitates the structured and systematic evaluation of complex problems involving multiple criteria. Developed by Thomas L. Saaty in the 1970s, AHP decomposes a decision problem into a hierarchy, allowing decision-makers to evaluate each component separately and then synthesize the results to determine the best overall decision. AHP is particularly useful when decisions need to balance diverse factors such as cost, quality, and risk, which are common in strategic business contexts. The Analytic Hierarchy Process (AHP) is a decision-making framework that facilitates the structured and systematic evaluation of complex problems involving multiple criteria. Developed by Thomas L. Saaty in the 1970s, AHP decomposes a decision problem into a hierarchy, allowing decision-makers to evaluate each component separately and then synthesize the results to determine the best overall decision. AHP is particularly useful when decisions need to balance diverse factors such as cost, quality, and risk, which are common in strategic business contexts.

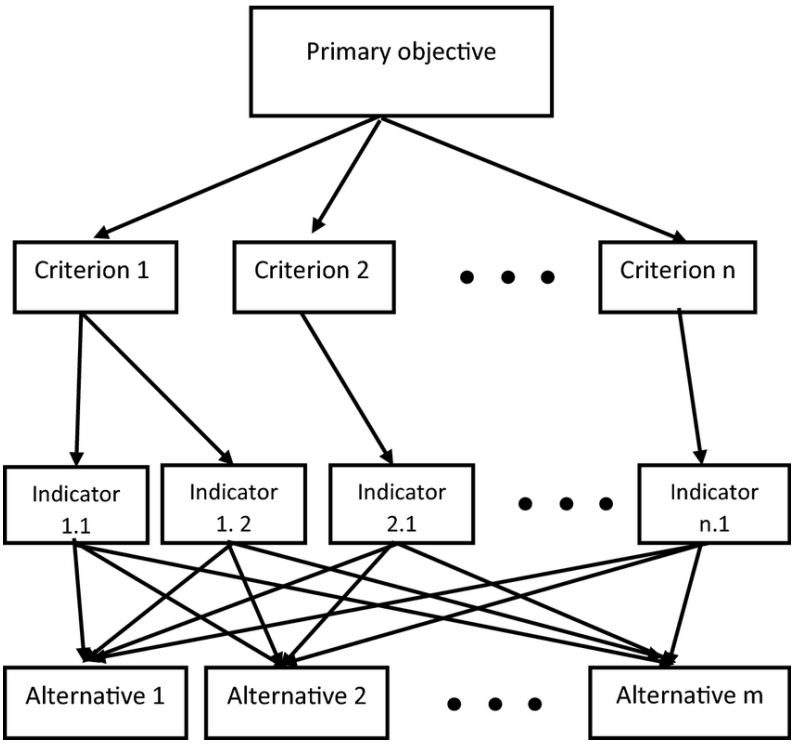

Figure 3. AHP Framework
Source: Thomas Saaty (1979)

2.4 Theoretical Foundations of AHP

AHP is grounded in several theoretical principles that guide its application in decision-making. Decomposition is the process of breaking down a complex decision problem into its constituent parts arranged in a hierarchy. This hierarchy typically consists of the following levels. **Goal**: The ultimate objective of the decision. **Criteria**: Factors or dimensions that influence decisions. These can be further broken down into sub-criteria if necessary. **Alternatives**: Possible options or courses of action available

to achieve this goal. **Example**: In selecting a new technology platform for an IT service company, the goal might be to "Choose the Optimal Technology Platform." The criteria might include "Cost," "Scalability," "User Experience," and "Security," with the sub-criteria under each. The alternatives could be specific platforms, such as AWS, Azure, or Google Cloud.

2.5 Marginal Theoretical Contribution

2.5.1 Addressing Gaps in Strategic Management Literature

Strategic management literature has extensively covered frameworks such as Porter's Five Forces and Value Chain Analysis, primarily in developed markets. However, there is a notable gap in how these frameworks are applied within the IT industry in emerging economies, such as Indonesia. This study contributes to the literature by adapting these frameworks to the specific dynamics of the Indonesian IT services sector, where market conditions, regulatory environments, and technological adoption differ significantly from those in developed countries.

For example, while Porter's Five Forces have been widely used to analyze competitive environments, this study demonstrates its application in an emerging market where the barriers to entry are influenced not only by economic factors but also by regulatory and socio-political conditions. Similarly, the application of Value Chain Analysis is adapted to consider the unique operational challenges and opportunities presented by the rapid digital transformation occurring in Indonesia.

2.5.2 Extending the Use of AHP in Strategic Decision-Making

The Analytic Hierarchy Process (AHP) is a well-established method for decision-making in complex environments. Previous studies, such as those by Fengwei et al. (2013) and Hemanta Doloi (2014), have demonstrated the effectiveness of AHP in various industries including construction and risk management. However, its application to the strategic management of IT service providers, particularly in the context of digital transformation, remains underexplored.

This study extends the application of AHP by utilizing it as a tool for prioritizing strategic initiatives in the Indonesian IT services sector. By integrating AHP with strategic management frameworks, such as Porter's Five Forces and Value Chain Analysis, this study provides a comprehensive decision-making model that can help IT service providers navigate the complexities of digital transformation. Specifically, this study demonstrates how AHP can be used to evaluate and prioritize technological investments, product development, and market expansion strategies based on multiple criteria including market demand, competitive pressures, and resource availability.

2.5.3 Contribution to Digital Transformation Literature

Digital transformation is a critical area of study in contemporary business literature, particularly concerning how organizations adapt to and leverage digital technologies. While there is substantial research on digital transformation in developed markets, less attention has been paid to how IT service providers in emerging economies, such as Indonesia, navigate this shift. This study contributes to the literature on digital transformation by providing empirical insights into the strategies and challenges faced by Indonesian IT service providers.

Furthermore, this research highlights the role of strategic management and decision-making tools such as AHP in facilitating successful digital transformation. Focusing on the Indonesian context, this study offers new perspectives on how local IT service providers can overcome barriers such as limited access to advanced technologies, regulatory constraints, and intense competition from both local and international players (Adil, Sapar, Marhani, & Rosa, 2024; Agbo & Egbunike, 2024; Emmanuel, 2021).

2.5.4 Practical Implications for IT Service Providers

In addition to its theoretical contributions, this study has significant practical implications for IT service providers in emerging markets. The findings from this study provide actionable insights into how companies can enhance their strategic decision-making processes to align better with market demands and technological advancements. By demonstrating the application of AHP in prioritizing strategic

initiatives, this study offers a practical tool that IT service providers can use to improve their competitiveness and drive growth in a rapidly changing digital landscape.

3. Research Methods

3.1. Research Design

This research design is systematically structured to explore and address the business issue of stagnant revenue at PT ABC. The process follows a clear sequence of steps that integrate both qualitative and quantitative methodologies, ensuring comprehensive analysis and effective strategic decision-making.

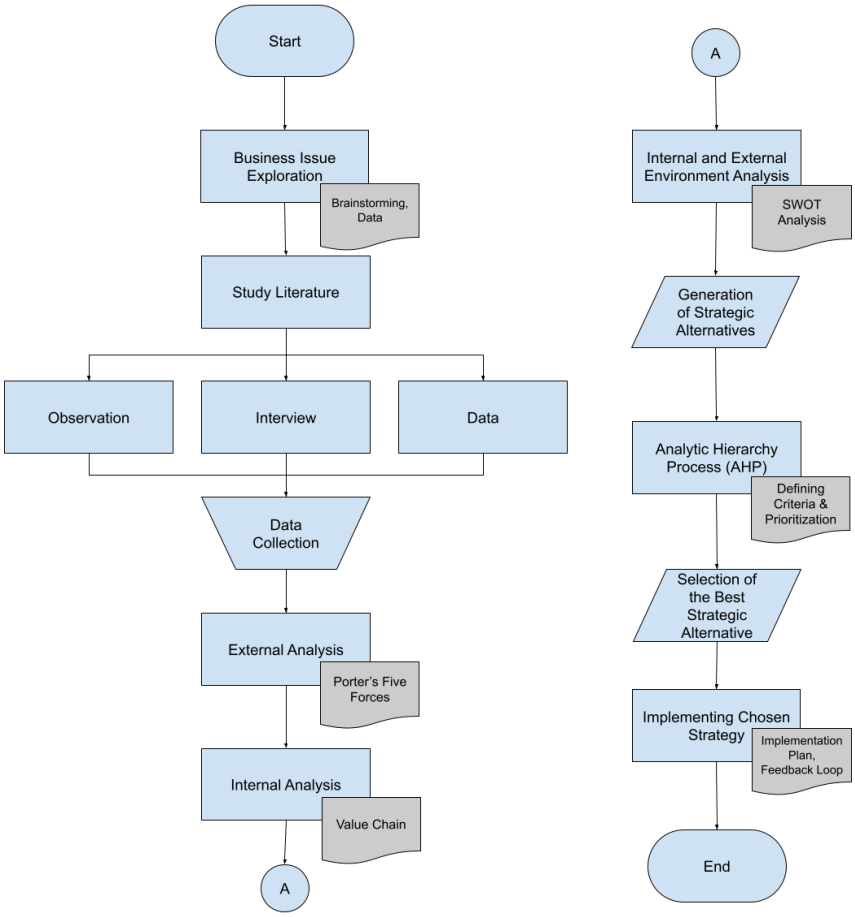

Figure 4. Research Design
Source: Author

3.2 Business Issue Exploration

The research begins with an exploration of the core business issue, which is the stagnation in revenue at PTABC. This stage involves; **Brainstorming and Data Review**: Initiating the exploration through brainstorming sessions with key stakeholders and reviewing relevant data to identify potential internal and external factors contributing to the issue.**Literature Study**: Conducting a thorough review of the existing literature to build a solid theoretical foundation that will inform subsequent analysis.

3.2.1 Data Collection

Following the literature review, the research proceeds with data collection, which includes the following; **Observation**: Direct observation of ABC's operations to gain insights into operational efficiencies and challenges. **Interviews**: Interviews were conducted with internal stakeholders and industry experts to gather qualitative data on perceptions, challenges, and potential strategic opportunities. **Data Gathering**: Collecting quantitative data from internal reports, market analysis, and industry trends to support the analysis.

3.2.2 Internal and External Environment Analysis

The collected data were then analyzed using the following strategic framework; **External Analysis with Porter's Five Forces**: Analyzing the external competitive environment, focusing on the forces that impact PT ABC's market position, such as competitive rivalry, threat of new entrants, and the bargaining power of suppliers and buyers. **Internal Analysis with Value Chain**: Evaluating ABC's internal operations through a Value Chain Analysis to identify areas where the company can enhance efficiency and value creation. **SWOT Analysis**: Integrating the findings from Porter's Five Forces and Value Chain analyses into a SWOT framework to provide a comprehensive view of ABC's strengths, weaknesses, opportunities, and threats.

3.2.3 Generation of Strategic Alternatives

Based on the SWOT analysis, this study generates strategic alternatives designed to address the identified business challenges. These alternatives are evaluated for their potential to align with PT ABC's market needs and operational capabilities.

3.2.4 Analytic Hierarchy Process (AHP) for Decision-Making

The Analytic Hierarchy Process (AHP) is employed to systematically evaluate and prioritize the generated strategic alternatives. This involves; **Defining Criteria and Prioritization**: Establishing criteria based on internal and external analyses to evaluate strategic alternatives. **Pairwise Comparisons**: Conducting pairwise comparisons using AHP to determine the relative importance of each criterion and alternative. **Selection of the Best Strategic Alternative**: Synthesizing the results through the AHP process to select the most viable and effective strategy for PTABC.

3.2.5 Implementation of the Chosen Strategy

The final step involves implementation of the selected strategy, which includes. **Implementation Plan**: Developing a detailed plan that outlines the steps required to execute the chosen strategy, including resource allocation, timelines, and milestones. **Feedback Loop**: Establishing a feedback mechanism to monitor the implementation process and ensure continuous improvement and alignment with PT ABC's strategic goals.

3.3 Data Collection Method

This section outlines the data collection methods employed in the research, ensuring a comprehensive understanding of 's strategic challenges and opportunities of PT ABC. A combination of primary and secondary data collection methods was used to gather relevant information.

3.3.1 Primary Data Collection

Primary data were gathered directly from sources that were closely related to the research problem. This approach provided firsthand insights into the issues faced by PTABC and the broader IT services market. **In-Depth Interviews**: Semi-structured interviews were conducted with key stakeholders within the PT ABC, including executives, managers, and employees. The interviews focused on gathering insights into the company's strategic challenges, competitive pressures, and customer feedback. The interviews were designed to uncover the underlying factors contributing to PT ABC's current market position and strategic decisions. **Surveys**: Structured questionnaires were distributed to a broader audience, including ABC's clients and potential customers. These surveys were designed to collect quantitative data on market needs, customer satisfaction, and competitive positioning. The survey questions were formulated based on the insights gained from in-depth interviews, ensuring alignment with the research objectives.

3.3.2 Secondary Data Collection

Secondary data collection involved analysis of existing information from various sources to complement the primary data. **Market Reports**: Industry reports, market analysis documents, and research publications were reviewed to understand the broader market trends and competitive landscapes. These reports provide a valuable context for the primary data, helping to identify the key factors influencing the IT services sector in Indonesia. **Company Documents**: Internal documents from PT ABC, including financial reports, strategic plans, and performance metrics, were analyzed. These

documents offer insights into a company's current strategic initiatives and operational challenges. The analysis of company documents helped in understanding how PT ABC's strategies evolved in response to market conditions.

3.4 Data Analysis Method

3.4.1 Qualitative Data Analysis

The Qualitative data from in-depth interviews were analyzed using content analysis. This method involves systematically coding and categorizing the data to identify key themes, patterns, and insights related to ABC's strategic challenges and opportunities of PTABC. The goal was to uncover the underlying factors influencing a company's competitive position and strategic decisions, allowing for a deeper understanding of the issues at hand. Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis was conducted based on qualitative insights from interviews and company documents. This analysis helped identify the internal and external factors impacting 's strategic position of PT ABC, providing a comprehensive overview of the company's current market situation.

3.4.2 Quantitative Data Analysis

Descriptive statistical methods were used to analyze the survey data collected from ABC's clients and potential customers. This analysis involved calculating measures such as means, medians, frequencies, and percentages to summarize the overall trends and patterns in customer needs, satisfaction levels, and market perceptions. The results provide a quantitative foundation for understanding the market dynamics affecting PT ABC. The Analytic Hierarchy Process (AHP) was applied to prioritize PT ABC's strategic initiatives. The AHP is a structured decision-making tool that uses pairwise comparisons to evaluate various criteria and alternatives. In this study, AHP was used to weigh different strategic options based on multiple factors, such as market demand, competitive pressures, and resource availability. The outcome was a ranked list of strategic initiatives that PTABC should focus on enhancing its competitive position.

4. Result and Discussion

4.1 Analysis

4.1.1 Business Issue Exploration

4.1.1.1 Brainstorming and Data Review

In the context of PT ABC's product and service strategy, brainstorming sessions with key stakeholders, including the product team, management, and marketing divisions, revealed several critical issues affecting PT ABC's ability to compete in the market. One of the key findings is the need for enhanced product innovation and service adaptation to meet rapidly evolving market needs. Internal data indicated that despite revenue growth in specific products such as Managed Cloud services, PT ABC's core product and custom application development faced declining demand. This decline was primarily attributed to heightened competition and a shift in customer preferences toward more efficient and readily deployable solutions such as Software as a Service (SaaS).

Product and Service Trends: Data from to 2019-2023 suggests that after a peak in 2021, PT ABC's core products started losing market share, while newer offerings such as managed cloud and talent managed services show growth potential. This indicates a shift in market demand from custom-built solutions to more standardized and easily integrated services. Product and Service Efficiencies: Although certain products show growth, efficiency in developing and delivering these services requires improvement. PTABC faces challenges in meeting delivery time and service quality expectations, which impact customer satisfaction and retention.

Potential Factor Identification: Brainstorming sessions and data reviews identified several key factors that could potentially influence ABC's product and service strategy going forward. **Shifting Customer Preferences:** Many clients are moving away from custom application development services toward SaaS solutions and more standardized services such as Managed Cloud, which offer faster onboarding and lower costs. **Increased Competition:** The IT services market in Indonesia is becoming increasingly saturated with new players offering innovative and agile solutions, threatening PT ABC's position in custom application development. **Limited Product Innovation:** Constraints in research and

development (R&D) have hindered ’s ability of PTABCto develop new products that can compete with more efficient and adaptable solutions in the market. **Service Efficiency:** PT ABC's product and service development needs to focus more on reducing delivery time and enhancing quality to improve customer satisfaction.

4.2 Data Collection Findings

4.2.1 Observation

Direct observation of PT ABC’s operations and external analysis of competitors reveal several key findings pertaining to operational efficiency, reliance on large clients, adaptation to new technologies, and ’s competitive positioning of PT ABCwithin the IT industry. While certain products and services exhibit growth potential, efficiencies in service development and delivery processes need to be improved. Key challenges lie in aligning project delivery timelines and maintaining a consistent service quality. PT ABC relies heavily on a small number of large clients for revenue. Significant declines in orders from major clients, such as Danone, Jasa Raharja, and Lintasarta, in 2022 indicate a substantial risk if this dependency is not effectively managed. PT ABC has demonstrated a commitment to adopting emerging technologies, such as cloud services and SaaS, but its implementation has not been fully optimized, particularly in terms of market penetration and cost-effectiveness.

The quantitative data analysis of internal financial reports and market trends reveals several key insights that should be considered in developing product and service strategies. This analysis is based on the company’s financial data (Appendix C) and internal strategic planning document (RJPP).

4.2.1.1 Fluctuating Revenue

Financial data show that after a significant increase in 2021, revenue decreased sharply in 2022, primarily due to a decline in orders from large clients. In 2023, although there was a slight recovery, this trend suggests the need for diversification of the client base and product offerings.

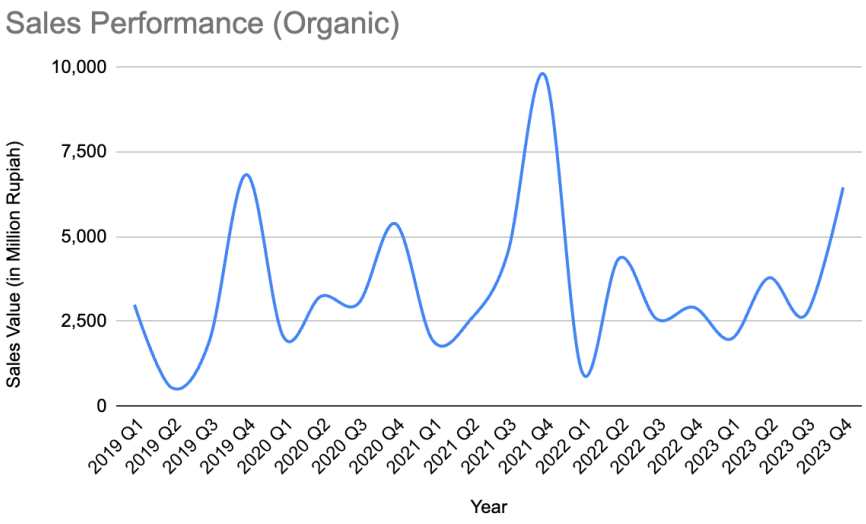

Figure 5. Sales Performance Graph
Source: Company Internal Document

4.2.1.2 Increase in Operating Expenses

PT ABC’s operating expenses increased significantly over the same period, largely driven by higher fixed costs, such as employee salaries and server expenses. This resulted in lower operating and net incomes, indicating the need for a more efficient cost management strategy.

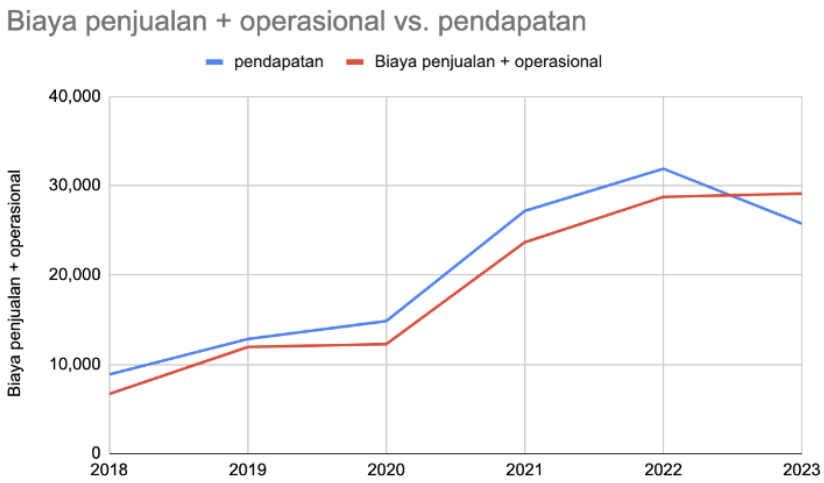

Figure 6. Sales and Operational Cost Graph
Source: Company Internal Document

4.2.1.2 Change in Revenue Proportion

There been a significant change in the proportion of revenue between traditional and new services, such as Managed Cloud Services. New services demonstrate greater potential for growth but require a strengthening of marketing strategy and service quality enhancements to sustain this growth.

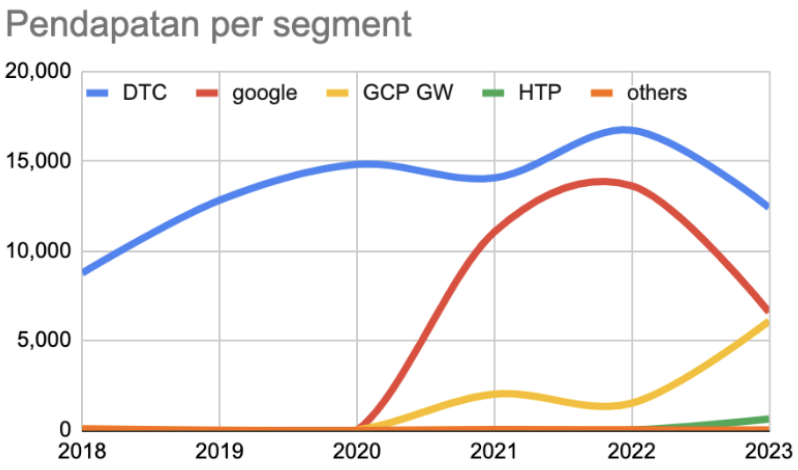

Figure 7. Revenue per Segment Product and Service
Source: Company Internal Document

4.2.2.3 Qualitative Data Analysis

Qualitative data analysis from interviews and customer feedback provided in-depth insights into market needs and customer satisfaction with PTABC services. Customer Satisfaction and Loyalty: The feedback collected revealed that while there was satisfaction with the technical solutions provided, there were concerns regarding ABC's responsiveness and proactivity in handling post-implementation issues. Customers desired more responsive services and stronger support from ABC's technical team. Changing Market Needs: The qualitative analysis also revealed a shift in market needs, with an increasing demand for faster implementation and flexible solutions. This indicates the need for PT ABC to align its product portfolio and services with dynamic market trends. Qualitative Competitor Analysis: Smaller, more innovative competitors successfully captured customer attention by offering more tailored and rapidly implemented solutions. This highlights ’s need for PTABCto not only maintain technical quality but also enhance the flexibility and speed aspects of their services.

4.3 Internal and External Environment Analysis

4.3.1 External Analysis with Porter's Five Forces

Porter's Five Forces are used to analyze the competitive forces influencing the market position of PT ABC in the IT industry. This analysis provides insights into the external dynamics that must be considered when formulating a business strategy. The data supporting this external analysis can be found in Appendices A (Market Needs Assessment) and B (Competitive Analysis).

4.3.1.2 Threat of New Entrants

Low Entry Barriers with Easy Access to Technology: The increasing accessibility of technology, coupled with the rising number of IT graduates and programs in the past decade, creates a low entry barrier for new players. The ease of learning through online courses and AI also enables individuals and startups to enter the market with a relatively small initial capital. Growth in Low-Code Development: Despite the influx of new players, there is a lack of focus on low-code development. However, according to Gartner, the low-code market is forecasted to grow between 22-33% annually, with the prediction that 70% of applications will be built using low-code and no-code by 2025. This presents an opportunity for PTABC to capitalize on this market segment before it becomes saturated.

4.3.1.3 Supplier bargaining power

Subcontractors and vendor partners act as both suppliers and competitors for PTABC. They provide flexibility in project development, but can also become a threat if they start offering similar services directly to customers. Key suppliers such as Google and Flutter Flow hold significant power because PT ABC relies on them to provide the core technology used in their solutions. On the other hand, AI providers, such as OpenAI and Gemini, are also critical suppliers in developing advanced technologies that are increasingly demanded by the market. Educational institutions, such as schools, universities, and training institutes, also play a crucial role in providing a skilled workforce. However, with the increasing number of graduates, the supply of labor is high, which can reduce the bargaining power of the workforce.

4.3.1.4 Buyers' bargaining power

Buyers in the IT industry are often highly price sensitive, with price benchmarks influenced by associations such as INKINDO. As IT and technology are often viewed as "support" for the business, available budgets are frequently constrained. Many companies already have existing applications and are more focused on demanding integration and data insights than on building applications from scratch. Additionally, corporations and multinational companies tend to prefer to use more reliable and secure enterprise licenses. Buyers frequently have specific technology preferences they want to use, as well as a desire to have a product that can work across multiple platforms. They are also likely to compare multiple platforms available in the market before making a decision. Some buyers still do not fully understand the potential of AI, which can influence their decision to adopt this emerging technology.

4.3.1.5 Threat of Substitutes

SaaS has become a leading substitute for ABC's custom development services, offering faster and cheaper solutions. Additionally, managed services from other agencies have become an alternative for companies looking for a more flexible solution. While low-code offers faster and cheaper development, some customers prefer native development, as they are more flexible and do not rely on underlying licenses that can become costly in the long run.

4.3.1.6 Industry Rivalry

PT ABC faces competition from various types of competitors, including direct competitors, such as local and international software developers, as well as indirect competitors, such as SaaS providers.
Some competitors have already established a clear focus on their service offerings, such as SaaS or AI-based solutions. This intensifies competition and requires PTABC to define its focus and develop a strong differentiation strategy. Competitors have a wide range of pricing strategies, with players possessing higher expertise often commanding higher prices. PTABC needs to ensure that its pricing is competitive while maintaining the quality and technical superiority of its offerings.

4.4 Internal Analysis with Value Chain

Value Chain Analysis is used to evaluate the internal operations of PT ABC and identify areas where efficiency and value creation can be improved. Based on internal data and documents, the following is an analysis of the primary activities and support activities in PT ABC's value chain:

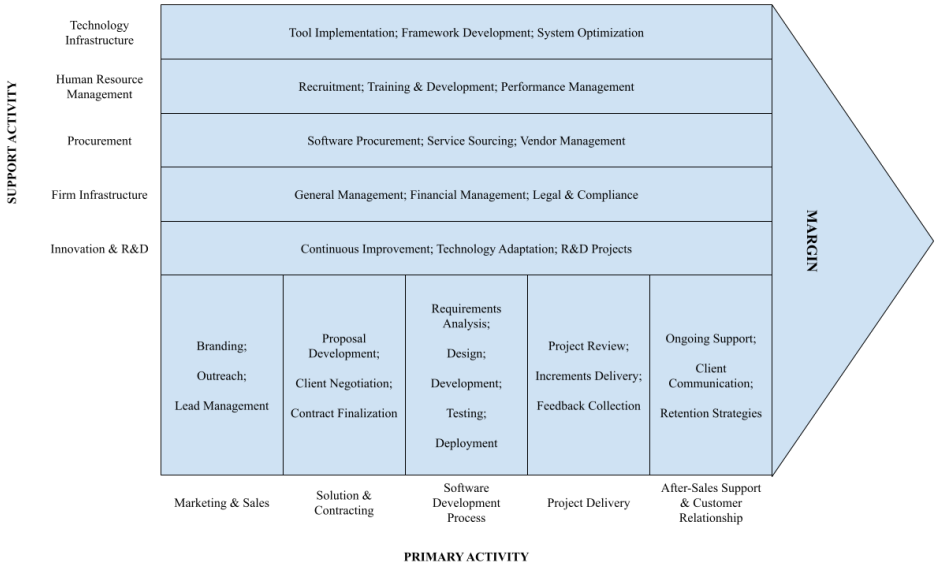

Figure 8. Value Chain Analysis
Source: Author

4.5 Primary Activities

4.5.1 Marketing & Sales

PT. ABC is actively involved in content creation, such as blog posts, videos, and advertisements, to attract potential customers. Branding is crucial in differentiating PTABC in a competitive market, especially for software development and cloud services. Direct outreach through LinkedIn, email campaigns, and in-person meetings with potential clients are key strategies for securing new projects. Effective outreach is essential for expanding the client base and increasing the market penetration. PT ABC utilizes a CRM tool to track and follow leads. Efficient lead management aids in maintaining a healthy pipeline and enhancing conversion into actual projects.

4.5.2 Solution & Contracting

The creation of a proposal that includes technical solutions, project timelines, and cost estimates is carefully crafted to ensure that the client's needs are thoroughly addressed. The quality of a proposal directly influences the chances of winning a project. Collaboration with the client to agree on the details of the proposal, including the scope, budget, and timeline, is a crucial step. Successful negotiations led to an agreement that benefited both parties. Finalizing legal contracts and establishing a foundation for the project is essential for starting solid collaboration. A clear contract mitigates the risk of misinterpretation during the course of a project.

4.5.3 Software Development Process

PT ABC conducts in-depth requirements analysis, covering functional and nonfunctional requirements, to create detailed specifications. This process ensures that the final product aligns with client expectations. The development of the system architecture and design documents serves as a guide for the development phase. A solid design establishes the foundation for effective and efficient software development. Code writing and software product creation were carried out according to specifications and designs. Code quality is given the utmost attention to ensure that the built software is reliable and maintainable. Rigorous testing, including unit testing, integration testing, and user acceptance testing (UAT), was performed to ensure that the software met high-quality standards before deployment.

Software is implemented in a production environment with diligence to ensure that the product is ready for use by end-users without disruption.

4.5.4 Project Delivery

PTABC regularly reviews project progress against established milestones, making adjustments as needed to stay on track. Delivery of completed product or service to the client with necessary documentation and training, if required. Gathering feedback from the client to assess satisfaction and identify areas for future improvement.

4.5.5 After-Sales Support & Customer Relationship

PT ABC provides ongoing support after delivery, including troubleshooting, updates, and enhancements, as per client requirements. Maintain regular communication with clients to ensure their needs are met and identify opportunities for additional services. Implementing strategies to build long-term relationships with clients, including loyalty programs, follow-up services, and personalized offerings.

4.6 Analytic Hierarchy Process (AHP) for Decision-Making

To determine the most appropriate product and service strategies in line with the objectives of PTABC, the **analytic hierarchy process (AHP)** approach was used. AHP is a decision-making tool that breaks down complex problems into a more manageable hierarchy, allowing for systematic assessment of each alternative against predetermined criteria.

4.7 Defining Criteria and Prioritization

In the strategic decision-making process for PTABC, the criteria used to evaluate various strategic alternatives have been defined based on insights gathered from the previous sections, including the SWOT analysis, Porter's Five Forces, Value Chain analysis, brainstorming sessions, and internal data. Each criterion was assigned a weight through pairwise comparisons, as detailed in Appendix D, using the Analytic Hierarchy Process (AHP) method. These weights, known as priority vectors, are presented in Appendix E and reflect the relative importance of each criterion in guiding strategic decisions..

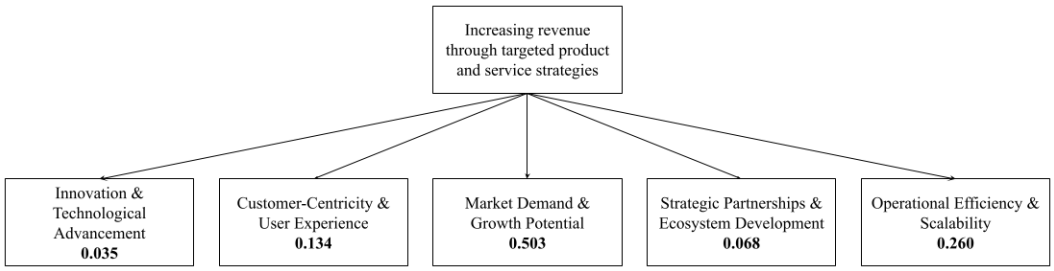

Figure 9. Objective and Criteria
Source: Author

4.8 Primary Objective

Increase revenue through targeted product and service strategies. The following are the criteria used and their weights (see Appendix E).

4.8.1 Market Demand & Growth Potential

The priority Vector is 0.503 This criterion has the highest weight, indicating that market potential and growth are considered the most important factors in determining PT ABC's strategy. The primary focus is on strategies that can capture large market demands and have significant growth potential.

4.8.2 Operational Efficiency & Scalability

The priority Vector is 0.260. Operational efficiency and the ability to scale the strategy are also top priorities, with the second highest weight. These criteria ensure that the chosen strategy is not only

operationally effective but can also be scaled to support business growth and, ultimately, increase revenue.

4.8.3 Customer Centricity and User Experience

The priority vector is 0.134. Focusing on customer satisfaction and user experience is ranked third, emphasizing the importance of fulfilling customer needs and enhancing their interaction with ABC's products and services. Increased customer satisfaction contributes directly to customer loyalty and revenue growth.

4.8.4 Strategic Partnerships & Ecosystem Development

The priority vector is 0.068. Despite having a lower weight, strategic partnerships and ecosystem development remain important to support broader strategy, particularly in terms of innovation and product differentiation. Effective partnerships can unlock new opportunities for revenue growth through collaborations that expand PT ABC's market reach.

4.8.5 Innovation and Technological Advancement

The priority vector is 0.035. Technological innovation and advancement, while important, have a lower priority than other criteria. This reflects PT ABC’s focus on more market-oriented strategies and efficiency, with innovation seen as a means to support sustained revenue growth, but not as a primary driver in the current context.

4.9 Evaluation of Strategic Alternatives

After defining and setting the priority of criteria using the Analytic Hierarchy Process (AHP), we evaluated each identified strategy alternative. The following are the results of the calculations based on predetermined criteria and priorities.

4.9.1 Methodology Overview

Each alternative strategy was evaluated using the criteria weights calculated previously. The questions used to perform Pairwise Comparison are detailed in Appendix D, and the resulting Priority Vectors are outlined in Appendix E. The score for each alternative was obtained by multiplying the Priority Vector of the alternative by the Priority Vector of the relevant criterion. The total score of all criteria for each alternative was then summed to obtain an Alternative Score.

4.9.2 Evaluation Results

The evaluation results for each alternative strategy are as follows.

Table 1. Alternative Evaluation Score

Alternative Strategy	Innovation & Technological Advancement	Customer-Centricity & User Experience	Market Demand & Growth Potential	Strategic Partnerships & Ecosystem Development	Operational Efficiency & Scalability	Total Score
AI-Based Product Innovation	0.0111	0.0563	0.2528	0.0027	0.0211	**0.344**
Development of Low-Code Solutions	0.0048	0.0048	0.1308	0.0322	0.1296	**0.302**
Enhanced Product Customization	0.0025	0.0452	0.0676	0.0062	0.0085	**0.13**

Service Diversification with a Focus on Data Integration	0.015	0.0187	0.0175	0.0078	0.0343	**0.093**
Strengthening Cloud and Managed Services	0.0014	0.0094	0.0341	0.0189	0.0668	**0.131**

Source: Author

Based on the above table, the hierarchical structure of the Analytic Hierarchy Process (AHP) model for each criterion and alternative is established.

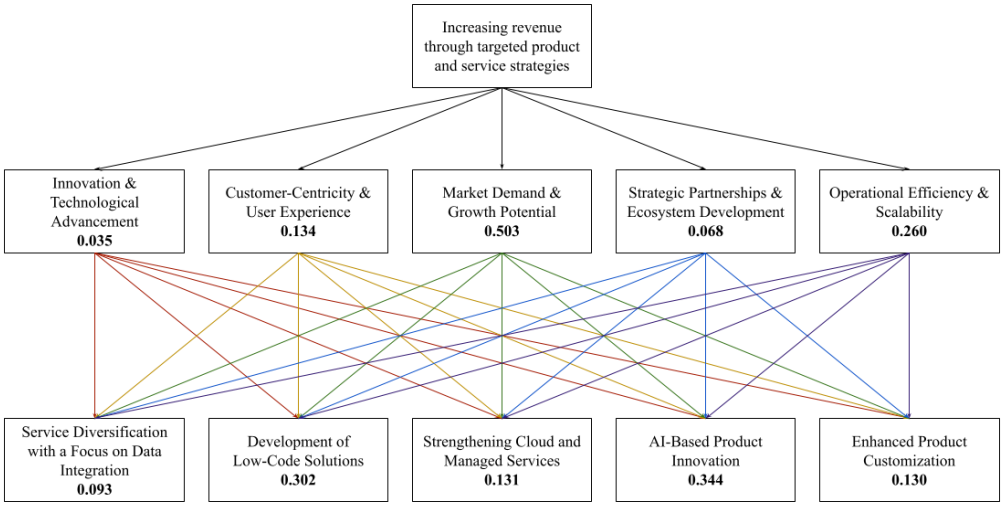

Figure 10. The Structure a Hierarchy of AHP Model
Source: Author

4.10 Evaluation of Strategic Alternatives

Based on the evaluation results, AI-Based Product Innovation emerges as the highest-scoring alternative strategy, with a score of 0.344. This strategy scores particularly high on the criteria of market demand, growth potential, customer centricity, and User User Experience. This indicates that AI-based product innovation is a significant opportunity to address market needs and enhance user experience.

The development of Low-Code Solutions comes second with a score of 0.302, reflecting its relevance in a growing market for low-code solutions and its ability to increase operational efficiency. Enhanced Product Customization, Service Diversification with a Focus on Data Integration, and Strengthening Cloud and Managed Services have lower scores, suggesting that while relevant, these strategies may not have as significant an impact as the top two.

4.11 Analysis of Results

Based on the evaluation results, AI-Based Product Innovation is the most feasible strategy to be implemented by PT ABC, with the highest score of 0.344. This strategy is expected to take advantage of large market potential and meet the increasingly complex needs of customers. The development of Low-Code Solutions also shows significant potential, particularly in terms of efficiency and scalability, and can be a strong supporting strategy. Other strategies, although relevant, may be more appropriate for implementation as part of a long-term strategy or as a complement to the two main strategies.

4.12 Implementation Plan & Justification

In an effort to ensure that the selected strategy can be implemented effectively and has a significant impact on PT ABC, this implementation plan was developed using the Objectives and Key Results (OKR) approach. The OKR approach provides a structured and measurable framework for directing strategy implementation over the next year. The OKRs developed here also ensure that each step is in line with the main objective of this research, which is to improve the strategic position of PT ABC in the competitive IT market.

Table 2. OKR AI-Based Product Innovation

AI-Based Product Innovation	
Objective	Enhancing the competitiveness of PT ABC through AI-based product innovation that is relevant to current market needs.
Key Results	1. Achieve a 20% increase in customer satisfaction regarding the new AI products within 12 months. 2. Launch 2 fully functional and market-ready new AI products within 9 months. 3. Secure 5 new clients in the sector requiring AI-based solutions within 12 month**s.**

Source: Author

4.12.1 Q1-Q2: Research and Development (R&D)

Invest R&D to develop AI solutions that can be integrated with existing products. Focus on developing AI models capable of delivering predictive analytics and business process automation. R&D is a key step in ensuring that the resulting product is innovative and aligned with the market needs.

4.12.2 Q3: Pilot Testing

Conduct pilot testing of the AI product with a select group of clients to test the performance, gain feedback, and make adjustments prior to full launch. Pilot testing helps to identify potential issues and refines the product before broad release, mitigating the risk of market failure.

4.12.3 Q4: Product Launch and Ongoing Support

Launch the AI product with a strong marketing campaign, target key industries in need of AI-based solutions, and provide ongoing support. A successful launch and ongoing support ensure that the AI product is well received by the market and provides long-term value to customers.

Table 3. OKR Development of Low-Code Solutions

Development of Low-Code Solutions	
Objective	Accelerate the development and adoption of low-code solutions to enhance operational efficiency and expand PT ABC's customer base.
Key Results	1. Reduce application development time by 30% by utilizing the low-code platform within the first 6 months.

	2. Train 80% of the internal development team on the utilization of the low-code platform within 3 months. 3. Increase revenue from low-code projects by 15% within 12 months.

Source: Author

From that OKR Development of Low-Code Solutions in the Table 3 we know that.

4.12.4 Q1: Platform Selection and Customization

Select the low-code platform that will be used and customized to meet the specific needs of PTABC customers. Choosing the right platform and tailoring it to the customer's needs is a crucial step to ensure that the solution is effective and well received by the market.

4.12.5 Q2: Training and Client Engagement

Conduct intensive training for the internal team regarding the use of the platform and begin engaging clients in custom projects using a low-code platform. Adequate training ensures that the PT ABC team can support customers effectively and that customers can optimally utilize the low-code platform.

4.12.6 Q3-Q4: Continuous Improvement and Scalability

Implement continuous improvement based on client feedback and scale the platform's capacity to support more users and projects. Continuous improvement ensures that the platform remains competitive and can scale to support the growth of PT ABC.

Table 4. Strengthening Strategic Positioning and Market Competitiveness

Strengthening Strategic Positioning and Market Competitiveness	
Objective	Optimizing product and service strategies to ensure PT ABC remains competitive in the dynamic IT market.
Key Results	1. Increase PT ABC's market share in the technology sector by 10% within 12 months. 2. Secure 3 new strategic partnerships that support the development of AI and low-code products within 6 months. 3. Reduce operational costs by 15% through efficiencies achieved by low-code and AI solutions.

Source:Author

4.12.7 Q1-Q2: Strategic Partnerships Development

Identify and establish new strategic partnerships with relevant technology companies and platform providers to support product development and marketing. Strong partnerships can accelerate PTABC product adoption in the market and provide access to valuable resources.

4.12.8 Q3: Market Expansion Initiatives

Implement targeted marketing initiatives to increase market penetration in focused technology sectors. Successful market expansion requires a targeted marketing strategy relevant to industrial needs.

4.12.9 Q4: Operational Efficiency Improvements

Evaluate and optimize operational processes to achieve greater efficiency, particularly in the utilization of low-code technology and AI. Enhancing operational efficiency is key to maintaining competitiveness and driving long-term profitability.

4.13 Justification for the Implementation Strategy

The OKR approach provides a measurable and clear framework for implementing the strategy identified in this study. By focusing on tangible and relevant outcomes for PTABC, this strategy is expected to have a significant positive impact on the competitiveness and growth of the company.

AI-Based Product Innovation is prioritized because of its high potential to meet the evolving needs of the market and its ability to enhance the customer experience through cutting-edge technology. The development of Low-Code Solutions is also selected as a supporting strategy that can increase operational efficiency and reduce development time, deliver significant added value to clients, and increase the profitability of PTABC.

5. Conclusion

This research comprehensively explored the strategic challenges faced by PT ABC in the context of rapid digital transformation and increasing competition within the IT services sector. By employing the Analytic Hierarchy Process (AHP), this study prioritized strategic initiatives that can help PTABC enhance its product and service offerings to align with market demands and customer expectations. The study identified that the current digital needs of businesses across various industries are heavily focused on AI-driven solutions, low-code development platforms, and enhanced customization capabilities. The AI-Based Product Innovation strategy emerged as the most critical area for PTABC to focus on, as it addresses the growing demand for advanced technological solutions that can be quickly integrated into existing business processes.

The competitive analysis revealed that PTABC faces stiff competition from both local and international IT service providers, with many competitors offering similar services at competitive prices. However, the focus on Market Demand & Growth Potential as primary criteria in the AHP analysis highlighted the importance of differentiating PT ABC's offerings through innovation and customer-centric approaches. This differentiation can be achieved by leveraging AI and low-code solutions, which are currently underutilized by many competitors.

Customer feedback indicated that while ABC's existing products and services are well received, there is a growing expectation for more personalized and scalable solutions. Customers have also expressed a need for quicker delivery times and more efficient integration with existing systems. The Development of Low-Code Solutions has been identified as a key strategy for meeting these expectations by enabling faster development cycles and easier customization. The application of AHP in this research provided a structured and systematic approach to decision-making, allowing PTABC to prioritize its strategic initiatives effectively. The AHP process revealed that Market Demand & Growth Potential and Operational Efficiency & Scalability are the most critical criteria for determining the focus of ABC's product and service strategies.

The research provided actionable insights that recommend that PT ABC prioritize AI-based product innovation and the development of low-code solutions as the primary strategies for achieving sustainable growth. These strategies not only align with market demands but also leverage the strengths of PT ABC in technology and innovation.

Limitations and Future Study

This study underscores the importance of customer-centric approaches and continuous adaptation to maintain a competitive edge in a volatile, uncertain, complex, and ambiguous (VUCA) environment. Future studies could explore how AI can be further integrated with low-code platforms to create more powerful and versatile solutions. Given the diversity of customer needs across different regions, future research could focus on understanding these nuances in emerging markets, such as Indonesia. Further

research can compare the effectiveness of AHP with other decision-making frameworks in the context of IT service management.

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