

Navigating the Blue Ocean: Telkom Indonesia's Strategy for Smart Agriculture in the Digital Era

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ABSTRACT

This paper presents a strategic analysis of Telkom Indonesia (TLKM) within the Smart Agriculture landscape, emphasizing its competitive advantage and potential challenges in Indonesia's digital farming market. TLKM demonstrates strong positioning in the Competitive Profile Matrix (CPM) through key components such as local weather prediction platforms, digital agricultural markets, agricultural education, and financial strength. Leveraging these strengths, TLKM aims to carve out a Blue Ocean strategy in the digital agriculture sector, utilizing its network, technology, and market understanding to explore untapped market spaces. However, challenges such as fierce competition, technological advancements, and barriers to farmer adoption must be addressed. Mitigation strategies encompass differentiation, ongoing research and development, comprehensive training programs, meticulous market analysis for global expansion, and prudent financial management. Implementation of these strategies is crucial to minimizing risks and ensuring the sustainability and adaptability of TLKM's Smart Agriculture strategy.

Keywords: *Telkom Indonesia, TLKM, Smart agriculture, Competitive profile matrix, Digital farming, Blue ocean strategy, Competitive advantage, Market analysis, Differentiation, Technological advancements, Farmer adoption, Mitigation strategies, Financial management, Sustainability.*

1. INTRODUCTION

TLKM, as Indonesia's leading telecommunications company, holds a dominant position within the industry, backed by extensive infrastructure and a sizable customer base. By analyzing TLKM's competitive advantages, including operational scale, infrastructure networks, service portfolios, reputation, and customer relationships, valuable insights into the application of the blue ocean strategy emerge. TLKM's success underscores the importance of differentiation and exploration of untapped market spaces to avoid direct competition with rivals. TLKM faces stringent telecommunications regulations in Indonesia, impacting operations and growth potential (Smith, 2023). Economic fluctuations, inflation, and currency exchange rates pose risks to TLKM's financial performance, requiring robust risk management strategies (Jones et al., 2022). TLKM must adapt offerings to align with evolving consumer expectations for connectivity, convenience, and personalized experiences (Brown & Lee, 2021). Leveraging advancements like 5G networks and IoT, TLKM can improve service quality, develop innovative solutions, and attract new customers (Gupta & Sharma, 2020).

2. RESEARCH METHODS

This study employs a comprehensive approach to analyze PT Telekomunikasi Indonesia Tbk (TLKM) within the context of the Blue Ocean strategy. The research methods encompass both external and internal analyses to provide a holistic understanding of TLKM's strategic landscape.

2.1 External Analysis: PEST Analysis

In conducting external analysis using the PEST framework for PT Telekomunikasi Indonesia Tbk (TLKM), it's crucial to recognize the significant influence of political, economic, social, and technological factors on the company's operations and strategies. TLKM operates within a regulatory environment characterized by stringent telecommunications regulations in Indonesia, including spectrum frequency, licensing, data privacy, and tariff determination, all of which can impact its operations and growth. Economic conditions, such as strong and stable economic growth in Indonesia, present opportunities for TLKM to increase revenue and market share, yet economic fluctuations, inflation, and currency exchange rate fluctuations can pose challenges. Demographic changes and shifts in consumer technology preferences influence telecommunications service demand, requiring TLKM to understand diverse customer needs. Technological advancements, particularly the development of 5G networks and the growth of the Internet of Things (IoT), offer significant opportunities for TLKM to enhance service quality and develop innovative

solutions. Through a comprehensive PEST analysis, TLKM can gain insights into these external factors, identify opportunities, address challenges, and formulate strategies for long-term growth and success. TLKM can leverage technologies like big data analytics, artificial intelligence (AI), and machine learning to collect and analyze customer data, providing personalized experiences and improving customer satisfaction. The growth of the Internet of Things (IoT) also impacts the telecommunications industry, offering opportunities for TLKM to develop IoT-based services such as smart home security, smart metering, and smart city solutions.

2.2 Five Force Model

In analyzing PT Telekomunikasi Indonesia Tbk (TLKM), a dual approach involving PEST and the Five Force Model provides insights into its competitive landscape. Amidst fierce competition from industry giants like XL Axiata and Indosat Ooredoo, TLKM's strategic considerations revolve around maintaining service quality and competitive pricing. Innovations in technology and infrastructure investments are pivotal in enhancing service quality, while strategic pricing strategies ensure long-term financial sustainability. Moreover, TLKM must address challenges posed by potential new entrants and substitute products by prioritizing customer service excellence, product innovation, and service quality enhancement to sustain its position in the telecommunications industry and foster sustainable growth.

2.3 Industry Analyst

TLKM's strategic positioning in the maturity stage of the Product Life Cycle underscores its focus on operational efficiency and service differentiation to sustain profitability and market share. Leveraging its established brand and large customer base, TLKM prioritizes enhancing service quality and optimizing its infrastructure to withstand competition while delivering superior telecommunications services. Moreover, TLKM's emphasis on building a comprehensive digital ecosystem and engaging in business diversification initiatives reflects its commitment to meeting evolving customer needs in the digital era and reducing dependence on a single market segment. By innovating, adapting to market changes, and leveraging its strengths, TLKM remains well-positioned to maintain its leadership in the Indonesian telecommunications industry and achieve long-term success.

2.4 Competitive Profile Matrix & Key Success Factor

The Competitive Profile Matrix (CPM) is a tool used to compare TLKM with its competitors and reveal the relative strengths and weaknesses of each. In the CPM analysis that show in Table 1, TLKM (TLKM) will be compared with two of its competitors, XL Axiata (EXCL) and Indosat Ooredoo (ISAT). The purpose of using CPM is for TLKM to better understand its external environment and competitors, as well as identify key success factors in the industry.

Table 1. Competitive Profile Matrix (CPM) Analysis: TLKM vs. Competitors

Key Factors	TLKM	ISAT	EXCL
National Network Reach	0.10	0.40	0.30
IoT Technology	0.20	0.15	0.60
Agricultural IoT Platform	0.45	0.30	0.10
Local Weather Prediction Platform	0.40	0.30	0.20
Digital Agricultural Market	0.15	0.60	0.45
Digital Agricultural Education	0.30	0.20	0.15
Financial Strength	0.80	0.60	0.60
Market Share	0.45	0.45	0.20
Innovation and Technology	0.10	0.40	0.30
Brand Reputation	0.20	0.15	0.60
Global Expansion	0.30	0.30	0.10
Total	4.80	3.60	3.30

Based on the CPM above, TLKM (TLKM) obtains a total score of 4.80, while Indosat Ooredoo (ISAT) scores 3.60 and XL Axiata (EXCL) scores 3.30. This indicates that TLKM has a relative competitive advantage compared to both competitors in terms of the evaluated factors.

2.5 Strategy Canvas Blue Ocean: Transforming TLKM's Market Landscape

TLKM's market landscape before adopting the Blue Ocean strategy was marked by intense competition and underdeveloped areas such as agricultural IoT and digital agricultural markets. Despite having a strong network reach and financial stability, TLKM had yet to fully explore opportunities like digital agricultural education and global expansion. This presented a chance for TLKM to innovate and differentiate itself by addressing unmet needs through the Blue Ocean Strategy, potentially transforming the telecommunications industry in Indonesia.

2.6 The Eliminate-Reduce-Raise-Create Grid

The Four Action Framework and the ERRC Grid are both strategic management models designed to help companies redefine their competitive landscapes and identify strategic moves to create new market spaces. In the Four Action Framework, companies assess their current offerings and industry landscape through four key actions: Reduce, Eliminate, Raise, and Create. Reduce involves streamlining processes or features to improve operational efficiency and customer satisfaction. Eliminate entails removing products, services, or practices that no longer contribute significantly to value creation. Raise focuses on enhancing underemphasized factors to differentiate offerings, while Create involves introducing innovative solutions to address unmet needs and carve out new market spaces.

Similarly, the ERRC Grid follows the same principles, providing a systematic analysis of a company's offerings and strategic directions. In this framework, eliminate involves identifying and removing redundant elements. Reduce simplifies and optimizes essential aspects to improve efficiency, while Raise enhances standard industry aspects to create differentiation. Create emphasizes innovation to introduce entirely new elements or solutions that redefine the competitive landscape. Both models guide companies in making strategic decisions to achieve competitive advantage, differentiate themselves, and create value for customers. Through systematic analysis and strategic moves, companies can position themselves uniquely in the market and drive sustainable growth.

2.7 The Six Paths Framework

The Six Paths Framework, outlined in "Blue Ocean Strategy," offers Telkom (TLKM) strategic avenues for growth, particularly in developing the Smart Agricultural Network. By exploring alternative industries, TLKM can leverage its telecom expertise to innovate solutions for the agriculture sector, such as IoT applications for monitoring farming conditions. Additionally, understanding strategic groups, like small-scale farmers, enables TLKM to tailor affordable solutions to their specific needs, fostering inclusive growth.

Further, exploring the agricultural supply chain presents opportunities for TLKM to enhance production efficiency through technology adoption and collaboration with stakeholders. TLKM can prepare by developing accessible solutions, providing comprehensive training, and collaborating with external parties like the government and NGOs. Moreover, integrating complementary offerings, such as existing digital farming platforms, creates a comprehensive ecosystem, adding value to all stakeholders.

Addressing the emotional appeal to buyers, TLKM can design the Smart Agricultural Network to reflect consumers' sustainability aspirations and provide user-friendly interfaces. By highlighting success stories and involving customers in solution development, TLKM builds emotional connections beyond mere functionality. Lastly, considering the dimension of time involves designing solutions that adapt to climate change and market trends, ensuring long-term sustainability and resilience in the agricultural ecosystem.

2.8 The Strategy Canvas in Blue Ocean Strategy

The Strategy Canvas in Blue Ocean Strategy is a visual tool used to compare a company's strategic profile with those of its competitors in the industry. It plots key factors of competition along the horizontal axis and their relative performance levels along the vertical axis.

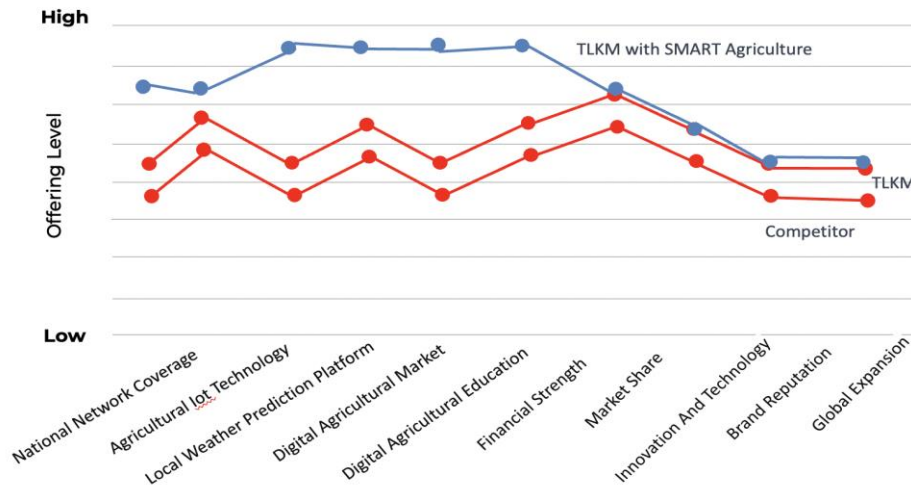


Figure 1. Strategy Canvas of the TLKM

Based on Figure 1, TLKM demonstrates strength across key components essential for smart agriculture, as highlighted in the Competitive Profile Matrix (CPM). Firstly, TLKM excels in providing accurate and relevant weather information through its local weather prediction platform, crucial for farmers' timely decisions. Secondly, TLKM leads in understanding and leveraging the digital agricultural market, enhancing its competitiveness and reinforcing its position as a leading service provider. Thirdly, TLKM's commitment to digital agricultural education empowers farmers with increased knowledge and skills, solidifying its role as a trusted partner in the evolving agricultural landscape. Lastly, TLKM's high financial strength ensures robust support for smart agriculture strategies, enabling continued innovation and shaping of digital agricultural trends in Indonesia. These strengths underscore TLKM's solid foundation to deliver top-notch solutions, cement its leadership in the digital agricultural market, and drive sustainable growth.

3. RESULTS AND DISCUSSIONS

TLKM faces stringent telecommunications regulations in Indonesia, impacting operations and growth potential. Economic fluctuations, inflation, and currency exchange rates pose risks to TLKM's financial performance, requiring robust risk management strategies. TLKM must adapt offerings to align with evolving consumer expectations for connectivity, convenience, and personalized experiences. Leveraging advancements like 5G networks and IoT, TLKM can improve service quality, develop innovative solutions, and attract new customers.

The application of the Six Paths Framework to Telkom (TLKM)'s strategy for developing the Smart Agricultural Network unveils promising avenues for growth and innovation. By exploring alternative industries, TLKM can leverage its telecommunications expertise to revolutionize the agricultural sector through IoT solutions. This approach enables TLKM to pioneer infrastructure and services that enhance productivity and efficiency in agriculture, thereby creating unprecedented value. Furthermore, by focusing on strategic groups within the agricultural industry, TLKM can tailor its solutions to meet the specific needs of small-scale farmers, fostering inclusive and sustainable growth. Through collaborations and advocacy, TLKM can play a pivotal role in shaping policies and initiatives supportive of modernizing agriculture. Additionally, mapping out the Smart Agricultural Network's supply chain highlights the importance of integrating technology, education, and collaboration at each stage to ensure the seamless adoption and impact of TLKM's solutions. By preparing comprehensively and continuously evaluating performance, TLKM can optimize its offerings and contribute to the long-term success of Indonesian agriculture.

Moreover, exploring complementary product and service offerings presents an opportunity for TLKM to create a comprehensive digital agricultural ecosystem by integrating with existing platforms and providing training services. By leveraging existing user bases and offering connected data and training, TLKM can address challenges faced by farmers and drive sustainable technology adoption. Furthermore, by incorporating emotional appeal into the Smart Agricultural Network's design, TLKM can strengthen its connection with consumers beyond functional aspects. Through customer-centric approaches and participation in solution development, TLKM can create products that resonate emotionally with customers, enhancing brand loyalty and market competitiveness.

Considering the dimension of time in designing the Smart Agricultural Network ensures its sustainability and resilience amidst climate change and evolving consumer preferences. By integrating climate monitoring technology and promoting sustainable farming practices, TLKM equips farmers with the tools and knowledge to adapt to changing

conditions and meet market demands. Through these strategic initiatives, TLKM not only positions itself as a leader in digital agriculture but also contributes to the long-term development and resilience of the agricultural sector in Indonesia. It's evident that TLKM's strategic approach to developing the Smart Agricultural Network aligns with the principles of Blue Ocean Strategy, focusing on creating uncontested market spaces and value innovation. By leveraging its telecommunications expertise, understanding the needs of stakeholders, and collaborating across the agricultural ecosystem, TLKM can unlock new growth opportunities and drive sustainable impact. However, successful implementation requires proactive engagement, continuous adaptation, and a commitment to delivering tangible value to farmers and consumers. Overall, TLKM's efforts in revolutionizing agriculture demonstrate its potential to create significant social, economic, and environmental value while securing its position as a key player in Indonesia's digital future.

In the Competitive Profile Matrix (CPM) analysis for Smart Agriculture, TLKM emerges as a formidable contender, particularly excelling in components such as the Local Weather Prediction Platform, Agricultural Digital Market, Digital Agricultural Education, and Financial Strength. TLKM's prowess in providing accurate and relevant weather information through its local weather prediction platform underscores its commitment to technological innovation and understanding farmers' needs. This platform not only differentiates TLKM from competitors but also enhances its competitiveness by offering valuable tools for informed agricultural decision-making. Moreover, TLKM's leadership in understanding and leveraging the digital agricultural market reflects its adeptness in identifying opportunities and catering to evolving customer needs within the digital landscape. With a solid market share and a deep understanding of digital trends, TLKM can leverage its existing customer base to drive the adoption of its digital agricultural solutions, thereby solidifying its position as a leading service provider in the rapidly evolving digital agricultural ecosystem.

Furthermore, TLKM's high involvement in digital agricultural education underscores its dedication to empowering farmers through knowledge and skill enhancement. By providing innovative educational platforms, TLKM not only delivers services but also supports the growth and sustainability of the agricultural sector. This commitment to digital agricultural education cements TLKM's reputation as a reliable and committed partner in helping farmers navigate and succeed in the continually evolving agricultural era. Lastly, TLKM's strong financial strength, as indicated by its high score in the CPM, positions it favorably to support the implementation and development of Smart Agriculture strategies. The availability of ample financial resources enables TLKM to continue investing in research, development, and innovation, thus solidifying its position as a key player in shaping digital agricultural trends in Indonesia. Moreover, TLKM's financial strength instills confidence in customers and business partners, further enhancing its position in the dynamic digital agricultural industry. With these components positioned highly in the CPM, TLKM has a robust foundation to continue developing Smart Agriculture strategies, providing innovative solutions to customers, and reinforcing its leadership in the Indonesian digital agricultural market. This strategic positioning not only ensures TLKM's competitiveness but also underscores its commitment to driving positive change and innovation in the agricultural sector.

4. CONCLUSION

The comprehensive analysis of PT Telekomunikasi Indonesia Tbk's (TLKM) strategic initiatives in the context of Smart Agriculture reveals a multifaceted approach geared towards sustainable growth, innovation, and market leadership. Through the application of frameworks such as the PEST analysis and the Six Paths Framework, TLKM has demonstrated a deep understanding of the external factors shaping its operating environment and has strategically leveraged its strengths to capitalize on emerging opportunities.

TLKM's proactive engagement with political, economic, social, and technological trends underscores its commitment to adaptability and resilience in navigating the dynamic telecommunications and agricultural landscapes of Indonesia. By embracing technological advancements, fostering strategic collaborations, and prioritizing customer-centric solutions, TLKM has positioned itself as a key driver of digital transformation in the agricultural sector.

Moreover, TLKM's emphasis on digital agricultural education, financial strength, and market leadership further solidifies its competitive advantage and reinforces its role as a catalyst for positive change in Indonesian agriculture. By integrating innovative solutions, addressing societal needs, and promoting sustainable practices, TLKM is not only driving business growth but also contributing to the long-term development and resilience of the agricultural ecosystem.

TLKM's strategic endeavors in Smart Agriculture epitomize its commitment to value creation, customer empowerment, and sustainable development. As TLKM continues to innovate and evolve, it is poised to remain at the forefront of Indonesia's digital future, creating lasting impact and unlocking new opportunities for growth and prosperity in the agricultural sector and beyond.

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