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Original Article



Innovation Constraints in Traditional Firms in Emerging Markets: A Qualitative Analysis

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Abstract

Innovation plays a crucial role in sustaining competitiveness within traditional-based industries, particularly in sectors undergoing technological and market transformation. However, many traditional firms still face structural and strategic challenges in developing sustainable innovation capabilities. This study aims to analyze the constraints on innovation experienced by PT. X, an Indonesian herbal medicine and pharmaceutical company, aims to identify strategic implications for improving its long-term innovation performance. The research adopts a qualitative, descriptive-exploratory design using secondary data sources, including corporate documents and relevant scientific literature. Data were analyzed using thematic analysis in NVIVO to systematically identify patterns and relationships among key innovation issues. The analysis revealed four main themes influencing the company's innovation performance: weaknesses in product innovation, limitations in diversification and business structure, efficiency and financial constraints, and dependence on external factors such as natural raw materials and limited international market expansion. The findings indicate that the company's innovation strategy remains largely focused on incremental product improvements, while limited business diversification and suboptimal resource utilization limit opportunities for research-driven innovation and technological development. In addition, dependence on agricultural raw materials and domestic market conditions further complicates the innovation process. The study concludes that innovation challenges within traditional-based firms are multidimensional and require an integrated strategic approach that strengthens research and development, improves operational efficiency, diversifies business portfolios, and enhances supply chain and international market strategies. These findings contribute to understanding innovation dynamics in traditional industries and provide practical insights for developing sustainable innovation strategies in emerging markets.

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1. Introduction

The Indonesian herbal medicine (jamu) industry is an important sector rooted in local wisdom, cultural heritage, and natural resources, with significant economic potential. Herbal products have long been utilized by Indonesian society for health and wellness, making the industry a key component of the national health economy. However, despite its strong cultural foundation, the industry faces growing challenges due to changing consumer preferences, stricter health regulations, and increasing competition from modern pharmaceutical and global health products. In this dynamic environment, companies operating in the herbal

medicine sector must continuously innovate to maintain relevance and competitiveness in both domestic and international markets (Mubarok, 2015). Innovation has long been recognized as a fundamental driver of economic progress and industrial transformation, as new technologies and products constantly reshape markets and replace outdated business models (Schumpeter, 2013; Trott, 2008).

One of the prominent players in the Indonesian herbal medicine industry is PT. X, a company that has successfully transformed from a traditional home-based herbal business into a publicly listed corporation with national and international market reach. The company is

widely recognized for its flagship products, which have undergone continuous improvements in formulation, packaging, and distribution systems, allowing them to remain attractive to modern consumers. This transformation illustrates the strategic importance of innovation in supporting the sustainability and growth of tradition-based firms (Antiksari, 2021).

However, despite its strong market position, several studies indicate that innovation within PT X tends to be incremental, focusing mainly on improving existing products rather than developing radical or research-based innovations. While incremental innovation can maintain product relevance and customer loyalty, an excessive reliance on such strategies may limit the company's ability to respond effectively to technological change, evolving consumer expectations, and increasing global competition in the healthcare industry (Ananda & Ekawaty, 2024). According to innovation management literature, organizations that fail to pursue breakthrough innovations may face long-term competitiveness challenges in rapidly changing markets (Christensen, 2015; Trott, 2008).

In addition to product innovation issues, PT X also faces challenges related to its business structure and diversification strategy. The company remains highly dependent on its core herbal medicine segment, while the contribution of its pharmaceutical and modern health product segments is relatively limited. Such reliance on a single core segment can increase strategic risk and restrict opportunities for cross-sector innovation and market expansion. Research on consumer behavior also indicates that factors such as product quality and brand reputation often have a stronger influence on purchasing decisions than product innovation alone, particularly in the herbal medicine market (Mavilinda & Susanti, 2022).

Another important challenge relates to internal efficiency and resource management. Financial performance analyses show that although the company demonstrates strong liquidity and solvency, asset utilization efficiency remains suboptimal, which may limit reinvestment capacity for research and development (R&D), digital transformation, and technological innovation (Antiksari, 2021). From a strategic management perspective, firms must effectively utilize internal resources and capabilities to sustain competitive advantage, particularly in industries characterized by rapid technological change and global competition (Barney & Hesterly, 2019).

Furthermore, innovation in herbal medicine companies is also influenced by external environmental factors, particularly the availability and stability of natural raw materials. Herbal product production relies heavily on agricultural inputs that are affected by seasonal variability, climate conditions, and supply chain disruptions. This dependency creates uncertainty in production processes and may hinder product innovation efforts. Consequently, firms must develop more resilient supply chain strategies and resource management

practices to sustain innovation activities (Mubarok, 2015).

Given these multidimensional challenges, it is essential to conduct a more comprehensive investigation into the innovation constraints faced by PT X. A qualitative research approach is particularly appropriate for exploring complex organizational phenomena, as it enables researchers to analyze contextual dynamics, interpret textual data, and identify relationships among multiple organizational factors (Creswell, 2019). Additionally, qualitative data analysis tools such as NVivo can enhance systematic organization, coding, and interpretation, allowing researchers to identify patterns and themes more effectively (Bakla, 2024).

This study aims to analyze the constraints on innovation within PT. X is using a qualitative approach supported by NVIVO analysis. Specifically, the research seeks to identify key themes related to innovation challenges, including product innovation limitations, business structure issues, efficiency constraints, and external environmental factors. Based on these findings, the study also aims to formulate strategic recommendations to strengthen the sustainability and effectiveness of corporate innovation.

Although previous studies have examined PT X from perspectives such as financial performance, marketing strategies, and consumer behavior, most rely primarily on quantitative methods and do not thoroughly explore the internal dynamics of innovation constraints within the organization (Ananda & Ekawaty, 2024; Mavilinda & Susanti, 2022). As a result, there remains a gap in the literature regarding the qualitative analysis of innovation weaknesses and the interconnected organizational and environmental factors that underpin them.

Therefore, the novelty of this research lies in its use of qualitative thematic analysis supported by NVivo software to systematically map innovation challenges within a tradition-based company operating in an emerging market. By identifying relationships between different innovation constraints, this study contributes to a deeper understanding of innovation management in traditional industries undergoing modernization.

The findings of this research are expected to provide both theoretical and practical contributions. From a theoretical perspective, the study enriches the literature on innovation management in tradition-based firms, particularly in the context of emerging markets and the herbal medicine industry. From a practical perspective, the results provide strategic insights for corporate managers in designing more adaptive innovation policies, strengthening internal capabilities, and improving long-term competitiveness in an increasingly dynamic business environment (Antiksari, 2021; Mubarok, 2015).

2. Literature Review

2.1. Grand Theories

2.1.1. Resource-Based View (RBV)

The Resource-Based View (RBV) is one of the most influential theoretical frameworks in strategic management for explaining how firms achieve sustainable competitive advantage. RBV argues that organizations gain a competitive advantage when they possess and effectively utilize internal resources that are valuable, rare, inimitable, and non-substitutable (VRIN) (Barney & Hesterly, 2019; Zahrotun et al., 2024). These strategic resources may include technological capabilities, organizational knowledge, brand reputation, and innovation capacity.

Within this framework, innovation capability is considered a strategic resource because it enables firms to develop new products, improve processes, and respond to changes in the competitive environment. Firms that effectively leverage internal capabilities can create differentiated products and maintain long-term competitiveness in dynamic markets (Akter et al., 2022). Empirical studies also demonstrate that strategic orientations and internal capabilities influence firms' ability to generate technological innovations and achieve superior performance (Zhou et al., 2005).

In industries such as herbal medicine and pharmaceuticals, innovation capability is particularly important, as companies must continuously respond to regulatory changes, technological developments, and evolving consumer demands. Therefore, RBV provides an important theoretical foundation for understanding how internal organizational resources influence innovation outcomes within tradition-based companies.

2.1.2. Dynamic Capabilities Theory

While RBV emphasizes the importance of internal resources, Dynamic Capabilities Theory extends this perspective by highlighting a firm's ability to adapt, reconfigure, and renew its resources in response to environmental change. Dynamic capabilities refer to the organizational processes and competencies that allow firms to sense opportunities, seize them, and transform their resources to maintain competitiveness in rapidly changing markets (Kapoor & Aggarwal, 2020).

Dynamic capabilities are particularly relevant in industries characterized by technological advancement and regulatory complexity, such as the healthcare and pharmaceutical sectors. Firms must continuously adjust their strategies, technologies, and operational processes to remain competitive. According to Laaksonen and Peltoniemi (2018), dynamic capabilities involve not only the possession of resources but also the ability to continuously develop, integrate, and redeploy these resources over time.

In this context, innovation emerges as a critical manifestation of dynamic capabilities. Organizations with

strong dynamic capabilities are better able to respond to technological turbulence, market uncertainty, and competitive pressures. Consequently, integrating RBV and Dynamic Capabilities Theory provides a comprehensive framework for understanding how internal capabilities and environmental adaptation jointly influence corporate innovation performance.

2.2. Middle-Level Theories

2.2.1. Innovation Theory

Innovation theory explains how organizations generate new ideas, technologies, and products that contribute to economic development and competitive advantage. Innovation can take many forms, including product, process, and business model innovation (Trott, 2008).

One of the most influential perspectives in innovation studies is the distinction between incremental innovation and radical innovation. Incremental innovation refers to gradual improvements to existing products or processes, while radical innovation involves introducing fundamentally new technologies or products that can transform markets (Christensen, 2015). Although incremental innovation helps firms maintain stability and improve efficiency, excessive reliance on such innovation may limit an organization's ability to respond to disruptive technological change.

The concept of creative destruction, introduced by Schumpeter (2013), further emphasizes the role of innovation as the driving force of economic transformation. According to this perspective, new technologies and business models continually replace outdated ones, forcing firms to innovate to survive and remain competitive.

2.2.2. Knowledge-Based View (KBV)

Knowledge-Based View (KBV) extends the RBV by emphasizing knowledge as the most important strategic resource for organizational competitiveness. In KBV, firms are viewed as repositories of knowledge, and their ability to create, transfer, and apply knowledge determines their innovation capacity and long-term performance. Organizational knowledge may include technical expertise, research capabilities, production experience, and market intelligence, all of which contribute to the development of innovative products and processes.

In industries such as herbal medicine and pharmaceuticals, knowledge plays a crucial role across product formulation, quality assurance, regulatory compliance, and scientific research. Organizations that effectively manage knowledge and learning processes are better able to sustain continuous innovation and adapt to technological change. Therefore, KBV complements RBV by explaining how internal knowledge

resources contribute to the development of sustainable innovation capabilities.

2.2.3. Innovation Ecosystem Perspective

Innovation is not solely the result of internal organizational capabilities but also emerges from interactions within a broader innovation ecosystem. This perspective emphasizes collaboration among firms and external stakeholders, including suppliers, research institutions, universities, regulators, and consumers. Modern innovation processes increasingly involve collaborative networks and knowledge exchange among multiple actors. For example, companies may collaborate with research institutions to develop new technologies or partner with suppliers to improve production processes.

Digital technologies such as artificial intelligence, cloud computing, and data analytics have further expanded opportunities for collaborative innovation across industries (Akter et al., 2022). In the context of the herbal medicine industry, building a strong innovative ecosystem may involve cooperation with raw material suppliers, research laboratories, distribution partners, and regulatory institutions. Such collaborations can enhance firms' capacity to develop new products and improve operational efficiency.

2.3. Applied Theories

2.3.1. Innovation Management and Research and Development (R&D)

Innovation management is the systematic process by which organizations plan, organize, implement, and evaluate innovation activities. Effective innovation management integrates technological development, strategic planning, and market analysis to support new product development and organizational competitiveness (Trott, 2008). A central component of innovation management is Research and Development (R&D), which plays a critical role in generating new knowledge and technological capabilities. Investment in R&D enables companies to develop innovative products, improve production processes, and respond proactively to market demands. Empirical research also indicates that organizations with strong innovation strategies and R&D investments are better able to achieve sustainable competitive advantage in global markets (Wati, 2025).

2.3.2. Innovation and Corporate Performance

Innovation is widely recognized as a key driver of corporate performance and long-term competitiveness. Firms that continuously develop innovative products and services are better able to respond to market changes and maintain a strategic advantage. Innovation contributes to improved productivity, stronger market positioning, and increased organizational resilience (Putri & Ali, 2025). However, implementing innovative strategies may also face organizational barriers, such as

internal resistance, resource limitations, and regulatory constraints. Therefore, companies must develop supportive organizational cultures and leadership structures that encourage creativity, experimentation, and knowledge sharing.

2.3.3. Strategic Management and Competitive Advantage

Strategic management plays a crucial role in aligning organizational resources, innovative activities, and market opportunities to achieve competitive advantage. According to strategic management theory, firms must develop coherent strategies that integrate internal capabilities with external environmental conditions (Barney & Hesterly, 2019). Organizations that successfully combine innovative capabilities, strategic resource management, and adaptive strategies are more likely to achieve sustainable competitive advantage. This is particularly important for traditional-based companies operating in emerging markets, where firms must balance traditional knowledge with modern technological innovation.

2.4. Conceptual Framework

Based on the integration of RBV and Dynamic Capabilities Theory as grand theories, Innovation Theory and Knowledge-Based View as middle-level theories, and innovation management and strategic management as applied theories, this study develops a conceptual framework for analyzing innovation challenges within PT X. The framework suggests that corporate innovation performance is influenced by multiple interconnected factors, including internal resources, knowledge capabilities, organizational strategies, and external environmental conditions.

These factors interact to shape the firm's ability to generate and sustain innovation. Using a qualitative research approach supported by NVivo analysis, this study examines how these theoretical dimensions manifest in practice. Specifically, the analysis focuses on identifying key themes related to product innovation, business diversification, internal efficiency, and external environmental dependencies, which collectively influence the sustainability of innovation in tradition-based companies.

3. Materials and Methods

3.1. Research Design

This study adopts a qualitative research approach with a descriptive-exploratory design to investigate innovation challenges within PT X. A qualitative approach is appropriate for exploring complex organizational phenomena because it allows researchers to interpret meanings, identify patterns, and understand relationships among concepts within textual data (Pettalongi et al., 2025). Unlike quantitative methods

that focus primarily on numerical measurement, qualitative research emphasizes contextual interpretation and a deeper understanding of social and organizational dynamics.

The exploratory design is particularly suitable for this study because the research aims to identify and analyze innovation constraints in a tradition-based company, a phenomenon that has not been extensively examined in previous studies. Exploratory research enables scholars to develop conceptual insights, identify emerging themes, and better understand underexplored research problems in the existing literature (Olawale et al., 2023).

3.2. Research Object and Focus

The object of this study is PT X, a company operating in the herbal medicine, pharmaceutical, and health product industries in Indonesia. The company has undergone a long transformation from a traditional herbal medicine enterprise into a modern corporation with national and international market reach (Antiksari, 2021). The research focuses on identifying and analyzing the company's innovation-related challenges. Specifically, the study examines four key aspects:

1. Product innovation limitations,
2. Business structure and diversification issues,
3. Internal efficiency and resource management, and
4. Dependence on external factors, particularly raw material supply and market dynamics.

These aspects were selected because they are closely related to a firm's ability to sustain innovation and maintain competitiveness in a dynamic industry environment.

3.3. Data Types and Sources

This research utilizes secondary data in the form of textual documents. Secondary data were selected because the study emphasizes content analysis and thematic interpretation rather than direct field observation or interviews. Document-based qualitative research allows researchers to analyze organizational narratives, strategic information, and scholarly discussions relevant to the research topic (Bakla, 2024). The data sources used in this study include:

- Official corporate documents, such as company reports and information available on PT X's official website, provide insights into corporate strategy and product development.
- Scientific articles and case studies related to innovation, organizational structure, and the dynamics of the herbal medicine and pharmaceutical industries.
- Academic publications on qualitative research methodology and NVivo-based analysis, which provide methodological guidance for systematic qualitative analysis.

Using multiple data sources enhances the depth of analysis and helps provide a comprehensive understanding of the innovation context within the company.

3.4. Data Collection

Data were collected through a documentation study, which involves identifying, collecting, reviewing, and organizing relevant published documents for analysis. Documentation methods are widely used in qualitative research because they allow researchers to examine existing textual materials that reflect organizational practices, strategic decisions, and contextual information (Pettalongi et al., 2025). The collected documents were carefully reviewed to identify relevant information on innovation practices, organizational strategies, and the company's challenges. Through this process, documents function not only as data sources but also as contextual evidence that supports a deeper understanding of corporate innovation dynamics.

3.5. Data Analysis

The data analysis in this study employs a thematic analysis approach supported by NVivo software. NVivo is a computer-assisted qualitative data analysis software (CAQDAS) that helps researchers organize, code, and analyze large volumes of textual data systematically (Bakla, 2024). The use of NVivo improves analytical efficiency by facilitating coding processes, keyword searches, memo writing, and the visualization of relationships among concepts. Furthermore, NVivo enables researchers to generate visual representations such as word clouds, coding trees, and concept maps, which help interpret patterns and relationships in qualitative data (Saputri et al., 2025). The thematic analysis process consists of several stages:

1. Familiarization – reading and reviewing all collected documents to gain an overall understanding of the data.
2. Open coding – identifying key concepts and assigning initial codes to relevant textual segments.
3. Axial coding – grouping related codes into broader thematic categories.
4. Selective coding – integrating themes to develop a comprehensive interpretation of the findings.
5. Visualization and interpretation – using NVivo tools to illustrate relationships among themes and strengthen analytical insights.

Through this systematic process, the analysis identifies key themes related to innovation constraints within the company.

3.6. Research Validity

To ensure the rigor and validity of the research findings, this study applies the principles of

4.1. Theme 1: Weaknesses of Product Innovation

The results of the qualitative analysis indicate that product innovation weaknesses constitute one of the most significant challenges faced by PT. X. This theme emerged from several interrelated codes identified during the NVivo coding process, including limited innovative product design, a predominance of incremental innovation, and a strategic focus on improving existing products rather than developing entirely new ones. Collectively, these findings suggest that the company's innovation strategy remains largely focused on short-term product improvements rather than long-term transformative innovation.

The lack of innovative product design reflects a pattern in which innovation activities primarily involve minor modifications or cosmetic improvements, such as packaging adjustments or slight variations in product formulations. While such improvements may enhance product appearance or usability, they typically represent low-risk innovation strategies that do not substantially alter the product's value proposition. In highly competitive industries such as herbal medicine and pharmaceuticals, limited product differentiation may reduce a firm's ability to capture new market segments or respond effectively to evolving consumer needs.

In addition, the analysis reveals that the company's innovation activities are largely incremental, focusing on optimizing established products rather than developing new products through advanced research and technological capabilities. Incremental innovation can help maintain customer loyalty and improve operational efficiency; however, excessive reliance on this approach may limit the organization's capacity to respond to emerging market trends, technological developments, and shifts in consumer health awareness. Consequently, a narrow focus on incremental improvements may reduce the firm's strategic flexibility in adapting to rapidly changing industry conditions.

The company's emphasis on developing existing product lines also suggests a risk-averse innovation strategy. Although this approach may help maintain stable short-term performance, it may simultaneously limit the company's ability to pursue more ambitious innovation initiatives. By avoiding higher-risk innovation investments, the organization may overlook opportunities to create new sources of value and long-term growth, particularly in emerging health product markets that increasingly emphasize scientific research and technological integration.

Figure 2 conceptualizes the relationships underlying the theme (Weaknesses of Product Innovation). The findings indicate that product innovation at PT X remains constrained by a limited scope of innovation activities, characterized by incremental improvements and a strong focus on existing product portfolios. While this strategy may have supported the company's current market position, it could become a barrier to future

competitiveness, particularly in global markets where innovation-driven differentiation plays a critical role. Therefore, addressing these product innovation weaknesses represents a key strategic priority for enhancing the company's long-term innovation capacity and sustaining its competitive advantage.

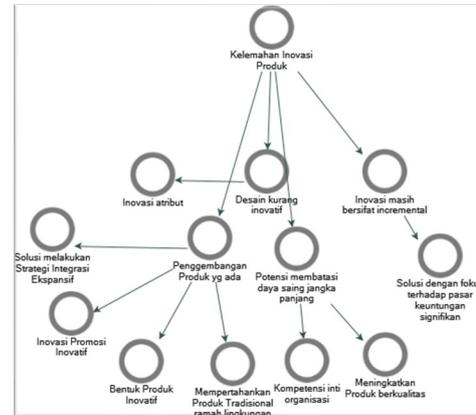


Figure 2. Weaknesses of Product Innovation

4.2. Theme 2: Limitations of Diversification and Business Structure

The NVivo-based qualitative analysis also identified diversification and business structure as a critical theme influencing innovation challenges at PT X. This theme emerged from several interconnected codes, including a high dependence on a single primary segment, limited contribution from the pharmaceutical business segment, and insufficient diversification of the company's business portfolio. The relationships among these codes indicate that the current business structure remains relatively concentrated and does not fully support cross-segment innovation or strategic expansion.

A significant finding of the analysis is the company's strong reliance on its core traditional herbal medicine segment. While this segment has historically been the primary driver of the company's success, excessive reliance on a single product category may increase the company's strategic vulnerability. Changes in consumer preferences, regulatory frameworks, or competitive dynamics within the healthcare sector could significantly affect company performance. From an innovation perspective, reliance on a dominant product segment may restrict the exploration of new product categories and reduce incentives to invest in alternative technological or scientific developments.

Another important aspect identified in the analysis is the relatively limited role of the pharmaceutical segment in the company's overall business performance. In principle, the pharmaceutical sector has strong potential to serve as a key platform for research-driven innovation and technological advancement, particularly in the development of modern health products. However, the findings indicate that this segment currently contributes

less significantly compared to the traditional herbal medicine business. As a result, the company may not be fully leveraging the innovation opportunities associated with pharmaceutical research and development.

Furthermore, the analysis reveals that the company's business portfolio remains relatively narrow, with limited expansion into new product categories or emerging health-related markets. This lack of diversification may reduce the firm's ability to capture new growth opportunities, particularly in rapidly expanding sectors such as functional health products, biotechnology-based innovations, and digital health services. In addition, a concentrated business structure may reduce the company's resilience in responding to market volatility or industry disruption.

Figure 3 shows the conceptual structure of the studied theme. The findings suggest that limited diversification and a concentrated business structure represent significant strategic constraints on the company's innovation capacity.

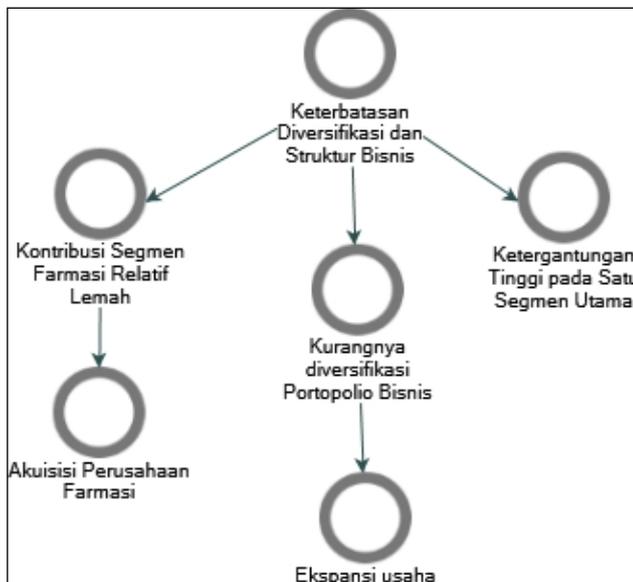


Figure 3. Limitations of Diversification and Business Structure

Heavy reliance on the traditional herbal medicine segment, underutilization of the pharmaceutical segment, and a narrow business portfolio may limit opportunities for cross-sector innovation and long-term growth. Strengthening business diversification and expanding innovation activities across multiple product segments represent important strategic priorities for enhancing the company's competitiveness and sustaining its innovation capabilities.

4.3. Theme 3: Efficiency and Financial Constraints

The qualitative analysis also identified efficiency and financial constraints as a significant theme influencing innovation performance at PT X. This theme emerged from several interrelated codes, including low total asset turnover, inefficient fixed asset utilization, and limited

opportunities for reinvestment in digitalization and technological development. The relationships among these codes indicate that the effectiveness of asset management and financial allocation plays an important role in shaping the company's innovation capacity.

One key finding is low total asset turnover, suggesting the company's assets have not been fully optimized to generate revenue. This condition reflects a potential imbalance between the scale of asset investment and the output generated through operational activities. In the context of innovation, inefficient asset utilization can restrict the availability of financial resources that could otherwise be allocated to research and development (R&D), new product development, and technological innovation. As a result, limited asset productivity may indirectly constrain the company's ability to pursue more ambitious innovation initiatives.

In addition, the analysis highlights inefficient fixed asset turnover, indicating that production facilities, machinery, and other physical infrastructures are not being utilized to their full potential. While significant fixed assets may demonstrate long-term production capacity, low utilization efficiency can increase operational costs and reduce financial flexibility. Consequently, management may become more cautious in allocating financial resources to innovation projects that require substantial investment and entail greater uncertainty.

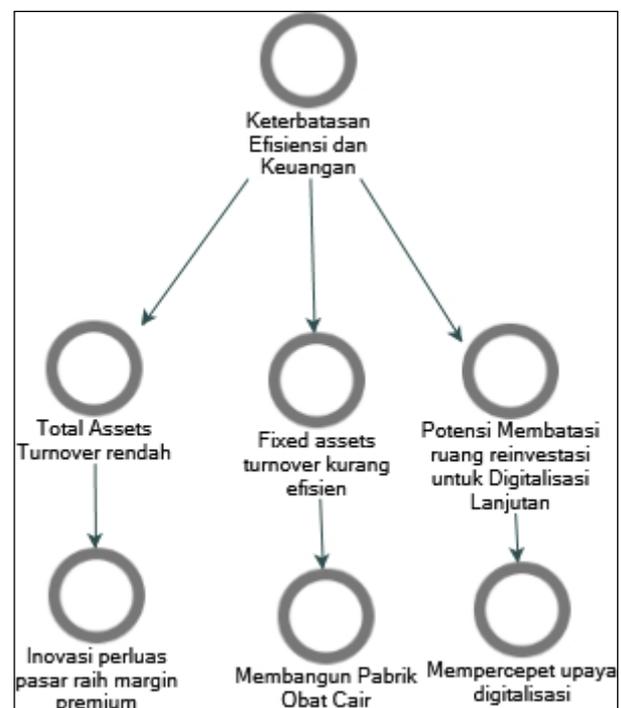


Figure 4. Efficiency and Financial Constraints

Figure 4 captures the conceptualization of relationships associated with the theme. The findings indicate that innovation challenges at PT X are not solely related to product development or business structure but are also closely linked to the effectiveness of financial

management and asset utilization. Inefficient asset management and limited reinvestment capacity can slow innovation, particularly in areas that require substantial capital investment, such as technological development and digital transformation. Therefore, improving operational efficiency and strengthening financial management practices are essential steps to enhance the company's ability to sustain innovation and maintain long-term competitiveness.

Another important aspect identified in this theme relates to limited reinvestment capacity for digital transformation and technological advancement. Digitalization has become a critical driver of innovation across modern industries, particularly in healthcare and pharmaceuticals, where data management, technological integration, and digital marketing are increasingly important. However, when financial efficiency is suboptimal, organizations may struggle to allocate sufficient resources to support long-term digital innovation initiatives.

4.4. Theme 4: Dependence on External Factors

The qualitative analysis also identified dependence on external factors as an important theme influencing PT. X's innovation capacity. This theme emerged from several interconnected codes, particularly dependence on natural raw materials and limited international market expansion. These findings indicate that certain factors affecting the company's innovation performance are shaped not only by internal organizational capabilities but also by external environmental conditions largely beyond direct managerial control.

One of the most significant aspects highlighted in the analysis is the company's reliance on natural raw materials, especially herbal ingredients used in the production of traditional and modern herbal products. Because these raw materials are derived from agricultural sources, their availability and quality are strongly influenced by environmental factors such as weather patterns, seasonal cycles, and agricultural productivity. Variations in raw material supply may affect production stability, product consistency, and quality control processes. In the context of innovation, such variability can complicate the development of standardized products and slow down the introduction of new formulations or product improvements.

In addition to supply chain challenges, the analysis also identifies international expansion limitations as another factor affecting the company's innovation dynamics. Expanding into global markets often requires firms to meet strict regulatory requirements, comply with international health standards, and develop effective global marketing and distribution strategies. These challenges may limit the company's ability to introduce export-oriented innovations or adapt its products to meet the expectations of international consumers.

Furthermore, international market participation often stimulates innovation by exposing firms to new technologies, competitive pressures, and diverse consumer demands. When international expansion remains limited, opportunities for learning, knowledge transfer, and innovation-driven growth may also be constrained. Consequently, restricted global market engagement may reduce the company's potential to develop products that meet international standards and compete in broader markets.

The findings indicate that external environmental dependencies play a critical role in shaping the innovation challenges PT X faces. While internal capabilities remain essential, the company's ability to manage external risks, such as fluctuations in raw material supply and global market barriers, also significantly influences its innovation performance. Therefore, strengthening supply chain management for herbal raw materials and developing a more proactive international expansion strategy are crucial steps for enhancing sustainable innovation and long-term competitiveness. The conceptual relationships associated with this theme are illustrated in Figure 5 (Dependence on External Factors).

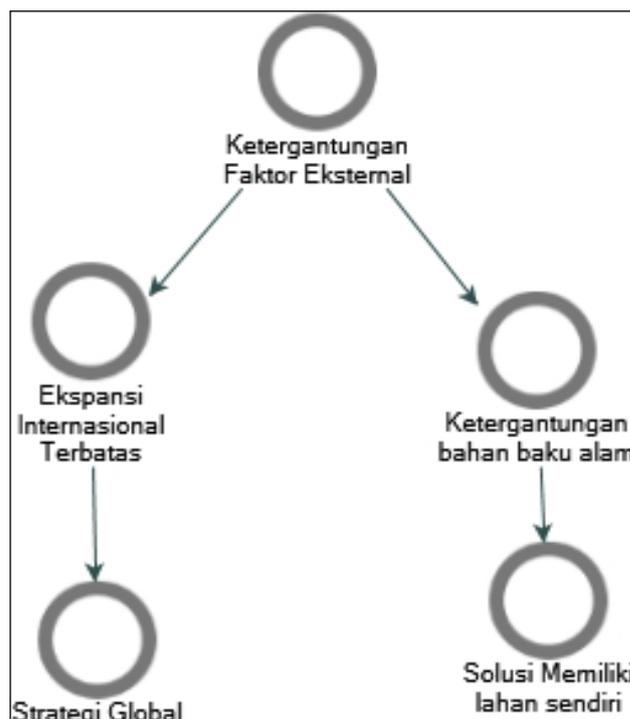


Figure 5. Dependence on External Factors

4.5. Synthesis of Findings of PT X Innovation

The results of the NVivo-based qualitative analysis indicate that innovation challenges within PT X are multidimensional and interconnected, rather than attributable to a single organizational factor. The synthesis of the four main themes identified in the analysis, weaknesses in product innovation, limitations in diversification and business structure, efficiency and financial constraints, and dependence on external

factors, reveals a set of mutually reinforcing conditions that collectively shape the company's innovation capacity.

First, the theme of product innovation weaknesses indicates that the company's innovation strategy is largely characterized by incremental improvements to existing products. While incremental innovation helps maintain product relevance and customer loyalty in established markets, it may limit the company's ability to generate significant differentiation or develop breakthrough products with higher added value. This strategic orientation may constrain the firm's capacity to respond effectively to technological advancements and evolving consumer expectations in the healthcare industry.

Second, these product innovation limitations are closely related to the company's concentrated business structure. The analysis shows that PT X remains heavily dependent on its core herbal medicine segment, while the pharmaceutical segment's contribution remains relatively limited. As a result, opportunities to develop cross-segment innovations based on research, technology, and modern healthcare solutions remain underutilized. Limited diversification reduces the company's ability to explore new growth opportunities and may restrict its capacity to develop integrated product innovations across different health-related sectors.

Third, the analysis highlights the role of efficiency and financial constraints in shaping the company's innovation performance. Indicators such as low total asset turnover and suboptimal utilization of fixed assets suggest that operational resources are not being fully optimized. This condition may reduce financial flexibility and limit the company's ability to allocate sufficient resources to long-term innovation investments, including research and development, technological upgrades, and digital transformation initiatives. Consequently, internal efficiency challenges may indirectly hinder the company's capacity to pursue more ambitious innovation strategies.

Finally, the theme of dependence on external factors further complicates the company's innovation environment. PT X relies heavily on natural raw materials derived from agricultural sources, making its production and innovation processes vulnerable to supply fluctuations, seasonal variations, and inconsistent quality. In addition, limited international expansion limits opportunities to develop innovations aligned with global market standards and reduces exposure to international knowledge networks. These external dependencies demonstrate that innovation constraints at PT X are influenced not only by internal organizational capabilities but also by external environmental conditions. The relationships among these four key themes are summarized in Figure 6.

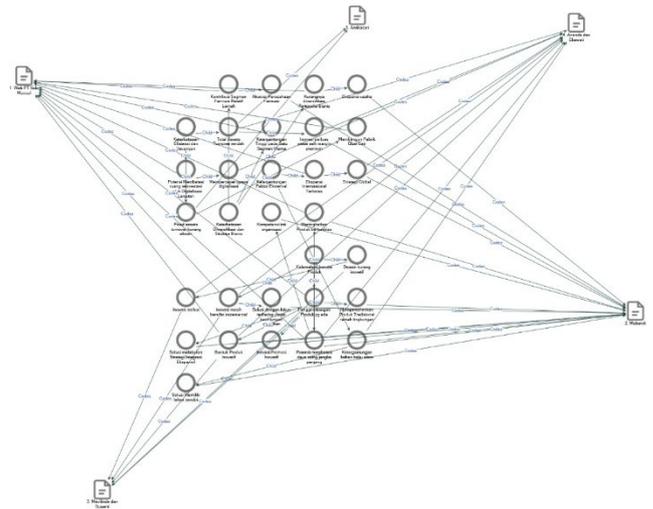


Figure 6. Data Analysis Maps

These findings suggest that the innovation challenges faced by PT X result from the interaction between internal organizational limitations and external environmental pressures. Weak product innovation strategies, limited business diversification, constrained financial flexibility, and external resource dependencies collectively form structural barriers that may limit the company's long-term innovation sustainability. The synthesis of the four themes identified in the NVivo analysis can be used to formulate the innovation problem statement for PT X more clearly. The company's innovation challenges stem from several interconnected structural conditions: the dominance of incremental product innovation focused on existing product lines, a limited diversification of its business structure, restricted financial efficiency and flexibility for reinvestment in innovation, and a high dependence on external factors, particularly natural raw materials and the domestic market environment.

These interconnected constraints have the potential to limit the company's competitiveness and long-term innovation sustainability. The dominance of incremental innovation restricts the development of breakthrough products, while the concentration of the business structure reduces opportunities for cross-sector innovation. At the same time, financial inefficiencies limit reinvestment in research and technological development, and external dependencies increase vulnerability to supply chain and market uncertainties.

This problem statement highlights that strengthening innovation within PT X requires a comprehensive and integrated strategic approach. Efforts to enhance innovation should not be limited to product development alone but must also address structural issues related to business diversification, internal operational efficiency, and the management of external environmental factors. Therefore, a holistic understanding of these innovation challenges becomes a crucial foundation for designing effective and sustainable innovation strategies.

4.6. Strategic Implications and Innovation Solutions for PT. X

Based on the synthesis of the findings and the formulation of the innovation problem statement, several strategic implications and innovation solutions can be proposed for PT. X. These strategies must be implemented in an integrated manner, aligning improvements in product innovation, business structure, operational efficiency, and external environmental management.

The first strategic implication relates to strengthening product innovation capabilities. The findings suggest that PT X's current innovation strategy is largely dominated by incremental improvements to existing products. While this approach helps maintain market stability, it may limit the development of higher-value innovations. Therefore, the company should shift toward research-driven, technology-oriented innovation strategies, particularly by strengthening its research and development (R&D) activities. Expanding R&D initiatives can facilitate the development of new products with stronger differentiation and greater scientific value, especially in the pharmaceutical and modern healthcare sectors. Such initiatives are expected to enhance product competitiveness and expand the company's market reach.

The second strategic implication concerns diversifying and restructuring the company's business portfolio. The heavy reliance on a single core segment highlights the need for a more diversified business structure. Diversification can be achieved through strengthening the pharmaceutical segment, expanding product categories, and exploring new market opportunities beyond traditional herbal medicine. A more diversified business structure not only reduces strategic risk but also enables the development of cross-segment innovations that integrate traditional herbal knowledge with modern health technologies.

The third strategic implication involves improving internal efficiency and financial management. The analysis indicates that asset utilization within the company has not been fully optimized, which may limit the firm's financial flexibility for innovation investment. Therefore, PT. X needs to improve asset utilization efficiency, evaluate its investment strategies, and strengthen financial management practices. Enhancing financial efficiency will create greater opportunities for reinvestment in innovation activities, including digital transformation, process innovation, and technological upgrades that support long-term competitiveness.

The fourth strategic implication concerns managing external environmental factors, particularly supply chain and market-expansion challenges. The company's reliance on natural raw materials requires a more resilient supply chain strategy. This may include establishing long-term partnerships with suppliers, diversifying raw material sources, and developing

internal cultivation or supply systems. In addition, the company should strengthen its international expansion strategy by aligning products with global regulatory standards and developing stronger international distribution networks. Expanding into global markets can stimulate innovation by exposing the company to new technologies, consumer preferences, and competitive environments.

The innovation solutions proposed in this study should be understood as part of a continuous organizational transformation process encompassing product innovation, business structure, financial management, and external environmental adaptation. Implementing these integrated strategies can strengthen PT X's innovation capacity, enhance its competitive advantage, and support sustainable long-term growth. Consequently, the findings of this study provide practical insights for corporate management in designing more adaptive and comprehensive innovation strategies to address the evolving challenges of the healthcare and herbal medicine industry.

5. Discussion

The findings of this study indicate that the innovation challenges faced by PT. X are multidimensional and interconnected, involving product innovation strategies, organizational structure, financial efficiency, and external environmental conditions. The NVivo-based thematic analysis demonstrates that these factors collectively shape the company's ability to sustain innovation and maintain competitiveness in the herbal medicine and pharmaceutical industries. The discussion below interprets the findings in relation to existing theories and empirical studies on innovation management and strategic capabilities.

5.1. Product Innovation and the Dominance of Incremental Innovation

The results show that PT. X's innovation activities are largely incremental, focusing on improving existing products rather than developing breakthrough innovations. While incremental innovation can maintain market stability and customer loyalty, excessive reliance on it may limit the creation of new value and long-term competitive differentiation. According to innovation management theory, firms must balance incremental improvements with more radical innovations to remain competitive in rapidly evolving industries (Trott, 2008).

This finding is also consistent with the concept of disruptive innovation, which holds that companies that focus solely on sustaining improvements to existing products may overlook opportunities for transformative innovation that could reshape industry competition (Christensen, 2015). In the context of herbal medicine and pharmaceutical sectors, innovation increasingly requires scientific research, technological development, and new product formulation. Therefore, the

predominance of incremental innovation at PT. X may limit the company's ability to develop products of higher scientific value and broader market appeal.

Furthermore, innovation plays a fundamental role in economic development and industrial transformation. Schumpeter (2013) emphasized that innovation drives economic progress through a process of creative destruction, where new products and technologies replace outdated ones. From this perspective, firms that fail to continuously develop new innovations may eventually lose competitiveness in dynamic markets.

5.2. Business Structure and Diversification Constraints

Another important finding relates to limited diversification and a concentrated business structure, particularly the company's strong dependence on traditional herbal medicine products. Strategic management theory suggests that firms can achieve sustainable competitive advantage by effectively leveraging internal resources and capabilities to develop innovative products and expand into new markets (Barney & Hesterly, 2019; Zahrotun et al., 2024).

However, when business activities remain concentrated in a single segment, opportunities for innovation across different sectors may become limited. The analysis shows that although PT. X has entered the pharmaceutical industry; the segment's contribution remains relatively small. This condition may restrict the company's ability to integrate traditional herbal knowledge with modern pharmaceutical technologies.

Previous studies also indicate that strategic orientation and organizational capabilities significantly influence a firm's innovative performance. Firms that adopt strong technological and entrepreneurial orientations are more likely to develop breakthrough innovations and achieve better market performance (Zhou et al., 2005). Therefore, limited diversification within PT X may reduce opportunities for cross-sector innovation and restrict the company's ability to explore new technological pathways.

5.3. Efficiency and Financial Capacity for Innovation

The study also reveals that financial and operational efficiency play a critical role in shaping innovation performance. Low asset utilization and limited reinvestment capacity may constrain the company's ability to allocate sufficient resources for research, technological development, and digital transformation. From a strategic perspective, firms must not only possess valuable resources but also have the capability to continuously reconfigure and effectively utilize them in response to environmental change (Kapoor & Aggarwal, 2020). Dynamic capability theory highlights that the ability to adapt and redeploy internal resources is essential for sustaining innovation in rapidly evolving industries.

Empirical research further emphasizes that organizations with strong innovation strategies and greater investment in research and development are more likely to achieve higher levels of competitiveness and long-term performance (Wati, 2025). Therefore, improving financial efficiency and strengthening investment in innovation-related activities are essential for supporting the company's long-term innovation capacity.

5.4. External Environmental Factors and Innovation Sustainability

The findings also highlight the importance of external environmental factors, particularly the company's reliance on natural raw materials and limited international expansion. In industries based on agriculture or natural resources, supply chain stability and raw material availability are crucial to maintaining product quality and ensuring innovation continuity.

In addition, limited global market engagement may reduce opportunities for firms to learn from international competition and adopt new technologies. Global market exposure often stimulates innovation by encouraging companies to adapt products to different regulatory standards and consumer preferences. Innovation research also suggests that modern innovation increasingly occurs within collaborative ecosystems involving multiple actors such as suppliers, research institutions, and technology partners (Aker et al., 2022). Therefore, strengthening partnerships across the supply chain and expanding international market presence could provide PT. X has greater opportunities to access knowledge, technology, and new innovation pathways.

5.5. Integrating Internal Capabilities and External Adaptation

The findings of this study indicate that the innovation challenges faced by PT X cannot be explained by a single factor. Instead, they result from the interaction between internal organizational capabilities and external environmental conditions. Product innovation strategies, business diversification, financial efficiency, and external resource dependencies collectively influence the company's ability to sustain innovation.

From a strategic management perspective, sustainable innovation emerges when firms effectively integrate internal resources, technological capabilities, and adaptive strategies to respond to environmental changes (Barney & Hesterly, 2019; Kapoor & Aggarwal, 2020). Consequently, PT X needs to adopt a more integrated innovation strategy that simultaneously strengthens research-driven product development, diversifies its business portfolio, improves operational efficiency, and manages external environmental risks. Such an integrated approach would enable the company to enhance its innovation capacity, maintain competitiveness, and support sustainable growth in the

increasingly dynamic herbal medicine and pharmaceutical industries.

6. Conclusions

This study aimed to analyze the innovative challenges faced by PT. X through a qualitative approach supported by NVivo-based thematic analysis. The findings reveal that the company's innovation constraints are multidimensional and interconnected, involving product innovation strategies, business structure, financial efficiency, and external environmental dependencies.

First, the results indicate that product innovation at PT. X is largely incremental, focusing primarily on improving existing products rather than developing radical or research-driven innovations. While this strategy helps maintain market stability and customer loyalty, it may limit the company's ability to create new value and compete effectively in a rapidly evolving healthcare and pharmaceutical industry. This finding aligns with innovation management literature, which emphasizes that firms must balance incremental improvements with more transformative innovations to sustain competitiveness.

Second, the analysis highlights limited diversification and a concentrated business structure, particularly the company's strong reliance on the traditional herbal medicine segment. Although the company has expanded into the pharmaceutical sector, this segment has not yet contributed significantly to overall innovation development. From a strategic management perspective, limited diversification may restrict the firm's ability to leverage internal resources and capabilities for cross-sector innovation and long-term competitive advantage.

Third, the study identifies efficiency and financial constraints as important factors influencing innovation capacity. Suboptimal asset utilization and limited financial flexibility may reduce the company's ability to reinvest in research and development, technological advancement, and digital transformation. As highlighted in dynamic capability theory, firms must effectively reconfigure and utilize their resources to support continuous innovation and respond to environmental changes.

Fourth, dependence on external factors, particularly natural raw materials and limited international expansion, further complicates the company's innovation environment. Variability in agricultural supply chains and limited exposure to global markets may reduce opportunities for technological learning, knowledge exchange, and international competitiveness.

In general, the study concludes that innovation challenges at PT X arise from the interaction between internal organizational limitations and external environmental conditions. Addressing these challenges requires an integrated innovation strategy that strengthens research-driven product development,

diversifies business activities, improves operational efficiency, and enhances supply chain and international market strategies.

6.1. Research Implications

This study provides several important implications for both theory and practice. From a theoretical perspective, the findings contribute to the literature on innovation management in traditional-based industries, particularly within the context of emerging markets. The study demonstrates how integrating the Resource-Based View and Dynamic Capabilities perspectives can explain innovation constraints arising from both internal resource limitations and external environmental pressures. In addition, the research enriches the understanding of how innovation dynamics operate in industries that combine traditional knowledge with modern technological development.

From a practical perspective, the results offer strategic insights for corporate managers and policymakers. For PT. X and similar companies, strengthening innovation capacity requires a comprehensive approach that includes expanding research and development activities, diversifying product portfolios, improving asset utilization efficiency, and developing stronger supply chain and international market strategies. These efforts can help companies build more resilient, innovative systems and maintain competitiveness in increasingly dynamic global health industries.

6.2. Research Limitations

Despite its contributions, this study has several limitations that should be acknowledged.

First, the research relies primarily on secondary data sources, including company documents and scientific literature. While this approach allows for comprehensive thematic analysis, it does not capture direct insights from internal stakeholders such as company managers, employees, or industry experts.

Second, the study focuses on a single case (PT. X) within the Indonesian herbal medicine industry. Although this case provides valuable insights into innovation dynamics in traditional companies, the findings may not generalize fully to other industries or organizational contexts. Third, the qualitative approach emphasizes interpretive analysis of textual data, which may be influenced by the availability and scope of the documents under analysis.

6.3. Future Research

Future research can expand upon the findings of this study in several ways. First, future studies could adopt a mixed-methods approach, combining qualitative and quantitative methods to systematically examine the relationships among innovative strategies, financial

performance, and competitiveness. Second, researchers could incorporate primary data collection methods, such as interviews with corporate managers, employees, and industry experts, to gain deeper insights into internal innovation processes and decision-making dynamics.

Third, future research could conduct comparative studies across multiple companies or industries, particularly in traditional or natural-resource-based sectors, to explore how innovative strategies differ across organizational contexts. Finally, further studies may focus on emerging topics such as digital transformation, innovation ecosystems, and global market expansion, which are increasingly important for firms operating in health-related and technology-driven industries.

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