



Original Article

## Organizational Innovation and Firm Performance: Evidence from an Integrated Food and Beverage Supply Chain

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**Abstract:** In an increasingly dynamic business environment, firms must continuously innovate to remain competitive and sustain performance, particularly in the food and beverage industry, where consumer preferences and supply chain complexities evolve rapidly. This study examines how organizational innovation contributes to the firm performance of PT.X. A qualitative approach was employed using semi-structured interviews with middle-level managers directly involved in innovation and supply chain activities. Data were analyzed using NVivo through systematic coding procedures, including open, axial, and selective coding, to identify key themes and relationships. The findings reveal that organizational innovation at PT.X is implemented as an integrated system encompassing product innovation, production process innovation, supply chain management, and sustainability practices. Product innovation is driven by changing consumer preferences, while process innovation enhances operational efficiency and product quality through advanced technologies. Integrated upstream–downstream supply chain management ensures raw material availability and production stability, while sustainability-oriented innovation reduces waste and improves resource efficiency. The study also identifies key challenges, including rapidly changing consumer behavior, market segmentation, and competitive pressure, that require continuous, adaptive innovation strategies. This study contributes to the literature by providing a contextual and managerial perspective on how innovation is operationalized in practice within the food and beverage sector.

**Keywords:** Organizational innovation; Firm performance; Supply chain integration; Process innovation; Sustainability.



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### 1. Introduction

In an increasingly dynamic and uncertain business environment, the long-term survival and growth of firms depend largely on their ability to adapt to rapid, continuous change. Globalization, technological advancement, evolving consumer preferences, and rising expectations for sustainability have significantly intensified competition across industries, particularly in the food and beverage sector. Firms are therefore

required not only to maintain operational efficiency but also to continuously innovate in order to remain competitive and relevant in the global marketplace. In this context, organizational innovation encompassing product, process, managerial, and supply chain innovations has emerged as a critical strategic capability that enables firms to respond effectively to environmental turbulence and improve overall performance (Bigliardi & Galati, 2019; Nguyen Van et al., 2025). Organizational innovation is widely recognized as a key driver of firm performance, as it facilitates improvements in efficiency, product quality, and responsiveness to market changes. Prior studies have demonstrated that firms that actively invest in innovation tend to achieve higher levels of competitiveness and sustainability compared to less innovative firms (Sharafuddin et al., 2022; Junaid et al., 2022).

In particular, integrating innovation into supply chain management has been shown to enhance operational performance and create value across the entire production network (Aggrey et al., 2022; Ngatia et al., 2024). Furthermore, the growing emphasis on sustainability has pushed firms to adopt environmentally friendly technologies and resource-efficient processes, positioning innovation not only as an economic imperative but also as a tool for achieving long-term environmental and social goals (Bocken et al., 2014; Yadav et al., 2024). The food and beverage industry presents a unique context for examining organizational innovation, given its high sensitivity to consumer preferences, product differentiation, and supply chain complexity. Rapid changes in consumer tastes driven by demographic shifts, health awareness, and global cultural influences require firms to continuously adapt their product offerings and innovation strategies (Bleiel, 2010; Vicentini et al., 2016). At the same time, the industry faces increasing pressure to ensure food safety, maintain consistent quality, and reduce environmental impact, underscoring the importance of integrated innovation across products, processes, and supply chains.

Against this backdrop, PT.X, a leading Indonesian food and beverage company, represents an illustrative case of how organizational innovation can be effectively leveraged to achieve sustained competitive advantage. Over the years, PT.X has successfully transformed itself from a national company into a global market player. Its success can be attributed to a combination of strong brand positioning, consistent product quality, and the strategic use of high-quality raw materials supported by standardized production processes. These factors have enabled the company to build and maintain consumer trust while expanding its presence in both domestic and international markets. In addition to its internal capabilities, PT.X has developed an extensive distribution network supported by internal distributors and retail affiliates, which plays a crucial role in strengthening market access and ensuring product availability. This aligns with previous findings that highlight the importance of distribution and supply chain integration in enhancing firm performance and competitiveness (Zaridis et al., 2021; Ngenoh & Noor, 2024). Moreover, PT.X adopts an integrated upstream-to-downstream supply chain strategy, which includes partnerships with farmers for fresh raw materials, procurement through traders, and business-to-business (B2B) collaborations for imported materials. Such diversification of sourcing strategies enhances supply chain resilience, ensures raw material availability, and supports operational efficiency.

The company's supply chain integration is further reinforced by the presence of subsidiaries within its corporate group, enabling internal resource sharing and coordination. This vertical integration not only reduces dependency on external suppliers but also improves cost efficiency and supply stability. Existing literature supports the view that supply chain integration plays a significant role in improving operational performance and enabling innovation (Ivanov et al., 2019; Bwaliez, 2021). Thus, PT.X demonstrates how a well-structured and integrated supply chain can serve as a foundation for organizational innovation. Beyond supply chain innovation, PT.X actively pursues product innovation to address rapidly evolving, increasingly segmented consumer preferences. The company continuously updates its product variants and concepts by incorporating market insights and demographic trends, particularly focusing on younger consumers, such as Generation Z, who exhibit dynamic, trend-driven consumption behavior. For instance, the adoption of global flavor trends, such as Korean-inspired products, reflects the company's responsiveness to market signals. This market-oriented approach to innovation aligns with previous studies that emphasize aligning product innovation with consumer preferences to enhance firm performance (Meisya & Surjasa, 2022).

In addition to product innovation, process innovation plays a vital role in supporting PT. X's operational excellence. The company continuously upgrades its production facilities by adopting advanced machinery and technologies that improve production efficiency, reduce errors, and ensure consistent product quality. These innovations contribute not only to cost efficiency but also to maintaining high standards of food safety and product reliability, which are essential in the food and beverage industry. Research has shown that process innovation is a key determinant of operational performance and can significantly enhance productivity and competitiveness (Junaid et al., 2022; Yadav et al., 2024). Furthermore, sustainability has become an integral component of PT. X's organizational innovation strategy. The company implements environmentally friendly technologies and efficient production systems to reduce waste and optimize resource use. Such efforts reflect a broader shift toward sustainable business practices, where firms seek to balance economic performance with environmental responsibility. Sustainable innovation has been

widely recognized as a critical factor in achieving long-term business success and resilience (Bocken et al., 2014; Rafli et al., 2025).

Despite its success, PT.X continues to face significant challenges, particularly in adapting to rapidly changing consumer preferences and managing the complexity of its extensive supply chain. The rapid pace of industry innovation, coupled with intense competition, requires the company to continuously refine its innovation strategies while maintaining product quality and operational efficiency. These challenges highlight the need for a deeper understanding of how organizational innovation is managed and how it contributes to firm performance in a complex and dynamic environment. Although previous studies have explored the relationships among innovation, supply chain integration, and firm performance, many rely predominantly on quantitative approaches that may not fully capture the complexity of managerial decision-making and innovation processes. Therefore, there is a need for qualitative research that provides in-depth insights into how organizational innovation is implemented and managed in practice. Based on these considerations, this study aims to analyze the role of organizational innovation in improving firm performance by using PT.X as a case study. By adopting a qualitative approach based on management interviews, this research seeks to provide a comprehensive understanding of how product, process, and supply chain innovations interact to enhance competitiveness and sustainability in the food and beverage industry.

## 2. Literature Review

Organizational innovation has become a central concept in explaining how firms sustain competitiveness in increasingly dynamic and uncertain environments. It is broadly understood as the implementation of new or significantly improved products, processes, managerial practices, or supply chain configurations that enhance firm performance. Rather than operating as isolated activities, these dimensions of innovation often interact, shaping how firms respond to external pressures and internal operational demands (Bigliardi & Galati, 2019). This integrated view is particularly relevant in industries characterized by rapid change, such as the food and beverage sector. A substantial body of literature links organizational innovation to firm performance. Innovation enables firms to improve efficiency, differentiate products, and respond more effectively to market changes. Empirical studies consistently show that firms investing in innovation achieve higher productivity, stronger market positioning, and better long-term sustainability outcomes (Sharafuddin et al., 2022; Junaid et al., 2022). However, these benefits are not automatic. The effectiveness of innovation depends on how well it is aligned with organizational capabilities and external market conditions. This suggests that innovation should be viewed not merely as an activity, but as a strategic capability embedded within the firm's broader system.

One important stream of research highlights the role of supply chain integration in strengthening the impact of innovation. Supply chain integration is the coordination of activities among suppliers, manufacturers, distributors, and retailers to ensure efficient, responsive operations. Studies indicate that integrating innovation into supply chain processes enhances operational performance, reduces uncertainty, and creates value across the production network (Aggrey et al., 2022; Ngatia et al., 2024). In this sense, innovation extends beyond the firm's boundaries and becomes a network-level phenomenon. Firms that successfully integrate upstream and downstream activities tend to be more resilient and better able to manage disruptions. At the same time, the growing emphasis on sustainability has reshaped how innovation is conceptualized and implemented. Sustainable innovation involves adopting environmentally friendly technologies, efficiently utilizing resources, and practicing socially responsible practices. Scholars argue that sustainability-oriented innovation not only addresses regulatory and societal pressures but also creates new sources of competitive advantage (Bocken et al., 2014; Yadav et al., 2024). This perspective broadens the role of innovation from purely economic outcomes to a more holistic approach that balances financial performance with environmental and social considerations.

Within the food and beverage industry, the importance of organizational innovation becomes even more pronounced. This industry is highly sensitive to shifts in consumer preferences, which are influenced by health trends, cultural exposure, and demographic changes. As a result, product innovation plays a critical role in maintaining market relevance. Firms must continuously introduce new flavors, formats, and concepts that align with evolving consumer expectations (Bleiel, 2010; Vicentini et al., 2016). However, product innovation alone is insufficient. It must be supported by process innovation to ensure consistent quality, cost efficiency, and compliance with food safety standards. Process innovation, particularly through the adoption of advanced technologies, has been shown to significantly improve operational performance. It enhances production efficiency, reduces waste, and minimizes errors, thereby contributing to both economic and environmental outcomes (Junaid et al., 2022; Yadav et al., 2024). In parallel, managerial innovation, such as new organizational structures, decision-making processes, and coordination mechanisms, supports the effective implementation of both product and process innovations. Together, these forms of innovation create a system in which improvements in one area reinforce gains in others.

Despite these advances, the literature often treats different dimensions of innovation in isolation. Many studies focus on product innovation, process innovation, or supply chain integration as separate drivers of performance, without fully exploring their interactions. This fragmented approach limits our understanding of how innovation functions as an integrated system within firms. In practice, however, firms rarely implement innovations independently; instead, they combine multiple forms of innovation to achieve strategic objectives. Another limitation in existing research lies in its methodological orientation. Much of the empirical work on innovation and firm performance relies on quantitative approaches, using survey data and statistical models to identify relationships between variables. While these studies provide valuable generalizable insights, they often overlook the complexity of innovation processes, particularly the role of managerial decision-making, organizational context, and industry-specific dynamics. As a result, there is limited understanding of how innovation is actually implemented and managed in real-world settings.

This gap is particularly evident in the context of emerging economies and industry-specific case studies. Although some research has examined innovation in developing countries, there remains a lack of in-depth, qualitative analyses that capture the lived experiences of firms operating in complex and competitive environments. In the food and beverage sector, where supply chain complexity, consumer sensitivity, and regulatory pressures intersect, such insights are especially important. Based on this review, two key research gaps emerge. First, there is a lack of integrative studies that examine how multiple dimensions of organizational innovation, specifically product innovation, process innovation, and supply chain integration, interact to influence firm performance. Second, there is a need for qualitative, case-based research that provides deeper insights into how these innovations are implemented, coordinated, and managed in practice, particularly within the food and beverage industry in emerging markets. This study addresses these gaps by adopting a qualitative case study approach to examine PT.X, a leading Indonesian food and beverage company. By focusing on managerial perspectives, the study explores how different forms of innovation are integrated within the organization and how they collectively contribute to competitiveness and sustainability. In doing so, it offers a more nuanced understanding of organizational innovation as a dynamic, interconnected system rather than a set of isolated activities.

### 3. Materials and Methods

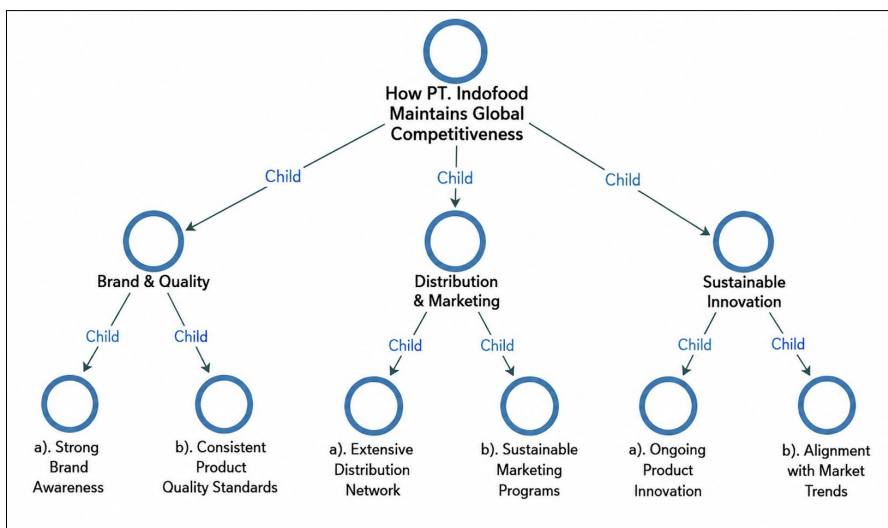
This study employs a qualitative case study design to examine how organizational innovation at PT.X contributes to firm performance. A qualitative approach is appropriate because the research seeks to capture managerial perspectives, strategic decisions, and organizational practices that require contextual interpretation rather than numerical measurement (Creswell & Poth, 2018). The case study focuses on PT.X as a single embedded case, allowing a detailed exploration of innovation practices within a real organizational setting. The unit of analysis is organizational innovation at PT.X, examined across four interrelated domains: product innovation, production process innovation, supply chain management, and corporate sustainability. The study involves middle-level managers who are directly engaged in agro-supply chain activities and possess both operational and strategic knowledge related to product development, production systems, and raw material sourcing. These informants were selected purposively to ensure that the data reflect informed managerial insights relevant to innovation practices.

Data collection applied three complementary techniques to enhance depth and credibility. First, semi-structured in-depth interviews were conducted to explore organizational innovation practices, perceived challenges, and managerial responses. This format enabled consistency across interviews while allowing flexibility to probe emerging issues. Second, documentation included verbatim interview transcripts and analytical outputs generated using NVivo, which supported systematic data organization and traceability. Third, a focused literature review was undertaken to establish the theoretical foundation and guide the interpretation of empirical findings. Data analysis followed a structured coding procedure using NVivo. The process began with transcription and data familiarization. Open coding was then applied to identify key concepts, recurring patterns, and relevant expressions. These codes were subsequently grouped through axial coding into higher-order categories and subcategories, which facilitated the identification of relationships among themes. In the final stage, selective coding was used to integrate and refine these categories into core themes that represent the central mechanisms of organizational innovation at PT.X.

The analytical outputs were visualized using word clouds and hierarchical node structures to clarify thematic relationships and support interpretation. To ensure rigor, the study applied several validity and trustworthiness procedures. Theoretical triangulation was used by comparing empirical findings with established literature. An audit trail was maintained by systematically documenting coding decisions and analytical steps in NVivo. Internal consistency was ensured by continuously cross-checking coded data against the original interview transcripts to preserve contextual accuracy. These procedures strengthen the reliability and credibility of the findings.



availability across diverse regions, ensuring that its products are accessible to a wide customer base. At the same time, sustainable marketing programs suggest that the company adopt continuous and adaptive promotional strategies rather than one-off campaigns. Together, these elements enable PT.X to maintain strong market penetration while responding to changing consumer behavior. The third pillar, sustainable innovation, captures the company’s forward-looking approach to maintaining relevance. The sub-themes, ongoing product innovation, and alignment with market trends, demonstrate that innovation at PT.X is both continuous and market-driven. Rather than innovating sporadically, the company consistently updates its products in response to evolving consumer preferences, including emerging global trends. This ensures that the company remains competitive while also adapting to shifts in demand.



**Figure 2.** NVivo-based thematic model of PT.X’s global competitiveness strategy.

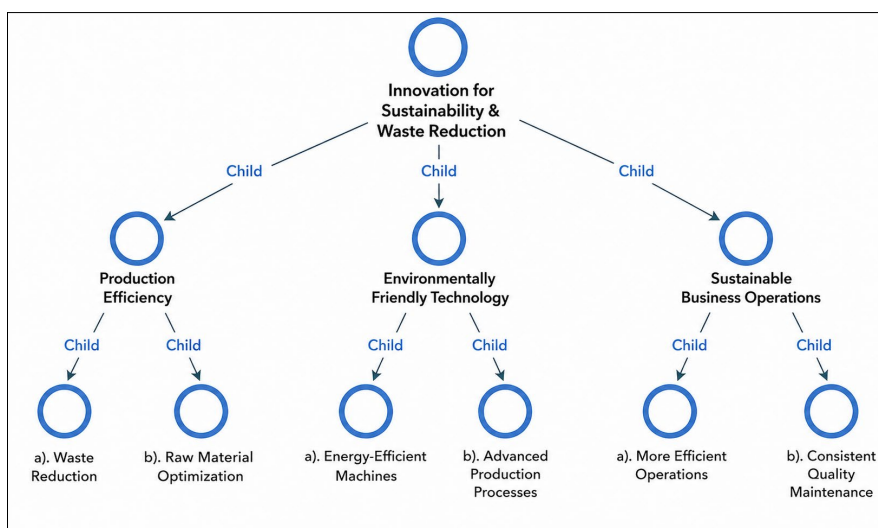
The model shows that PT. X’s competitiveness is not driven by a single factor but by the alignment of multiple capabilities. Strong branding builds trust, efficient distribution ensures market reach, and continuous innovation sustains relevance. The integration of these elements creates a reinforcing cycle: innovation enhances product quality, quality strengthens the brand, and a strong brand amplifies the effectiveness of distribution and marketing efforts. The result demonstrates that global competitiveness at PT.X stems from a coordinated strategy in which branding, operational execution, and innovation are tightly interconnected. This finding underscores the importance of viewing organizational innovation not as isolated initiatives, but as part of a broader strategic system that links market orientation, internal processes, and long-term sustainability.

### 4.3. Model of Sustainability-Oriented Innovation

Figure 3 presents a hierarchical model derived from NVivo analysis that explains how PT.X integrates sustainability into its innovation strategy, with a particular focus on waste reduction and resource efficiency. The model is organized around three main, interrelated pillars: production efficiency, environmentally friendly technology, and sustainable business operations. Together, these pillars form a coherent system that supports both environmental performance and operational effectiveness. The first pillar, production efficiency, emphasizes the company’s efforts to minimize waste and optimize the use of raw materials. The sub-themes waste reduction and raw material optimization indicate that PT.X actively improves production processes to reduce excess usage, avoid inefficiencies, and lower operational costs. This reflects a shift from traditional production approaches toward more resource-conscious practices, where efficiency is closely linked to sustainability outcomes.

The second pillar, environmentally friendly technology, highlights the role of technological innovation in reducing environmental impact. The sub-themes, energy-efficient machines and advanced production processes, suggest that PT.X invests in modern equipment and controlled production systems to improve energy use, reduce emissions, and ensure more precise operations. These technological upgrades not only support environmental goals but also enhance production reliability and consistency, demonstrating how sustainability and performance can be achieved simultaneously. The third pillar, sustainable business operations, captures the broader organizational impact of these innovations. The sub-themes, more efficient operations and consistent quality maintenance, show that sustainability is embedded in day-to-day

business practices. Rather than being treated as a separate initiative, it is integrated into operational routines, ensuring that improvements in efficiency do not compromise product quality. This balance is particularly important in the food and beverage industry, where maintaining quality standards is critical.



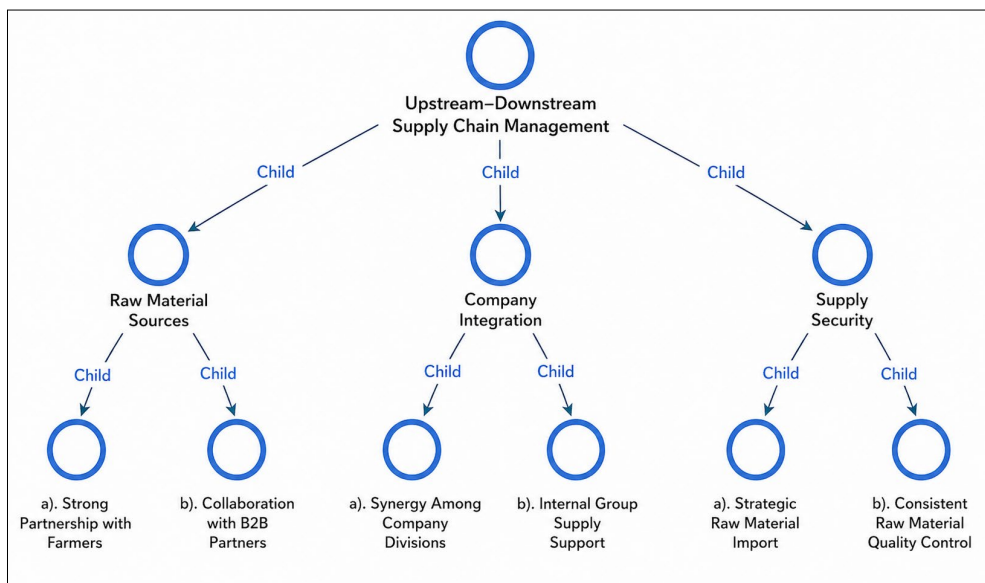
**Figure 3.** NVivo Thematic Model of Sustainability-Oriented Innovation at PT.X

The model illustrates that sustainability-oriented innovation at PT.X is not limited to isolated initiatives but is implemented as a coordinated system. Improvements in production efficiency reduce resource consumption, environmentally friendly technologies enable cleaner, more controlled processes, and sustainable operations ensure these gains are maintained over time. These elements reinforce one another, creating a cycle where efficiency supports sustainability, and sustainability, in turn, enhances long-term operational performance. The findings demonstrate that PT.X approaches sustainability through integrated innovation, combining process improvements, technological advancement, and operational discipline. This holistic approach allows the company to reduce environmental impact while maintaining competitiveness, highlighting sustainability not as a constraint but as a strategic driver of performance and resilience.

#### 4.4. Model of Integrated Supply Chain Management

Figure 4 presents a hierarchical model derived from NVivo analysis that explains how PT.X manages its supply chain through an integrated upstream–downstream approach. The model is structured around three interrelated dimensions: raw material sourcing, company integration, and supply security. Together, these dimensions form a coordinated system that ensures the availability, quality, and continuity of inputs required for stable production and long-term competitiveness. The first dimension, raw material sourcing, highlights how PT.X secures its input base through diversified and strategic relationships. The sub-themes—strong partnerships with farmers and collaboration with B2B partners indicate that the company does not rely on a single sourcing channel. Instead, it combines direct engagement with primary producers and formal partnerships with intermediaries to balance cost, quality, and supply stability. This dual approach strengthens upstream resilience and reduces exposure to supply disruptions.

The second dimension, company integration, reflects the internal coordination mechanisms that connect different parts of the organization. The sub-themes, including collaboration among company divisions and internal group supply support, suggest that PT.X leverages its corporate structure to enhance efficiency and responsiveness. By facilitating resource sharing and coordination across subsidiaries, the company can streamline procurement, reduce duplication, and respond more quickly to changes in demand or supply conditions. This internal integration is critical for aligning strategic objectives with operational execution. The third dimension, supply security, focuses on ensuring supply chain continuity and quality. The sub-themes, namely strategic raw material imports and consistent raw material quality control, demonstrate that PT.X adopts both proactive and preventive measures. Strategic imports allow the company to fill gaps in domestic supply and mitigate risks associated with local shortages, while strict quality control systems ensure that all inputs meet required standards. Together, these practices safeguard production processes and maintain product consistency.



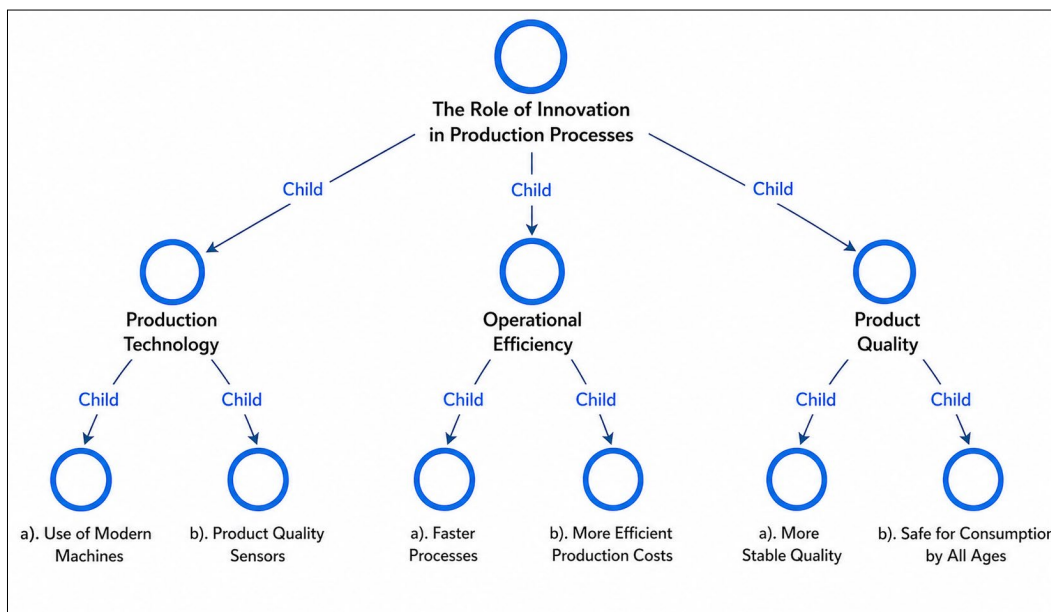
**Figure 4.** NVivo Thematic Model of Integrated Supply Chain Management at PT.X

The model shows that PT.X's supply chain is not managed as a set of disconnected activities but as an integrated system. Strong sourcing relationships support reliable input flows, internal coordination enhances efficiency, and supply security mechanisms reduce risk and maintain quality. These elements reinforce one another, creating a resilient supply chain that can adapt to changing conditions while supporting continuous production. The result illustrates that integrated supply chain management at PT.X is a key enabler of organizational performance. By combining external partnerships, internal integration, and risk management strategies, the company builds a supply chain that is not only efficient but also flexible and robust. This integrated approach provides a strong foundation for innovation, operational stability, and sustained competitive advantage.

#### 4.5. Role of Production Process Innovation

Figure 5 presents a hierarchical model derived from NVivo analysis that explains how process innovation contributes to improved production performance at PT.X. The model is organized around three interrelated dimensions: production technology, operational efficiency, and product quality. Together, these dimensions show how technological upgrades and process improvements translate into better operational outcomes and more reliable products. The first dimension, production technology, highlights the role of modern equipment and monitoring systems in supporting innovation. The sub-themes of modern machine use and product quality sensors indicate that PT.X invests in advanced production technologies to enhance precision, reduce human error, and ensure consistent output. These technologies enable tighter control over production parameters, which is essential for maintaining efficiency and meeting quality standards in large-scale operations.

The second dimension, operational efficiency, reflects the direct impact of process innovation on production performance. The sub-themes, faster processes and lower production costs, suggest that improvements in workflow design, automation, and process control allow the company to increase output while minimizing resource use. This not only reduces production time but also lowers operational costs, strengthening the company's competitiveness in a cost-sensitive industry. The third dimension, product quality, emphasizes the outcome of these innovations in terms of product reliability and safety. The sub-themes, more stable quality and safe for consumption by all ages, show that process innovation is closely linked to maintaining high and consistent quality standards. In the food and beverage industry, this is particularly critical, as product safety and uniformity directly influence consumer trust and brand reputation.

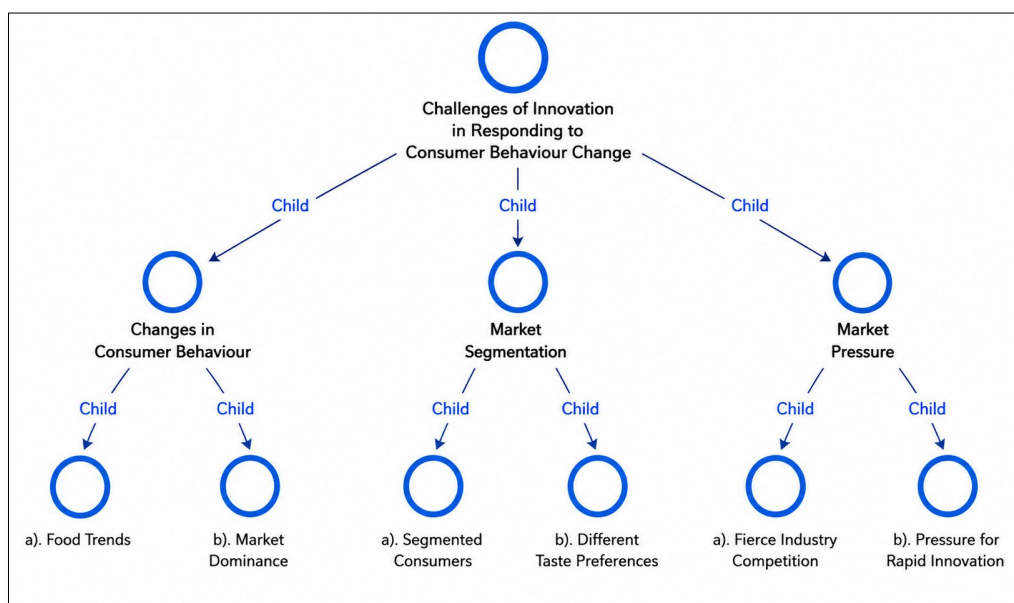


**Figure 5.** NVivo Thematic Model of Process Innovation and Production Performance at PT.X

In general, the model demonstrates that process innovation at PT.X operates as an integrated system. Advances in production technology enable more efficient processes, which in turn support consistent product quality. These elements reinforce one another, creating a cycle in which technological capability, operational efficiency, and quality assurance are tightly interconnected. The result shows that process innovation is a key driver of production performance at PT.X. By aligning technological investments with operational improvements and quality control, the company can enhance productivity, reduce costs, and maintain high standards. This integrated approach ensures that process innovation delivers both efficiency gains and sustained product excellence, supporting the company's broader competitive strategy.

#### 4.6. Innovation Challenges to Changing Consumer Tastes

Figure 6 presents a hierarchical model derived from NVivo analysis that explains the main challenges PT.X faces in aligning innovation with changing consumer behavior. The model is structured around three interconnected dimensions: changes in consumer behavior, market segmentation, and market pressure. These dimensions represent key external forces that shape how the company designs and implements its innovation strategies.



**Figure 6.** NVivo thematic model of consumer-driven innovation challenges

The first dimension, changes in consumer behavior, captures the speed and direction of shifts in consumption patterns. The sub-themes include rapidly changing food trends and the growing dominance of Generation Z consumers. These findings indicate that preferences are increasingly dynamic and influenced by global trends, digital exposure, and evolving lifestyles. This condition creates uncertainty for firms because product life cycles become shorter and demand patterns less predictable. For PT.X, innovation must therefore be continuous and responsive rather than periodic. The second dimension, market segmentation, highlights the increasing diversity of consumer needs. The sub-themes include segmentation by age and differences in taste preferences. These results show that the market is no longer homogeneous. Firms must address multiple consumer groups with distinct expectations and consumption patterns. This fragmentation complicates product development because a single product strategy cannot satisfy all segments. As a result, PT.X needs to adopt more targeted and flexible innovation approaches to maintain relevance across diverse market niches.

The third dimension, market pressure, reflects the competitive environment in which the company operates. The sub-themes include intense industry competition and pressure to innovate rapidly. These findings indicate that competitors actively introduce new products, which accelerates the pace of market change. This situation places pressure on PT.X to shorten innovation cycles while maintaining product quality and consistency. A slow response may reduce market share and weaken brand positioning. Thus, the model shows that innovation challenges at PT.X are largely driven by external market dynamics rather than internal constraints alone. Rapid changes in consumer preferences increase uncertainty, market segmentation adds complexity, and competitive pressure requires speed. These forces interact and reinforce one another, creating a demanding environment in which firms must balance responsiveness, efficiency, and quality. The result demonstrates that consumer-driven innovation at PT.X requires strong adaptability and strategic alignment. The company must continuously monitor market signals, adjust product and process innovations, and manage trade-offs between speed, cost, and quality. This finding highlights the importance of integrating market intelligence with internal capabilities to sustain competitiveness in a rapidly evolving industry.

## 5. Discussion

This study demonstrates that organizational innovation at PT.X operates as an integrated system that links product development, process improvement, supply chain management, and sustainability. The findings extend existing literature by showing how these dimensions interact in practice to improve firm performance within a complex and dynamic food and beverage environment. Rather than functioning as isolated initiatives, innovation activities at PT.X are coordinated through managerial decisions and aligned with market demands, operational efficiency, and long-term sustainability goals. First, the results confirm that organizational innovation is a key driver of firm performance, consistent with prior studies that emphasize its role in enhancing competitiveness, efficiency, and adaptability (Nguyen Van et al., 2025; Sharafuddin et al., 2022). The NVivo findings show that innovation at PT.X is problem-oriented and embedded in managerial decision-making processes. This aligns with the view that innovation functions as a strategic capability that enables firms to respond effectively to environmental uncertainty and market changes. The prominence of innovation-related themes such as quality, efficiency, and sustainability suggests that PT.X adopts a holistic innovation approach that simultaneously targets multiple performance dimensions.

Second, the findings highlight the importance of integrated supply chain management as a foundation for innovation and performance. The upstream-downstream integration observed at PT.X supports previous empirical evidence that supply chain integration enhances operational performance and facilitates innovation outcomes (Aggrey et al., 2022; Ngatia et al., 2024). By combining partnerships with farmers, collaboration with B2B suppliers, and internal coordination among subsidiaries, PT.X strengthens supply reliability and reduces operational risk. This integrated structure enables the firm to maintain consistent product quality while responding to fluctuations in raw material availability. The results also support the argument that supply chain capabilities act as both direct and indirect enablers of firm performance through innovation processes (Bwaliez, 2021; Nguyen Van et al., 2025). Third, the study provides evidence that process innovation plays a central role in improving operational efficiency and product quality. The adoption of advanced production technologies, including modern machinery and quality-monitoring systems, enables PT.X to improve production precision, reduce waste, and maintain consistency. This finding is consistent with prior research indicating that process innovation contributes significantly to productivity gains and cost efficiency (Junaid et al., 2022; Yadav et al., 2024). Moreover, integrating process innovation with quality control mechanisms underscores the importance of aligning operational improvements with customer expectations, particularly in industries where product safety and reliability are critical.

Fourth, the findings emphasize that product innovation is strongly market-driven, shaped by evolving consumer preferences and demographic changes. The focus on Generation Z consumers and global food

trends reflects the increasing importance of market orientation in innovation strategy. This supports previous studies that identify market orientation and consumer insights as key determinants of successful product innovation and firm performance (Meisya & Surjasa, 2022; Bleiel, 2010). The results also highlight the challenge of balancing innovation speed with product consistency, suggesting that firms must develop flexible yet controlled innovation processes to remain competitive in rapidly changing markets. Fifth, this study underscores the growing role of sustainability-oriented innovation in shaping firm performance. The integration of environmentally friendly technologies, waste-reduction practices, and resource optimization demonstrates that sustainability is embedded in PT. X's operational strategy. This finding aligns with the literature on sustainable business models, which emphasizes that environmental innovation can enhance both efficiency and long-term competitiveness (Bocken et al., 2014; Rafli et al., 2025). The results further suggest that sustainability is not treated as a compliance requirement but as a strategic driver that contributes to cost reduction, process improvement, and brand value.

In addition, the study identifies external market dynamics as the primary source of innovation challenges, particularly changes in consumer behavior, market segmentation, and competitive pressure. These findings are consistent with research showing that firms in the food and beverage sector face increasing complexity due to fragmented markets and rapidly evolving consumer preferences (Vicentini et al., 2016). The need to respond quickly to these changes creates tension between innovation speed and quality control. This reinforces the importance of dynamic capabilities, where firms must continuously sense market changes, seize opportunities, and reconfigure internal resources to sustain performance. Importantly, the findings contribute to the literature by demonstrating that organizational innovation should be understood as a systemic and integrative process. At PT.X, innovation outcomes are achieved through the alignment of multiple organizational functions rather than through isolated efforts. This supports the argument that innovation performance depends on the interaction between internal capabilities and external market conditions, as well as the firm's ability to coordinate these elements effectively (Ivanov et al., 2019; Yadav et al., 2024).

From a managerial perspective, the study suggests that firms should prioritize integrating innovation across functional areas, strengthening supply chain collaboration, and aligning innovation strategies with market intelligence. Managers must also balance short-term efficiency goals with long-term sustainability objectives to ensure continuous performance improvement. For the food and beverage industry, where quality, safety, and consumer preferences are critical, this integrated approach is essential for maintaining competitiveness. Thus, this study provides empirical evidence that organizational innovation, when implemented as a coordinated system, significantly enhances firm performance. The case of PT.X illustrates how integrating product innovation, process improvement, supply chain management, and sustainability create a resilient, adaptive organization capable of competing in a rapidly evolving global market.

## 6. Conclusions

This study examined how organizational innovation contributes to firm performance by analyzing PT.X, a case study in the food and beverage industry. The findings demonstrate that organizational innovation operates as an integrated and strategic system that connects product innovation, process improvement, supply chain management, and sustainability. This integration enables the company to respond effectively to market dynamics while maintaining operational efficiency and product quality. The results show that organizational innovation at PT.X is driven by a strong alignment between internal capabilities and external market demands. Product innovation is shaped by evolving consumer preferences, particularly among younger segments, while process innovation enhances efficiency, reduces costs, and ensures consistent quality. At the same time, integrated upstream-downstream supply chain management provides stability in raw material sourcing and supports continuous production. Sustainability-oriented innovation further strengthens performance by improving resource efficiency and reducing environmental impact.

In addition, the study highlights that global competitiveness is achieved through the interaction of multiple strategic elements, including brand strength, distribution effectiveness, and continuous innovation. These elements reinforce one another, creating a cycle that supports long-term performance. However, the findings also indicate that firms face significant challenges due to rapidly changing consumer behavior, increasing market segmentation, and intense competitive pressure. These conditions require firms to adopt flexible and adaptive innovation strategies while maintaining control over quality and operational processes. The study concludes that organizational innovation is not a single activity but a coordinated system of interrelated practices that collectively enhance firm performance. The case of PT.X illustrates that successful firms integrate innovation across functions, align strategies with market intelligence, and embed sustainability into their operations. This integrated approach allows firms to remain competitive, resilient, and sustainable in a rapidly evolving business environment.

From a practical perspective, the findings suggest that managers should strengthen cross-functional coordination, invest in process and technological innovation, and continuously monitor market trends to

guide product development. From a theoretical perspective, this study contributes to the understanding of organizational innovation by emphasizing its systemic nature and its role as a bridge between internal processes and external market conditions. Future research may extend this study by applying quantitative or mixed-method approaches, examining different industries, or exploring the role of digital transformation in supporting innovation and firm performance.

**Author Contributions:** Conceptualization, L.F. and E.S.N.; methodology, L.F.; software, L.F.; validation, S.M. and E.S.N.; formal analysis, L.F.; investigation, L.F.; resources, L.F.; data curation, S.M. and E.S.N.; writing, original draft preparation, L.F.; writing, review and editing, L.F., S.M., and E.S.N.; visualization, L.F.; supervision, E.S.N.; project administration, S.M. and E.S.N.; funding acquisition, E.S.N. All authors have read and agreed to the published version of the manuscript.

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