

The Strategic Management for Processed Fruit Entrepreneurs with Product Innovation to Enhance Competitive Advantages

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Abstract

Aim: The objective of research to study guidelines for the strategic management for processed fruit industry entrepreneurs with product innovation to enhance competitive advantages and develop into structural equation model .

Methodology: This research was an inductive research with mixed-methodology research by in-depth interview from 9 experts and focus group with 11 successful business for approve model and data gather from management level in the 500 of fruit entrepreneur using questionnaire, statistical tests of descriptive analysis, inferential analysis, and multivariate analysis.

Finding: The research results showed composed of 4 aspects. The most important item of each aspect are following :1) Internal Process there have plan to train employees to develop their skills and knowledge regularly, 2) Support Network there have contract farming agreement, 3) Creative Marketing there have sufficient budget is allocated for advertising and public relations and 4) Product Innovation encourage the application of newly developed products to be patented, the hypothesis test showed that the difference in manufacturing enterprise sizes revealed the overall aspects that were not significantly different at the level of 0.05.

Conclusion: This research concluded that approach to the strategic management for processed fruit industry entrepreneurs with product innovation to enhance competitive advantages to support newly strategic management guideline that values to adaptation in the future under globalization rapid change to create sustain business opportunities. The results of the structural equation model analysis were proved through the evaluation criteria with the empirical data with the Chi-square probability of 0.074, the relative Chi-square of 1.155, the correlation index of 0.962, and the root index of the mean square of the error estimate of 0.018.

Keywords: *strategic management, fruit entrepreneur, product innovation.*

Introduction

The current global economy, in relation to agricultural produce and the processing industry, is experiencing significant growth and change. The demand for raw materials needed for the processing industry to support the global population has been continuously increasing, with an average growth rate of 5-7% per year over the past 20 years. They have employed specialized high-end innovations to enhance efficiency in the industry. Examples include the delivery of fresh fruits and vegetables to markets and supermarkets,

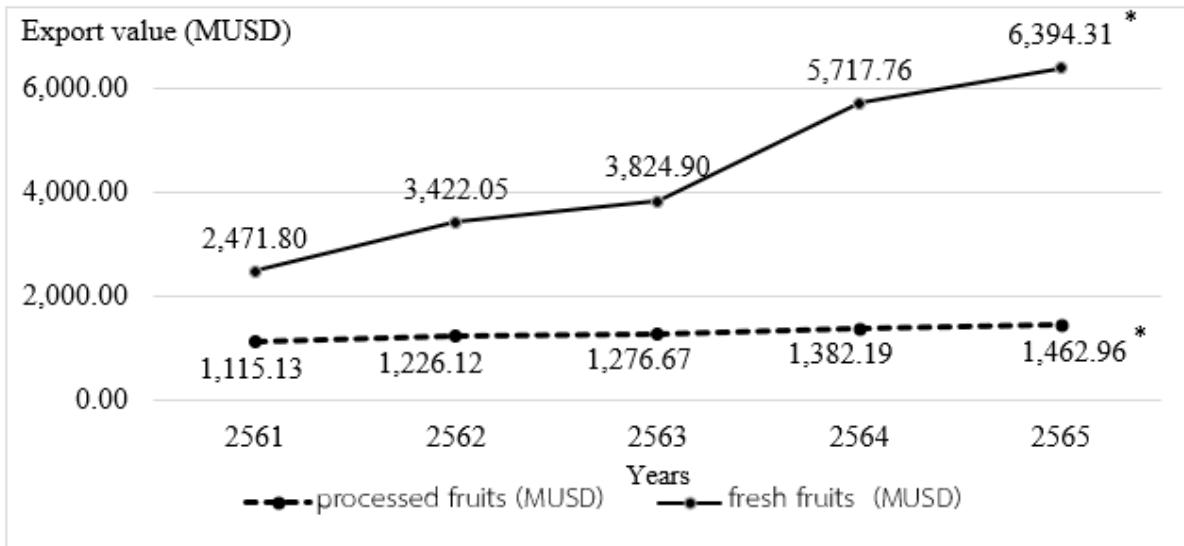
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the use of temporary storage warehouses equipped with special refrigeration, and the introduction of innovations in fruit processing like the design of new products, and the use of modern machinery or production technologies. These advancements are aimed at improving the efficiency of product innovation in the fruit processing industry to match the quantity and diversity of the current consumer base. (Kurbanov, A., and Alimova, M., 2020). The marketing opportunities for processed agricultural products in the global market have become increasingly important. Initially, businesses aimed to mitigate problems such as low prices and spoilage of produce during peak harvest seasons, when there was an oversupply in the market. Now, the focus has shifted towards creating added value and differentiation for products to meet the diversifying consumer demands. This also includes catering to modern consumption behaviors that seek processed food products for convenience in eating and accommodating the fast-paced lifestyles of ever-expanding urban societies as part of national development. Consequently, the industry is placing greater emphasis on and seeking ways to process products to increase profits, product quality, and competitive capability. The demand for processed fruit products is driven by consumer consumption needs and the health trend. In Thailand, processed fruit products are particularly popular due to lifestyle patterns that do not facilitate the consumption of fresh fruits at desired times and the inconsistency of fresh fruit production seasons. This leads to various operational challenges for businesses, such as the irregularity and insufficiency of agricultural products outside the regular growing seasons. The consumers are becoming more aware of the benefits of the food they choose to consume, leading to a trend in processed products that aim to retain the original taste and nutritional value of agricultural produce as closely as possible. Therefore, entrepreneurs, from agricultural producers to processors, should seek appropriate innovations and technologies that meet their capabilities and address these demands, adapting them into their processes. Utilizing machinery and technology in processing, like Freeze Drying innovation, which closely maintains the original taste and nutritional value and offers longer shelf life compared to other processing methods, is one such approach. Using packaging that preserves the quality of food products and adds convenience, such as designs that are easy to consume and portable for on-the-go consumers, is also essential. Adapting product sizes to cater to individual consumers or those who want to control their food intake, along with environmentally friendly packaging that is biodegradable or edible, are other strategies being considered. (The Kasikorn Research Center ,2018)

Thailand, with its suitable geography and climate, is conducive to growing a variety of tropical fruits. These fruits are a significant economic crop, generating considerable annual income for the country, stimulating economic circulation, and boosting the domestic economy. Currently, the demand for consumption is trending upwards due to population growth and increased health consciousness among consumers. Thai fruits are popular both domestically and internationally due to their excellent taste, reasonable prices, and variety. Thailand produces various types of fruits that are available year-round, including both fresh and processed fruits. In the first quarter of 2018, the export value of fresh and processed fruits increased, showing a continuous growth rate and significant expansion in countries including China, India, Hong Kong, South Korea, the United States, and the United Arab Emirates (Ministry of Commerce, 2018). This aligns with the data on the export value of fresh and processed fruits over the past five years, which has been continuously increasing, as shown in Figure 1.



Note: * The year 2022 is a forecast year.

Figure 1: Comparison of the export value of Thailand's processed fruit industry and fresh fruits between the years 2018 - 2022 (Bank of Thailand, 2022).

From Figure 1, the line graph depicting the export value of fresh fruits from Thailand over the past five years demonstrates an increasing popularity and demand in international markets, continuously rising each year. In 2018, the export value was \$2,471.80 million, in 2019 it increased to \$3,422.05 million, in 2020 to \$3,824.90 million, in 2021 to \$5,717.76 million, and in 2022 the export value reached \$6,394.31 million. From the data spanning 2018 to 2022, there was an impressive growth of 1.58 times, with an average annual increase of approximately 39.7%. Additionally, the dotted line graph representing the export value of Thailand's processed fruits over the past five years shows a relatively low but consistent increase in popularity and demand in international markets each year. Thailand's exports of processed fruits are comparatively low when set against the volume of fresh fruits produced. In 2018, the export value was \$1,115.13 million, in 2019 it increased to \$1,226.12 million, in 2020 to \$1,276.67 million, in 2021 to \$1,382.19 million, and in 2022 the export value reached \$1,462.96 million. From the data spanning 2018 to 2022, there was a growth of 0.31 times, with an average annual increase of just 7.8%. This indicates that the competition in the processed fruit industry is quite high. From the above data, it is evident that there is still potential for growth in the Thai processed fruit industry. However, entrepreneurs are currently lacking in knowledge, technology, and innovation in various processing methods that would enable them to compete effectively. They also lack strategic management skills in the processed fruit production industry. (Wanida, 2018) Utilizing innovation to create differentiation in product development, production technology, and modern marketing, by conducting in-depth studies on consumer behaviour towards processed fruits, can positively impact Thailand. It would allow the country to influence global fruit pricing and expand marketing channels in the near future. This information indicates that Thai entrepreneurs in the processed fruit production sector have not been able to expand sufficiently and meet market demand, despite the promising trend in the demand for the processed fruit industry.

Researchers therefore see the need for in-depth research to find strategic management approaches for entrepreneurs in the fruit processing industry through product innovation. This is to study and use the data for improvements, changes, and the application of strategic management to create a competitive advantage for fruit processing entrepreneurs both domestically and internationally. The goal is to create opportunities for profit and increase business value in the fruit processing industry to the maximum, as well as to

meet customer needs. This can enhance the export value of the fruit processing industry in line with government policies. As proposed by the Ministry of Industry in the Eastern Fruit Corridor project, it aims to promote the Eastern part of Thailand as a high-quality fruit hub, establish a standardized global fruit trading system, and link with international traders. This approach to fruit management across the country is systematic, preventing long-term price declines, promoting Thailand as a global hub for tropical fruit production and trade, and becoming a powerhouse in setting global tropical fruit price trends. This will positively affect Thailand's GDP, aiming to increase per capita income and escape the middle-income trap, in accordance with the government's Thailand 4.0 policy.

Research objectives

- 1) To study the components of The Strategic Management for Processed Fruit Entrepreneurs with Product Innovation to Enhance Competitive Advantages.
- 2) To develop a structural equation model for Strategic Management for Processed Fruit Entrepreneurs with Product Innovation to Enhance Competitive Advantages.

Literature Review

1) Product Innovation

Yun & Zhao (2020) Conducted research on the conditions for sustainable open innovation in Alibaba's dynamic growth from a medium and small-sized business to a large organization. The complexity of open innovation and open business models is significant, and within a short period, Alibaba became one of the leading global e-commerce companies with various open innovation business models. The research methodology included in-depth interviews. The findings reveal that Alibaba used a creative global e-commerce business model through open innovation to achieve success rapidly. Importantly, Alibaba adapted this model to overcome complexities through a culture that is open and friendly to innovation. Müller (2020) Studied the role of absorptive capacity and innovation strategy in the design of Industry 4.0 business models, through a comparison of medium, small, and large enterprises, and examining how technological innovation leads to the design of new business models. The aim was to integrate new external knowledge with internal activities, incorporating the concept of business model design and innovation strategy into the model. The results enabled organizations to create effective industry innovation strategies.

2) Internal Process

Adebola (2021) researched approaches to developing businesses for growth in African countries in the industrial sector. The objective was to reduce poverty and create jobs in Africa, aiming for sustainable economic growth by increasing productivity in all aspects. A commitment to finding excellent outcomes highlighted the sustainable growth of businesses that resulted in new innovations and widespread employment. The research found that business development approaches benefited the country through employment and sustained poverty reduction in Africa. This study will be beneficial to African governments as a guideline for them to focus on integrated business development. The recommendations from this study are useful for policy formulation, business operation processes, and compliance with regulations that affect development and sustainable growth. Wattanakomol & Silpcharu (2023) conducted research on the topic "Characteristics of entrepreneurs in sustainably successful micro, small, and medium enterprises" The study focused on the specific characteristics of entrepreneurs essential for business success. Micro, small, and medium enterprises are significant economic drivers in a country, encompassing sectors like manufacturing, retail, wholesale, and services. Entrepreneurs in these sectors need particular characteristics to achieve success. The research identified four key areas contributing to entrepreneurial success: 1)

Leadership qualities, 2) Personal attributes, 3) Management skills, and 4) Ethics and integrity. Important sustainable success traits for entrepreneurs in micro and small enterprises include the ability to prioritize tasks effectively, punctuality, people management skills, and respect for the rights and intellectual property. Nisar et al. (2018) The study focused on strategizing and the capabilities of entrepreneurs in micro, small, and large industries to determine the efficiency of the industry. This study employed multi-modal performance metrics, considering the relational significance of measures and satisfaction levels to analyze entrepreneurs. Regression analysis was conducted to identify various characteristics of business operations. The research found that strategic planning in management systems significantly influences work efficiency and impacts the overall success of the business.

3) Creative Marketing

Amin & Jibril (2021) The research studied the influence of marketing strategies on the performance of entrepreneurs in micro, small, and large industries. Marketing strategies are crucial for operations and achieving business success. Particularly, the impact of marketing strategies on business performance, especially sales promotion strategies, was significant. The assessment included the impact of pricing and the business strategies of entrepreneurs in micro, small, and large industries, along with the impact of marketing strategies on business outcomes. The research found that the most commonly used marketing strategies are promotional strategies, pricing, placement, and the product itself. The application of marketing strategies, producing quality products, appropriate customs, fair pricing, and proper positioning, as well as promoting sales to consumers through all channels, positively affects operational efficiency. Tolstoy et al. (2022) The research investigated the indirect effects of online marketing capabilities on the international performance of medium and small E-commerce enterprises. International E-commerce is a strong global trend, bolstered by changing economic policies due to customer behavior, transportation, and evolving technology. The study explored the drivers of performance differences in global E-commerce, focusing on the capabilities and market orientation in Sweden using E-commerce as an international sales channel. The findings indicated that online marketing capabilities are crucial for enhancing marketing efficiency due to both market driving and market access factors. Therefore, E-commerce is a tool for elevating and enhancing online marketing capabilities. Thaha et al. (2021) The research focused on a case study of systematic digital marketing mapping in organizations. The development of information and communication systems in the digital age has impacted various professions, as well as changes in the business environment and consumer behavior. There is a need to gather information about digital market trends in medium, small, and large industries. The evolving scenario of technology in marketing across all channels is significant and growing. The research found that digital marketing plays a role in business growth, and the use of digital marketing has been on the rise over the past three years. Most operations are conducted in both developed and developing countries, where digital marketing channels contribute to business growth.

4) Support Network

Kiseleva et al. (2018) The research study focused on 'The Theory and Practice of Customer Loyalty Management and Customer Focus in Enterprise Activity' found that concentrating on the actual behavior of customers is a method of retrospective analysis of consumer activities. Customer loyalty, as reflected in the level of perception about the organization, is associated with the needs and satisfaction derived from the organization's products or services. Soltani et al. (2018) The research titled 'The Impact of Customer Relationship Management on Organization Performance' found that Customer Relationship Management (CRM) is critically important for business growth in today's environment. The approach of CRM involves analyzing customer history data. Organizations should focus on methods to retain customers. The success of CRM is greatly influenced by the use of technology. Factors like customer orientation,

organizational capability, and management of customer knowledge are all direct influencers on an organization's performance. Soroka et al. (2017) The research titled 'Cloud-based Big Data Analytics for Customer Insight-Driven Design Innovation in SMEs' found that a collaborative approach throughout the system, involving production supporters(Supplier), organizations, and customers, necessitates the use of integrated data sources. Big Data analytics on cloud systems for design driven by deep customer insights in various business models were examined. Rapid development in IT and ICT, the emphasis on motivation to use, and knowledge about customer analytics using Big Data enable organizations to understand various data relationships. Truly understanding customer needs can lead to the design of products that meet these needs. Data management may be the most appropriate way to access Big Data

Research Methodology

This research was conducted as an Inductive Research using a Mixed-Methodology Research approach, comprising 3 parts: Qualitative Research with In-Depth Interview techniques, Quantitative Research through survey data collection, and Qualitative Research using Focus Group Discussion techniques, to validate the accuracy of the research model in this study.

1. The qualitative research using in-depth interview techniques involved a population of 9 experts selected through Purposive Sampling. The qualifications of the experts were as specified by the Administrative Committee of the Doctoral Program in Business Administration for Industrial Management, Faculty of Business Administration, King Mongkut's University of Technology North Bangkok. The experts consisted of three groups: a group of entrepreneurs or managers in business organizations, numbering 3 individuals ; a group from the government sector and related agencies, also 3 individuals; and a group of academics, comprising 3 individuals.

2. The quantitative research involved a population of entrepreneurs in the processed fruit industry who had received standards for quality and food safety, totaling 4,349 individuals (Department of Business Development, 2022). The sample size was determined using criteria for research types involving factor analysis or structural equation modeling, which specified a very good sample size of 500. (Comrey and Lee, 1992 Cited in Thanin, 2020) The research was conducted using a multi-stage sampling method. (Babbie, 2010 Cited in Thanin, 2020) The research process included a stratified sampling method based on the type of industrial business, categorized into two sizes: large businesses (with more than 200 personnel) and medium and small businesses (with no more than 200 personnel). The sampling was conducted using a probability-based method with random selection and data collection from the sampled groups.

3. The qualitative research was conducted using focus group discussion techniques to validate the model. The population for this research consisted of 11 distinguished experts, selected through purposive sampling.

Results

The importance level of strategic management components for entrepreneurs in the processed fruit industry using product innovation to gain a competitive advantage is generally very high. The average importance rating is 4.00. The importance is ranked across four dimensions, as detailed in Table 1.

Table 1. The level of importance of strategic management components for processed fruit entrepreneurs using product innovation to gain a competitive advantage, detailed both overall and by aspect.

The Components of The Strategic Management for Processed Fruit Entrepreneurs with Product Innovation to Enhance Competitive Advantages	\bar{X}	S.D.	Level of Significant
The importance of components with Overall	4.00	0.47	High
1. Product Innovation	3.92	0.53	High
2. Internal Process	4.07	0.52	High
3. Creative Marketing	3.97	0.54	High
4. Support Network	4.06	0.51	High

1) The analysis of Product Innovation components found that, overall, the average value is at a high level. ($\bar{X} = 3.92$) When considering each item individually, it was found that "Supports the patent registration of newly developed products." ($\bar{X} = 4.18$)

2) The analysis of the Internal Process component found that, overall, the average value is at a high level. ($\bar{X} = 4.07$) When considering each item individually, it was found that "Training Road Map and Consistently develop knowledge." ($\bar{X} = 4.17$)

3) The analysis of the Creative Marketing component found that, overall, the average value is at the highest level. ($\bar{X} = 3.97$) When considering each item individually, it was found that "There is sufficient budget allocation for advertising and public relations to become well-known." ($\bar{X} = 4.07$)

4) The analysis of the Support Network component found that, overall, the average value is at the highest level. ($\bar{X} = 4.06$) When considering each item individually, it was found that "Cooperate with farmer groups to conduct Contract Farming in accordance with the agreed upon conditions." ($\bar{X} = 4.26$)

The researcher conducted modifications to the model by considering the Modification Indices obtained from a standard software program, in conjunction with theoretical academic principles. This involved sequentially removing some inappropriate observational variables and then reprocessing the new model. This process was continued until a model was achieved that met the statistical criteria for all four values. After the completion of the model modification, it was found that

5) The assessment of the consistency and coherence of the structural equation model for strategic management for processed fruit entrepreneurs with product innovation includes four components: Product Innovation, Internal Process, Creative Marketing and Support Network. It appears that the empirical data are consistent. The CMIN-p value is 0.074, CMIN/DF) is 1.155, GFI is 0.962 and RMSEA is 0.018 therefore it can be concluded that all four statistical values meet the criteria. Therefore, it is considered that the structural equation model is complete and harmoniously consistent with the empirical data. (Silpcharu T., 2020) as detailed in Table 2.

Table 2 The statistical values that assess the consistency and coherence of the structural equation model are compared before and after the modification of the model.

The statistical values	Criteria for consideration	Before improvement	After improvement
CMIN-p	> 0.05	0.000	0.074
CMIN/DF	< 2.00	2.470	1.155
GFI	> 0.90	0.671	0.962

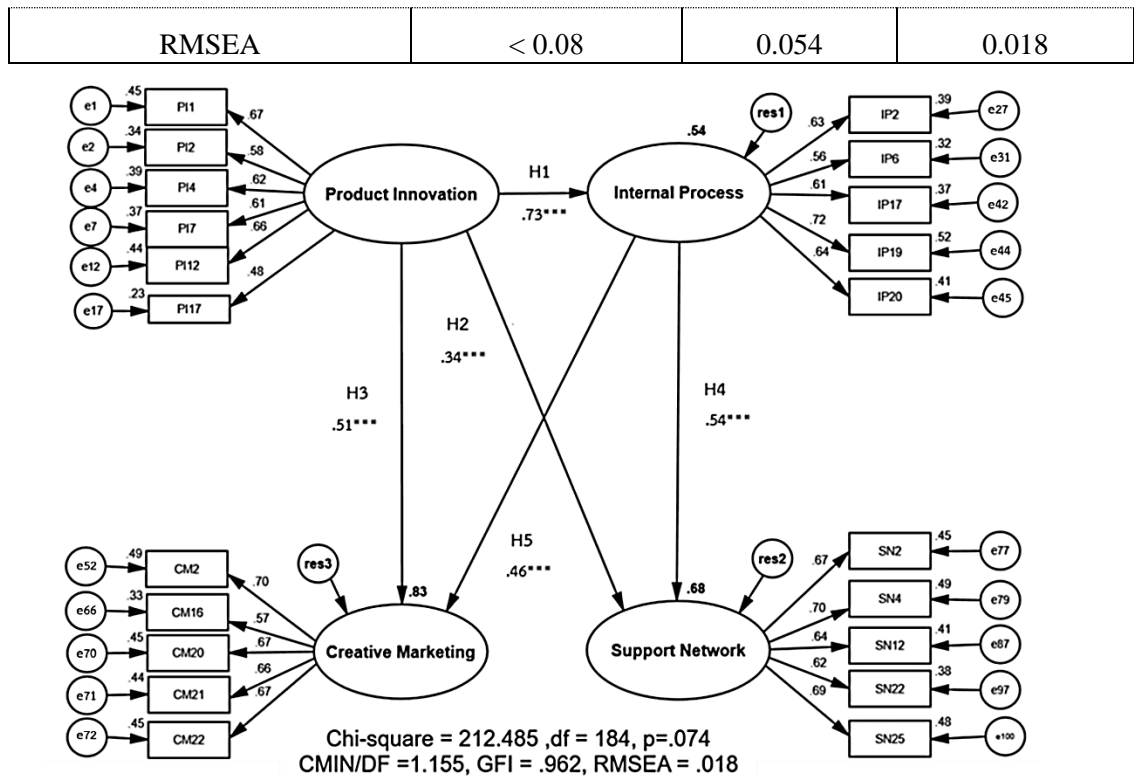


Figure 2 illustrates the path diagram of the structural equation model's relationships

From Figure 2, the overall influence analysis of latent variables in the structural equation model of strategic management for fruit processing innovation after model modification is presented. It consists of a total of 4 latent variables, categorized into 1 exogenous latent variable, namely 'Product Innovation,' and 3 endogenous latent variables, namely 'Internal Process,' 'Creative Marketing,' and 'Support Network.' In the standardized estimate mode, after model modification, it was found that the highest overall influence is observed in the 'Product Innovation' component, which exerts the highest influence on the 'Creative Marketing' component with a standardized regression weight of 0.84.

Table 3 The observed variables obtained from structural equation modeling after model modification

Variables	Estimate		R ²	Variance	C.R.	P
	Standard	Unstandard				
Product Innovation				0.33		
PI1	0.67	1.00	0.45	0.41		
PI2	0.58	0.86	0.34	0.47	11.33	***
PI4	0.62	0.95	0.39	0.47	11.97	***
PI7	0.61	0.97	0.37	0.52	11.78	***
PI12	0.66	0.93	0.44	0.37	12.59	***
PI17	0.48	0.65	0.23	0.47	9.46	***
Internal Process			0.54	0.11		
IP2	0.63	1.00	0.39	0.36		

IP6	0.56	0.94	0.32	0.43	10.52	***
IP17	0.61	1.10	0.37	0.47	11.21	***
IP19	0.72	1.17	0.52	0.29	12.66	***
IP20	0.64	1.07	0.41	0.38	11.58	***
Support Network			0.68	0.09		
SN2	0.67	1.00	0.45	0.33		
SN4	0.70	1.06	0.49	0.31	13.17	***
SN12	0.64	0.94	0.41	0.34	12.22	***
SN22	0.62	0.93	0.38	0.38	11.84	***
SN25	0.69	1.03	0.48	0.31	13.02	***
Creative Marketing			0.83	0.06		
CM2	0.70	1.00	0.49	0.34		
CM16	0.57	0.87	0.33	0.50	11.65	***
CM20	0.67	0.98	0.45	0.38	13.49	***
CM21	0.66	0.91	0.44	0.34	13.31	***
CM22	0.67	0.96	0.45	0.37	13.45	***

6) The results of hypothesis testing for causal relationships among latent variables in the structural equation model of strategic management for fruit processing innovation to gain competitive advantage. A total of 5 hypotheses were tested, and it was found that all 5 hypotheses were including H1: The component of Product Innovation has a statistically significant direct influence on the component of Internal Process at a significance level of 0.001, with a standardized regression weight of 0.34. H3 : The component of Product Innovation has a statistically significant direct influence on the component of Creative Marketing at a significance level of 0.001, with a standardized regression weight of 0.51. H4 : The Internal Process component has a statistically significant direct influence on the Support Network component at a significance level of 0.001, with a standardized regression weight of 0.54. and H5 : The Internal Process component has a statistically significant direct influence on the Creative Marketing component at a significance level of 0.001, with a standardized regression weight of 0.46.

Discussion and Conclusion

The key findings from the research, which serve as strategic guidelines for organizations prioritizing sustainable competitiveness in today's rapidly changing technological environment to achieve long-term success, are summarized based on the research findings. These findings are supported or contradicted by relevant research documents and can be summarized into the following 5 points

(1) From the research findings, it was observed that when comparing the strategic management components for fruit processing entrepreneurs with innovative products, there was no statistically significant difference at the 0.05 level. This is because businesses of various sizes, including large, medium, and small, tend to operate similarly. This aligns with the study by Masood & Sonntag (2020), which found that technology systems that are highly beneficial for strategic management in fruit processing

entrepreneurs with innovative products tend to have similar business operations due to limitations in staff knowledge and outdated production processes when it comes to accessing modern technology.

(2) Strategic management for fruit processing entrepreneurs with innovative product-focused internal processes has an average score of 4.07, which is significantly high. This highlights the importance of personnel in directly influencing the organization's strategic management. Having skilled and engaged personnel who are committed to the organization is crucial. Motivating them for skill development and retaining them within the organization contributes to the strength of internal processes. This aligns with the study by Wattanakomol & Silpcharu (2023), which found that entrepreneurs with people management skills are a key component of business success. It also aligns with Sulej's study (2021), which emphasizes the importance of sustainability and its influence on the development of employees, known as Sustainable Human Resources Management (SHRM). This includes aspects such as employee cooperation, participation, human equity, motivation, flexibility, and environmental protection. Developing human resources based on SHRM principles is a way to retain personnel within the organization. (Piwowar-Sulej, 2021) Human-centric considerations encompass 1) the development of employee capabilities, 2) having structured work processes, and 3) creating an appropriate work environment to ensure that personnel can work happily. (Flores, Xu & Lu, 2020)

(3) Strategic management for entrepreneurs in the processed fruit industry involves innovating products to gain a competitive advantage. A detailed analysis reveals that collaboration with farmer groups for Contract Farming, adhering to the agreed terms, is highly significant, with an average importance rating of 4.26, the highest among the factors considered. This is consistent with Sharma & Priya's (2021) study, which found that Contract Farming is significantly beneficial for both business and agricultural sectors. The trend towards long-term farming contracts is positive due to increasing awareness of food safety and quality. It also builds confidence in the standard and safety of the raw material sources. This aligns with the findings of Abdulla, Vasylieva & Volovyk (2022), which emphasize the appropriateness of contract agreements considering land management, finance, and available resources. This approach aims to balance the harvest yield, maximizing benefits and profits for all parties involved in the contract farming agreement.

(4) The hypothesis testing results indicate that the component of Product Innovation has a direct influence on the component of Internal Process, with the highest Standardized Regression Weight among the direct influences. This demonstrates empirically that product innovation is a crucial aspect of business operations, forming a strength of the business and a key component of an organization's strategic management system, ensuring stability in financial aspects, profitability, and competitive capabilities. This aligns with the research by Calvin et al. (2018), which studied agility in responding to innovations in the digital era, focusing on industrial factories during a time when digital technology plays a significant role in fostering various innovations. The study examined the market environment characterized by high competition, business survival, and the response to new innovations. The research findings indicated that entering the current digital era, which integrates information systems and invents innovations for organizational survival, leads to increased operational agility and the development of organizational capabilities in innovation. Amidst the innovations arising in a competitive era, the use of social media technology has also been incorporated. Daniel et al. (2017: 292-301) Efficient utilization of technology is found to be crucial in supporting decision-making for a company's survival. The effective use of technology to support decision-making is crucial for the survival of companies. Recent studies analyzing Social Media Technology (SMT) in small and medium-sized enterprises have found that the impact of using social media technology, through external information acquisition and knowledge

sharing, has a positive effect and is linked to innovation. Nejb (2020) conducted research on the impact of Human Resources Information Systems (HRIS) on the individual innovation capabilities within Tunisian companies. This study focused on the effects of using HRIS, an information system employed in the human resources department. The results, assessed using Smart PLS software, showed that the use of HRIS can effectively enhance the individual innovation capabilities of employees. Additionally, it was found that the emotional commitment of employees leads to personal innovation, which can efficiently foster each individual's creativity.

(5) The hypothesis testing results revealed that the component of Internal Process has the highest overall influence on the component of Creative Marketing, with the highest overall Standardized Regression Weight. This empirically demonstrates that managing Internal Process is crucial for business operations. Strategic planning in managing Internal Process to develop marketing strategies that are responsive to customer needs and adaptable to changing consumer conditions, as well as risk management, positively impacts the organization's sales growth and competitive capabilities. This corresponds with the research published in the May 2019 issue of the International Journal of Production Economics by Sahi, Gupta, and Cheng (2019), who studied strategic approaches to SMEs' operations in the Industry 4.0 era. Strategic approaches to SMEs' operations in the Industry 4.0 era consist of 6 key aspects, which include: 1) Learning, which involves creating more profound and insightful information, 2) Focus on entrepreneurs, 3) Market focus, 4) Emphasis on proactive innovation, 5) Technology focus, and 6) Organizational structure design. Strategic orientation in an organization enables entrepreneurs to manage internal processes, respond to customer needs, seek benefits according to market conditions, cultivate a market-focused culture, utilize available resources for maximum benefit, and facilitate employee learning to generate new ideas. These diverse strategic approaches significantly impact marketing. (Sahi, Gupta and Cheng, 2020) Adopting approaches towards creativity and strategic adaptation leads to improved organizational outcomes, enabling the organization to strengthen its market position. (Korpysa, 2020) The goods must be of high quality and possess distinctive features that set them apart from competitors. (Wattanakomol & Silpcharu, 2022) Having a competitive advantage in the market requires the creation of innovative products that are distinct, in order to deliver superior value to consumers. (Srihabut, Jariyapoom and Roopsing, 2021)

Suggestions

1) Government policy level

(1) The Ministry of Industry should establish policies for enhancing the competitive capabilities of the processed fruit industry in Thailand. This can be achieved by creating comprehensive development programs for entrepreneurs, enabling managers of large, medium, and small-sized businesses to effectively handle various organizational aspects. This includes strategic management and adapting strategies to suit current conditions and ensuring modernity for future changes.

(2) The Ministry of Public Health should establish a strategy focusing on the development of high-quality products, promote the certification of industrial products to meet production standards, and control quality using standards such as FDA, TISI, ISO, GMP, HACCP. This also includes adding value to products through creativity and creating a difference with product innovation.

(3) The Ministry of Foreign Affairs should establish foreign trade policies to promote the competitiveness of the processed fruit industry at various levels, both domestically and internationally. This includes providing consultancy, business matchmaking, utilizing international trade benefits, producing innovative products rather than the original

equipment manufacturer(OEM), transforming roles by creating brands for Thai products, opening new markets for products, promoting exports and market expansion internationally.

(4) The Ministry of Finance should implement measures to promote financial and tax support, ensuring that entrepreneurs in the processed fruit industry truly access funding from government agencies. This includes creating financial literacy, understanding loans, simplifying accounting processes, offering tax benefits, and reducing import taxes on modern machinery used in production to enhance production capabilities.

(5) The Ministry of Labor should establish policies for workforce skill development to enable workers to collaborate with new technologies and innovations, elevating organizations towards future growth. This includes developing training programs that focus on producing skilled technicians to meet the actual needs of the manufacturing sector in both medium and small enterprises.

2) The operational level

(1) Processed fruit business operators should establish the approaches of the strategic management for processed fruit entrepreneurs with product innovation to enhance competitive advantages with Internal Processes. This aligns with the top three highest priority findings from research, which include: 1) A Training Road Map for consistent skill and knowledge development 2) Organizational operations that are transparent and auditable, adhering to governance principles and 3) Implementing and materializing the creative ideas and contributions of the staff.

(2) The processed fruit entrepreneurs should define the approaches of the strategic management for processed fruit entrepreneurs with product innovation to enhance competitive advantages in the aspect of Support Network. This should align with the top three highest priority research findings, which include: 1) Collaborating with farmer groups to establish advance purchase agreements (Contract Farming) according to pre-agreed terms, 2) Organizing activities to reward the supplier groups that provide cooperation and excellent support, and 3) Collaborating with communities, fruit growers, and various processing groups to make agreements and cooperate in terms of labor and raw materials.

(3) The processed fruit entrepreneurs should establish the approaches of the strategic management for processed fruit entrepreneurs with product innovation to enhance competitive advantages in the field of creative marketing. This should align with the top three highest priority research findings, which are: 1) Allocating a sufficient budget for advertising and public relations to increase brand awareness, 2) Providing quality assurance and after-sales service, and 3) Using celebrities or well-known personalities to help promote and publicize the products to a wider audience.

(4) The processed fruit entrepreneurs should define the approaches of strategic management with product innovation to enhance competitive advantage by product innovation. This should be in line with the top three highest priority research findings, which include: 1) Supporting the patenting of newly developed products, 2) Implementing an Enterprise Resource Planning (ERP) system to link data and processes throughout the organization for speed and accuracy, and 3) Integrating industrial robots or automated systems into the production process.

(5) The processed fruit entrepreneurs should focus on marketing strategies that adapt to changes. Entering new markets to increase the customer base, retaining existing customers by leveraging information technology in marketing to facilitate easy access to products through online markets, and utilizing Big Data for marketing purposes. Implementing marketing strategies that encompass both domestic and international markets will result in increased overall business performance in terms of sales and profit, as well as enhancing the competitive capabilities to meet the diverse needs of customers.

(6) The processed fruit entrepreneurs should develop strategic plans and set objectives to continuously enhance their organizational competitiveness. There should be regular evaluations and improvements of operations to align with ongoing changes. The organization should adapt and plan for the long term to deal with economic and social changes, as well as have contingency plans in place to mitigate impacts on the business.

(7) The processed fruit entrepreneurs should produce high-quality products that meet customer needs, focusing on creating differentiation, innovating products, and aiming to reduce losses from the production process. This includes reducing internal costs throughout the organization to achieve lower production costs, thereby enhancing their competitive edge within the domestic market.

3) The suggestions for future research

(1) Developing the skills of personnel in the processed fruit industry to align with modern production systems and innovation

(2) Enhancing the capabilities of small and medium-sized enterprises to increase their competitive potential against large-scale industrial businesses.

(3) Leveraging patented product innovations to create a sustainable competitive advantage.

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