

## Sufficiency economy and value-added processed of community enterprise coconut products to develop the competitive potential of the innovation community in Samut Songkhram Province

By

**Sakapas Saengchai**

Assistant Professor, College of Politics and Government, Suan Sunandha Rajabhat University, Thailand, [sakapas.sa@ssru.ac.th](mailto:sakapas.sa@ssru.ac.th), corresponding author, <https://orcid.org/0000-0003-0883-1119>

**Dr. Pichamon Chansuchai**

Assistant Professor, Faculty of Management Sciences, Suan Sunandha Rajabhat University, Thailand, [pichamon.ch@ssru.ac.th](mailto:pichamon.ch@ssru.ac.th)

**Natthapong Sripa**

Legal officer, Expert Level, The Secretariat of the House of Representatives, Thailand, [natthapong.sr@parliament.go.th](mailto:natthapong.sr@parliament.go.th)

**Dr. Sookyuen Tepthong**

Graduate School of Management & Innovation, King Mongkut's University of Technology, Thailand, [sookyuen.tep@kmutt.ac.th](mailto:sookyuen.tep@kmutt.ac.th)

**Dr. Paitoon Chetthamrongchai**

Faculty of Business Administration, Kasetsart University, Thailand, [fbuspte@ku.ac.th](mailto:fbuspte@ku.ac.th)

### Abstract

To create added value and develop the competitiveness of the innovation community in Samut Songkhram Province, this research investigated the Sufficiency Economy Model that affects the sustainable development of supply chain management of the processed coconut product community enterprise. In the research study, quantitative and qualitative approaches were integrated. 480 samples were processed by coconut community enterprise entrepreneurs in Samut Songkhram Province in three districts, namely Mueang District, Amphawa District, and Bang Khonthi District. In the research, data was collected using a questionnaire and interview form, and descriptive and inferential statistics were used for analysis. The structural equation model was applied to analyze the relationship between operation with sufficiency economy philosophy of processed coconut community enterprise, cooperation of processed coconut community enterprise, and product management of processed coconut community enterprise group. Further, we examined the supply chain management of processed coconut community enterprises, as well as its effectiveness in sustainable coconut product management. The results of the structural equation analysis were harmonized with the empirical component model: Chi-Square = 147.279, df. = 123.0, Sig. = 0.067, CMIN/df. = 1.197, GFI = 0.977, AGFI = 0.938, NFI = 0.992, IFI = 0.999, CFI = 0.999, RMR = 0.012, RMSEA = 0.020.

**Keywords:** Sufficiency Economy, Coconut, Value-Added Products, Community Enterprise

## Introduction

Sufficiency Economy Philosophy is a guiding philosophy in the development of Thailand to strengthen immunity and help Thai society to stand stable and gain immunity and have appropriate risk management. As a result, the development of the country is balanced and sustainable. Application of Sufficiency Economy Philosophy can be used to formulate public policies that are appropriate for the balanced development of the country (Subunn leamvijarn, 2016). In the 12th National Economic and Social Development Plan (2017-2021), there are development principles based on “Sufficiency economy philosophy, sustainable development, and people-centered development by national development strategy, building economic strength and sustainable competitiveness”. To strengthen SMEs' competitiveness and contribute more to the economy and development of small and medium businesses, there is an emphasis on improving their competitiveness. Expanding the base of economic development by including community enterprises and social enterprises. Moreover, creates economic opportunities for groups in society that operate in parallel with the development and promotion of an entrepreneurial society that can produce and sell (Office of the National Economic and Social Development Board, 2017) and from the Community Enterprise Promotion Act (No. 2) 2019, with the intent to promote a group of people or a community to conduct business in form of a community enterprise that uses local resources and wisdom to develop and produce products or services that respond to needs of market or community. This results in the creation of jobs and the generation of income in the community. It is imperative to promote small and medium-sized enterprises' knowledge and ability to operate their businesses to develop them into stable and competitive enterprises. Additionally, the project aims to promote learning for the people, career development, income generation, mutual assistance, management skills development, and the creation of community enterprises derived from agricultural resources and products for the community's self-reliance and the strengthening of the community's economic system.

Coconut is a locally important agricultural crop that can be processed into community enterprises such as coconut milk, and coconut sugar, and can also be an export product that is valued add to Thailand in 2021. Coconut exports totaled 646,188.17 tons, valued at 23,134.83 million baht, compared to 577,646.15 tons of exports in 2020, valued at 19,786.04 million baht (Office of Agricultural Economics, 2021). Samut Songkhram Province is a community enterprise to plant coconut and processed coconut, it considers "coconut" as a native plant that has played an important role in the way of life of villagers for a long time, as a food plant herb is a kitchen staple and as an important economic crop that creates a career and income for farmers. In 2021, coconuts, sugar cane, mature coconuts, and young coconuts are planted with a total production volume of 272,522 tons, which is the main source of population income in the province. In addition, coconuts can be processed into a variety of products by most people in the area who have a career as farmers cultivating coconuts and selling them to middlemen. Subsequently, the farmer's group has applied knowledge from training on community planning for local development to be used in collecting data for each household every year. Coconut sales career has found important problems in coconut cultivation for farmers such as production costs, and the problem of selling prices to middlemen. All of which resulted in farmers having insufficient income for their occupation. Subsequently, farmers in the area were gathered to participate in the large-scale agricultural extension project under the name of Big Coconut Plantation Group, operating in form of a community enterprise, called the Sub-District Comprehensive Coconut Conservation and Rehabilitation Community Enterprise. Furthermore, the community enterprise receives support from the government to promote and support the

integration of people in the community. The development of added value to processed coconut products can create jobs and generate income for communities by utilizing the wisdom of local community members. The center will serve the community and the surrounding area as a learning center. Currently, there are 174 community enterprises in Samut Songkhram Province, 18 of which are community enterprises that process coconuts (Department of Agricultural Extension, 2019).

In response to the above importance, the research is examining the sufficiency economy, value-added, and community enterprise aspects of coconut products. To develop competitive innovation communities in Samut Songkhram province by conducting the study in Samut Songkhram province in 3 districts, namely Mueang District, Amphawa District, and Bang Khonthi District. In addition, there is the creation and development of a sufficiency economy model that affects the supply chain management model, and sustainable coconut processing community enterprises. In this study, strategic factors affecting the sufficiency economy model will be identified for the development of a sustainable supply chain management model. Identifying the community enterprises that process coconut will also be part of the research. Results of the study can be used to formulate policy to create value-added for processed coconut products. Moreover, the outcomes of this study will drive efficient policy for community enterprise operations, formulate business plans for private entrepreneurs, and strengthen the network of people in Samut Songkhram Province to learn, develop careers, generate income, and have a good quality of life. Further sustainable development would be achieved by improving the competitiveness of community innovation through the proposed research.

## **OBJECTIVES OF RESEARCH**

- 1 The study aims at identifying factors that influence the development of supply chain management models, sustainable coconut processing enterprises and the development of sufficiency economy models.
- 2 To study the sufficiency economy model in the management of processed coconut products community enterprises.
- 3 To develop a model for sustainable supply chain management in community enterprises that process coconuts.
- 4 To develop a sustainable supply chain management model for community enterprises producing processed coconut products based on the sufficiency economy model structure equation. To create value-added and develop the competitive potential of innovation communities in Samut Songkhram Province.

## **CONCEPTUAL FRAMEWORK**

This research aims to study the sufficiency economy and the creation of value-added processed coconut products for community enterprises in Samut Songkhram Province to increase their competitiveness in the market. An equation model of sufficiency economy and community enterprise and supply chain management is presented as a collection of concepts, theories, and relevant research. There are two independent variables, namely 1) operation with sufficiency economy philosophy of community enterprise group. Processed coconuts consisted of 5 latent variables, comprising moderation, rationality, immunity, knowledge, morality, and 2) cooperation of community enterprises in processed coconut products. There were five latent variables: cooperation, knowledge innovation, the relationship between people, and human



Hypothesis 1: Operation with Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing directly influences product management of community enterprises of processed coconut products.

Hypothesis 2: Operation with Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing directly influences the effectiveness of sustainable management of processed coconut products community enterprises.

Hypothesis 3: Operation with Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing directly influences the supply chain management of processed coconut products community enterprises.

Hypothesis 4: The cooperation of community enterprises in processed coconut products directly influenced the management—products of community enterprises, processed coconut products.

Hypothesis 5: The cooperation of community enterprises in processed coconut products directly influenced the effectiveness of managing community enterprises for sustainable coconut products.

Hypothesis 6: The cooperation of community enterprises in processed coconut products directly influenced the management supply chain of community enterprises for processed coconut products.

Hypothesis 7: Product management of processed coconut community enterprises directly influenced the effectiveness of sustainable management of processed coconut products community enterprises.

Hypothesis 8: Supply chain management of processed coconut product community enterprise directly influences effectiveness in sustainable management of processed coconut products community enterprise.

Hypothesis 9: Community enterprise group processing of coconut products with sufficiency economy philosophy indirectly influences the effectiveness of sustainable management.

Hypothesis 10: Through the product management of the processed community for coconut products and enterprise group, community enterprises in processed coconut products indirectly influenced the efficiency of sustainable management in the processed coconut products community enterprise.

Hypothesis 11: Operation with Sufficiency Economy Philosophy of Coconut Products Community Enterprise Group Processing indirectly influences the effectiveness of sustainable management of processed coconut products community enterprises through supply chain management of processed coconut community enterprises.

Hypothesis 12: The cooperation of community enterprises in processed coconut products indirectly influenced the efficiency of sustainable management of the processed coconut products community enterprise through the management of the supply chain of processed coconut products community enterprise.

## Research Methodology

The study is a mixed research study focused on the pattern of a sufficiency economy that influences the development of a sustainable supply chain management model for community enterprises producing processed coconut products. The descriptive research methodology relied on quantitative research methods. Qualitative research was conducted using a questionnaire. The research tool was an interview geared toward creating added value for community enterprises that process coconut products. The data collection period for this study was January - July 2021 to assess the competitive potential of the innovation community in Samut Songkhram Province.

The participants of this study included people who operate community enterprises that process coconut products in Samut Songkhram Province. For sample size, we considered community enterprise entrepreneurs of processed coconut products in Samut Songkhram Province, namely; Mueang District, Amphawa District, and Bang Khonthi District, which has been sizing samples from the formula of sizing samples in case of unknown population use W.G. Cochran's formula at 95% confidence level and tolerance of not more than 5% using the formula as follows.

$$n = \frac{P(1-P)Z^2}{d^2}$$

From calculating sample size according to the formula, 384.16 samples were obtained, or 385 samples were used, which the researcher considered the sample group size suitable for data analysis with software. By using the structural equation model (SEM) technique, the researcher used the method of determining the sample size according to Comrey & Lee (1992) and Hair et al. (2010). The sample size should be 10 to 20 times the number of variables observed in the study. In this research, there were 24 observable variables (24 X 20 times equal to 480). This way, the sample size of the community enterprise group of processed coconut products in Samut Songkhram Province is increased from 385 to 480 samples. The districts are Mueang District, Amphawa District, and Bang Khonthi District, and using probability sampling on sample random sampling method for data collection by questionnaire. Index of Item – Objective Congruence (IOC) test result was 0.914, and the meter reliability was measured as equal to 0.980.

An analysis of data was performed using descriptive statistics, the frequency distribution of data with percentages, arithmetic means, standard deviations, and inferential statistics. It consists of confirmatory factor analysis (CFA) and structural equation model (SEM) to check the harmony of the research with Model Fit. The indices used to check the coherence of the model with empirical data consisted of Chi-Square, CMIN/df., CFI, GFI, IFI, NFI, AGFI, RMSEA, and RMR indices. Data is processed using SPSS to determine model fit.

## Result Of Research

According to the results, 67.92% of respondents were female, 32.08% were male, and 25.62% were between the ages of 41 and 50, along with 23.13 % aged 20-30 and 22.71 % aged 31-40 had secondary education/secondary education. NRCT 35.83%, followed by Diploma/High Vocational Certificate 30.21 percent and bachelor's degree 17.50%, with the highest number of members in the group, 5-10 people, 37.71%, followed by less than 5 people,

24.58%, and 11-20 people, 23.13 percent, with positions in the members' The group 66.04%, followed by the group secretary 14.38%, the group committee 12.71 % and the group chair 6.88%, the longest time to participate in the processed coconut product community enterprise was 6 months - 1 year, 37.29%, followed by less than 6 months. Percentage of 21.67, and more than 3-5 percent year 18.96 more than 1-3 percent year 11.66 less than 5 percent 10.42 respectively analysis of comments on the philosophy of sufficiency economy enterprise group. The community of processed coconut products as a whole had a mean of 4.11 with a standard deviation of 0.63 at the high level, the highest level, the moderation at the highest level, followed by rationality. Immunity knowledge in terms of morality, respectively, the results of the analysis of opinion towards the cooperation of community enterprises in processed coconut products as a whole had a mean of 3.73 with a standard deviation of 0.67, which was at a high level, the highest in terms of knowledge innovation, followed by supported interpersonal relationship Human Resources Management and participation aspect, respectively. The results of the opinion analysis towards the product management of the community enterprise group of processed coconut products as a whole had a mean of 4.06 with a standard deviation of 0.72, at a high level, the highest in the packaging aspect, followed by a standard deviation of 0.72. According to the results of the analysis of opinions regarding supply chain management of the processed coconut community enterprises as a whole, innovation in product development, production process, and brand promotion, respectively, had a value of 4.07 with an average standard deviation of 0.68, which was at a high level. Based on the opinion analysis of raw material procurement, warehouse management, and planning processes in production and processing, the average sustainability management of processed coconut products community enterprises was 4.10 with a standard deviation of 0.71, which was considered high. At the highest level, there is the aspect of growth and learning; at the second level, there is the aspect of job achievement, customer service, financial operations, and internal processes.

As a result of a confirmation analysis of the sufficiency economy model, a sustainable supply chain management model for the community enterprise operations based on the Sufficiency Economy Philosophy was found to be statistically significant at a 0.001 level.

Based on a confirmation analysis of the sufficiency economy model, a statistically significant level of 0.001 was found regarding developing a sustainable supply chain management model for the processed coconut products community and the cooperation of community enterprises for processed coconut products.

Based on the results of a confirmation analysis of the sufficiency economy model, a sustainable supply chain management model for processed coconut products community enterprises was developed. A statistically significant level of 0.001 was found to apply to the community enterprise group of processed coconut products in management.

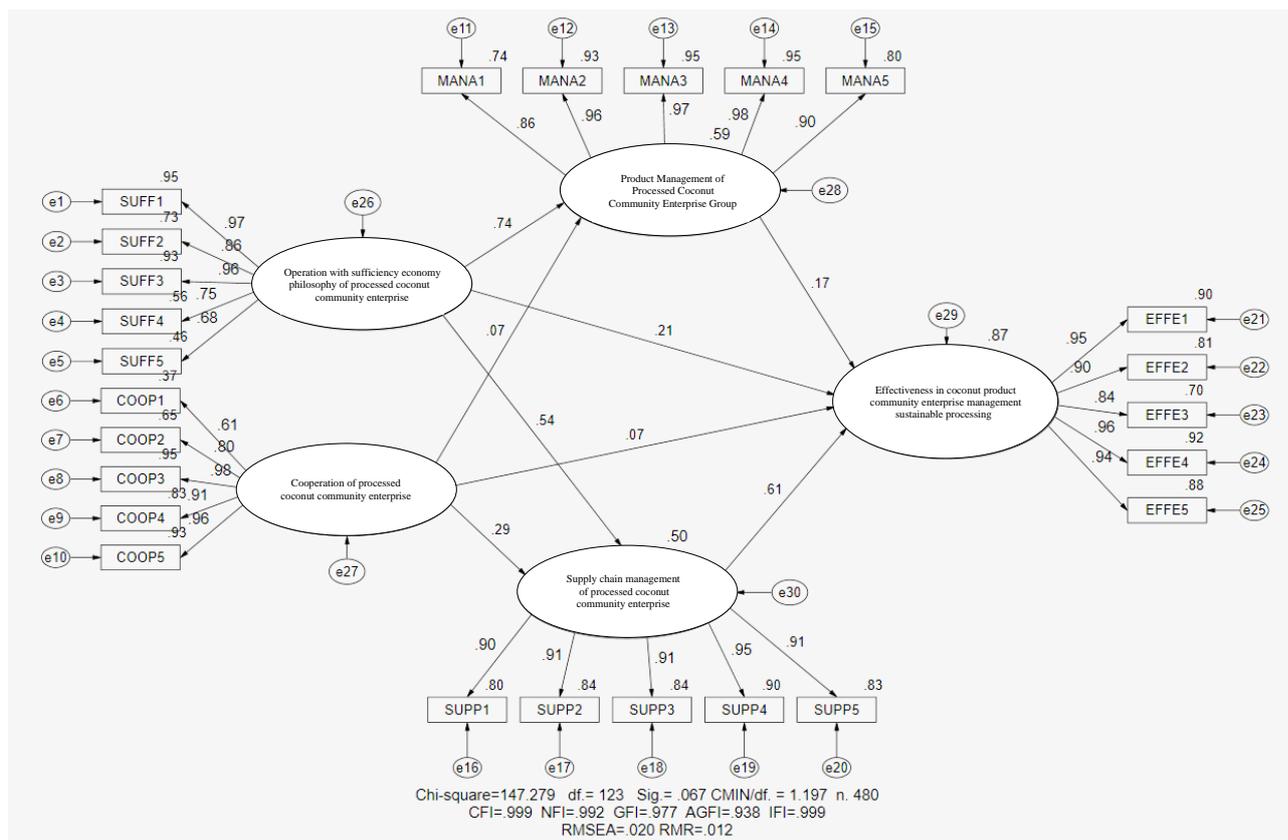
Statistically significant findings of the sufficiency economy model regarding the development of sustainable supply chain management models for processed coconut products community enterprises at the level of 0.001 were revealed by a confirmatory analysis of the sufficiency economy model.

An analysis of the sufficiency economy model affecting the development of a sustainable supply chain management model for the processed coconut products community enterprise reveals an effective management model of community enterprises for processed coconut products at a statistically significant level of 0.001.

It was statistically significant at 0.001 that the results of the corroborative component analysis of the sufficiency economy model affected the development of a sustainable supply chain management model for the community enterprises producing processed coconut products as a whole.

An analysis of the correlation of the sufficiency economy model variables affecting the development of a sustainable coconut product community enterprise and supply chain management revealed that the independent variables were independent without much correlation. Control any variable fidelity unity variables according to imported models, models, patterns, and the sustainability of coconut processing through monitoring of the supply chain management community. A structural equation modeling model of the sufficiency economy model that affects the development of the coconut product community enterprise and supply chain management model was developed using the descriptive statistics, and it was determined that the variables were reliable and suitable for analysis.

Based on an analysis of the sufficiency economy model structure's influence curve on the development of a sustainable coconut product community enterprise and supply chain management model, the factors influencing the sustainability management of the processed coconut product community enterprise were identified. The highest is operating with the Sufficiency Economy Philosophy. The coefficient of influence was 0.66, followed by the supply chain management of the community enterprises of processed coconut products. The overall coefficient of influence was 0.61, and cooperation aspect of the processed coconut product community enterprise, the overall influence coefficient was 0.26, with the variable influence changing 87.0%, and the operational aspect with the Sufficiency Economy Philosophy influence on the product management aspect of the processed coconut product community and enterprise group, the overall influence coefficient of 0.74 and the management aspect. In the supply chain of community enterprises for processed coconut products, the overall influence coefficient was 0.29, with the variable having a change of 50.0%. In addition, the cooperation aspect of the processed coconut product community enterprise influenced the supply chain management of the processed coconut product community enterprise. In the processed coconut product community and enterprise group, the overall influence coefficient is 0.29, the product management aspect has an influence coefficient of 0.07, and the variable has changed by 59.0%.



**Figure 2:** Structural equations of sufficiency economy model that affect the development of sustainable supply chain management model for community enterprises of processed coconut products.

The results of hypothesis testing on the structural equation model of sufficiency economy model affecting the development of sustainable coconut processing community enterprise and supply chain management model can be summarized as follows:

Hypothesis 1: Operation with Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing directly influences product management of community enterprises of processed coconut products.

Processed coconut product community enterprise group's product management is directly affected by the test result of accepting H1 or operation on sufficiency economy philosophy. The route coefficient was 0.74 with a changeable influence of 59.0% with a statistical significance of 0.05.

Hypothesis 2: Operation with Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing directly influences the effectiveness of the sustainable management of processed coconut products community enterprises.

Test results demonstrating acceptance of H2 or operation under sufficiency economy philosophy are directly related to product management in processed coconut product community enterprises. The route coefficient was 0.21 with a changeable influence of 87.0% with a statistical significance of 0.05.

Hypothesis 3: Operation with Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing directly influences the supply chain management of processed coconut products community enterprises.

It is important to note that the result of the test, which is acceptance or operation of the sufficiency economy philosophy of packaged coconut product community enterprise, directly impacts the product management of the group of packaged coconut product community enterprises. The route coefficient was 0.54 with a changeable influence of 50.0% with a statistical significance of 0.05.

Hypothesis 4: The cooperation of community enterprises in processed coconut products directly influenced the management of processed coconut products community enterprise.

The test result is acceptance of H4 or operation on sufficiency economy philosophy of processed coconut product community enterprise has a direct influence on product management of processed coconut community enterprise group. The route coefficient was 0.07 with a changeable influence of 59.0% with a statistical significance of 0.05.

Hypothesis 5: The cooperation of community enterprises in processed coconut products directly influenced the effectiveness of managing community enterprises for sustainable coconut products.

Test results of acceptance of H5 or operation on sufficiency economy philosophy of processed coconut product community and enterprise group directly influence product management. There was a route coefficient of 0.07 with a changeable influence of 87.0% and a statistical significance of 0.05.

Hypothesis 6: Cooperation among community enterprises involved in processed coconut products directly impacted the supply chain management of those firms.

Test results that indicate acceptance of H6 or operation on sufficiency economy philosophy of processed coconut product community enterprise directly influence product management. The route coefficient was 0.29 with a changeable influence of 50.0% with a statistical significance of 0.05.

Hypothesis 7: Product management of processed coconut community enterprises directly influenced on the effectiveness of the sustainable management of processed coconut products community enterprises.

Processed coconut product community enterprise's product management is directly influenced by the test results of H3 or operation on sufficiency economy philosophy. The route coefficient was 0.17 with a changeable influence of 87.0% with a statistical significance of 0.05.

Hypothesis 8: Sustainable management of the processed coconut product community enterprise is directly influenced by the supply chain management of the enterprise.

Processed coconut product community enterprise's product management is directly affected by the acceptance of H8 or operation on sufficiency economy philosophy. The route

coefficient was 0.61 with a changeable influence of 87.0% with a statistical significance of 0.05.

Hypothesis 9: Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing indirectly influences the success of sustainable management of processed coconut products community enterprises through product management of processed coconut community enterprises.

The test result is acceptance of H9 or operation on sufficiency economy philosophy of processed coconut product community enterprise has a direct influence on product management of processed coconut community enterprise group. The route coefficient was 0.13 with a changeable influence of 87.0% with a statistical significance of 0.05.

Hypothesis 10: Through the management of processed coconut products and community enterprises, cooperation among community enterprises in processed coconut products contributed indirectly to the efficiency of sustainable management of processed coconut products.

The test result is acceptance of H10 or operation on sufficiency economy philosophy of processed coconut product community enterprise has a direct influence on product management of processed coconut community enterprise group. The route coefficient was 0.33 with a changeable influence of 87.0% with a statistical significance of 0.05.

Hypothesis 11: Operation with Sufficiency Economy Philosophy of Coconut Product Community Enterprise Group Processing indirectly influences the effectiveness of the sustainable management of processed coconut products community enterprises through supply chain management of processed coconut community enterprises.

The test result is acceptance of H11 or operation on sufficiency economy philosophy of processed coconut product community enterprise has a direct influence on product management of processed coconut community enterprise group. The route coefficient was 0.01 with a changeable influence of 87.0% with a statistical significance of 0.05.

Hypothesis 12: The cooperation of community enterprises in processed coconut products indirectly influenced the effectiveness in sustainable management of processed coconut products through supply chain management of processed coconut community enterprises.

Processed coconut product community enterprise's product management is directly influenced by the test result of acceptance of H12 or operation on sufficiency economy philosophy. The route coefficient was 0.18 with a changeable influence of 87.0% with a statistical significance of 0.05.

## **Discussion And Conclusion**

In line with empirical evidence, the objectives of this study are to examine the effects of the sufficiency economy structural equation model on the development of sustainable coconut processing community enterprises and supply chain management models. The results were Chi – Square = 147.279 df = 123.0 Sig. = 0.067 > 0.05 and CMIN/df. = 1.197 < 2.0, consistent with the concepts of [Hair et al. \(2006\)](#), [Bollen \(1989\)](#), and [Sorbon \(1996\)](#).

Comparative Fit Index (CFI) was  $0.999 > 0.90$ , consistent with the concepts of Hair et al. (2006). The goodness of Fit Index (GFI) was  $0.977 > 0.90$ , consistent with the concepts of Hair et al. (2006) and Mueller (1996). Adjusted Goodness of Fit Index (AGFI) was  $0.938 > 0.80$ , consistent with the concept of Durande-Moreau and Usunier (1999). Root Mean Square Error of Approximation (RMSEA) was  $0.020 < 0.08$ , consistent with the concepts of Hair et al. (2006) and Browne and Cudeck (1993). Normed fit index (NFI),  $0.992 > 0.90$ , consistent with Hair et al. (2006), Incremental fit index IFI was  $0.999 > 0.90$ , consistent with Hair et al. (2006) and Standard Root Mean Square Residual (RMR) is  $0.012 < 0.05$  consistent with concept of Diamantopoulos, [Sigauw \(2000\)](#). The model is relative and harmonious with conditional empirical data at the statistical acceptance level.

As a result of the objectives of studying factors influencing the development of a management model for sustainable coconut products in community enterprises, the study found that factors influencing the effectiveness of management for most sustainable coconut product community enterprises were operation with a sufficiency economy philosophy, followed by supply chain management. Processed coconut products community enterprises demonstrate a cooperative aspect that is in line with [Prawet Wasi's \(2005\)](#) statement that the sufficiency economy philosophy would result in substantial communities coming together to solve problems. In addition, the research found that operation with a sufficiency economy philosophy influenced product management of processed coconut community enterprises, followed by supply chain management of processed coconut community enterprises. Furthermore, the cooperation of the processed coconut product community and enterprise group directly influenced the product management of the processed coconut product community and enterprise group. Also, the effectiveness of sustainable management of processed coconut product community enterprises has been directly influenced by the cooperation among these enterprises. The outcomes are consistent with [Narong Petprasert's \(1999\)](#) concept that cooperation is the key to community enterprise success.

As a result of studying the sufficiency economy model in the management of community enterprises for the processing of coconut products, it was found that there were strong opinions about the operation of such enterprises under the sufficiency economy philosophy. This concept is consistent with [Sanae Jamrik \(2006\)](#), who demonstrated that a sufficiency economy is a philosophical ideology that stems from understanding factors of Thai society that face globalization trends. The highest level is moderation, followed by rationality, immunity, knowledge, and morality. In testing the hypothesis, it was found that operating under the sufficiency economy philosophy directly affected the product management of processed coconut community enterprises, followed by supply chain management of processed coconut product community enterprises, and also had a direct impact on the sustainability of the management of the processed coconut product community enterprises. Furthermore, through the product management of processed coconut products community enterprises, the operation with a sufficiency economy philosophy indirectly influences the effectiveness of sustainable management of processed coconut products. The operation can indirectly influence sustainable management of processed coconut products community enterprises with a sufficiency economy philosophy of processed coconut products through supply chain management. Similarly, [Prawet Wasi \(2005\)](#) discusses the principles of sufficiency economy philosophy in relation to sustainable enterprises within communities.

According to the research objectives to study a sustainable supply chain management model for processed coconut products community enterprises, the supply chain management of processed coconut product community enterprises was highly regarded, with delivery being the highest priority, followed by raw material procurement for production and processing. [Amnuay Chanthong's \(2018\)](#) research indicates that warehouse management and planning processes affect community economic entrepreneurs' competitive advantage. Results of the hypothesis test indicated that supply chain management of processed coconut product community enterprises directly impacts the sustainable management of community enterprises of processed coconut products. The sustainable processed coconut product community enterprise is also a factor that leads to the effectiveness of community enterprise of sustainable coconut products management. The study found that the efficacy of coconut product community and enterprises management is indirectly influenced by the sufficiency economy philosophy of operating through supply chain management of processed coconut products community enterprises. Community enterprise management in sustainability is indirectly influenced by the cooperation of processed coconut product community enterprises through supply chain management. It is consistent with the study by [Thanyathon Tinnaphop, Sirilak Meksang, and Chantana Chanbanchong \(2016\)](#), the outcomes showed that supply chain management impacts the success of community enterprises.

According to the research, there was a high level of opinion regarding product management within the community enterprise that processed coconut products are produced. The packaging is the highest, followed by product development, production processes, product innovation, and brand promotion. Accordingly, the results align with Schumpeter's concept, as [J. A. \(1950\)](#) explained product management as a process of creating resources to gain a competitive edge. There were high opinions on the cooperation of community enterprises for processed coconut products, with knowledge innovation being the highest, followed by support, interpersonal relationships, human resources management, and participation. Furthermore, research on the effectiveness of sustainable management of processed coconut products community enterprises showed high ratings for growth and learning, followed by work achievement, customer satisfaction, financial management, and internal processes. According to [Praphunphong Chinnaphong \(2017\)](#), community enterprises are organized communities that help strengthen the community's economy by learning to manage existing production and consumption systems.

This research aims to create value for processed coconut products community enterprise and develop the competitive potential of innovation communities in Samut Songkhram Province. The research emphasized making attractive products that meet the market's needs and have a positive image from the consumers' perspective. A beautiful packaging style tells the story of the community's daily life and the creation of coconut products that are unique to the region—integrating local knowledge with modern marketing in terms of designing the new look, using high-quality packaging, making transport convenient, and attracting attention that inspires buyers to buy. To increase the competitiveness of processed coconut products in Samut Songkhram Province, we should improve cleanliness and safety as well as network and distribution capabilities.

## **Acknowledgement**

This research was accomplished because of the support and budget from Suan Sunandha Rajabhat University, Thailand, and related parties such as government agencies in Samut Songkhram Province. Local government organizations, officers, community leaders,

community enterprises, processed coconut products People in the area who have facilitated and participated in providing information and participating in driving value-added coconut products and participating in activities that affect the achievement of research.

## Reference

- Bollen, K. A. (1989). *Structural equations with latent variables* (Vol. 210). John Wiley & Sons. <https://books.google.co.in/books?hl=en&lr=&id=4a3UDwAAQBAJ&oi=fnd&pg=PA1&dq=Bollen>
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & S. Long (Eds.), *Testing Structural Equation Models* (pp. 136-162). Newbury Park CA. Sage. <https://doi.org/10.1177/0049124192021002005>
- Chanthong, A. (2018). The Supply Chain Management affects Competitive Advantage of Enterprise Community Economic in Phetchaburi Province. In W. Suksatorn (Ed.), *The 13th National Graduate Research Research. The conference, Academic Year 2018* (pp. 12-23). Graduate School Rangsit University.
- Chinnaphong, P. (2017). The study of sustainable tourism models that affects the development of cultural attractions' quality standards in central provinces. *Journal of Graduate Studies Valaya Alongkron Rajabhat University*, 11(2), 100-114.
- Dag, S. (1996). *LISREL 8: User's reference guide*. Scientific Software International: Chicago, IL, USA.
- Department of Agricultural Extension Ministry of Agriculture and Cooperatives. (2019). *Academic information on coconut*. Bangkok Metropolis. Agriculture Cooperative Community Press.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). Multivariate data analysis . Uppersaddle River. *Multivariate Data Analysis (5th ed) Upper Saddle River*, 5(3), 207-219.
- leamvijarn, S. (2016). Fiscal Policy Formulation under the Application Sufficiency Economy Philosophy. *Journal of Research and Development Institute Rajabhat Maha Sarakham University*, 2(6), 73-86.
- Mueller, R. O. (1999). *Basic principles of structural equation modeling: An introduction to LISREL and EQS*. Springer Science & Business Media. <https://books.google.co.in/books?hl=en&lr=&id=sXy2r5gQIB0C&oi=fnd&pg=PR7&dq=Muller>
- Office of Agricultural Economics. (2021). *Information of produce coconut*. Bangkok Metropolis. Ministry of Agriculture and Cooperatives.
- Office of the National Economic and Social Development Board. (2017). *National Economic and Social Development Plan, No. 12, 2017-2021*. Bangkok Metropolis. Office of the Prime Minister.
- Petprasert, N. (1999). *Concepts and theories about success factors*. Bangkok Metropolis. Addison Press Products.
- Prawet, W. (2005). *Sufficiency economy and civil society, the way to change socio-economic ground*. Bangkok Metropolis. Indigenous.
- Sanae, J. (2006). *Sufficiency Economy in Globalization*. Bangkok Metropolis. Office of the National Human Rights Commission.
- Schumpeter, J. A. (1950). *Capitalism, Socialism and Democracy* (3rd ed.). New York: HarperPerrenial.
- Siguaw, J. A., & Diamantopoulos, A. (2000). Introducing Lisrel: A guide for the uninitiated. *Introducing LISREL*, 1-192. <https://www.torrossa.com/en/resources/an/5017512>

Tinnaphop, T., Meksang, S., & Chanbanchong, C. (2016). Supply Chain Management by Community Enterprise Producing Organic Rice in the Central Region of Thailand. *VRU Research and Development Journal Science and Technology*, 11(3), 320-330.