



## DEVELOPING FINANCIAL EMPOWERMENT IN ENHANCING SUSTAINABLE<sup>®</sup> FARMERS' POTENTIAL, THAILAND

# Kasama Kasorn<sup>a\*</sup>, Thanaphat Kuntawong<sup>b\*</sup>, Nirut Chaichok<sup>c</sup>, Nisarath Chaiwongsakda<sup>d</sup>, Phathamon Boonyarasai<sup>e</sup>, Suphamon Duangta<sup>f</sup>, Wilailak Wongchai<sup>g</sup>, Pheerapol Siwichai<sup>h</sup>, and Pornchai Jedaman<sup>i</sup>

<sup>a</sup> b, c,d,e,f,g,h</sup> Chiang Rai Rajabhat University, Thailand<sup>1</sup>
 <sup>i</sup> Rajabhat Mahasarakham University, Thailand

## ABSTRACT

Farmers' potential is strong and they can rely on themselves from commercial farming and generate additional income from quality production. This framework clarifies financial empowerment in enhancing sustainable farmer's potential in Thailand. A mixed-method study, which includes qualitative interviews and quantitative surveys with the participants' data. Financial empowerment in enhancing sustainable farmers' potential includes promoting safe production, increasing competitive potential, promoting product processing, promoting group formation and networks, sustainable resource and environmental management, and systematic accounting and financial management. These 5 factors affect systematic accounting and financial direct and indirect influences on the significance of enhancing sustainable farmers' potential. The guidelines for enhancing a sustainable farmers' potential such as product and service management that ensures production is certified to standards, marketing management that includes branding and packaging development, and financial and accounting management that creates an accounting system for cost analysis for efficient planning.

*Keywords:* Financial empowerment. Product and service management. Systematic accounting and financial management. Sustainable farmers' potential.

## 1. Introduction

Thailand's 20-year national strategy for building competitiveness in the agricultural dimension to create value focuses on creating a balance between economic, social, and environmental development, consisting of the security strategy, the strategy for building competitiveness, the strategy for creating opportunity and social equality, the strategy for creating growth on quality of life that is friendly to the environment, and the strategy for balancing and developing the public administration system. (Office of the National Economic and Social Development Board, 2021) Agricultural occupation is the main occupation of Thai farmers that is important for economic growth. Also, Thailand has a guideline to develop the potential of farmers to be strong and self-reliant, which originally used to do agriculture for subsistence and produce to meet the country's

<sup>\*</sup> Corresponding author.

Email address: kasama\_kaw@yahoo.co.th, p.jedaman@gmail.com

needs to do agriculture for trade and generate additional income from products. This can be seen from the Twelfth National Economic and Social Development Plan (2017-2021) which aims to create national immunity from various risks, seeing that the agricultural sector (Ministry of Agriculture and Cooperation, 2020). The main income base and food security that contribute to both income and food sources will play an important role in reducing poverty. The creation of jobs and income according to the development strategy. Therefore, involves the development of agricultural production potential that supports the creation of added value for products, including upgrading and developing agriculture to be self-reliant, generating income and career stability for Thai farmers (Chaisan, P., 2017). The development of agricultural operations for farmers by developing according to the philosophy of the sufficiency economy that focuses on well-being and happiness, continuous economic development, a just society, and a sustainable natural resource base. This is to develop farmers in all dimensions to have competitive abilities and create opportunities to access important financial services. One of the necessary long-term development strategies is to build competitiveness (Charoenrat, C., 2019), by developing and strengthening human resource potential to increase work efficiency for creating opportunities for economic growth, and effectively increasing social equality (Chandaeng, W., & Adiwatanasit, C., 2017). Strengthening farmers and the grassroots economy, by promoting the exchange of knowledge, mutual assistance, and the ability to link agricultural networks to create competitiveness in the efficient production of agricultural products (Parintarakul, W., 2022), will help farmers have bargaining power in selling their products, promoting the processing of agricultural products to become community agricultural products linked to community markets, green markets, and agricultural tourism to create a circular economy within the community. Strengthening farmers should be allowed to access financial services, and provide financial sources and support to have various financial channels (Kasorn, K., Jedaman, P., and authors, 2023). From the study of the problem area with the farmer group, it was found that there was a lack of clear understanding in determining the income generation position and, a lack of long-term income generation operation planning, and farmers viewed that determining the income generation position was not only related to money, or increasing household income, and reducing expenses in operating the occupation. However, the important factors that will help increase productivity and household income require detailed consideration of marketing to have a stable distribution channel and be able to sustainably increase income for the community.

Also, empowerment is a process that helps to enhance the ability and develop the potential of individuals, families, and communities to control various factors that affect the operations and implementation of various activities to achieve maximum efficiency (Ellis-Stoll, C., & Popkess-Vawter, S., 1998). In this regard, financial empowerment is the process of developing individuals to be aware of the causes of problems, and prepare to face them, as well as finding ways to solve problems, and being able to use the potential within individuals to enhance performance, including controlling various factors that are necessary to create motivation, and seeing the value of having good relationships (Ucharat, P., Phansak, W., and Phothisri, C., 2014). The financial empowerment in enhancing Sustainable farmers' potential to enable farmers in the community to develop their production and develop in terms of increasing the value of their products, increasing the quality by entering the standard, will be an option for farmers to sell at a higher price. Meanwhile, the development of farmers' potential to conduct their own business, whether in terms of management, production, distribution, and adding value to products, using the agricultural production base as another approach that allows farmers to form groups to strengthen agricultural operations (Imruang, N., 2016). Financial empowerment in enhancing sustainable

farmers' potential includes promoting safe production, increasing competitive potential, promoting product processing, promoting group formation and networks, sustainable resource and environmental management, and systematic accounting and financial management (Laothammajak, M., & Sachdev, H., 2021). Is a key issue in enhancing sustainable farmers' potential. The framework provides clarity on financial empowerment and guidelines for enhancing sustainable farmers' potential in Thailand to enable farmers to be more flexible in their operations and agricultural production activities can increase their income and enhance their long-term economic growth effectively.

### 2. Conceptual and Framework

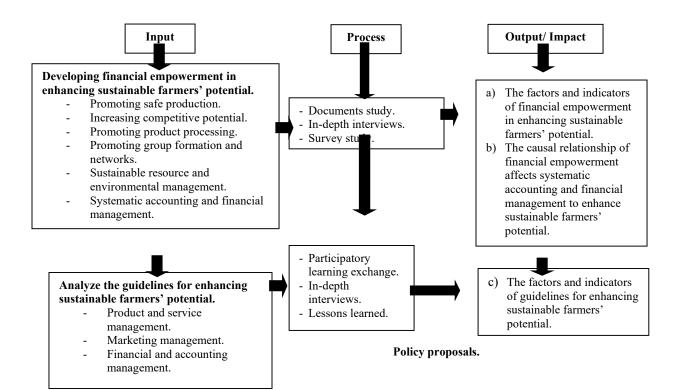
Long-term development framework to achieve the vision of "a country with stability, prosperity, and sustainability, as a developed country with development based on the philosophy of the sufficiency economy" leading to the development of happy Thai people, and responding to the achievement of benefits according to Thailand's 20-year national strategy to develop the quality of life, create high income, and create happiness for Thai people in a social dimension with stability, equality, and fairness, including the country being able to compete in the national economic system, trade based on the expansion of trade and the intensive digital economy, quality growth, widespread and stable distribution of production and service bases, competition based on innovation, production bases, services, and investment-linked in the agricultural sector for stable and safe food production, high production productivity, and good management system (Office of the National Economic and Social Development Board, 2021). In addition, Thailand's Ministry of Agriculture and Cooperation (2020). the strategic development assessment will consist of (i) the well-being of Thai people and Thai society, (ii) competitiveness, economic development, and income distribution, (iii) human resource development, (iv) social equity and equality, (v) biodiversity, environmental quality, and sustainability of natural resources, and (vi) efficiency of government administration and access to services.

However, community empowerment is one of the reforms in the field of equity and economic growth to strengthen communities as a key mechanism in creating economic and social development from the grassroots, along with implementing macro-level policies that will lead to inclusive growth (Danthanin, M., 2018). To achieve the goal of community empowerment, the reform approach for equality and inclusive growth includes strengthening the community financial institution system by upgrading the management of community financial institutions into the network of people's financial institutions, developing community businesses through support in terms of networking, creating a mechanism for joint development with the private sector, establishing an e-commerce platform (Phromphakphing, B., 2022), including, establishing a center of excellence to increase opportunities for community businesses to grow, create income growth and access to markets and resources, establishing a social investment for a network of community a driving continuous development in the area (Kasorn, K., Jedaman, P., and authors, 2023). Community empowerment for equality and economic growth emphasizes strengthening community financial institutions, developing community businesses, and creating systematic support factors, using technology to increase access to resources, and financial services as catalysts for communities to compete successfully (Parintarakul, W., 2022). Therefore, Enhancing the sustainability of farmers' potential for financial empowerment such as promoting safe production and changing safe production methods has an impact on the use of water resources, and energy, and reducing the amount of waste in agricultural production (Laothammajak, M., & Sachdev, H., 2021). Increasing competitive potential, and promoting product processing (Tan C. C., Damnoen P. S., Toprayoon, Y., Dabjan N., & Damkam, K., 2022), will help increase value and income for farmers from selling higher-value products.

Thus, promoting group formation and networks will help increase the ability to negotiate prices and reduce production costs, including sustainable resource and environmental management from having a circular water system or renewable energy that can help increase production capabilities and reduce costs (Chen, X., & Phakdeephirot, N., 2021). While the operation of managing the production of goods and services to ensure the production is of quality and standard by promoting the establishment of agricultural product standards, and quality inspection within the group, including organizing training on agricultural product development to meet market demand, creating product identity, creating marketing channels, creating an accounting system for a cost analysis to support efficient operational planning (Elsharif, T.A., 2019; Phuangprayong, K., 2021). Systematic accounting and financial management that results in access to appropriate sources of funds for effective agricultural business expansion (Alkhateeb, A. N. A., Yao, L., & Cheng, J., 2018). A developing potential for farmers to develop production more and increase value from processing, as well as increasing quality by entering the standard, will be an option for farmers to be able to sell at a higher price. The research framework clarifies financial empowerment and guidelines for enhancing sustainable farmers' potential in Thailand to enable farmers to be more flexible in their operations and agricultural production activities, as shown in Figure 1.

### Figure 1.

The research framework: Financial empowerment in enhancing sustainable farmers' potential, Thailand.



*Sources:* (*Phromphakphing, B., 2022; Parintarakul, W., 2022; Tan C. C., Damnoen P. S., Toprayoon, Y., Dabjan N., & Damkam, K., 2022; Laothammajak, M., & Sachdev, H., 2021; Chen, X., & Phakdeephirot, N., 2021; Ministry of Agriculture and Cooperation, 2020).* 

### 3. Material and Methods

A mixed method research adopted for this study involves both qualitative and quantitative data to combine participatory action learning and in-depth interviews with multi-contextual and cultural perspectives including a survey for the research to complete and provide the explanations and conclusions based on the research results of the study on empowerment in enhancing sustainable farmers' potential. The spatial studies took place in Chiang Rai Province, Thailand. Concerning the research participants and tools, the study involved 50 key informants from the community leaders, community scholars, and agricultural product processing groups, they were selected through purposive sampling. Additionally, 416 samples of agricultural occupation groups, community leaders, community scholars, and agricultural product processing groups respectively were involved in the selection technique of multi-stage cluster sampling data.

The research tools used for data collection included i) a structured interview addressed leading the organization's financial empowerment in enhancing sustainable farmers' potential, it consisted of 6 interview topics concerned, contained questions - How are the financial empowerment in enhancing sustainable farmers' potential on promoting safe production, increasing competitive potential, promoting product processing, promoting group formation and networks, sustainable resource and environmental management, and systematic accounting and financial management to indicators? ii) a semi-structured questionnaire addressed leading the organization's causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential, it consisted of 5 rating scales divided into 8 parts and each part addresses questions on specific causal relationships as follows: part 1; promoting safe production, part 2; increasing competitive potential, part 3; promoting product processing, part 4; promoting group formation and networks, part 5; sustainable resource and environmental management, part 6; appropriate capital management, part 7; accounting and debt management, and part 8; evaluation of spending. The whole questionnaire included openended suggestions with a reliability value of 0.85., iii) a structured interview addressed leading the organization's guidelines for enhancing sustainable farmers' potential, it consisted of 3 interview topics concerned, and it contained questions - How are the guidelines for enhancing sustainable farmers' potential on product and service management, marketing management, financial and accounting management to indicators?

The data collection and equerry methods included document analysis which consisted of synthesizing information from relevant documents and related research for the integration and development of a conceptual framework about the participatory learning exchange, individual indepth interviews to multi-contextual and cultural perspectives among 50 key informants from community leaders, community scholars, and agricultural product processing groups to take the results for analysis of financial empowerment in enhancing sustainable farmers' potential on the factors and indicators. The survey by questionnaire addressed 416 samples from agricultural product processing groups to take the results for the analysis on the causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential

to be consistent as empirical data. The participatory learning exchange, individual in-depth interviews to multi-contextual and cultural perspectives, and lessons learned among 50 key informants from community leaders, community scholars, and agricultural product processing groups to take the results for analysis of guidelines for enhancing sustainable farmers' potential on the factors and indicators. Regarding data analysis, qualitative data in financial empowerment in enhancing sustainable farmers' potential, and guidelines for enhancing sustainable farmers' potential on the factors and indicators were analyzed by using three main stages, i.e., data reduction to be able to code to classify qualitative variables for enumerate the frequency, data organization is a classification of variables and grouping of variables into dimensions of conceptual then the elements are grouped into ideas, call this method of the indicator-concept model, data interpretation for identifying directions and trends of relationships between concepts, by explaining and interpreting the logical relationship to a conclusion. The causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential as quantitative data was analyzed by descriptive statistics including frequency, percentage, mean, and standard deviation, skewness, kurtosis, Chi-square, and correlation coefficient using covariance statistics, including structural equation model (SEM) by LISREL programmed.

## 4. Results and Discussion

The research results were as follows:

## 4.1 Financial empowerment in enhancing sustainable farmers' potential.

The financial empowerment in enhancing sustainable farmers' potential of 6 factors including 1) promoting safe production, 2) increasing competitive potential, 3) promoting product processing, 4) promoting group formation and networks, 5) sustainable resource and environmental management, and 6) systematic accounting and financial management on 28 indicators, as shown in Table 1.

## Table 1.

The Factors, and Indicators of financial empowerment in enhancing sustainable farmers' potential.

Factors.	Indicators.
1. Promoting Safe	1.1. Changing safe production methods will have an impact on
Production.	the use of water, energy, and waste in sustainable agricultural communities.
	1.2. Safe production processes increase biodiversity and have a positive impact on soil, water, and air in sustainable production
	areas. 1.3. Safe production increases yield and reduces losses during the sustainable production process.
	1.4. Passing standards, and receiving safety certifications such as GAP for sustainable agricultural products.
	1.5 Safe production for reducing the chemical residues in products, and increasing consumer satisfaction for sustainability.

2. Increasing Competitive Potential.	<ul> <li>2.1 Cost management that affects the increase in profit per unit of product of the production process for sustainability.</li> <li>2.2 Cost reduction from flexibility in pricing of products in the market for sustainability.</li> <li>2.3 Efficient management of resources such as water and fertilizers and reducing losses in the production process that</li> </ul>
	<ul> <li>reduce costs and increase production for sustainability.</li> <li>2.4 Use of appropriate technology and production methods to reduce production costs and increase the competitive potential of farmers for sustainability.</li> <li>2.5 Development of competent labor skills, and time management for increasing production efficiency for sustainability.</li> </ul>
3. Promoting Product Processing.	<ul> <li>3.1 Product processing, e.g., turning fresh fruits into juice or jam, helps increase the value and income of farmers from selling products with higher value.</li> <li>3.2 Using technology in processing, such as modern machinery and production systems, helps reduce costs, increase productivity, and improve quality, promoting competitiveness and increasing farmers' income.</li> <li>3.3 Creating online marketing channels or local markets helps reduce costs from middlemen and increase economic sustainability.</li> <li>3.4 Product quality and standard certification affect the value and credibility of processed products.</li> <li>3.5 Farmers can use quality certification to expand markets and increase income.</li> </ul>
4. Promoting group Formation and Networks.	<ul> <li>4.1 Farmer groups and networks can increase bargaining power and reduce production costs.</li> <li>4.2 Farmer networks can enhance access to government or private sector resources and support.</li> <li>4.3 Farmer network collaboration impacts developing marketing capabilities and expanding sales channels.</li> <li>4.4 Farmer groups play a role in developing financial capabilities and increasing business sustainability.</li> <li>4.5 Farmer networks can help share knowledge and technology to increase production efficiency.</li> </ul>
5. Sustainable Resource and Environmental Management.	<ul> <li>5.1 Sustainable management of natural resources such as recirculating water systems or renewable energy can help increase production capacity and reduce agricultural costs for sustainability.</li> <li>5.2 Implementing sustainable agricultural practices, and using waste materials affects increasing resource efficiency and reducing losses in the production process for sustainability.</li> </ul>

5.3 Environmental conservation, reducing the use of chemicals can help create opportunities to increase value and income for farmers for sustainability.

5.4 The use of sustainable agricultural technologies plays a role in increasing farmers' financial potential and promoting sustainable development.

5.5 Raising awareness about natural resource management, economy, and environment for sustainability.

6. Systematic 6.1 Appropriate capital management to, (1) investment planning Accounting and from access to capital sources for expanding agricultural businesses, (2) having methods to increase the opportunity to **Financial Management.** receive credit or funding from both public and private sources, (3) having a plan to negotiate loan terms to obtain appropriate interest and terms, (4) having an investment plan that helps increase productivity, reduce costs, and develop production quality sustainably, (5) using new technology to help reduce risks in the production process to increase efficiency. 6.2 Accounting and debt management to, (1) records and track income and expenses to help improve financial management, (2) budget planning or use strategies to reduce the debt burden for long-term sustainability, (3) cost, and profit analysis from accounting data can help with financial decision-making, (4) debt status assessment and negotiation with creditors to improve debt repayment terms, (5) having plans to increase income or reduce costs in agricultural businesses to help create financial stability. 6.3 Evaluation of spending to (1) promote savings and investment by analyzing and evaluating spending results to improve financial management efficiency, (2) use tools or technology to track profits and losses to help with investment decisions, (3) have a long-term savings and investment plan to support risks from various factors such as disasters or market volatility, (4) having methods that can help generate additional income from investing in assets or other sources of funds to support agricultural businesses, (5) planning or using investment tools to create financial stability for agricultural businesses.

# 4.2 The causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential.

The causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential of 8 variables including 1) promoting safe production (PSP), 2) increasing competitive potential (ECP), 3) promoting product processing (PPC), 4) promoting group formation and networks (SCN), 5) sustainable resource and environmental management (MES), 6) appropriate capital management (MFP), 7) accounting and debt management (MAD), and 8) evaluation of spending (EEP). By the level of high levels (Mean

of 4.37, Std. of 0.326). Also, the skewness and kurtosis in all variables, the skewness has a negative value of -.795, and kurtosis has a value of .864, as shown in Table 2.

Variables.	Mean	Std.	Skewnes	Kurtos	Varia
	•		S	is	nces
1. Promoting safe production (PSP).	4.20	.482	504	.711	.233
2. Increasing competitive potential (ECP).	4.40	.404	792	.698	.164
3. Promoting product processing (PPC).	4.28	.481	.548	.238	.232
4. Promoting group formation and networks (SCN).	4.20	.466	.187	283	.217
5. Sustainable resource and environmental management (MES).	4.42	.451	905	256	.204
6. Appropriate capital management (MFP).	4.57	.326	626	.570	.107
7. Accounting and debt management (MAD).	4.46	.434	899	.664	.189
8. Evaluation of spending (EEP).	4.44	.446	.629	.547	.199
Totals.	4.37	.326	795	.861	.107

 Table 2.

 Mean and standard deviation, skewness, kurtosis, and variances in all 8 variables.

Meanwhile, the relationship of financial empowerment affects systematic accounting and financial management of 8 variables are statistically significant positive relationships in the same direction at the 0.01 level. However, the causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential of 8 variables are consistent with empirical data, considering the fit index values that passed the acceptance criteria, namely the Chi-square of 1341.82, df of 681, p-the value of 0.06320, RMSEA of 0.048, with both direct and indirect influences at statistical significance at a level of 0.01, as shown in Table 3, Figure 2, and Table 4.

## Table 3.

The relationship of financial empowerment affects systematic accounting and financial management of variables.

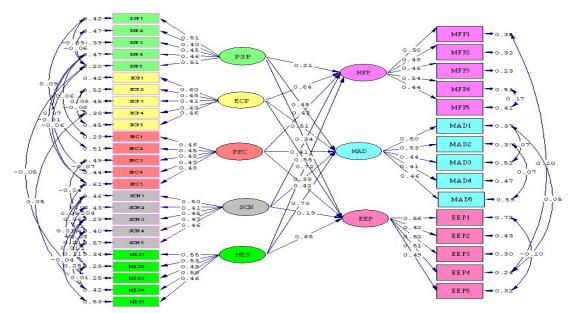
Composite	Mea	Std	PSP.	ECP.	PPC.	SCN.	MES.	MFP.	MAD.	EEP
Variables	n.	•								•
Promoting safe production (PSP).	4.20	.48 2	1	-						
Increasing competitive potential (ECP).	4.40	.40 4	0.314 **	1	-					
Promoting product processing (PPC).	4.28	.48 1	0.530 **	0.491 **	1	-				

Promoting group formation and networks (SCN).	4.20	.46 6	0.451 **	0.460 **	0.572 **	1	-			
Sustainable resource and environmental management (MES).	4.42	.45 1	0.481 **	0.482 **	0.573 **	0.547 **	1	-		
Appropriate capital management (MFP).	4.57	.32 6	0.485 **	0.394 **	0.484 **	0.509 **	0.466 **	1	-	
Accounting and debt management (MAD).	4.46	.43 4	0.405 **	0.346 **	0.619 **	0.488 **	0.462 **	0.430 **	1	-
Evaluation of spending (EEP).	4.44	.44 6	0.442 **	0.428 **	0.534 **	0.756 **	0.539 **	0.545 **	0.518 **	1

\*\* Statistical significance a level of 0.01.

# Figure 2.

The causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential of variables.



Chi-square of 1341.82, df of 681, p-the value of 0.06320, RMSEA of 0.048.

Direct initiatice. DE, many	· · · · · · · · · · · · · · · · · · ·	Results variables				
Causal variables	Relationship	Appropriate capital management (MFP).	Accounting and debt management (MAD).	Evaluation of spending (EEP).		
Promoting safe	DE	0.21**	0.45**	0.34**		
production (PSP).	IE	-	-	-		
	TE	0.21**	0.45**	0.34**		
Increasing competitive	DE	0.64**	0.51**	0.55**		
potential (ECP).	IE	-	-	-		
	TE	0.64**	0.51**	0.55**		
Promoting product	DE	0.42**	0.41**	0.42**		
processing (PPC).	IE	-	-	-		
	TE	0.42**	0.41**	0.42**		
Promoting group	DE	0.45**	0.39**	0.19**		
formation and networks (SCN).	IE	-	-	-		
	TE	0.45**	0.39**	0.19**		
Sustainable resource and	DE	0.72**	0.70**	0.65**		
environmental management (MES).	IE	-	-	-		
5 ( )	TE	0.72**	0.70**	0.65**		

### Table 4.

Direct influence: DE, indirect influence: IE, and total influence: TE in all 8 variables.

\*\* Statistical significance a level of 0.01.

In this way, from the findings on the issue of financial empowerment in enhancing sustainable farmers' potential including promoting safe production, increasing competitive potential, promoting product processing, promoting group formation and networks, sustainable resource and environmental management, and systematic accounting and financial management on 28 indicators, including the issue of the causal relationship of financial empowerment affects systematic accounting and financial management to enhance sustainable farmers' potential are consistent with empirical data, considering the fit index values that passed the acceptance criteria, namely the Chi-square of 1341.82, df of 681, p-the value of 0.06320, RMSEA of 0.048, with both direct and indirect influences at statistical significance at a level of 0.01. This is due to the changing safe production methods that will have an impact on the use of water, energy, and waste in sustainable agricultural communities, while the safe production processes increase biodiversity and have a positive impact on soil, water, and air in sustainable production areas, passing

standards, and receiving safety certifications such as GAP for sustainable agricultural products for enhancing sustainable farmers' potential (Phromphakphing, B., 2022). Meanwhile, cost management affects the increase in profit per unit of product of the production process for sustainability, cost reduction from flexibility in pricing of products in the market for sustainability. The efficient management of resources such as water and fertilizers and the reducing losses in the production process reduce costs and increase production, including to use of appropriate technology and production methods to reduce production costs and increase the competitive potential of farmers for sustainability (Laothammajak, M., & Sachdev, H., 2021). Furthermore, the development of competent labor skills, and time management for increasing production efficiency for sustainability (Gary V. Howorka, Lorien A. Anderson, K. Michael Goul, Michael Hine, 2019). However, the relationship between financial empowerment on product processing, e.g., turning fresh fruits into juice or jam, helps increase the value and income of farmers by selling products with higher value, farmer network collaboration impacts developing marketing capabilities and expanding sales channels, including the farmer groups play a role in developing financial capabilities and increasing business sustainability to affects systematic accounting and financial management of appropriate capital management, accounting and debt management, evaluation of spending to enhance sustainable farmers' potential (Parintarakul, W., 2022) the investment planning from access to capital sources for expanding agricultural businesses, records and track income and expenses to help improve financial management, budget planning or use strategies to reduce the debt burden for long-term sustainability (Songsom, A., 2020). Also, sustainable management of natural resources such as recirculating water systems or renewable energy can help increase production capacity and reduce agricultural costs, implementing sustainable agricultural practices, and using waste materials increases resource efficiency and reduces losses in the production process for sustainability (Treechai, P., 2019). Environmental conservation, and reducing the use of chemicals can help create opportunities for farmers to increase value and income for sustainability. Therefore, financial empowerment in enhancing sustainable farmers' potential of promoting safe production, increasing competitive potential, promoting product processing, promoting group formation and networks, sustainable resource and environmental management, and systematic accounting and financial management in building competitive capabilities in terms of product quality, marketing, and management of creating financial security and sustainable community economy in the long run effectively.

### 4.3 Guidelines for enhancing sustainable farmers' potential.

The guidelines for enhancing sustainable farmers' potential on the elements of product and service management, marketing management, financial and accounting management to subelements and indicators, as shown in Table 5.

# Table 5.

The elements, sub-elements, and indicators of guidelines for enhancing sustainable farmers' potential

Elements.	Sub-elements.	Indicators.			
1. Product and service management.	1.1 Promote agricultural product standards (GAP, Organic).	• Improving product quality and safety to increase value and market opportunities both domestically and internationally.			
		• Support knowledge and compliance to create a stable income.			
		• Establish a fund to support certification costs and low-interest loans for standard production systems.			
	1.2 Establishment of a quality control system	• Follow up on product quality at every stage of production.			
	within farmer groups.	• Reduce the risk of low-quality products and increase the opportunity to sell at a better price.			
		• Establish farmer groups and quality control committees to reduce costs and increase credibility.			
	1.3 Provide training in product development to	• Support the development of modern technology and production.			
	meet market demands.	• Promote processing, branding, and packaging that meet market needs.			
		• Training on market trends and connecting with design experts.			
2. Marketing management.	2.1 Building a brand image reflecting local	• Create product identity with a brand design that reflects locality.			
	identity.	• Supports funds and training in brand design, e.g., logos and storytelling to add value and build credibility of products and merchandise.			

	2.2 Development of modern packaging.	• Develop packaging that is modern, easy to use, and environmentally safe.
		• Provide funding for the design and production of safe and biodegradable packaging, including the creation of a co-procurement system to reduce costs.
	2.3 Expanding marketing channels through online systems.	• Create new marketing channels for distributing products through online platforms.
		• Support website development, online store creation, and training on the use of digital tools to increase market access.
3. Financial and accounting	3.1 Creating a cost analysis accounting	• Create an easy-to-use accounting system for farmers.
management.	system for planning.	• Provide funding to develop accounting systems or basic software and train farmers to use the systems flexibly.
	3.2 Cost analysis to determine the selling price.	• Promote the analysis of production costs in determining the appropriate selling price of products.
		• Support cost consulting and organize learning groups to share cost information.
	<b>3.3 Planning of financial and investment.</b>	• Financial and investment planning to increase productivity and reduce costs.
		• Establish a low-interest loan fund for equipment and technology and support capital for cost-reduction projects, e.g., renewable energy and bio-fertilizers.

In this regard, from the findings on the issue of the guidelines for enhancing sustainable farmers' potential on 1) product and service management including the promote agricultural product standards (GAP, Organic), the establishment of a quality control system within farmer

groups, and they provide training in product development to meet market demands, 2) marketing management of building a brand image reflecting local identity, development of modern packaging, and expanding marketing channels through online systems, 3) financial and accounting management such as creating a cost analysis accounting system for planning, cost analysis to determine the selling price, and planning of financial and investment are "Key" issues for policy implementation in enhancing sustainable farmers' potential successfully. However, improving product quality and safety to increase value and market opportunities both domestically and internationally, supporting knowledge and compliance to create a stable income, and establishing a fund to support certification costs and low-interest loans for standard production systems (Alsolamy, M Q., 2019). Follow up on product quality at every stage of production, reduce the risk of low-quality products and increase the opportunity to sell at a better price, and establish farmer groups and quality control committees to reduce costs and increase credibility. While they create product identity with a brand design that reflects locality, and supports funds and training in brand design, e.g., logos and storytelling to add value and build credibility of products and merchandise (Ministry of Agriculture and Cooperatives, 2020). Create new marketing channels for distributing products through online platforms, and support website development, online store creation, and training on the use of digital tools to increase market access. In addition, create an easy-to-use accounting system for farmers, provide funding to develop accounting systems or basic software, and train farmers to use the systems flexibly (Saibunjuang, W., 2018). So, they promote the analysis of production costs in determining the appropriate selling price of products, support cost consulting, and organize learning groups to share cost information (Chantarasupa, J., Chayomchai, A., Saengphukhieo, N., and Phewpan, K., 2020). Financial and investment planning to increase productivity and reduce costs (Phanpanich, C., Meechaisue, P., Sanguanwongwan, W., and Jinandet, N., 2019). Besides, financial and investment planning to increase productivity and reduce costs, include establishing a low-interest loan fund for equipment and technology and support capital for cost-reduction projects, e.g., renewable energy and bio-fertilizers. Thus, the guidelines for enhancing sustainable farmers' potential impact the farmers have standard products that meet the needs of high-value markets, reduce financial risks, and create career stability from increased income, financial planning, and, reducing production costs that can compete in the modern market to create financial stability and develop sustainable community economies effectively.

## 5. Conclusion

Financial empowerment in enhancing sustainable farmers' potential such as promoting the safe production of passing standards, and receiving safety certifications such as GAP for sustainable agricultural products, increasing competitive potential of cost management that affects the increase in profit per unit of product of the production process and development of competent labor skills, and time management for increasing production efficiency for sustainability, promoting product processing on using technology in processing, such as modern machinery and production systems, helps reduce costs, increase productivity, and improve quality, promoting competitiveness and increasing farmers' income, promoting group formation and networks to collaboration impacts developing marketing capabilities and expanding sales channels, and sustainable resource and environmental management into natural resources as recirculating water systems or renewable energy can help increase production capacity and reduce agricultural costs for sustainability, include the systematic accounting and financial management of appropriate capital management, accounting and debt management, and evaluation of spending are causal relationship to consistent with empirical data, with both direct and indirect influences at statistical significance at a level of 0.01 affects systematic accounting and financial management to enhance sustainable farmers' potential. The guidelines in product and service management, marketing management, and financial and accounting management in enhancing sustainable farmers' potential successfully.

## 6. Policy Implementation

The impact of the policy on enhancing sustainable farmers' potential is as follows:

- a) Creating a cost analysis accounting system for planning to create an easy-to-use accounting system for farmers, providing funding to develop accounting systems or basic software, and training farmers to use the systems flexibly.
- b) Cost analysis to determine the selling price in promoting the analysis of production costs in determining the appropriate selling price of products, support cost consulting, and organize learning groups to share cost information.
- c) Planning of financial and investment to increase productivity and reduce costs, establish a low-interest loan fund for equipment and technology, and support capital for cost-reduction projects, e.g., renewable energy and bio-fertilizers.

## References

- 1. Alkhateeb, A. N. A., Yao, L., & Cheng, J. (2018). Review of intellectual capital components research. *Journal of Advanced Social Research*, 8(6), 1-14.
- 2. Alsolamy, M Q. (2019). Exploring the relationship between entrepreneurial orientation, innovative capability, and social enterprises' competitive positioning: Evidence on social enterprises in Saudi Arabia. *Global Journal of Economics and Business*, 7(3), 335-347.
- 3. Chaisan, P. (2017). The Ministry of Foreign Affairs and the development of national security policy. Amarin Printing and Publishing.
- 4. Chandaeng, W., & Adiwatanasit, C. (2017). The development of a strong community management model according to the sufficiency economy philosophy in the upper central provinces. *Humanities and Social Sciences*, 10(1), 994-1013.
- Chantarasupa, J., Chayomchai, A., Saengphukhieo, N., and Phewpan, K. (2020). Influence of entrepreneurial behavior. Adaptability and innovation ability affecting business performance: Empirical data from the Pracharath Fah Flag Shops Project. *Academic and research journals Northeastern University*, 10(1), 5-18.
- 6. Charoenrat, C. (2019). Strengthening of community and foundational economy. *Journal of Management Science Review*, 8(3), 19-25.
- Chen, X., & Phakdeephirot, N. (2021). Comparison and Analysis of the Methods for Measuring the Sustainability of Farmers' Livelihoods. *International Journal of Multidisciplinary in Management and Tourism*, 5(2), 87–99. https://doi.org/10.14456/ijmmt.2021.9
- 8. Danthanin, M. (2018). Self-reliant community economy: Concepts and strategies. Department of Provincial Administration, Ministry of Interior.
- 9. Ellis-Stoll, C., & Popkess-Vawter, S. (1998). A concept analysis of the process of empowerment. *Journal of Advanced Nursing*, 21(2), 62-68.

- 10. Elsharif, T.A. (2019). The Elements of Accounting Information Systems and the Impact of Their Use on the Relevance of Financial Information in Wahda Bank- Benghazi, Libya. *Journal of Business and Management*, 7(12), 1429-1450.
- 11. Gary V. Howorka, Lorien A. Anderson, K. Michael Goul, Michael Hine. (2019). A Computational Model of Coordination for the Design of Organizational Decision Support Systems, *Intelligent Systems in Accounting, Finance and Management*, 4(1), 43-70.
- 12. Imruang, N. (2016). Guidelines for developing the potential of community enterprises. Local Administration Journal, 6 (3), 78-89.
- Kasorn, K., Jedaman, P., and Authors. (2023). Capital Structure Factors Influencing the Effectiveness Management of Listed Companies in the Stock Exchange of Thailand. *Journal* of Survey in Fisheries Sciences, 10(2S), 2684-2695. <u>https://doi.org/10.17762/sfs.v10i2S.1307</u>
- 14. Laothammajak, M., & Sachdev, H. (2021). Participatory scenario development for lowcarbon city strategies: A Krabi Municipality, Thailand case study. *Journal of Multidisciplinary in Humanities and Social Sciences*, 4(3), 1254–1270.
- 15. Ministry of Agriculture and Cooperatives. (2020). Agricultural development plan. Bangkok: The Office, Thailand.
- 16. Office of the National Economic and Social Development Board. (2021). The National Economic and Social Development Plan. Bangkok: The Office, Thailand.
- 17. Parintarakul, W. (2022). Solving community problems through local area research processes in Lamphun Province. *Journal of Arts Management*, 6(1), 374–387.
- 18. Phanpanich, C., Meechaisue, P., Sanguanwongwan, W., and Jinandet, N. (2019). The impact of intellectual capital on the performance of small and medium-sized enterprises. Use financial technology in Bangkok and surrounding areas. *Thai-Japanese Technology Journal of Business Administration and Language*, 7(2), 50-60.
- 19. Phromphakphing, B. (2022). Well-being and happiness. *Humanities and Social Sciences*, 30(1), 24-34.
- 20. Phuangprayong, K. (2021). Roles of the creative economy and innovative behavior for Community Development in Thailand. *PSDS Journal of Development Studies, Thammasat University*, 1(1), 220-252.
- 21. Saibunjuang, W. (2018). A strong community from the perspective of community residents. Case study: Ban Plai Khlong, Bang Pho Nuea. Pathum Thani Province. *Valaya Alongkorn Review Journal*, 8(1), 119-129.
- 22. Songsom, A. (2020). Influence of entrepreneurial behavior. Adaptability and innovation ability affecting business performance: Empirical data from the Pracharath Fah Flag Shops Project. *Journal of Commerce Humanities and Social Sciences*, 37(4), 182-194.
- 23. Tan C. C., Damnoen P. S., Toprayoon, Y., Dabjan N., & Damkam, K. (2022). An exploratory study of the spirituality-oriented experiences of tourists. *Agriculture and Healthcare*, 7(2), 105-115
- 24. Treechai, P. (2019). An analysis of community strength. Romphruek Journal, 27(1), 1-10.
- 25. Ucharat, P., Phansak, W., and Phothisri, C. (2014). The effect of empowerment programs on the development of potential and self-care of the elderly in the community. *Royal Thai Army Nursing Journal*, 15(2), 216-224.