

## **The Supply Chain Management System of Guava and Bananas from Agriculture in the case of Agricultural Groups in Accordance with the Concept of Sufficiency Economy Nakhon Pathom**

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### **ABSTRACT**

The purpose of this study is to study the knowledge and understanding management system of participants in a project. The purpose of this study is to study the supply chain of farmers, and the cultivation of guava and banana in the target population in Fotung Province. With the change of supply chain management system, guava and banana are from farmers to farmers. Adequate economy Supply Chain Management of Potato and Banana in Supply Chain Management Practice The results of this study show that agriculture is consistent with adequate economic concepts in the province of Buddha. Fifty people were studied qualitatively by the whole triangle method. Probabilistic sampling of data collection, probabilistic sampling, and all data analysis. Analysis of Latin Variation

The results of this study are as follows. Specific results can be summarized as follows: a management system directly affects The order of positive causal variables from high to low is: management activities, logistics delivery effect is the most significant; The coefficient of influence equals 0.93, which also indicates management activities. Direct Impact of Logistics From the positive correlation coefficient of causal variables, the order from the highest to the lowest is: the greatest potential impact coefficient. The influence coefficient of purchasing process is 0.35, the influence coefficient of purchasing process is 0.288, and the operation coefficient is 0.35. Influencing coefficient 0.25\*2\* Reasons from high to low. Therefore, the supply management plan is the most effective. The influence coefficient of procurement process is 0.32, while that of procurement process is 0.26 and GA. The operating coefficient is equal to 0.23.

**Keywords:** *Supply Chain Management, Guava and bananas together, Concept economy concepts*

### **INTRODUCTION**

Banana, guava crop is particularly important area in the central region. Are planted in the field. Nakhon Pathom, Ratchaburi and Phetchaburi, all plants are plants that are used for domestic consumption and export in fresh fruit and produce on the various forms of potential income for farmers and each year tens of millions of baht.

Banana plants, the food of the world are grown in more than 135 countries in tropical and subtropical regions. According to the statistics of the Food and Agriculture Organization (FAO Stat, 2014)



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Data collection uses focus group discussions. Agricultural group leaders, managers, organizations, and finally. The three time

Data analysis methods include induction, induction, induction, induction, application, management and supply chain system. Knowledge of Supply Chain Management System for Potatoes and Bananas

Data analysis The purpose of this study is to identify the factors, knowledge and implementation of supply chain management system. Banana joint transformation Consistent with the concept of adequate economy

The second stage of quantitative population study in this study. The purpose of this study is to study the owner of agricultural land in the Nakhonchaisri district, Buddha Province. Training courses on supply chain systems for potatoes and bananas“ Therefore, the sample size is based on the guidelines of "kriejcie" and "Morgan 1970".

Data collection tools are measurements of variables from the first and second stages of validation and research. Literature review The research tool is questionnaire survey.

Data collection methods are based on lean variables. Questionnaires are used to collect data.

Data analysis Analyzed using descriptive statistics include percentage Mena SD and path analysis (Path analysis latent Variables).

### **DEFINITIONS USED IN RESEARCH.**

Supply chain management refers to activities systematically worked to harmonize the continuous process to transform the raw materials into finished products, goods or services from those of its raw material supply. (Raw material supplier) to manufacturers (Manufacturers) wholesaler / distributor. (Wholesalers / distributors), retailers (Retailers) until delivery to the consumer or end customers (End Customer) to efficiently process, which is an important part of the development aid organization. To enhance the ability of management approach to enhance capacity or reduce waste. And seek additional opportunities to create new products to meet and satisfy the consumer. As well as reducing costs and working capital management in order to build a sustainable business in the future.

Supply chain management: Supply chain management refers to the supply chain. The supply chain management is a priority of all processes that have to satisfy their customers. By starting the procurement process. (Procurement), manufacturing (Manufacturing) storage (Storage) Information Technology (Information Technology), the distribution unit. (Distribution) and Transportation (Transportation), which will organize the whole process seamless harmonization.

### **LITERATURE REVIEW**

The concept of managing logistics. Considering the implications of the deal. Logistics within the meaning of Webster (Webster 's Dictionary) that will manage logistics as a science branch of the military-related procurement. Maintenance forces, moving, loading and unloading. The welfare of personnel and facilities. The meaning of management in the business sector The Council of Logistics Management or CLP, which is a professional organization of logistics in the United States has said. Management, logistics, supply chain represents part of a process of planning Thavisakdi Guardian Angel (2550), in line with the research firm Jaiyos Chai, (2550. 29-30) for moving and storage products. Efficiency and effectiveness The Management District's Athletic has a broader scope and complexity of the various parties involved in the organization. And numerous external organizations Each side has a different goal. Cause complexity and inefficiency in the supply chain. The music consists of Barcelona's fall activities. These activities interact (Interaction) operating activities Logistics will affect other activities. The implementation of activities Other activities may raise the cost of managing logistics. And the supply chain is a key concept in the industry, import - export and distribution of goods across Thailand and around the world to effectively fast. Executives need to adjust the implementation process by developing the knowledge adaptive learning process. Distribution and utilization of knowledge, both theoretical and practical. Research and development to create new knowledge. Who was instrumental in bringing development to operations, which will benefit the development of the industrial sector that is growing to the economic development of the country. The concept of management, supply chain, logistics and supply chain (Supply Chain) or

network logistics system is the use of the agency's information technology activities and resources applied together. In order to move the product or service. From suppliers to customers The activities of the supply chain (Supply Chain) to transform natural resources, raw materials and other materials into a finished product. Then send it to the last customer (consumer or End Customer) in the philosophy of the supply chain (Supply Chain), the material is used. May be recycled at any point of the supply chain (Supply Chain), if the material is a material that can be recycled (Recyclable Materials) supply chain (Supply Chain). Is related to the value chain (Value Chain), so it has to novel involving supply chains, a number of scientific Suharitamrong (2550), captures the meaning of the supply chain, which would have meant a different path. Nan Ya Sri Vasu (2550) defines the supply chain as well as corporate groups. Or the company that operates the link, whether it's about a product or service activities such as procurement, production, delivery, storage and packaging, including handling the product back in the loop. supply chain The objective is to satisfy customer needs. According to the requirements and satisfaction to our customers. As the lowest cost or may be said to contain a supply chain network vendors. Or suppliers (Supplier networks) manufacturers (Manufacturers) network and the buyer or customer (Customer networks) Supply Chain or "supply chain" in Thailand. Is a term that is gaining popularity in all sectors of trade and industry, but as of now I have not been given a clear definition or is only understood each other by making knowledge and understanding of the chain. supply is still unclear Definitions are used, there was a wide range of critical and popular rice used.

## RESEARCH RESULT

Results of confirmatory factor analysis found. Consistent with empirical data with chi - square ( $\chi^2$ ) is equal to 246.01 degrees of freedom (df) equal to 279 Chi - Square relative ( $\chi^2$  df) p-value equal to 0.882 for a fee. equal to 0.92324 the RMSEA equals 0.000 index root mean square of the remaining standards (SRMR) is equal to 0.030 for the consistency of an index measuring the level of harmony (GFI) is equal to 0.95 and the index level. harmony adjustment (AGFI) c. The index measures the consistency was 0.91 compared (CFI) is equal to 1.00.

Model measurement variables in the procurement process found that the factor (Factor Loading) values over a certain threshold is greater than 0.5 X4 is the factor most 0.86, followed by the X2 is equal to 0.82 X1 and X6. is equal to 0.78x and minimum X5 is equal to 0.73 on the standard error (SE) and the t statistics showed that the weight of each component varies from 0 to. None statistically significant at the 0.01 level of R2, which is proportional to the variation observed between variable elements together. (Communalities) found that the X4 is R2. Most X4 is the factor most equal to 0.73, followed by 0.67 X1 and X6 X2 equal equal equal 0.61 and REL1 least equal to 0.54.

Model measurement variables Operations that factor (Factor Loading) values over a certain threshold is greater than 0.5, the X11 has the factor most 0.86, followed by the X10 has a value of 0.85, the X9 is equal to 0.83 X7 is. 0.71 and X8 least equal to 0.69 on the standard error (SE) and the t statistics showed that the weight of each component varies from 0 to significantly statistically. The R2 value of 0.01, which is proportional to the variation observed between variable elements together. (Communalities) found that the R2 X11 X11 has the most weight in the 0.74, followed by the X10 has a value of 0.72 X9 is equal to the value of 0.50 0.68 X7 and X8 has a minimum value of 0.48.

Model measurement variables in planning, supply chain management that factor (Factor Loading) values over a certain threshold is greater than 0.5, the X16 is the factor most equal to 0.91, followed by the X15 is equal to 0.86 X13 has. equal to the value of 0.80 0.85 X12 and X14 least equal to 0.71 on the standard error (SE) and the t statistics showed that the weight of each component is different. 0 of the significant level of 0.01 R2 value, which is proportional to the variation observed between variable elements together. (Communalities) found that the R2 X16 X16 the most valuable factor of 0.83, followed by 0.73 X15 X13 is equal equal equal 0.65 0.73 X12 and X14 least equal to 0.51.

Model measurement variables management logistics that factor (Factor Loading) values over a certain threshold is greater than 0.5 by Y3 is the factor most 0.93, followed by Y5 equal. 0.90 Y4 is equal to 0.83 and a minimum Y1 and Y2 is equal to 0.77 times when the standard error (SE) and the t statistics showed that the weight of each component varies from 0 example. There were statistically significant at the 0.01 level of R2, which is proportional to the variation observed between variable elements

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together. (Communalities) found Y3 is R2 by Y3 has the most weight the most, followed by 0.87 equals 0.80 Y4 Y5 has a value equal to the value of 0.60 and 0.69 Y2 Y1 least equal to 0.59.

Model measurement variables use the relay system, navigation system, supply chain management, guavas and bananas to find the factor (Factor Loading) values over a certain threshold is greater than 0.5 by Y11 is the factor most 0.86. followed by the Y7 is equal to 0.83 Y8 and Y14 0.82 Y12 equal equal 0.75 0.74 Y10 Y13 equal equal equal 0.67 and 0.72 Y6, at least. The Y9 is equal to 0.64 on the standard error (SE) and the statistical t find that the weight of each component is different from 0 are statistically significant at the 0.01 level of the R2 which is to say the proportion of variation in between. together with the observed variables (Communalities) showed that Y11 is R2 most Y11 is the factor most equal to 0.73, followed by the Y7 is equal to 0.68 Y8 is equal to 0.67 Y12 and Y14 is equal to 0.56 times the Y13 is equal to 0.41

**THE VALIDITY CENTRALIZED (CONVERGENT VALIDITY)**

the validity centralized (Convergent Validity) a transaction or measure with a variance together to determine whether or measure these variables the same. How to measure the direct centralized requirements three ways: (Hair, et al., 2006 , pp. 776-778; Knight & Cavusgil, 2004, p. 134).

Overall report was reviewed unified criteria should be defined. The factor must be between 0.5 and above the average variance extracted should have a value of 0.5 or more and the reliability structure should have a value of 0.6 or higher (Hair, et al., 2006, pp. 777-779) results. Analysis of the data found All variables are the average variance extracted from 0.5 up to and including the reliability (Composite Reliability) with values ranging up to 0.6, while the observed variables are all standard components weighing from 0.5 to all. The researcher did not make the cut out of the observed variables to measure latent variables. Details of the standard weight Average Variance Extracted (AVE) and the overall reliability (CR) as shown in Figure 4.21.

Figure 4.21 shows the validity of the latent variables and the average variance extracted (Construct Reliability: & Average Variance Extracted:).

latent	Precision variables ( $\rho_C$ )	The average variance extracted elements. ( $\rho_V$ )
K1	0.910	0.626
K2	0.890	0.626
K3	0.917	0.687
E1	0.924	0.710
E2	0.922	0.572

Demonstrate the reliability of variables all have high values ranged from 0.890 to 0.924, which is more than 0.60, and the average variance extracted elements ranged from 0.572 to 0.710, more than 0.05 suggests that the assessment model. gauges are clear evidence of that. The definition of operating variables are all valid and reliable.

Harmonized index of model structure to manage the supply chain. To build knowledge into practice management systems, supply chain, guava and banana to join in. Nakhon Pathom before adjusting for consistency.

Harmonized index	Criterion	Calculated values	Result
$\lambda^2$ -Test	No statistically significant level. $P > 0.05$	1598.37	-
Df	-	398	-
$\lambda^2/df$	$< 2$	4.015	fail
P-value	$> .50$	0.000	fail
RMR	$.00 \leq RMR \leq .05$	0.064	fail
RMSEA	$.00 \leq RMSEA \leq .05$	0.100	fail
NFI	$.95 \leq NFI \leq 1.00$	0.96	Past

NNFI	$.97 \leq NNFI \leq 1.00$	0.97	Past
CFI	$.97 \leq CFI \leq 1.00$	0.97	Past
GFI	$.95 \leq GFI \leq 1.00$	0.74	fail
AGFI	$.90 \leq AGFI \leq 1.00$	0.69	fail

The model shows that the relationship between supply chain management. To build knowledge into practice management systems, supply chain, guava and banana to join in. Nakhon Pathom, the researchers have developed concepts and theories that are not in harmony with the empirical data. Based on the statistics calculated value = 1598.37, df = 398, p-value = 0.000, CFI = 0.97, GFI = 0.74, AGFI = 0.69, RMSEA = 0.100, RMR = 0.064, NFI = 0.96 and NNFI = 0.97. some of the key statistics may not meet the criteria stipulated.

Direct effect Indirect effect And the influence of supply chain management. To build knowl

Effect variable	R <sup>2</sup>	The influence	Cause variable			
			Procurement process	operation	Planning for supply management	Activities management Logistics
The benefits of supply management system transfer	0.65	DE	-	-	-	0.93**
		IE	0.26**	0.23**	0.32**	-
		TE	0.26**	0.23**	0.32**	0.93**
Management activities Logistics	0.86	DE	0.28**	0.25**	0.35**	-
		IE	-	-	-	-
		TE	0.28**	0.25**	0.35**	-

It shows correlation analysis and statistical analysis of influence analysis. Of the supply chain management structure model In order to build knowledge into practice. The supply chain management system of guava and bananas transformed in Nakhon Pathom Province by offering direct influence Indirect influence And the combined influence of each factor With details Important as follows 1. Direct influence Found that the benefits of the transfer of the supply management system were directly influenced Positive from causal variables, in descending order Management activities Logistics affects the most Have a coefficient of influence equal to 0.93 and found that management activities Logistics has a direct influence The positive from the causal variable, arranged in descending order as follows: With the influence coefficient equal to 0.35, followed by the procurement process, the influence coefficient is 0.28 and the operation coefficient is 0.25 respectively. 2. Indirect influence It was found that the benefits of the transfer of the supply management system were indirectly influenced. Positive from causal variables, in descending order As follows, supply management planning has the greatest impact. With the influence coefficient equal to 0.32, followed by the procurement process, the influence coefficient is 0.26 and the operation coefficient is 0.23 respectively. 3. Total influence Found benefits on the transfer of supply management systems Total influence Positive from causal variables, in descending order Management activities Logistics affects the most With the effective coefficient equal to 0.93, followed by the supply management planning. Equal influence 0.32 The procurement process has an influence coefficient of 0.26 and the operation has an effect coefficient of 0.23, respectively. The influence of logistics has been integrated. The positive from the causal variable, arranged in descending order as follows: With the influence coefficient equal to 0.35, followed by the procurement process with the influence coefficient of 0.28 and the operation with the effect coefficient equal to 0.25, respectively. 4. The square of the multiple squares (R<sup>2</sup>) R<sup>2</sup>) is a value that can explain the variance Can be a combination of causal variables in the model From the examination and analysis, it was found that 1) management activities Logistics is a causal variable In a model that can explain 65% of the benefits of supply management system transfer and 2) the procurement process operation And supply management planning Is the causal variable in the model that can explain the logistics management activities by 86%

### Summary of hypothesis testing

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	<b>Hypothesis</b>	<b>Hypothesis test results</b>
H1	Procurement process Have a positive influence on logistics management activities	Conform With the assumptions set
H2	operation Have a positive influence on logistics management activities	Conform With the assumptions set
H3	Supply management planning has a positive influence on logistics management activities.	Conform With the assumptions set
H4	Logistics management activities have a positive influence on the benefits of supply chain management.	Conform With the assumptions set

## DISCUSSIONS

This research presents guava and banana supply chain from farm to join. If agriculture is to be consistent with the concept of sufficiency economy. Nakhon Pathom Nitcha comfy (2554) concluded that the production model. And yield management to the Farmer's Market Canal Park is a gem of the 5 production in a variety of styles. Integrated agricultural management and sustainable agricultural production to the local market is small. Including marketing, consumer groups, health care, make, model, production and yield management of district residents. Jinda 5 Canal Park is different from farming. Generally focused on trade as the main focus is the delight of manufacturers and look forward to consumer satisfaction. The productivity, quality and safety reasons behind the production and management of production of farmers. In line with the sufficiency economy concept that focuses just was not extreme enough not highly coveted. The integrated concept Diversified agriculture to the conditions of different areas. This is one example of bringing major economic used in farming for lowland flooding and achieved substantial compliance with the Chulabhorn permanent (2550) studied factors related to sustainable agriculture. Find out why Thus leading farmers to switch to sustainable agriculture since. Led farmers to make agriculture sustainable problems: 1) health problems such as allergies, medications symptoms toxins in the body, cause shock or blood is darker and fainting, dizziness, skin look charred, etc. 2). economic cost of plantation costs a lot of money because of the chemicals to be funded by borrowing in both. Formal and 3) soil because the soil is destroyed by chemical treatment of the soil is rich in minerals. Complete Systems The house was destroyed in Social features found social support to agriculture's sustainability leaders. Farmers are an important part of social support from family who live close to work and support important social support from neighbors. Social support from teachers who know and support. From social organizations that took part in community relations. Transmitted through a social institution through such organizations or groups and broadcast media, both radio and television, which is. Fostering exchange and process benefits of sustainable agriculture. Psychological characteristics of vocal farmers found that the mental aspect is vital that farmers can make the vocal solutions. Barriers to employment are better motivation and learning styles of learning vocal farmers. Including the idea of science venturesome. Self-control By thinking carefully with the intention of achieving a good quality and the sustainability of agriculture, farmers led by consistent research organizations deity Na Songkhla (2556). Social support from neighbors Social support from teachers who know and support. From social organizations that took part in community relations. Transmitted through a social institution through such organizations or groups and broadcast media, both radio and television, which is. Fostering exchange and process benefits of sustainable agriculture. Psychological characteristics of vocal farmers found that the mental aspect is vital that farmers can make the vocal solutions. Barriers to employment are better motivation and learning styles of learning vocal farmers. Including the idea of science venturesome. Self-control By thinking carefully with the intention of achieving a good quality and the sustainability of agriculture, farmers led by consistent research organizations deity Na Songkhla (2556). Social support from neighbors Social support from teachers who know and support. From social organizations that took part in community relations. Transmitted through a social institution through such organizations or groups and broadcast media, both radio and television, which is. Fostering exchange and process benefits of sustainable agriculture. Psychological characteristics of vocal farmers found that the mental aspect is vital that farmers can make the vocal solutions. Barriers to employment are better motivation and learning styles of learning vocal farmers. Including the idea

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#### **SUGGESTIONS IN THIS RESEARCH.**

The results of the training program, organized supply of bananas, guavas and conversion of agriculture. If agriculture is to be consistent with the concept of sufficiency economy. Nakhon Pathom, Nakhon Chai Si district found that farm. Already doing some gardening As a result of this research is consistent with the concept of sufficiency economy. Agricultural enterprises of the group. Focus on Productivity Some households will use According to a gradual Let's not enough to focus on selling commercial agriculture as in other areas. To produce for the export market, a large number of occasions led to problems for farmers. Both owe environmental problems Economic problems Through the practice of agriculture, thus confirming the principle. Can make agriculture a way of life And a family However, should the application of the concept of sufficiency economy in the area. In a different context.

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