

# Supply Chain Model in Digital for Cooperative Management in Thailand

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**Abstract**— The objective of the research was to design and to evaluate an appropriate of supply chain model in digital for cooperative management in Thailand. The sample consisted of ten experts that were selected by simple random sampling .Data analysis was the average mean and standard deviation. The research tool was questionnaire about supply chain model in digital for cooperative management in Thailand comprises seven main components, namely suppliers, Cooperative, Distribution, Retailers, customer, feedback. The results from experts agreement of supply chain model in digital for cooperative management in Thailand was a high level which means that supply chain model in digital for cooperative management in Thailand can be appropriately applied in actual work settings.

**Keywords**— *Supply chain model in digital, cooperative management, Thailand*

## 1. Introduction

Cooperative sectors are a major business segment in Thailand in several purposes i.e. Agricultures, Fisheries, Estates, Credit Unions, Services and retail and wholesale shops. [12],[8] An agriculture Co-Op is a major type in developing countries, especially in Thailand, which is very poor in the management systems and needs novel technology integration.[10] There are a large number of barrier issues to inhibit the competitiveness of Cooperative sectors including financial,[1] balancing on economic and social conditions [8] organization cost, public policies, and membership. [10] However, as the non-agricultural sector has been growing at a rapid rate the concept of cooperatives was introduced to Thailand through a special assistance program. It was believed that this would help the farmers to pay their debts and improve their.[9 ] the business and industrial sector needs to be highly competitive due to increasingly high competitions from both within and outside the country. In order to be highly competitive, organizations in the sector need to have personnel with knowledge, ability and skills who can work efficiently to increase output and products. The organizations, therefore, need to have sufficient information and resources to increase their values and respond to the demand of their clients. the

supply chain system and digital process is a key process to support the organization's whole activities system from upstream to downstream. It enables the organization to promptly check the information system to ensure that the organization operates smoothly and effectively based on the determined strategies. [2] Based on this realization, the researcher has decided to design and to evaluate supply chain model in digital for cooperative management in Thailand. For application to increase satisfaction of consumers.

## 2. Literature review

A cooperative is a juristic person having a power of operations as prescribed in the cooperative law and its by-laws. It has a board of directors to administer its affairs and to be its representative in dealing with the third persons. The administration of a cooperative may be divided into two periods: the initial period and the permanent period.

### 2.1 Initial Period

The organizing committee has the same powers and duties, and rights as the board of directors until the latter is elected in the first general meeting. Persons whose names appear in the name list of the prospective members will become members of the cooperative from the date of its registration. Within 90 days from the date of registration, the organizing committee has to call the first general meeting of members in order to elect a board of directors as prescribed in the by-laws of the cooperative. Consequently, the organizing committee must hand over all the works to the board of directors.

### 2.2 Permanent Period

After receiving the works from the organizing committee, the board of directors and the cooperative set to carry on its affairs and business until it is dissolved.[15]

Supply chain model in digital for cooperative management is an one of a few components of supply chain that can offer both improved performance It enables cooperative to maintain key information in an accessible format and helps to take operational. The adoption and successful implementation of software and network technology contribute in a large way for the supply chain success facilitating the flow of data.

Supply chain is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage. It represents a conscious effort by the supply chain cooperative to develop and run supply chains in the most effective & efficient ways possible. Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate all activities.

**3. Research Methodology**

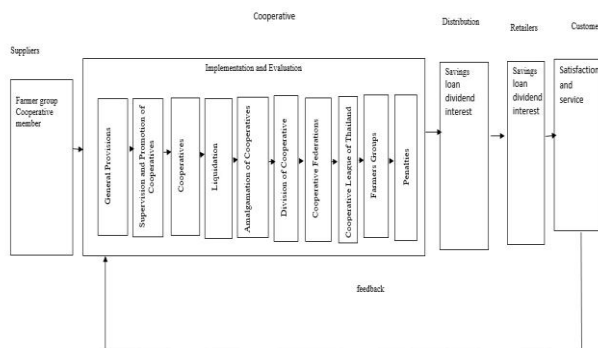
3.1 Synthesize document and research studies related about supply chain model in digital for cooperative management in Thailand.

3.2. Develop supply chain model in digital for cooperative management in Thailand from study the step 1

3.3. Evaluate supply chain model in digital for cooperative management in Thailand. Data analysis was the average mean and standard deviation following the weighing criteria of appropriateness of the design using five rating scales of Likert.

**4. Research Findings**

Research findings about supply chain model in digital for cooperative management in Thailand are presented in Figure 1



**Figure 1:** Supply chain model in digital for cooperative management in Thailand.

**Explanation on Components about supply chain model in digital for cooperative management in Thailand.**

**1 Suppliers**

Suppliers mean the Farmer group and cooperative member that supply raw materials to the cooperative. raw materials in this case are money . They can send for admission via the computer system that can process and store a data systematically.

**2. Cooperative**

Cooperative is a business organization owned and formed by farmers and agricultural producers up to be used as a mechanism to manage business of each activity, namely, General Provisions,

Supervision and Promotion of Cooperatives, Cooperatives, Liquidation, Amalgamation of Cooperatives, Division of Cooperative, Cooperative Federations, Cooperative League of Thailand, Farmers Groups, Penalties.

**3 Distribution**

Distributors mean Savings, loan, dividend, Interest.

**4 Retailers**

Retailers mean Savings, loan, dividend, Interest.

**5 Customer**

Customer mean satisfaction and service from cooperative .

**6 Feedback**

Feedback is a data obtained from satisfaction analysis survey responses. [2],[3],[4],[5],[6] and [7]

**Table 1:** Results for evaluation of supply chain model in digital for cooperative management in Thailand.

No.	Items	$\bar{X}$	S.D.	Suitability
1	Main components	3.66	0.60	High
2	Suppliers	3.65	0.59	High
3	Cooperative	3.80	0.42	High
4	Distribution	3.67	0.61	High
5	Retailers	3.65	0.59	High
6	Customer	3.70	0.67	High
7	Feedback	3.60	0.51	High
	<b>Total</b>	3.67	0.67	High

The table 2, Shows that the experts agree supply chain model in digital for cooperative management in Thailand was high suitability. ( $\bar{X} = 3.67$ , S.D. = 0.57).

**5. Conclusion and Discussion**

According to evaluation supply chain model in digital for cooperative management in Thailand is considered to be high appropriate ( $\bar{X} = 3.67$ , S.D. = 0.57), and the design was corresponds to the research of Chansamut and Piriyasurawong has studied supply chain and information system about educational [2] In addition, with the study of chansamut suggesting that supply chain and information system can be appropriately applied in actual work settings. [3],[4],[5],[6] and [7]

**6. Recommendation**

Supply chain model in digital for cooperative management in Thailand is considered to be high appropriate if possible it could be applied in support the tasks

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## Reference

- [1] Benson, Building good management practices in Ethiopian agricultural cooperatives through regular financial audits. *Journal of Co-operative Organization and Management*, Vol 2, Issue 2 .72-82.2014.
- [2] Chansamut, A., Piriyasurawong., P. Conceptual Framework of Supply Chain Management Information System for Curriculum Management Based on Thailand Qualifications Framework for Higher Education. *International Journal of Managing Value and Supply Chains (IJMVSC)* . Vol 5 No 4 , 33-45. 2014
- [3] Chansamut, A Supply Chain operation Model in Digital for Curriculum Management Based on Thailand Qualifications Framework for Higher Education. *International Journal of Supply Chain Management (IJSCM)*. Vol 10 No 4 , 71-75. 2021.
- [4] Chansamut, A An Information System Model for Educational Management in Supply Chain According to Career standards on Thailand Qualifications Framework for Vocational Education *International Journal of Supply Chain Management (IJSCM)*. Vol 10 No 4 , 51-55. 2021.
- [5] Chansamut, A Synthesis conceptual framework of Supply Chain Business Intelligence for Educational Management in Thai Higher Education Institutions *International Journal of Supply Chain Management (IJSCM)*. Vol 10 No 5 , 25-31. 2021.
- [6] Chansamut, A Supply Chain Business Intelligence Model for Quality Assurance in Educational Management for ASEAN University Network Quality Assurance *International Journal of Supply Chain Management (IJSCM)*. Vol 10 No 5 , 40-49. 2021.
- [7] Chansamut., A. ICT System in Supply Chain Management for Research in Higher Education Institute. *University of the Thai Chamber of Commerce journal humanities and social sciences*. Vol 36 No 2, 112-121. 2016.
- [8] Gupta, C. The co-operative model as a ‘living experiment in democracy’. *Journal of Co-operative Organization and Management*, Vol 2, Issue 2 .98-107.2014.
- [9] Galor, Z. (2014) The cooperative components of the classic Moshav. *Journal of Cooperative Organization and Management*, Vol 2, Issue 2 83-91.2014.
- [10] Kritthanathip, V., Chuenchom, S., Kiatchalermporn, S., Narksakul, T., Cha- um, S. Building Good Management Practices in Thailand Cooperative Sectors through Total Quality Management (TQM). *Kasem Bundit Journal*. Vol 19. Special Edition.39-45.2018.
- [11] Kasachat, W., & Chimkul, K. (2009) Performance measurement of agricultural cooperatives in Thailand: An accounting-based data envelopment analysis. In Lee, J.D., & Heshmati (eds.), *Productivity, Efficiency and Economic Growth in the Asia-Pacific Region*. Springer-Verlag Berlin Heidelberg
- [12] International Relation Department The Cooperative League of Thailand. *The Cooperative act of Thailand , Government Gazette*. Vol.116 No.30.1-22.1999.
- [13] Mago, S., Mazise, A., & Hofisi, C. Employment generation by Co-operatives: Myth or reality? *Mediterranean Journal of Social Sciences*, Vol.4 No.1.7563-762.2013.
- [14] Thuvachote,S,Agricultural cooperative in Thailand. *International Seminar on Agricultural Cooperatives in Asia: Innovations and Opportunities in the 21st Century*, Seoul, Korea, 11-15 September 2006.
- [15] The Federation of Savings and Credit Cooperatives of Thailand Limited (FSCT) 2013. Available at [http://www.fsct.com/fsct\\_main.php](http://www.fsct.com/fsct_main.php)