

Digital Supply Chain Operation Model for Educational Management in Non-Formal Education in Rural Thailand

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Abstract—The objective of this research study were to study and to evaluate digital supply chain operation model for educational management in non-formal education in rural Thailand. The samples in the research study consisted of ten purposively selected experts consisted of three experts on supply chain management, five experts on Digital Technology and two experts on the course. Data were analysed by arithmetic mean and standard deviation. The research findings model seven elements namely main components, Supplier, Manufacturer, Finished product, Customers Satisfaction and Feedback. The ten experts agree that digital supply chain operation model for educational management in non-formal education in rural Thailand was high suitability $\bar{X} = 3.64$, S.D. = 0.63) that show the model is appropriate and applicable to support the tasks.

Keywords— Digital supply chain operation model, education management in non-formal education, Thailand

1. Introduction

Non-formal education in Thailand plays an important role for out-of-school youth and adults. ONFEC offers two types of education for her: Informal and non-formal education. The two types are congruent. B.E.'s Education Act 2542 (1999)4 defines these two types of education as follows:[11]

1 Non-formal education needs to be flexible in setting goals, modalities, administrative procedures, duration, evaluation and evaluation according to its completion. Non-formal education content and curriculum should be appropriate, meet the requirements and meet the needs of individual study groups.

2. Informal education aims to enable learners to learn on their own according to their interests, opportunities, motivations and opportunities

derived from people, society, the environment, the media or other sources of knowledge. Educational institutions are permitted to offer any or all of the three types of education in order to provide adolescents and adults with basic educational opportunities and continue their studies at higher levels.

Today, Thailand's business and industrial sector needs to be highly competitive as it is increasingly competitive both domestically and internationally. To be competitive, industry organizations must deploy staff with the knowledge, skills, and abilities to work efficiently to improve performance. Therefore, organizations must have sufficient information and resources to add value and meet customer demands. The concept of supply chain and digitization is therefore an important process for supporting the entire system of an organization's activities from upstream to downstream. [1] Thus, the researcher had an idea to study and to evaluate digital supply chain operation model for educational management in non-formal education in rural Thailand for application to increase values of consumers.

2. Related work

2.1 Supply Chain Management Education supply chain management needs to consider various elements. Which has a relationship between various organizations with a clear goal of reducing the operational process of the system Increase service levels leading to efficiency Meet the needs of customers In general, the supply chain consists of important points, namely 1. Suppliers mean those who send raw materials to service units such as producing quality graduates to society etc. 2. The unit (Manufacturer) means the person who is responsible for transforming the raw materials received from the supplier. To have higher value 3. Distribution Center (Distribution

Centers) means the point that serves to distribute products to the consumer or the customer at the center. One product distribution may have products from many agencies, such as higher education institutions. There will be graduates graduating from many institutions. 4. Retailers or customers means the end of the supply chain. Which is where the products or services must be used until the value is exhausted and without adding value to that product or service.[8]

Supply Chain Management is the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders.[7]

A conceptual framework for Curriculum Management Supply Chain Management Information Systems based on the Thai Higher Education Qualification Framework. The purpose of this study is to (1) integrate a conceptual framework of supply chain management information system for curriculum management based on the Thai Higher Education Qualification Framework; (2) Evaluation of the conceptual framework of Supply Chain Management Information System for Curriculum Management based on Thai Higher Education Qualification Framework. The total 10-professional survey sample consisted of 5 supply chain management professionals, 2 curriculum professionals, and 3 information technology professionals. The research instrument used is a questionnaire. The statistics used for data analysis are mean and standard deviation. The research methodology consists of six phases:

(1) research and synthesis of relevant documents, research studies and articles; (2) development of a preliminary conceptual framework; (3) Identification of Experts. (4) development of an evaluation form to assess the adequacy of the conceptual framework; (5) Data collection and analysis. (6) Final refinement of the conceptual framework based on expert suggestions.

Research findings show that the synthesized conceptual framework of supply chain management information system for curriculum management based on Thailand Qualifications Framework for Higher Education comprises four main components, namely, Suppliers, University (Manufacturer), Education Customers, and Consumer. Evaluation results by the experts show the evaluation rating mean of 4.07 with standard deviation of 1.10 indicating that the conceptual framework is considered to be at the good level. Furthermore, evaluation results of appropriateness for sub-components are as follows:

1. The appropriateness rating mean for sub-components of the Supplier component is 4.15, which can be interpreted to be at the good level.

2. The appropriateness rating mean for sub-components of the University component is 4.20, which can be interpreted to be at the good level. This is because the University component contains the sub-components at the decision making level of the educational supply chain.

3. The appropriateness rating mean for sub-components of the Education Customers component is 4.20, which can be interpreted to be at the good level. This is because the Education Customers component contains the sub-components of direct service receivers.

4. The appropriateness rating mean for sub-components of the Consumer component is 4.10, which can be interpreted to be at the good level. This is because the Consumer component contains the sub-component of customers as the end-of-supply chain process that affect the quality of graduates to be delivered to the society.

An overall evaluation result for the synthesized conceptual framework of supply chain management information system for curriculum management based on Thailand Qualifications Framework for Higher Education shows the overall rating mean of 4.14 and standard deviation of 1.00, which means that the synthesized conceptual framework is appropriate at the high level and can be appropriately applied in actual work settings.

Information and Supply Chain

Digital and supply are key processes to support the education system across activities from upstream suppliers to downstream consumers. This allows organizations to review their supply chain and digitization in a timely manner to ensure that the organization is functioning smoothly based on the strategy set. The process consisted of suppliers, manufacturers' customers.[1]

3. Research Methodology

3.1 Synthesize documents and former research relevant to the elements of digital supply chain operation model for educational management in non-formal education in rural Thailand

3.2 Study digital supply chain operation model for educational management in non-formal education in rural Thailand by interviewing the three experts on supply chain management, five experts on Digital Technology and two experts on the course.

3.3. A model is developed based on the data obtained from ten expert

3.4 The model is presented to 10 expert for consideration and modified it as guided.

3.5 Create a form for evaluating the suitability digital supply chain operation model for educational management in non-formal education in rural Thailand namely main components, Supplier, Manufacturer, Finished product, Customers Satisfaction and Feedback and sent to the ten experts in order to ask their opinions on appropriateness of the model , Responses from the

experts were analysed to find the mean and standard deviation.

Research findings digital supply chain operation model for educational management in non-formal education in rural Thailand in figure 1:

4. Research Findings

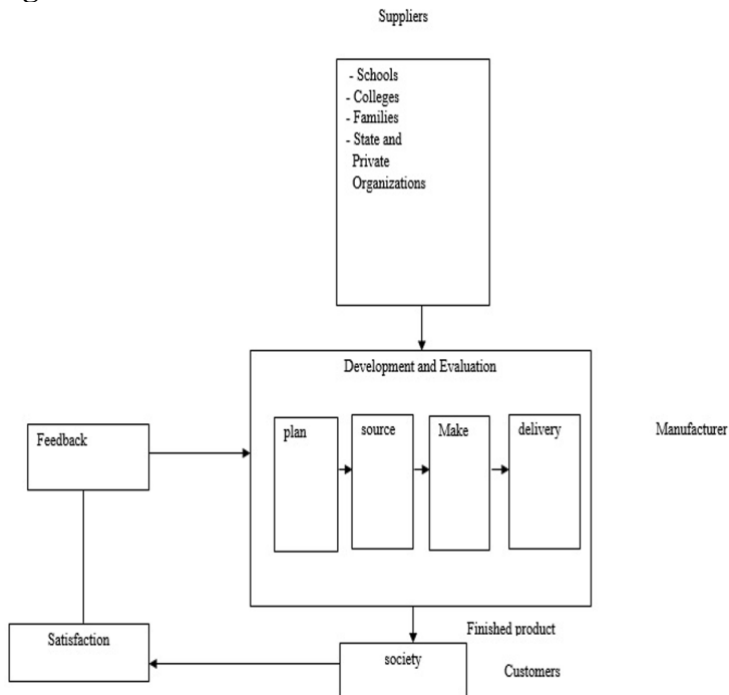


Figure 1: Digital supply chain operation model for educational management in non-formal education in rural Thailand

4.1 Suppliers

A supplier is generally an organization or individual that supplies raw materials to a manufacturer. You can apply for admission through a computer system that can process and store data.

4.2 Manufacturer

The Manufacturer education means the organization of informal and non-formal education. it will be Fulfil the obligation to develop and evaluate students. Based on the idea that every supply can be assigned tasks and activities in her chain. Four basic processes - planning, procurement, execution and delivery of each activity. Recruiting instructors and enrolling students, planning curricula, developing curricula, providing learning activities for student development, providing hands-on experiential training, evaluating learning outcomes, and reporting on curriculum implementation results.

4.3 Finished product

Finished product means a completed student who has graduated from an organization

4.4 Customers

Customers mean the final component of the process of the model and means the informal and non-formal educational society or organization.

4.5 Satisfaction

Satisfaction refer to evaluate the satisfaction of new breed of graduate in terms of qualifications are assigned.

4.6 Feedback

Feedback is the Information obtained from satisfaction analysis with the relationship between Productivity and customers [2],[3],[4],[5],[6],[11],[13]

Table 1: Results of digital supply chain operation model for educational management in non-formal education in rural Thailand is shown in Tables 1 below:

No	Evaluation Lists	Mean	Std. Deviation	Suitability
1	Main components	3.61	0.69	High
2	Suppliers	3.62	0.72	High
3	Manufacturer	3.70	0.53	High
4	Finished product	3.50	0.84	High
5	Consumers	3.73	0.51	High
6	Satisfaction	3.63	0.50	High
7	Feedback	3.72	0.64	High
	Total	3.64	0.63	High

Referring to Table 1, it can be concluded that information model for educational management in non-formal education in Thai supply chain is highly appropriate, with the total rating mean of 3.64. and standard deviation of .0.63, The raw materials, Supplier, Manufacture, Finished product, customers, Satisfaction and Feedback are highly appropriate also.

5. Discussion

Digital supply chain operation model for educational management in non-formal education in rural Thailand is considered to be high appropriate ($\bar{X} = 3.64$, S.D. = 0.63), and the design was corresponds to the research of Chansamut and Piriyasurawong has studied supply chain and information system about educational [1] Moreover, with the study of chansamut suggesting that supply chain and information system also. [2],[3],[4],[5],[6]

6. Conclusion

Digital supply chain operation model for educational management in non-formal education in rural Thailand is appropriate at the high level development ($\bar{X} = 3.64$, S.D. = 0.63) that show the model is appropriate and applicable to support the tasks.

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