Supply Chain Management Model in Digital Geographic for Educational Management in Higher Education Institution

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***Abstract*— This research aims to develop and to assess supply chain management model in digital geographic for educational management in higher education institution. A sample groups were five experts in supply chain, five experts in geographic information system . All totalling ten experts. The research tool was questionnaire about supply chain management model in digital geographic for educational management in higher education institution . The findings reveal that supply chain management model in digital geographic for educational management in higher education institution is consisted of seven key elements which are main elements suppliers university ,Finished student, customers, Satisfaction And Return. The data analysed by using arithmetic mean and standard deviation. The model assessment system using Back-Box technique. An evaluation result from** experts agreement of **supply chain management model in digital geographic for educational management in higher education institution was a high level. It showed that model may be appropriately applied in actual work settings.**

***Keywords*—** *supply chain management model, digital geographic, Educational management , higher education institution*

1. Introduction

Education is an important for a nation to improve its capacity to compete with other nations on all fronts. The government has developed the following policy, with an emphasis on academic reform that results in the development of high-quality goods: "To grow quality of people, as even the people are the country's human resources and the key component in all aspects of development, to renewal the entire system of education, to expand education and modify educational structure, to decentralize educational government to the prefectures so that educational management becomes more localized.".[10] To address the demands of both national growth and the growth of individuals who desire to pursue higher education, this strategy also calls for the building of private and public higher education institutions. The use of the supply chain management system in the education industry is among the strategies. development in order to boost academic excellence and competitiveness for the nation's development. In order to encourage the adjustment of the structure of production and the service sector at every point in the supply chain, the government has created an important policy that states: "The creation of a stable experience and understanding economy must support Thailand to be a canter of goods and service production in the region based on innovative thinking, creation of innovations, and extension of the body of knowledge. In addition to the development of the digital spatial and supply chain systems, the management of economic growth, and other factors, this will enable the creative economy to become a new driving force that eventually results in a balanced and sustainable economy. Along with the development of the digital geographic and supply chain systems, the management of financial shocks, and the creation of a free and just environment to facilitate production, commerce, and investment, including the growth of new entrepreneurs, the creation of facilities and internal logistics networks that will eventually lead to a healthy and long-term economy, this will enable the digital economy to be a new mobilizing force. The 12th National Plan for societal and economic Development was created in accordance with this policy. [8]. The supply chain management approach for educational management in higher education institutions that affects students' academic and practical training. Graduates of the program will be expected to handle conflicts of interest in their nation and determine how human activity affects specific environmental elements. These two tasks both call for the study and integration of data from many scientific disciplines. To give our graduates the knowledge and skills they need to address these issues, we must modify the subject matter and delivery manner of our instruction. They must be aware of all pertinent input components, be able to process and overlap them effectively, subject these to spatial analysis and synthesis, and correctly assess and interpret the outcomes. use of numerous interconnected systems, with the primary this issue. In land usage planning, ecosystem modelling, landscape planning and

assessment, transportation and infrastructure modelling, market analysis, specular reflection analysis, watershed analysis, facility management, real estate analysis, and teaching, digital geographic is used as a system of hardware, software, data, people, organizations, and institutional arrangements for gathering, storing, analysing, but instead disseminating about areas of the earth. Digital geospatial tools are now often used in scientific activities and are a crucial component of research for students in higher education institutions. In light of this insight,[9] So, A researchers had an idea to develop the supply chain management model in digital geographic for Educational management in higher education institution for adding values to consumer.

2. Literature review

Geographical information systems for educational management can be managed holistically, from determining the need for one to implementing one in a higher education institution, or at the task level, where workflows are utilized to manage and track GIS for EAM, specifically position University position and Student Travel and the village population, sub-district, and an. Between these two strategies, there is a management paradigm called supply chain management. A supply chain includes all operations connected to the movement and transformation for goods from the extraction of raw materials through to the end consumer, in addition to the information flows related to it. Information and commodities move both up and down the production chain..[11]

Thai supply chain refers to the processes an organization must use to deliver products or services to consumers in Thailand. A supply chain focuses on the fundamental tasks that need to be completed by our organization in order to transform raw materials or component parts into finished goods or services.

Technologies for geographic data in supply chain management. The main application of geographic information systems in the supply chain, according to Hall, is better visualization. According to him, geographic information system mapping connects numerous data sources so that users can have a visual and intuitive image of the state of the distribution network at their fingertips rather than just looking at spreadsheets. Global Positioning System technology is utilized by geographic information systems for location-based functions. Yet, as per Hall, geographical information systems contribute data "in a way that allows the user to make wise tactical and strategic judgments. Software that gathers, examines, and maps data is produced by Esri. According to him, "We also develop the tools that really perform the advanced mapping." Now, the business has 70 locations worldwide and its technology is used by around a million people.in all other industries as well as the supply chain. Risk management is one use, according to Hall, where geographic information systems are crucial. "Knowing what hazards are inherent in the topography, such as flat coastal areas where a tsunami can hit, is important for strategic planning because of the recent spate of natural catastrophes where suppliers were unable to convey product, as an example. With the use of mapping tools and superimposed data, you can view this type of information in advance and determine which manufacturing facilities and transportation routes may be affected. Hall notes that the majority of disaster management organizations worldwide use Seri Geographic information systems to map these incidents and asserts the value of geographic information in real-time planning. We can show folks what is happening in real time since we have access to that data immediately, according to Hall. "They may use that data to influence operational decisions that will assist manage the supply chain and reduce risk in real time."[7]

3. Research Methodology

3.1. Review document about supply chain management model in digital geographic for educational management in higher education institution

3.2. Design supply chain management model in digital geographic for educational management in higher education institution.

3.3. Create a tool for assessing the model.

3.4 The model is submitted to the experts for review and evaluate suitability..

3.5 Analyze the output data by using 5-point Likert Scale

4. Results

4.1 The model is composed of 6 components; the details thereof are shown in Figure 1.

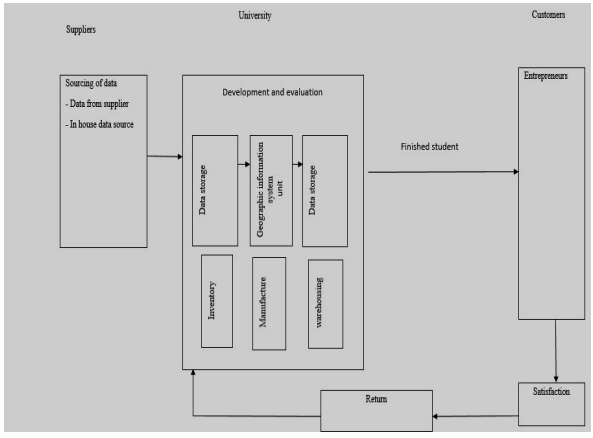

Figure 1: Supply Chain management model in digital geographic for educational management in higher education institution

4.2 Elements and principles of model

1 Suppliers

The supplier is a data from supplier or Basic and finished raw materials namely raw materials ,Components , Parts ,Labour, Plant, Equipment, Energy etc.

2 University

The service provider is a university .It performs the duty to transform raw materials namely Administration, Registration, Schedule, Maintenance, Lab setup, Licenses, Instructors Curriculum Course materials Case studies Online courses Authorized training and other data into the finished products. A service provider will carry out its responsibility for product development and evaluation. It is predicated on the idea that all supply chain responsibilities and operations, like those of a university or manufacturer, begin to flow from the client to a higher school. When determining whether the geographic information system product is obtained from of the warehouse and provided to the client, the university next looks at the data warehouse. The logistics management for the geographic information system product and the related to the functional in planning and delivering include the delivery process.

3 Finished student

Finished student mean Graduate student from the university

4. Customers

Customers mean entrepreneurs or the end-of-process component. They include the society in general and entrepreneurs who sended finished product from the university. Finally, the end product of product will add value of enterprises and increase satisfaction of consumers.

5 Satisfaction

Satisfaction refer to evaluate the questionnaires satisfaction of product.

6 Return

Return is a data obtained from questionnaires. [1],[2],[3],[4],[5],[6], [11],[12]

Table 1: Results for evaluation of Supply Chain management model in digital geographic for educational management in higher education institution

No.	Items	$\overline{X}$	S.D.	Suitability
1	Main elements	3.73	0.49	High
2	Suppliers	3.70	0.57	High
4	University	3.70	0.48	High
5	Finished student	3.70	0.82	High

Table 1: (Cont.)

No.	Items	$\overline{X}$	S.D.	Suitability
6	Customers	3.60	0.51	High
7	Satisfaction	3.70	0.94	High
8	Return	3.80	0.91	High
	Total	3.70	0.68	High

From the table 1 ,Evaluation of model suitability was conducted by 10 experts An experts found that supply chain management model in digital geographic for Educational management in higher education institution is highly appropriate . ($\overline{X}$ = 3.70, S.D. = 0.68).

5. Discussion

According to the evaluation about supply chain management model in digital geographic for Educational management in higher education institution is considered to be high appropriate shows the overall rating mean of 3.64 and standard deviation of 0.61. and the design was corresponds to the research of Chansamut and Piriyasurawong has studied supply chain and information system about educational [1] who found that information system model in supply chain supply chain consisted of four key elements namely suppliers university , customers, consumer and the study of chansamut suggesting that supply chain and information system also. [2],[3],[4],[5],[6]

6. Conclusion

The experts found that the application of supply chain management model in digital geographic for Educational management in higher education institution is considered to be high appropriate shows the overall rating mean of 3.70 and standard deviation of 0.68. suggesting that a geographic information system model for Educational management in Thai supply chain support sustainable geographic information system development.

7. Recommendation

Supply Chain management model in digital geographic for educational management in higher education institution is considered to be high appropriate if possible it should be implemented in the university.

8. Acknowledgements
The research is helped by expert from university in Thailand who kindly provided supervision this study.

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