

Geographic Information Systems Model for Curriculum Management on Cloud Computing in Supply Chain for Higher Education Institution

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Abstract— This article about geographic information systems model for Curriculum management on Cloud Computing in Supply Chain for higher education institution is important for the effectiveness of the model as well as the application in actual work settings. Literature on Cloud Computing in Supply Chain. The objectives of this study are to design and to evaluate geographic information systems model for Curriculum management on Cloud Computing in Supply Chain for higher education institution. The participants were 5 experts in supply chain management, 2 experts in information and technology and 3 experts in Curriculum, totalling 10 experts. The research tool was the questionnaire about geographic information systems model for Curriculum management on Cloud Computing in Supply Chain for higher education institution comprising of eight principal components, namely, Main components, Suppliers, University, Platform as Service, Information exchange, Internet access, Graduate student, Customers. The data were analyzed by using arithmetic mean and standard deviation. The evaluation result from experts agreement geographic information systems model for Curriculum management on Cloud Computing in Supply Chain for higher education institution was a high level and can develop geographic information systems on Cloud Computing in Supply Chain the tasks

Keywords— *Geographic information systems model, Curriculum management on Cloud Computing in Supply Chain, higher education institution*

1. Introduction

The education is very important in Thailand and the country to increase its capability to compete with other countries in every aspect. Especially, in educational development that leads to the development of quality products, the government has formulated the following policy: “To develop quality of people, as the people are human resources of the country and the key component in

all aspects of development, to reform the whole system of education, to expand education and modify educational structure, to decentralize educational administration to the provinces so that educational management becomes more thorough and responsive to the local needs”. [11] This policy also includes the establishment of private and public higher education institutions to meet the needs for national development and development of individuals who want to further their studies. One of the strategies is the application of the supply chain management system to educational development in order to increase competitive ability for the development of the country and enhance academic excellence. As such, the government has formulated an important policy that “The creation of a stable knowledge-based economy must support Thailand to be a center of goods and service production in the region based on creative thinking, creation of innovations, and extension of the body of knowledge in order to support the adjustment of the structure of production and service sector in every stage of supply chain. This is to enable the creative economy to be a new mobilizing power that leads toward a balanced and sustainable economy in the long run, together with the creation of geographic information systems and the supply chain system, the management of economic risks, and the creation of the free and just atmosphere to facilitate the production, commerce and investment inclusive of the development of new entrepreneurs, the creation of infrastructure and internal logistics networks that connect with other countries in the region.” Based on this policy, the 12th National Plan for Social and Economic Development was formulated [9]. The awareness geographic information systems model for Curriculum management on Cloud Computing in Supply Chain for higher education institution which influences the study and practical training of students. In practice, graduates of the study program are expected to manage conflicts of interest in the country and assess the impact of

human activity on individual environmental components. Both of these tasks req analysis and synthesis and evaluate and interpret the results accurately. Use of several close-knitted systems, the main one being geographic information systems on Cloud Computing in Supply Chain , provides a comprehensive solution to this problem. geographic information systems on Cloud Computing in Supply Chain is a system of hardware, software, data, people, organizations, and institutional arrangements for collecting, storing, analysing, and disseminating information about areas of a geographic information systemsn on Cloud Computing in Supply Chain are applied in land-use planning, ecosystems modelling, landscape planning and assessment, transportation and infrastructure modelling, market analysis, visual impact analysis, watershed analysis, facility management, real estate analysis, teaching with Geographic information systems many other areas. The use of geographic information systems on Cloud Computing in Supply Chain tools has also become standard in scientific activities and it is an essential part of research for the study in higher education institution Based on this realization,[10] So A researchers had an idea to develop geographic information systems model for Curriculum management on Cloud Computing in Supply Chain for higher education institution for adding values to consumer.

2. Literature review

Toka, Darginis. &Aivazidou,Eirini (2013) said that computing in supply chain is technology that could contribute to this optimization by providing infrastructure, platform, and software solutions for the whole supply chain network via Internet. The utilization of cloud-based services in supply chain management leads to operational benefits, while at the same time potential risks and limitations should be taken into account by all supply chain stakeholders. The overview of cloud in supply chain that it can be visible to all supply chain partners, from the manufacturer to the customer especially real-time visibility throughout their customer network. Cloud technology makes a lot of sense for supply chain managers.

Computing in the cloud makes it possible to closely track a product throughout its life cycle ,include it enables you to make quick decisions and communicate effectively [14].

Geographic information systems for educational management can be managed on a holistic level - from determining the need for a Geographic information systems to the implementation of the Geographic information systems in higher education institution , or at task level where workflows are used to track and manage Geographic information systems for educational management namely position

University position and Student Travel and the village population, sub-district, an occupation population is a core and other data. There is a management model that lies between these two approaches - namely supply chain management. A supply chain encompasses all activities associated with the flow and transformation of goods from the raw materials stage (extraction), through to the end user, as well as the associated information flows. The materials and information flow both up and down the supply chain.[12]

Thai supply chain is the activities required by the organisation to deliver goods or services to the consumer in Thailand A supply chain is a focus on the core activities within our organisation required to convert raw materials or component parts through to finished products or services. Geographic information systems in Supply Chain Management.

Geographical information systems can be used in the supply chain in many different ways, but the primary one is advanced visualization, says Hall. Geographic information systems mapping ties many different data sources together, he says, so instead of just looking at spreadsheets, users can have a visual and intuitive picture of what is going on in the supply chain at their fingertips. Geographic information systems uses Global Positioning System technology for location purposes, but Geographic information systems adds data "in a way that allows the user to make intelligent strategic and tactical decisions, says Hall. Seri makes software that brings the data together, analyses and maps it. "We also build the tools that actually do the advanced mapping," he says. The company currently has 70 offices around the world and about a million users of its software, in the supply chain as well as other industries. One application where Geographic information systems plays an important role is risk management, says Hall. "If you think about the many natural disasters we have had recently where suppliers were not able to ship product, you can see the value for strategic planning of knowing what risks are inherent in the geography - flat coastal areas where a tsunami might hit, for example. This type of information can be seen ahead of time with mapping tools and overlaid data, so you know which manufacturing facilities and which transportation routes will be impacted Geographic information systems is valuable in real-time planning, Hall says, noting that most emergency management organizations in the world use Seri Geographic information systems to map those events . "We have that data available right away so we can show people what is going on in real time, "Hall says. "They can take that information and make operational decisions in real time to help manage the supply chain and mitigate risk.[8]

3. Research Methodology

3.1. Review document about geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution

3.2. Design geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution

3.3. Create the questionnaire 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 Results about model were presented in fig 1 .

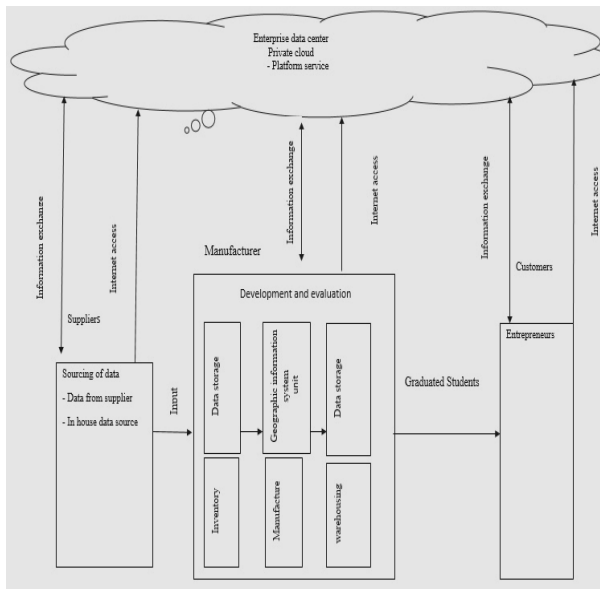


Fig: Geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution

4.2 Principle on Components about geographic information systems model for Curriculum management on Cloud Computing in Supply Chain for higher education institution

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

A 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 perform its duty of product development and assessment .It is based on the consideration that all supply chain tasks and activities, such as the university or Manufacturer is starts to flow from the client to the higher education. The university then looks at the data warehouse, to establish whether the geographic information system product is sourced from the warehouse and delivered to the client. The delivery mechanism is part of the logistics concerning the distribution of the geographic information system product and infrastructure forming part of the planning and delivery.

3 Platform as Service

Platform as Service is a software to run on or for the user to build on cloud by using lifecycle of cloud computing namely Define the purpose, Define the hardware, Define the storage, Define the network, Define the security, Define the management process and tools, Testing the process and analytics.

4. Information exchange

Information exchange mean exchanging information or sharing information with each other.

5. Internet access

Internet access is the process of connecting to the internet using personal computers, laptops or mobile devices by users or enterprises. Internet access is subject to data signaling rates and users could be connected at different internet speeds.

6 Graduate student

Graduate student is the graduate from the university

7. Customers

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

[1],[2],[3],[4],[5],[6],[7], [12],[13]

Table 1: Results for evaluation of geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution

| No. | Items | \bar{X} | S.D. | Suitability |
|-----|---------------------|-----------|------|-------------|
| 1 | Main elements | 3.62 | 0.56 | High |
| 2 | Suppliers | 3.60 | 0.51 | High |
| 3 | University | 3.60 | 0.51 | High |
| 4 | Graduate student | 3.70 | 0.48 | High |
| 5 | Customers | 3.60 | 0.51 | High |
| 6 | Platform as Service | 3.70 | 0.48 | High |

| | | | | |
|---|----------------------|------|------|------|
| 7 | Internet access | 3.70 | 0.48 | High |
| 8 | Information exchange | 3.60 | 0.51 | High |
| | Total | 3.64 | 0.50 | High |

Table 1, The experts found that geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution is highly appropriate ($\bar{X} = 3.64$, S.D. = 0.50)

5. Discussion

According to the evaluation of geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution is considered to be high appropriate shows the overall rating mean of 3.64 and standard deviation of 0.50. and the design was corresponds to the research of Chansamut and Piriyasurawong has studied supply chain and information system about educational [1] Also, the results are in accordance to those of chansamut who found that supply chain and information system. [2],[3],[4],[5],[6] and [7]

6. Conclusion

Geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution is considered to be high appropriate can develop geographic information systems on Cloud Computing in Supply Chain the tasks

7. Recommendation

Geographic information systems model for curriculum management on cloud computing in supply chain for higher education institution is considered to be high appropriate if possible it should . develop geographic information systems on Cloud Computing in Supply Chain.

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