

# Supply Chain Management Information System Model for Human Resource Management for Higher Education Institutions in Thailand

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**Abstract**— The research aim is to develop supply chain management information system model for human resource management for higher education institutions in Thailand which included evaluate supply chain management information system model for human resource management for higher education institution in Thailand The sample group consists of fifteen experts in arranging information system, supply chain and professionals, human resource. All totalling fifteen experts. The research instrument was a questionnaire. The data were analysed using arithmetic mean and standard deviation. The model comprises 5 key components, namely, Suppliers, Processors & Manufacturers, Retailers & Exporters and customers. The overall evaluation result supply chain management information system model for human resource management for higher education institutions in Thailand shows the overall rating mean of 3.61 and standard deviation of 0.75, which means that supply chain management information system model for human resource management for higher education institutions in Thailand is appropriate at the high level and can be applies in support the tasks.

**Keywords**— *supply chain management information system model, human resource management, higher education institutions in Thailand*

## 1. Introduction

Higher education institution is the most imporation factors, influencing the achievement of competitive advantage is having a semester strategy and its effective realization. Global strategy is supported by inner consistent sub strategies defined for particular business education areas like marketing, logistics, finance, information and news, technology including human resources. Especially important is the area of human resource management because business results obtained by an organization in other areas strongly depend on the competencies of its personnel. Such an approach indicates the key role of executive, who should be able to transform the global strategy of higher education into the objectives realized by

particular personnel. Moreover, these head should measure the level of objectives' achievement. If higher education institution strategy is focused on creating sustainable competitive advantage, then the human resource strategy should be aimed in the same direction because its objectives have to be consistent with the higher education institution goals. Creating value for society.[9] Especially the people who are knowledgeable and skilful in various vocations, to work in private and public organizations. All personnel of work need to developed. This is because the higher education sector needs to be highly competitive due to increasingly high competitions from both within and outside the country. While organizations in the higher education sector need to have personnel with knowledge, ability and skills who can work efficiently to increase output and products. The higher education institutions, therefore, need to manage people and training and development of people in the supply chain. Strategically managing human resources in the supply chain requires Human Resource configurations and modernised Human Resource development that adapts to broader organizational strategy. Supply chains system are evolving into dynamic process networks in which organizational connect in novel combinations based on the context and requirements of individual respond to the demand of their clients. [11] Thus, An information system and supply chains for human resource management process is a key process to support the human resource whole activities system from upstream to downstream. It enables the human resource to promptly check the information system to ensure that the organization operates smoothly and effectively based on the determined strategies.[2] According to stated information,, the researcher decided to develop supply chain management information system model for human resource management for higher education institutions in Thailand for application to increase satisfaction of consumers.

## 2. Literature Review

Supply chain management information system for human resource is key in strengthening relationship between different organizations and their flow of activities namely, Suppliers, Processors & Manufacturers, Retailers&Exporters and customers. The Supply chain management information system for human resource need to hire professionals and look after their training, development, and satisfaction. So, human resource is deeply involved in supply chain decisions.

## 3 Research Procedure

The research methods have been categorized into seven phases as follows:

Phase 1 : To study a model. Its processes are as follows: 1) Explore the problems and requirements to enhance basic. 2) Study, analyze, and synthesize the related research studies and papers.3) Drafting of a conceptual framework as drawn from results of studies of documents and related research literature.

Phase 2 To design a model, using the synthesized data from the Phase 1 research as a conceptual framework. for the development of the model comprises 5 key components , namely, Suppliers, Processors & Manufacturers ,Retailers&Exporters and customers. together ,according to this definition, the supply chain encompasses processes that cover a broad range of activities.

Phase 3 Present supply chain management information system model for human resource management for higher education institution in Thailand to the advisor for revision.

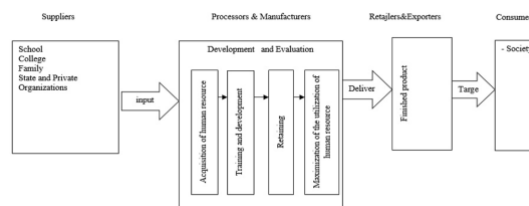
Phase 5 Create the tools for evaluating the supply chain management information system model for human resource management for higher education institution in Thailand.

Phase 6 Present the developed model by 15 experts specialized in information system, supply chain and professionals, human resource.

Phase 7 Analyze the data on evaluation Criteria and suitability criteria of the supply chain management information system model for human resource management for higher education institutions in Thailand.

## 4 Results

4.1 Results of research are presented in figure 1 for the whole supply chain management information system model for human resource management for higher education institutions in Thailand, as shown below:



**Figure 1:** Supply management information system model for human resource management for higher education institutions in Thailand

**Table 1:** Stakeholders each process is related to the following activities:

Stakeholders	Activities in supply chain	Needs for data
<b>1. Suppliers</b>		
1. School 2. College 3. Family 4. State and private organizations	- Sending raw material or personnel	-quick responses.
2. Processors & Manufacturers 1 Acquisition of human resource	-Acquisition of human resource is the first part of the scope. This involves human resource planning to determine the demand versus the supply of human resources in the organization. It involves the recruitment efforts, screening and selection process and hiring the employees in the organization.	- Real time Visibility
2 Training and development	Training and development is the second part of the scope. This stage involves providing orientation so as	- Real time Visibility

Table 1: (Continued)

Stakeholders	Activities in supply chain	Needs for data
2. Processors & Manufacturers 2 Source Training and development	to provide the basic training so the employee can perform their duties and responsibilities in the organization. This process includes continuous training and development which include mentoring and coaching of employees in their different roles so they can acquire mastery and competencies. It also involves career planning provide a clear career path of employees to grow and excel in the organization.	- Real time Visibility
3 Retaining	Retaining employees in the third part in the scope. This stage involves providing all necessary requirements with the sole objective to retain employees in the organization. This scope includes compensation, performance evaluation and appraisals, promotion, transfers, discipline, demotions, labour management relations, health and safety.	-Able to provide real-time visibility of an activity.

Table 1: (Continued)

Stakeholders	Activities in supply chain	Needs for data
2. Processors & Manufacturers 4 Maximization of the utilization of human resource	Maximization of the utilization of human resources. This stage involves providing leadership to motivate employees to work effectively and efficiently. In this case, there should be appropriate leadership skills and techniques inspiring the workers in the organization. In addition, motivation should be properly applied to increase productivity among employees in the organization.	- Real time Visibility
3 Retajlers&Exporter Finished product	- Having work performance skills. - Having all desirable characteristics.	- Real time Visibility

**Table 1: (Continued)**

Stakeholders	Activities in supply chain	Needs for data
3 Consumers - Society	employing finished personnel with desirable characteristics including good virtues and morality, good knowledge and intellectual skills, good human relationship skills, good responsibility, good numerical analysis skill, good communication skill, and good information technology usage skills, etc	-Able to provide real-time visibility of an activity . - Real time Visibility

4.2 Principles of supply chain management information system model for human resource management for higher education institutions in Thailand

#### 1 Suppliers

The suppliers mean the organizations that supply raw materials to the manufacturer. Raw materials in this case are personnel who candidated from schools,college,family or state and private organizations, or personnel who receive special quotas. They can apply for admission software program.

#### 2 Processors & Manufacturers

The manufacturer means the university that produces finished personnel. It performs the duty to be considered. The following are the necessary process human resource management in supply chain in the university.

2.1 Human resource planning is the first and foremost process to be considered in human resource management. It normally involves the planning stage of all the activities and human resources of the university. It requires determining the human resource needs in the future and providing a clear roadmap for human resource in the university. This process involves

human resource recruitment, selection, hiring, orientation or induction, training, evaluation, promotion or even termination.

2.2 Employee remuneration and benefit administration as the second process in human resource management. At this stage, the human resource officer or manager creates a compensation package which motivates employees or workers to perform their duties as required. This is the stage of administering benefits and bonuses to different workers at various levels. It is normally considered a critical strategy to retain workers in the university.

2.3 Performance management is the third process in human resource management. This process involves performance evaluation or appraisal. This stage provides a significant opportunity for performance improvements, promotion, transfer, further training or even disciplinary actions like suspension and termination. In simpler terms, it is a technique applied to human source management to training, motivate and reward employees appropriately according to the performance. It provides also an opportunity for employees to assess their performance and take correction measure to improve their performance. As a result, it is a process which increases the productivity, effectiveness and efficiency of workers in the university.

2.4 Employee relations are the last process which emphasizes a health relationship in the university. These relations can be either workers to other workers, or workers and management. Employee relationship includes labour management relations, working environment and culture, employee health and safety, conflict and grievance management, employees' compensation and other critical areas in relation to human resource management.

#### 3 Retajlers&Exporter

The Retailers mean finished product from the university.

#### 4. Consumers

The Consumers mean society who receive personnel or finished product from the university. Finally, the finished product will provide added value to the supply chain.[1,2,3,4,5,6,7 and 10].

**Table 2:** Results of appropriateness evaluation of supply chain management information system model for human resource management for higher education institutions in Thailand

ITems	$\bar{X}$	S.D.	Suitability
Main components	3.56	0.61	High
Suppliers	3.53	0.65	High
Processors & Manufacturers	3.68	0.67	High
Retajlers & Exporter	3.66	0.97	High
Consumers	3.60	0.82	High
<b>Total</b>	3.61	0.75	High

The model's appropriateness evaluation was done by fifteen experts as presented in Table two And, they agreed with the value of overall suitable on the list show the overall rating mean of 3.61 and standard deviation of 0.75, which means that supply chain management information system model for human resource management for higher education institutions in Thailand is appropriate at the high level.

## 5. Conclusion

According to evaluation by fifteen experts, Supply chain management information system model for human resource management for higher education institutions in Thailand is considered to be high appropriate and can be applies in support the tasks.

## 6. Discussion

The model design was relevant to Chansamut and PiriyaSurawong has studied supply chain and information system about educational [1],[2] In addition, with the study of Kaewngam, Chatwattans and PiriyaSurawong [8] recommended that supply chain and digital quality assurance for ASEAN university network quality Assurance (AUN-QA) are supports educational also, the results are in accordance to those of chansamut [3,4,5,6] who found that supply chain and information system by mean of Supply chain management information system model for human resource management for higher education institutions in Thailand is

appropriate at the high level.

## 7 Recommendations

Supply chain management information system model for human resource management for higher education institutions in Thailand is considered to be high appropriate ,So It should be conducted on the creation of required database for developed the model.

## 8. Acknowledgements

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