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Supply Chain Management Information System Model for Government Pension Fund Management in Thailand

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Abstract—The research aimed to develop and evaluate **supply chain management information system model for government pension fund management in Thailand. The samples are ten experts in the field of information system and supply chain. The data is analysed by means and standardized deviations. The research result shows that the model consists of five elements namely main components, Suppliers, Government agency, Wholesalers, Customers**. The assessment of model **using Black-Box technique and the result shows the overall rating mean of 3.67 and standard deviation of 0.92, which means that the model is appropriate at the high level and can support an information system development.**

Keywords— *Supply chain management information system model*, *government pension fund management ,Thailand*

1. Introduction

Thailand's retirement annuity framework requires change on the off chance that it is to meet desires of an maturing populace in a long time to come, concurring to a unused Joined together Countries report. The presentation of any modern benefits plans or changes to permit protuberance entirety withdrawals by individuals are unsteady, in this manner it is fundamental to Audit of the annuity framework in Thailand gives an broad examination of the current retirement arrangement system and suggestions for its future advancement and Change measures would offer assistance the conspire meet universal great hone and populace desires by giving higher benefits on a more maintainable premise. Recommendations include an quick increment within the level of the existing Ancient Age Remittance, a progressive rise in commitment rates and retirement age, an increment within the profit cap as well as a diminishment within the number of a long time required for retirement wage qualification from 15 a long time to 5 a long time.[25] An application of the concept of supply chain management information system is applied

to pension system . It will be optional because the business 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 . The organizations, therefore, need to have sufficient information and resources to increase their values and respond to the demand of their clients. Thus, the supply chain management 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. [1] Based on realization, researcher has decided develop and evaluate supply chain management information system model for government pension fund management in Thailand for application to increase satisfaction for consumers.

2. Literature review

Supply chain and information is an one of the components of supply chain that can offer both improved performance It enables pension fund to maintain key information in an accessible format and helps to take operational and planning decisions. The adoption and successful implementation of software and network technology contribute in a large way for the supply chain success facilitating the flow of information and enhancing the efficiency of supply chain activities.

　Supply chain is the dynamic administration of supply chain exercises to maximize client esteem and accomplish a feasible competitive advantage. It speaks to a cognizant exertion by the supply chain agreeable to supply chains within the most successful & proficient ways conceivable.

　Supply chain management information system model for government pension fund management in Thailand consists of four elements namely main Suppliers, Government agency, Wholesalers,

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Customer   All component see of the sub-component in terms   and information flows in supply chain for order to meet its major challenge, and which is ensuring continuity between the salary and the pension to optimize the retirement pension supply.[24]

Chansamut [20] said that the article, relationship between information and supply chain according to Asian university network quality assurance at programme level AUN-QA at programme level) importance for applying in actual work settings. Based on findings from literature review, the researcher found a large number of papers and articles in supply chain. The relationship between information and supply is a key process to support the education whole activities system from upstream suppliers to downstream consumers. It enables the organization to promptly check the supply chain and information technology to ensure that the organization operates smoothly and effectively based on the determined strategies. The process consisted of suppliers, manufacturer customers, including 11 activities in the supply chain namely, 1) Expected Learning Outcomes, 2) Programme Specification, 3) Programme Structure and Content, 4) Teaching and Learning Strategy, 5) Student Assessment, 6) Academic Staff Quality, 7) Support Staff Quality, 8) Student Quality and Support, 9) Facilities and Infrastructure, 10) Quality Enhancement, and 11) Output. All activities are connected with information communication technology in the educational institute according to asana university network quality assurance at programme level (AUN-QA at programme Level) start from the creation of information, news and resources to apply together to move the goods from the supplier to the customer, resulting in a rapid flow of information and effectively. This truly added the educational institute value as the production satisfactory for the consumers.

3. Research Methodology

3.1 Studies document about supply chain management information system model for government pension fund management in Thailand.

3.2 Interview the expert about supply chain management information system model for government pension fund management in Thailand

3.3. Develop supply chain management information system model for government pension fund management in Thailand

3.4 Present the model to the advisors for consideration and revision.

3.5. Make the evaluation tools for evaluate the model's suitability.

3.6 Present the designed model to the ten experts

consisted of five experts on supply chain management, 5 experts on information system to assess the model.

3.7 Make the results of evaluation of the model by mean and standard deviation of each component. Criteria for interpretation of the means are as follows: [1]

The rating means ranging from 4.51 – 5.00 means appropriate at the highest level.

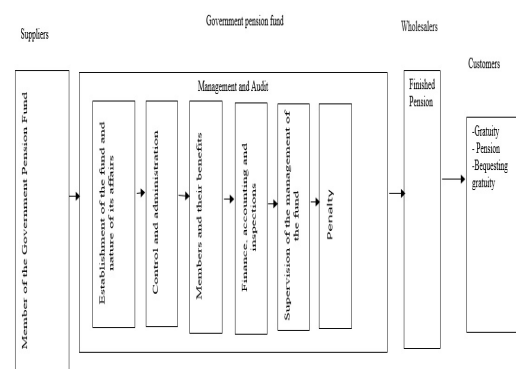The rating means ranging from 3.51 – 4.50 means appropriate at the high level.

The rating means ranging from 2.51 – 3.50 means appropriate at the moderate level.

The rating means ranging from 1.51 – 2.50 means appropriate at the low level.

The rating means ranging from 0.00 – 1.50 means appropriate at the lowest level.

4. Results

Ssupply chain   management information system model for government pension fund management in Thailand are shown in figure 1.

Figure 1: Supply chain management information system model for government pension fund management in Thailand

1. Description about Supply chain management information system model for government pension fund management in Thailand

1.1 Suppliers

Suppliers mean the member of the government pension fund that send the money into the fund. They send for via the computer system that can process and store the data .

1.2 Government pension fund

Government pension fund is a compulsory retirement savings system for government officials. The government pension fund will perform its duty management and audit   in each activity, namely, Establishment of the fund and nature of its affairs, Control and administration, Members and their benefits, Finance, accounting and inspections, Supervision of the management of the fund , penalty.

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1.3 Wholesalers
Wholesalers is a pension payer from government pension fund.
1.4.Customers
Customers mean the member of the government into the fund and the Fund will payment the money to a member who receives a pension. Finally, the end pension will provide added value to the supply chain.[1],[2],[3],[4],[5],[6] and [26]

Results on Evaluation of model

Results on Evaluation of supply chain management information system model for government pension fund management in Thailand are shown in Tables 1 – 6 below:

Table 1: Appropriateness of main elements of the model

No	Evaluation Lists	$\overline{X}$	S.D.	Suitability
2	Suppliers	3.70	0.67	High
3	Government pension fund	3.70	0.67	High
4	Wholesalers	3.60	0.69	High
5	Customers	3.60	1.17	High
	Total	3.65	0.80	High

Table 1, it can be seen that all of the main elements of supply chain management information system model for government pension fund management in Thailand are rated to be appropriate at the high level. The total rating mean is 3.63 and standard deviation of 0.80.

Table 2: Appropriateness of sub elements of suppliers

No	Evaluation Lists	$\overline{X}$	S.D.	Suitability
1	Member of the Government Pension Fund	3,70	1.25	High
	Total	3,70	1.25	High

Table 2, it can be seen that all of sub elements of suppliers is rate to be appropriate at the high level. The total rating mean is 3.70 and standard deviation of 1.25.

Table 3: Appropriateness of sub elements of government pension fund

No	Evaluation Lists	$\overline{X}$	S.D.	Suitability
1	Establishment of the fund and nature of its affairs	3.60	0.84	High
2	Control and administration	3.70	0.48	High
3	Members and their benefits	3.70	0.67	High
4	Finance, accounting and inspections	3.60	0.69	High
5	Supervision of the management of the fund	3.70	0.48	High
6	Penalty	3.60	0.69	High
	Total	3.65	0.64	High

Table 3, it can be seen that all of sub elements of government pension fund are rated to be appropriate at the high level. The total rating mean is 3.65 and standard deviation of 0.64.

Table 4: Appropriateness of sub elements of wholesalers

No	Evaluation Lists	$\overline{X}$	S.D.	Suitability
1	Finished Pension	3,70	1.25	High
	Total	3,70	1.25	High

Table 4, it can be seen that all of sub elements of wholesalers is rate to be appropriate at the high level. The total rating mean is 3.70 and standard deviation of 1.25.

Table 5: Appropriateness of sub elements of customers

No	Evaluation Lists	$\overline{X}$	S.D.	Suitability
1	Gratuity	3.70	0.67	High
2	Pension	3.60	0.51	High
3	Bequesting gratuity	3.70	0.82	High
	Total	3.66	0.67	High

Table 5, it can be seen that all of sub elements of customers are rated to be appropriate at the high level. The total rating mean is 3.66 and standard deviation of 0.67

Table 6: Results for evaluation of supply chain management information system model for government pension fund management in Thailand

No	Evaluation Lists	$\overline{X}$	S.D.	Suitability
1	Main components	3.65	0.80	High
2	Suppliers	3.70	1.25	High
3	Government pension fund	3.65	0.64	High
4	Wholesalers	3.70	1.25	High
5	Customers	3.66	0.67	High
	Total	3.67	0.92	High

Table 6, The experts found that supply chain management information system model for government pension fund management in Thailand is highly appropriate ($\overline{X}$ = 3.67, S.D. = 0.92)

5. Conclusion

Evaluation results about supply chain management information system model for government pension fund management in Thailand is appropriate at the high level development The rating mean of 3.67 and standard deviation of 0.92, which means that the model is appropriate at the high level and can support an information system development.

6. Discussion

Evaluation results about supply chain management information system model for government pension fund management in Thailand is considered to be high appropriate ($\overline{X}$ = 3.67, S.D. = 0.92), and the design was corresponds to the research of chansamut suggesting that education management in supply chain system.[2], [3],[4],[5],[6],[7],[8], [9],[[10],[11] [12],[13],[14], [15],[16],[17],[18],[19],[20],[21],[22] and to the research of Habib also.[23]

7. Recommendation

There should create database for the developed model.

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