

# A Digital System Model for Healthcare Management in Thai Supply Chain

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**Abstract**— The paper is a survey study. The paper title is a digital system model for healthcare management in Thai supply chain. The paper finding has been found that a digital system model for healthcare management in Thai supply chain comprises six main elements, namely, manufacturer, Purchasers, Healthcare provider, customer and satisfaction. All elements are connected with digital. A sample group are ten experts. The research tool was evaluation form to evaluate a digital system model for healthcare management in Thai supply chain. The data is analysed by arithmetic means and standardized deviations. The evaluation results a digital system model for healthcare management in Thai supply chain from ten experts was appropriate in a good level which mean that a digital system model for healthcare management in Thai supply chain can be appropriately applied in actual work settings.

**Keywords**— A Digital System Mode, Healthcare Management Thai Supply Chain

## 1. Introduction

These days, a supply chain has been ceaselessly created to move forward trade execution in organizations over the final three decades. It is evidently the one of the foremost basic instruments for any industry since the productive administration of supply chain and coordination's is the key to victory of any providers, producers and retailers, for case. Clinic industry, in specific, has been growing with the ever expanding requests for healthcare administrations. Healing centers serve clients and patients whose requests are shifted significantly; in this manner, the supply chain and coordinations has been at the heart of clinic administration. Be that as it may, hospital's supply chain and coordinations advancement is still at the early age as restricted to that of other businesses. A typical hospital supply chain may be a complex organize comprising of the linkage role between merchants, producers, wholesalers, healing center and inside divisions. The co-ordination of fabric

stream and data stream inside the chains are subject to person hospital's technique and policy[1]An application of the concept of supply chain and data framework .The mindfulness of the supply chain data framework This is often because the trade and mechanical segment must be exceedingly competitive due to progressively tall competitions from both within and exterior the country. In arrange to be exceedingly competitive, organizations within the sector have to have personnel with information, capacity and aptitudes who can work proficiently to extend yield and items. The organizations, therefore, got to have adequate data and assets to extend their values and react to the request of their clients. In this way, the supply chain and computerized framework prepare could be a key handle to back the organization's entire exercises framework from upstream to downstream. It empowers the organization to instantly check advanced framework to guarantee that the organization works easily and successfully based on the decided strategies [5]. However, the researcher had an idea to develop and to assess a digital system model for healthcare management in Thai supply chain for add value customer.

## 2. Literature Review

Healthcare supply chain may be a framework of an organizations,people,activities,information and assets included in moving a item or benefit from producers, coordinations suppliers, merchants to conclusion client. These partners have commerce prepare which are related each other, such as acquirement, fabricating, capacity, information innovation, dispersion and transportation. It empowers the organization to instantly check computerized framework to guarantee that the organization works easily and viably based on the decided procedures.

Heinbuch (1995) described an approach to meeting the challenge of healthcare cost reduction through the hospital material management function. The

work highlights the value of taking a proactive stance to meet the challenge of transferring technology across industry sectors.

Alverson (2003) suggested the importance of disciplined inventory management for hospitals, and suggested serious consequences of traditional hospital purchasing including lack of inventory control, missed contract compliance, excess inventory levels, frequent stock-outs and costly emergency deliveries, workflow interruptions, expensive rework, and increased health system labor requirements. The literature on information technology provides some solutions to material management in the healthcare sector.

Burns (2002) suggested the aggregation of suppliers and their products through electronic catalogues, visibility of orders and materials, and efficiency in procurement.

Schneller, Schneller, Larry and Smeltzer (2006) recommended that e-procurement systems can help to significantly reduce purchasing costs through the consolidation of supplier networks and creation of supplier partnerships. They also suggested that transaction and administration costs can be reduced through the use of enterprise Resource Planning systems, which provide an automated and paperless format for information to flow throughout an organization.

### 3. Research Methodology

3.1 Synthesize document related about assess a digital system model for healthcare management in Thai supply chain

3.2 Develop assess a digital system model for

healthcare management in Thai supply chain

3.3 Developed questionnaire was a 5-scale rating questionnaire, with interpreted meanings as follows:

The rating of 5 means most appropriate.

The rating of 4 means highly appropriate.

The rating of 3 means moderately appropriate.

The rating of 2 means lowly appropriate.

The rating of 1 means least appropriate.

3.4 Analysed to find the mean and standard deviation of each component. Criteria for interpretation of the means are as follows:

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.

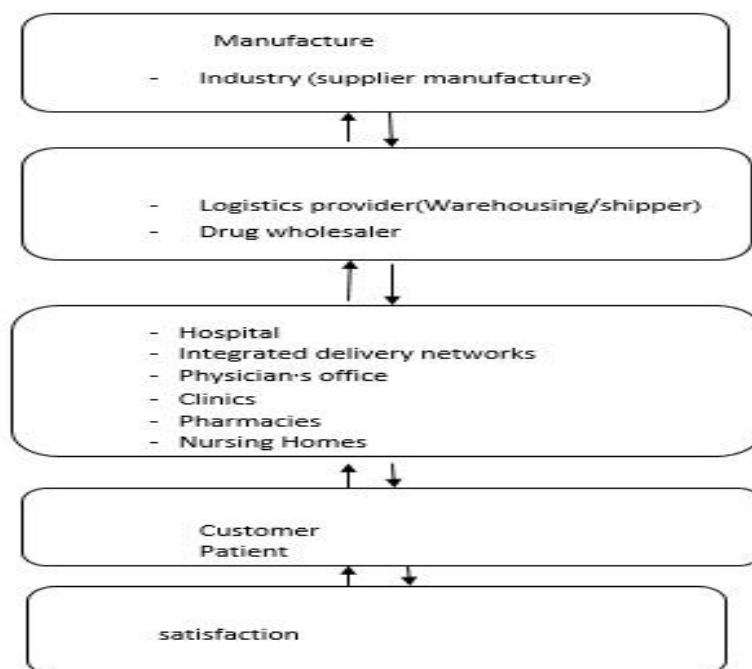
The rating means ranging from 2.51 – 3.50 means appropriate at the moderate level.

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

4.1 Research results on the model of a digital system model for healthcare management in Thai supply chain in figure 1



**Figure 1:** A digital system model for healthcare management in Thai supply chain

4.2 Principle on elements a digital system model for healthcare management in Thai supply chain

1 Manufacturer mean industry ( supplier/ manufacturer ) is one major supply chain prepare and Pharmaceutical company. the crude fabric is conveyed the data from the despatch exhortation is utilized in combination with the characters of the calculated units to check that the correct amounts have been conveyed. The worldwide exchange thing number and batch number of the crude fabric are perused and enrolled. The enrolled exchange thing numbers and group numbers of the raw fabric are used within the fabricating prepare to make traceability from the item back to the crude fabric. Each bundling level of the made items is relegated a worldwide exchange thing number . The items are marked with batch number and dates and the data is enlisted in arrange to realize traceability within the another organize of the supply chain. The calculated units are stamped with characters and data is additionally enrolled in arrange to realize traceability at calculated unit level.

2 Purchasers mean Logistics provider are as follows

2.1 Warehousing-Preparation :The items are gotten and put away at the stockroom. Amid the capacity period physical inventories are carried out. Upon gathering of an arrange from a client the requested items are picked and calculated units are made and made prepared for shipping. Item entries can be overseen utilizing the character of the calculated units Amid capacity, physical stock can be carried out utilizing the worldwide exchange thing numbers and bunch numbers of the items and the personalities of the calculated units . Stock administration can be advanced utilizing batch/lot numbers. Orders may be sent electronically. Each calculated unit made at arrange picking is doled out an personality . Traceability can be accomplished by interfacing the personality of the merchandise beneficiary , the personalities of the items and batch/lot numbers.

2.2 Shipping The calculated units are stacked onto the transport vehicle. The vehicle takes off the distribution centre. When the calculated units are stacked onto the transport vehicle the characters are studied and enlisted. Some time recently the transport vehicle clears out the distribution centre a despatch exhortation is made and sent to the products beneficiary. This empowers more effective and viable conveying, merchandise receipt and invoicing processes.

3 Healthcare Provider

Healthcare Provider is one essential accomplice of the healthcare framework . Suppliers counting specialists, medical caretakers drug specialist, associated wellbeing, community wellbeing ,open wellbeing experts and other wellbeing supplier and wellbeing felicities/dispensaries is one major supply chain process.

4 Consumer

Patient receiving health products from the hospital retailers or wholesalers .

5 Satisfaction

Satisfaction is the data obtained by evaluating questionnaires.[7],[8],[9],[12],[13] and [15]

**Table 1:** Results of appropriateness evaluation of a digital system model for healthcare management in Thai supply chain

List of Evaluated Items	$\bar{X}$	S.D.	Appropriate Level
Main elements	3.65	0.62	high
Manufacturer	3.66	0.66	high
Purchasers	3.65	0.70	high
Healthcare Provider	3.66	0.64	high
Customer	3.70	0.48	high
Satisfaction	3.66	0.66	high
Total	3.66	0.62	high

From the Table 1 it is found that expert agreed with the value of overall suitable on the list show the overall rating mean of 3.66 and standard deviation of 0.62, which means that of a digital system model for healthcare management in Thai supply chain is appropriate at the high level.

## 5. Discussion

A digital system model for healthcare management in Thai supply chain has six main elements, namely, manufacturer, Purchasers, Healthcare provider , customer and satisfaction. Which correspond to Chansamut and PiriyaSurawong has studied supply chain and information system about educational [6],[13] Additionally, with the study of chansamut [4],[13],[12] and [7] who found that supply chain and information system also.

## 6. Conclusion

Evaluation by ten experts, A concept about a digital system model for healthcare management in Thai supply chain is appropriate at the high level The rating mean of 3.66 and standard deviation of 0.62 which mean that A digital system model for healthcare management in Thai supply chain can be appropriately applied in actual work settings.

## 7. Recommendations

A digital system model for healthcare management in Thai supply chain could be used to further

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