

# Supply Chain Management Information System for Vaccines Management in Thailand

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**Abstract**— An academic article title is supply chain management information system for vaccines management in Thailand aim to present for vaccines management in Thailand for better effective The vaccines management needs need to be injected boost immunity. The processes consisted of Seller, Manufacture, Distribution, and Customers ,All component connect with information communication technology in the Thailand with the supply chain. This truly added the immunity in Thailand. The supply chain and information system may be used to manage vaccines.

**Keywords**— *Supply Chain Management Information, System, Vaccines Management in Thailand*

## 1. Introduction

Nowaday, Vaccines are now very important in the country. During the first half of 2020, the utilization rate of vaccine stocks declined in many countries. At the same time, countries were unable to receive vaccine supplies on time due to country lockdowns and disruption to local and international air freight. These conditions have affected the supply and demand balance and could yield serious consequences both on the ability of countries to effectively re-establish immunization services and on manufacturers' capacity to produce new batches of vaccines for future use. Many vaccine manufacturers are reaching, or have already reached, their maximum storage capacity, and are unable to continue production until a reasonable flow of finished product out of their warehouses is re-established, further exacerbating the matter of reduced shelf-life vaccine stocks at all levels of the supply chain and increasing the risk of inadequate supply availability at a global level, as a result of reduced production. [39] The application of concept of supply chain management information system. It is because the business needs to be

highly competitive 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 the key process to support the organization's whole activities system from upstream to downstream. [1] Thus, the researcher had an idea to write an academic article title supply chain management Information System for vaccines management in Thailand

## 2. Literature Review

Supply chains are one of the goals that all organizations strive to achieve. Supply chains and intelligence help companies improve efficiency and reduce costs. By maintaining a reliable supply chain and information, you can add or retain high-value customers and suppliers. They commit the organization to the goal of producing quality products.

Vaccine management in the supply chain is enterprise-to-site data and services. This includes raw material transportation and warehousing, work-in-progress inventory, finished vaccines, and end-to-end fulfilment from point of production to point of consumption. Interconnected, interconnected or chained networks, channels are connected in the delivery of vaccines and services required by end customers in the supply chain.

## 3. Information System in supply chain

A supply chain information system is a collection of technologies and vaccines that enable the storage, processing, distribution, and communication of information required by all or part of an enterprise. A specialized form of supply

chain information system management that provides information about managing a business. Today, information technology in the supply chain is increasingly used in various aspects of the supply chain. It can be seen that information for executives is useful as follows:

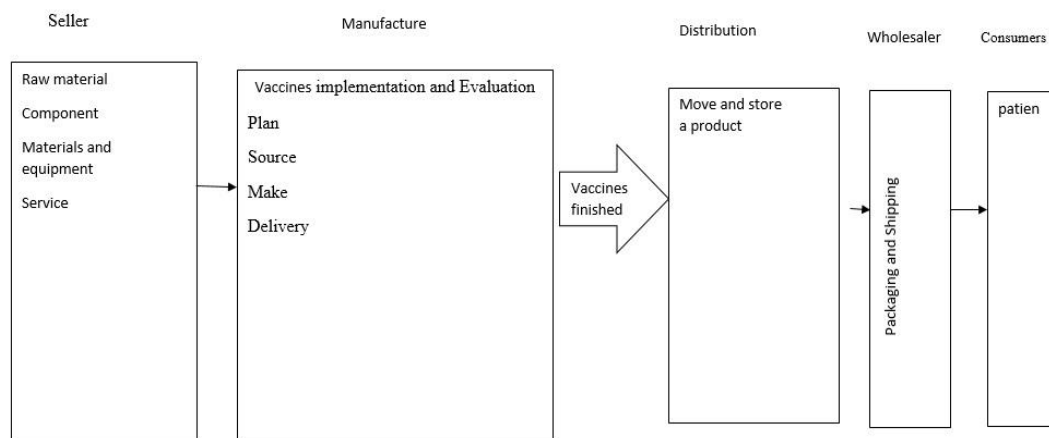
- 1 Faster answers and less wasted time.
- 2 Increased contract negotiations and improved contract compliance
- 3 Increased transparency
- 4 Streamlined consumable cross-checks and easy consumable income monitoring
- 5 More transparent collection of billing data
- 6 More Accurate Billing
- 7 People are used wisely and not wasted . [40]

Supply Chain Management The information system for vaccine management in Thailand is the management of the flow of goods and services,

including all processes that transform raw materials into finished products. It is a critical process that supports an organization's entire system of activities, from upstream to downstream. This enables organizations to review their information systems without delay and ensure that the organization operates smoothly and effectively based on established strategies.

#### 4. Supply chain management Information System for vaccines management in Thailand

Supply chain management Information System for vaccines management in Thailand are presented in figure 1



**Figure 1:** Supply chain management Information System for vaccines management in Thailand

##### 1. Sellers

Sellers mean raw material Component Materials and equipment Service that supply raw materials to the manufacturer. They can use the software package that can process and store the data systematically to submit an application for admission.

##### 2. Manufacturer

Manufacturer means government agency and a private hospital, factory or other agency relate that produces finished vaccines . They will carry out their obligation to develop and evaluate vaccines, which includes planning, sourcing, manufacturing, and delivering in each activity.

##### 3. Distribution

Distribution refers to the actions taken to transport and store a product along the supply chain from the supplier stage to the customer stage. Every pair of steps in the supply chain have distribution.

##### 4. Wholesaler

Wholesaling is one step in the supply chain, which also comprises makers of completed items,

retailers to end users, and suppliers of raw materials, includes wholesalers as one link in the chain. Retailers buy products from wholesalers and then resell them for a profit that is high enough to cover their costs

##### 5 Consumers

Consumers mean patient or the end-of-process component. Finally, the end product which means that It will help added value to a supply chain. [1],[2],[3],[4]

#### 5. Discussion

Supply chain management information system for vaccines management in Thailand demonstrate that the five main parts were Seller, Manufacturer, Distribution, and Consumers. That is consistent with Chansamut's research, which has examined the supply chain and information system. [5],[6],[7],[8],[9],[10],[11], [12],[13],[14],[15],[16],[17],[18],[19],[20],[21],[22],[23],[24],[25],[26],[27],[28],[29],[30],[31],[32],[33],[34],[35],[36],[37] and [38]

## 6. Conclusion

Supply chain management information system for vaccines management in Thailand consisted of Seller, Manufacture, Distribution, and Customers. All components are connected to the supply chain using Thai information and communication technology. This has greatly strengthened our sales department in Thailand. Supply chain applies to vaccine management from upstream to downstream. This enables organizations to review their information systems without delay to ensure that they are operating smoothly and effectively according to their established strategy.

## 7. Recommendation

If possible, we should create a database in the supply chain and add value to society.

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