LOGISTICS AND SUPPLY CHAIN MANAGEMENT MODEL FOR THAI ORCHID BUSINESS: A CASE STUDY OF AIR ORCHID

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ABSTRACT

Nowadays, Thailand is a major tropical orchid growing country in Asia, especially Dendrobium orchid because the country's weather is 25-33 degree Celsius and relative humidity is 75-80%. The major orchid planting grounds are in Bangkok, Nonthaburi, Nakhon Pathom, Samut Sakhon, Ratchaburi, Phra Nakhon Si Ayutthaya, and Pathum Thani Orchid is also an important economic crop. Cut and plant orchids can be exported and Thailand earns 1,500 million baht annually. Major export markets are Japan, European Union, and USA. In addition, the trend of new markets, such as the Middle East, China is likely to increase.

This study aims to search the present condition, inspecting, and analyzing the development of logistics and supply chain system of Thai orchid business and to inspect in order to analyze the characteristics of SCOR Model, questionnaire, and in-depth interview. The research samples are Executives, employees, and customers of Air Orchids, Mana Orchids, and orchid garden & sky-high lemon farm (Lemon Me). The data is analyzed and compared, including the secondary data is collected from several sources, both inside and outside Airorchid Supermarket.

The results depict that Air Orchids has a laboratory to produce and propagate orchids themselves. It is made to order and has a separate storage area. Product flow starts with the production of raw materials through the process of tissue culture in the laboratory. When the production is finished, it will be forwarded to the seedling plant. The big flowers bloom when the customer orders. When the orchids complete according to the types of product, the last step is to deliver to the customer and the orders will be returned because of Air Orchids mistakes only. It also found that there is a cost problem in supply chain management business orchid in terms of the delivery to customers because the operator does not have its own transportation system. It will use the shipping agent to deliver the goods to all customers.

Keywords: Logistics and Supply Chain, SCOR Model, Orchid.

INTRODUCTION

Thailand is a major tropical orchid growing country in Asia, especially Dendrobium orchid because the country's weather is 25-33 degree Celsius and relative humidity is 75-80%. The major orchid planting grounds are in Bangkok, Nonthaburi, Nakhon Pathom, Samut Sakhon, Ratchaburi, Phra Nakhon Si Ayutthaya, and Pathum Thani. Orchid is also an important economic crop. Cut and plant orchids can be exported and Thailand earns 1,500 million baht annually. Major export markets are Japan, European Union, and USA. In addition, the trend of new markets, such as the Middle East, China is likely to increase.

The researcher living in Nakhon Pathom province was interested in studying the present condition, inspecting, and analyzing the development of logistics and supply chain system of Thai orchid business to create a competitive base in the Asian and global markets. It is a systematic consideration of the economic, social and cultural potential of the area systematically.

OBJECTIVE

- 1. To study the logistics and supply chain management model of Thai orchid business.
- 2. To study the problems and guidelines for the development of the Thai orchid business logistics and supply chain.

METHODOLOGY

The researcher collected data from 2 sources:

1. Primary Data Analysis

The researchers collected data from interviews with individuals, executives, employees, and customers of Air Orchid directly how to develop a logistics system and supply chain. The interview time was about 30-60 minutes. Open ended questions were used to allow respondents give comments and suggestions. The questionnaire consisted of problems and characteristics of logistics management and supply chain management

of Thai orchid business to analyze and plan the development of logistics and supply chain. Using SCOR Model. In addition, informal observation was included to see the problems and characteristics of logistics management and supply chain management of Thai Orchid business. By analyzing the SCOR Model Supply Chain Reference Model, we applied a set of logistical and supply chain development strategies for the orchid business by observing the work on Saturday and Sunday.

2. Secondary Data Analysis

The researchers have collected data from reports, articles, multimedia presentations, documents from Air Orchids, textbooks, websites and related research.

<u>Population and sample</u>. Interviews with executives, employees, and customers as follows. Executives of Air Orchids, Mana Orchids, and orchid garden & sky-high lemon farm (Lemon Me), Employees of Air Orchids, Mana Orchids, and orchid garden & sky-high lemon farm (Lemon Me) and Customers of Air Orchids, Mana Orchids, and orchid garden & sky-high lemon farm (Lemon Me)

<u>Data Analysis</u>. This is a qualitative research. Therefore, data analysis uses logical analysis and the judgment of the researchers. The data collected from interviews, observations and the application of theories, articles and related researches were analyzed.

Research Methods. This research was conducted by analyzing data from current situation. By exploring the development of logistics and supply chain management, the Thai Orchid business The Case Study of Air Orchids to compare with Mana Orchid, and orchid garden & sky-high lemon farm (Lemon Me). After current situation was studied, the data were analyzed and compared by using SCOR Model (Supply Chain Operation Reference Model) to solve the problems and generate the knowledge in Thai orchid supply chain system development.

<u>Data Collection and Analysis</u>. Data for this research were analyzed using qualitative data collected from interview, observation, and monitoring. Collect relevant academic papers, dissertations, journals, articles, newspapers and other website information.

RESULTS

The logistics and supply chain management model of Thai orchid business.: A Case Study of Air Orchids. It starts from take raw materials to production through the process of tissue growing in the laboratory. When the production is finished, it will be forwarded to the seedling plant or and the big flowers bloom at the customer's order. When the orchids complete according to the types of product, the last step is to deliver to the customer.

Information Flow

Primary Product Flow

Suppliers Manufacturers DC/Wholesalers Retailers Customer

Primary Cash Flow

Reverse Product Flow

Figure 1 Logistics and supply chain management model of air orchid.

- 1. Supplier Management. seedlings or breed, Growing-tissue Bottles, Raw materials for growing young plant, such as plastic pots, coconut husks, and fertilizer and Boxes for orchid packing.
 - 2. Production Management: Air Orchid is manufactured according to customers' orders.



- 3. Warehouse and Distribution Management. The warehouse will be divided into collection zones, including the breeder of orchid zone, young plant zone, and the cut orchid zone by using the basket and cart to move goods.
- 4. Shop Management. Air Orchids is open from 08:00 to 17:00. The interior is divided into two main areas: 1. Orchid and other flowers shop. 2. Restaurants and beverage shop.
- 5. Consumer or Customer Management. Air Orchid is traded in two main categories: retail customers and the wholesale price. The customers can buy from the shop or order through Social Network.
- 6. Information Flow Management. Information can be exchanged 24 hours a day via the internet anywhere in the world.
- 7. Cash Flow Management. When the order is placed, the customer will have to make a pre-production payment to Air Orchid, which is subject to the terms of the purchase agreement. When agreement is completed, the money from the sale of a part of the product will be used to manage the shop and nursery, including purchasing raw materials for growing orchids in the next round.
- 8. Reverse Product Flow Management. Air Orchids will return the product due to the Air Orchids mistakes only. If the goods are damaged during shipping, the shipping agent will be responsible.

It also found that there is a cost problem in supply chain management business orchid in terms of the delivery to customers because Air Orchids uses the shipping agent to deliver the goods to all customers.

CONCLUSION AND FUTURE WORK

The results of the study lead to know the facts by presenting relevant papers and researches as the support or conflict references. The researcher discussed the following.

From searching History and current Conditions, including Monitoring and Analyzing the logistics and supply chain system development of Thai Orchid Business: A Case Study of Air Orchids, the results indicate that air orchids has the area of about 200 rai and is located at 23/1 Moo 3, Noppirom, Bang Len, Nakhon Pathom Province, facebook:AIRORCHID SUPERMARKET, Line:@airorchids and Instagram: airorchid. now, Mr. Panapat (Mr. Pop) and Mr. Chaiyan (Mr. X) are 3rd generation orchid gardeners who have come to work at home. The emphasis is on more aggressive marketing, focusing more direct sales both at home and abroad. Air Orchids has a laboratory to produce and propagate orchids themselves. The order of the customer is made to order. In the warehouse will be divided into the zones, including the orchid breeder of each species, young plant zone, and cut orchid zone. The Air Orchids Shop open from 08:00 to 17:00, the interior is divided into two main sections. 1. Orchid and other flowers shop. 2. Restaurants and beverages Product Flow or Product Flow starts with the production of raw materials through the process of sterilization in the laboratory. When the production is finished, it will be forwarded to the seedling plant. The big flowers bloom when the customer orders. When the orchids complete according to the types of product, the last step is to deliver to the customer and the orders will be returned because of Air Orchids mistakes only. It also found that Air Orchids had the cost problem in orchid supply chain management. This is in line with the research on sugar cane transportation planning of sugar cane factory in the efficiency of Mr. Bunyan Kiat and Mr. Pongchai Jitamai as a research project aimed at solving the sugar cane transport problem caused by ineffective trucking planning and the research "Guidelines for the Development of Logistics and Supply Chain Management of Tourism: A Case Study of Amphawa Floating Market". Samut Songkhram Province "is an in-depth interview and then analyzed in the topic of logistics management. Physical flow Information and finance Include supply chain management of entrepreneurs by using Supply Chain Operations Model.

The study found that Air Orchids has a laboratory to produce and propagate orchids themselves. It is made to order and has a separate storage area. Product flow starts with the production of raw materials through the process of tissue culture in the laboratory. When the production is finished, it will be forwarded to the seedling plant. The big flowers bloom when the customer orders. When the orchids complete according to the types of product, the last step is to deliver to the customer and the orders will be returned because of Air Orchids mistakes only. It also found that there is a cost problem in supply chain management business orchid in terms of the delivery to customers because the operator does not have its own transportation system. It will use the shipping agent to deliver the goods to all customers.

Future Work. Study might focus on the cost reduction of transportation in Thai orchid business to create a competitive base in the Asian and global markets, taking into account the economic, social, and cultural potential of the area systematically.

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