

LOGISTICS COST ANALYSIS OF THAI HOTEL BUSINESS

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Abstract

Purpose: This study aims to identify components of logistics cost structure of Thai hotel business. Chiang Mai, one of the most popular tourism destination in Thailand, is chosen as a case study. The study is attempted to match activities between logistics and hotel business area and evaluate corresponding logistics cost of hotel business.

Design/methodology/approach: This study employs content analysis derived from logistics cost related to literature. Critical factors are identified and then validated through interviews with stakeholders of hotel business. It is subsequently formulated into a logistics cost structure which is later developed into a questionnaire. In order to validate and increase the robustness of the designed questionnaire, the pilot tests are undertaken. Afterwards, it is sent to stakeholders of the hotel business in Chiang Mai. Finally, component analysis of the logistics cost is carried out.

Findings: The logistics activities of hotel business are analyzed. Composition of logistics cost in hotel business is realized.

Research limitations: The data of this research is derived from hotel business stakeholders only in Chiang Mai. In order to generalize the proposed framework, a wider distribution of the questionnaire is recommended to increase the robustness of the framework.

Originality/value: A research framework is proposed in order to evaluate the logistics cost through identification of logistics activity.

Keywords: Logistics Cost, Supply Chain, Tourisms Industry, Hotel Business

Introduction

Tourism industry generates high income for many countries in the world. Thailand is one of the advanced countries of ASEAN that progress planning strategy of international tourism. Moreover, Thailand is listed as the third most popular tourist destination in Asia Pacific. (Song, et al. 2003)

Many people would like to travel in Chiang Mai, Thailand. Every year, there are a large number of tourists in Chiang Mai. Therefore, the local government tries to develop new tourist attractions because it can make good reputation and nice income to community and to the country as a whole. Regarding the rate of change in visitors between 2012 and 2013 in Chiang Mai, there was 9.88% growth for local Thai visitors and around 8.84% increase for foreign sector. Average length of stay of tourist in 2013 was longer than the previous year, leading to higher income for the province. The number of tourists, length of stay and revenue from tourism sector of Chiang Mai is outlined in Table 1. It was clear that there are big opportunities for hotel business in Chiang Mai. Several new hotels have been built continuously in recent years. Competition in this sector is getting fiercer. Individual hotel has their own tactics to attract customers including special offers, affordable packages, which could be major factors that tourists considered before making decision to book a room.

Hotel business has long time been recognized as a significant part of tourism industry since it could affect direction for traveling route. It is one of key factors for tourist selection and has an impact for tourists' decision. For example, if the tourists would like to travel to place A, but the price of hotels around the place A is very expensive. The tourists may go for lower priced hotels. This means that the tourists have to change route. Hotels were used to focus on facilities, and had fewer concerns on services. Nowadays, tourists can search and obtain detailed information from "Trip Advisor" by many websites, which provide a score of other tourist's evaluation on many aspects. Thus, this tourist's behaviour has been totally changed from the past and they are more interested in services. This

affects to the service industry positively. Logistics management for the hotel industry may help emphasis on quality of service for customer.

Literature Review

The literature review was divided into 3 parts including (1) framework of tourism supply chain, (2) logistics cost and (3) hotel businesses with logistics cost.

Framework of tourism supply chain

Tourism businesses involve with many related activities. They include hotel business, restaurants, travel agents, tour operators, etc., that can affect the whole chain, as shown in Figure 1

| Type | January - December | | |
|--|--------------------|------------------|----------------|
| | 2013 | 2012 | Δ (%) |
| Visitor (Person) | 7,197,193 | 6,570,642 | + 9.54 |
| Thai | 4,811,021 | 4,378,320 | + 9.88 |
| Foreigner | 2,386,172 | 2,192,322 | + 8.84 |
| Average Length of Stay (Day) | 3.24 | 3.19 | + 0.05 |
| Thai | 3.26 | 3.24 | + 0.02 |
| Foreigner | 3.22 | 3.13 | + 0.09 |
| Average Expenditure (Baht/Person/Day) | | | |
| Visitor | 2,976.06 | 2,822.56 | + 5.44 |
| Thai | 2,830.98 | 2,581.81 | + 9.65 |
| Foreigner | 3,228.35 | 3,196.79 | + 0.99 |
| Revenue (Million Baht) | | | |
| Visitor | 58,368.42 | 53,863.72 | + 8.36 |
| Thai | 33,980.88 | 32,530.56 | + 4.46 |
| Foreigner | 24,387.54 | 21,333.16 | + 14.32 |
| Accommodation establishments | | | |
| Rooms | 32,077 | 30,587 | + 4.87 |
| Occupancy Rate (%) | 44.91 | 40.07 | + 4.84 |
| Number of Guest Arrivals | 5,310,230 | 4,565,728 | + 16.31 |
| Thai | 3,113,909 | 2,630,043 | + 18.40 |
| Foreigners | 2,196,321 | 1,935,685 | + 13.46 |

Table 1: Internal Tourism in Chiang Mai **Source:** Department of Tourism (2013)

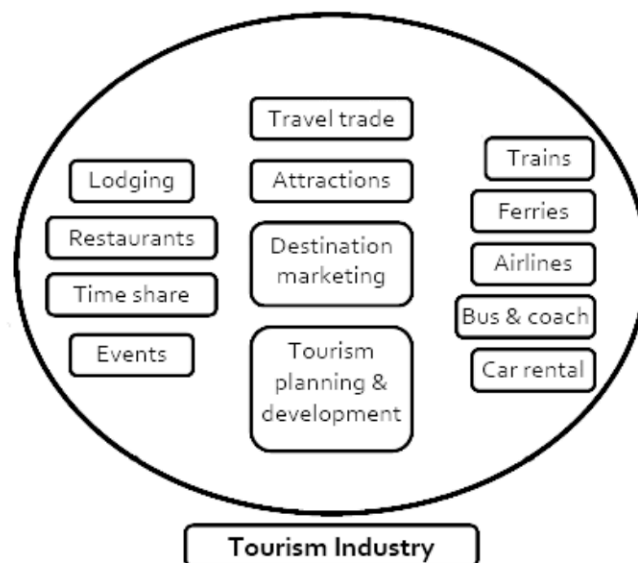


Figure 1: Major Stakeholders of tourism industry, adapted from Piboonrungraj and Disney (2009)

In term of tourism supply chain, quality and sustainable development are considered to be of great importance. They focus on product life cycle including raw material, data processing, productivity, distribution, client and final disposal. The sustainable development of tourism requires safety at work, safety of delivery product, disposal & recycle system and others. To support tourism supply chain and increase its efficiency, it should have infrastructure as shown in Figure 2

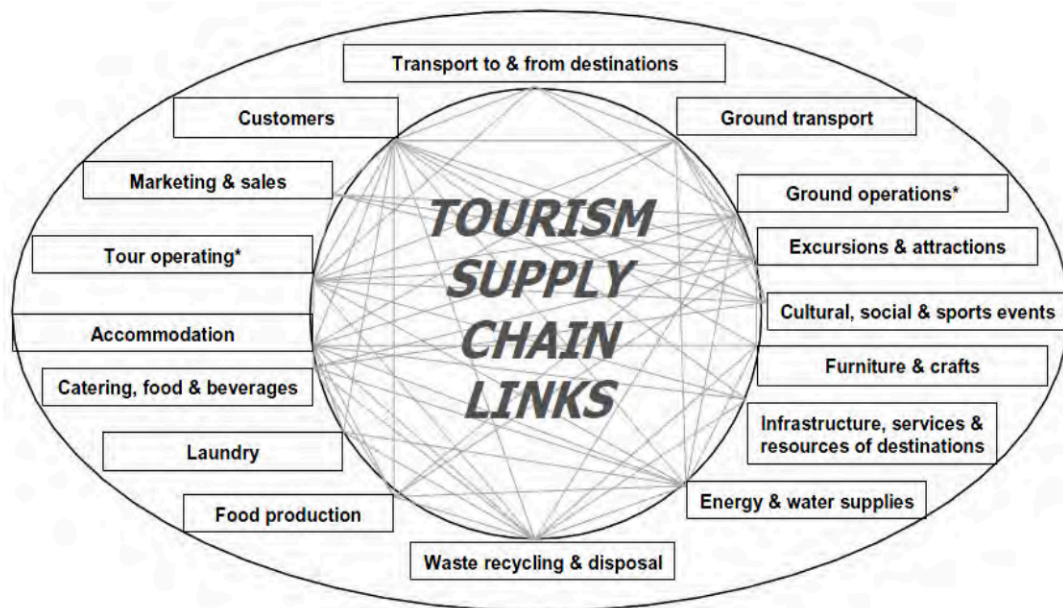


Figure 2: Tourism supply chain links, adapted from Tapper (2003)

Logistics cost

Logistics cost in an industry is applied for generating cost. Zeng (2003) divided the logistics activities with 6 issues for analyses of air shipment. Later, Kivinen and Lukka (2004) made the structure and performance in the new concept. Moreover, they grouped the logistics cost into 12 issues. The Department of Primary Industries and Mines in Thailand has defined the logistics cost with 2 groups which is the main logistics activities and the support activities. The logistics cost leads to planning cooperation, linkage of each activities and flow of information. This research will select the logistics activities for matching with hotel business activities for seeing the overview of logistics activities in hotel business.

Hotel business and logistics cost of hotel business

The concept of intellectual capital in the hotel business has emerged in the past (Engström, 2003). Kordel (2008) divided hotel logistics cost into 10 issues that include cost of supply activities, cost of information, cost of operation, cost of marketing, cost of distribution, cost of additional services, cost of insurance, cost of transport activities, cost of personnel and other financial costs. Regarding the logistics management of hotel business nowadays, they are not quite utilized as much. This is because the hotel professionals could not clearly understand and differentiate between logistics and supply chain function. They are simply treated as operations management instrument. Logistics and supply chain can improve their cost (Ante, 2007). Use of logistics and supply chain management is about consideration of technology, skill sets and capital investment in hotel business (Odoom, 2012). The research questions for this activity may be divided into seven groups, and should classify more activities that are proper with hotel business.

Research Methodology

The research methodology is as follows.

Previous researches on logistics activities, hotel business activities and supply chain of hotel business is intensively reviewed. Then, the content analysis is conducted to identify relationship between logistics activities and hotel business activities. The logistics cost of those matched activities are later surveyed in the group of hotel business stakeholders.

Questionnaire is designed to collect logistics cost that related to hotel business, then distribute to stakeholders of hotel business in Chiang Mai. In order to validate the questionnaire designed, the pilot test to selected respondents are undertaken to increase the robustness of the questionnaire.

Data from survey is evaluated and analyzed to attain logistics cost of hotel business. Analytical logistics cost is divided in different related activities.

Results

Data preparation and analysis

The study on logistics activities has been conducted together with hotel business activities. The content analysis is employed to obtain relationship between logistics activities and hotel business activities. Matching of those activities are presented in Table 2 The hotel business activities that related to logistics will then be included in questionnaire to conduct the survey on hotel businesses. Cost of hotel related to logistics perspective will then be disclosed after the survey.

| Logistics activities | Hotel Business activities |
|-----------------------|---|
| 1. Customer Service | Pre-lodge Pre-sales marketing activities Description of hotel and destination Picture-video of hotel and destination Reservations Traditional route Online intermediary route Direct online route Price list Opportunities and method of reservation Methods of payment Post-sales activities Visitor's book Frequently asked questions (FAQ) Complaints |
| | Intermediary-lodge Personnel Service Relaxation service Provide meditation environment Provide DVD music Social activities Provide recreation rooms for chatting and chess Provide family activities |
| 2. Order Processing | Operational costs for room preparation Maintenance costs Technology costs Internet Program for business administration Staff Training cost |
| 3. Demand Forecasting | Promotional campaigns Advertisements Customer relation management costs (CRM) |
| 4. Transportation | Transportation costs Guest transportation shuttle system Limousine shuttle service Taxi shuttle service |

| Logistics activities | Hotel Business activities |
|--|---|
| 5. Warehousing, Storage and Inventory Management | Storage costs of; Food & Beverage Amenity Spare parts for engineering Cleaning equipment for housekeeper Relocation Costs Storage space costs |
| 6. Purchasing | Supplier contract costs Raw material costs Room division Amenity Food & beverage Spare parts for maintenance |
| | Outsource; Food & Beverage Amenity Spare parts for engineering Laundry & Dry cleaning Cleaner supplies Security guard |
| 7. Logistics Communications | Communication with Clients costs Contact information Finding the hotel External links |

Table 2: The concept matching

Data collection

The survey was conducted among the hoteliers in Chiang Mai. Total numbers of registered hotels are 699 units with 7 classifications. The number and classification of hotels in Chiang Mai is exhibited in Table 3.

| Detail | | Number of hotel | % |
|--|---------------------------------|-----------------|---------------|
| Hotel List In Chiang Mai (Muang District) | | | |
| | Hotel Group 1 (>, more USD 100) | 46 | 6.58 |
| | Hotel Group 2 (USD 50-99) | 49 | 7.01 |
| | Hotel Group 3 (USD 30-49) | 35 | 5.01 |
| | Hotel Group 4 (USD 15-29) | 90 | 12.88 |
| | Hotel Group 5 (<, lower USD 15) | 80 | 11.44 |
| | Guesthouse (USD 12-80) | 179 | 25.61 |
| | Resort (USD 30-250) | 143 | 20.46 |
| | Other | 77 | 11.02 |
| | Total | 699 | 100.00 |

Table 3: Hotel list in Chiang Mai in 2013 Source: Department of Tourism (2013)

Almost 50 data was primarily collected from samples to realize overall hotel cost structure and related logistics cost in the Hotel business. Initially, the major hotel cost was associated with food and beverage, salaries and wage, room division and utility cost, respectively. Logistics cost represented only a minor portion in this business since the accumulative of those logistics cost is only 10% of overall cost. The category of hotel business cost is exhibited in Figure 3

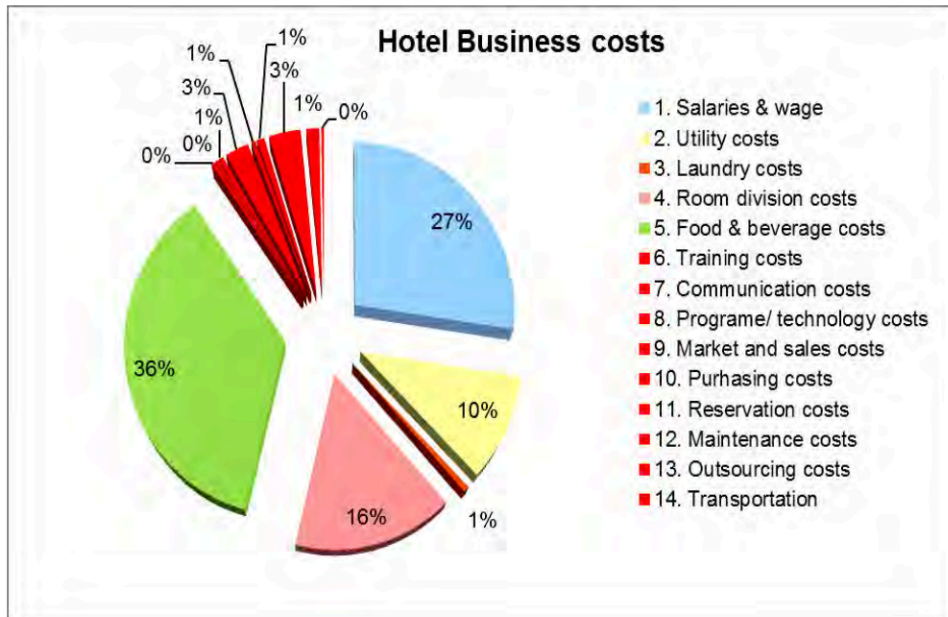


Figure 3: Cost of Hotel Business

The logistics cost of the hotel is later categorized into 7 activities, consisting of (1) customer service, (2) order processing, (3) demand forecasting, (4) transportation, (5) warehousing, storage and inventory management, (6) Purchasing and (7) logistics communications. The 1st major logistics cost in Hotel business is the warehouse and inventory cost, including hotel storage cost for food and beverage, amenities, engineering spare part etc. The 2nd major logistics cost is demand forecasting that contains key marketing activities of the hotel such as hotel promotion, special deal, CRM activities etc. For the 3rd major logistics cost, it is purchasing activity which consists of operational costs for room preparation, maintenance costs, staff training cost. Following by order processing, it involves with raw materials costs of room division, amenity, foods beverage and spare parts for maintenance, and include outsourcing activities cost etc. The 5th major logistics cost goes to customer service including reservation, service cost etc. For transportation and logistics communication cost, they are similar to transportation such as limousine and taxi shuttle service, logistics communication managed communication with clients costs which included contract information, finding the hotel, etc. as shown in Figure 4.

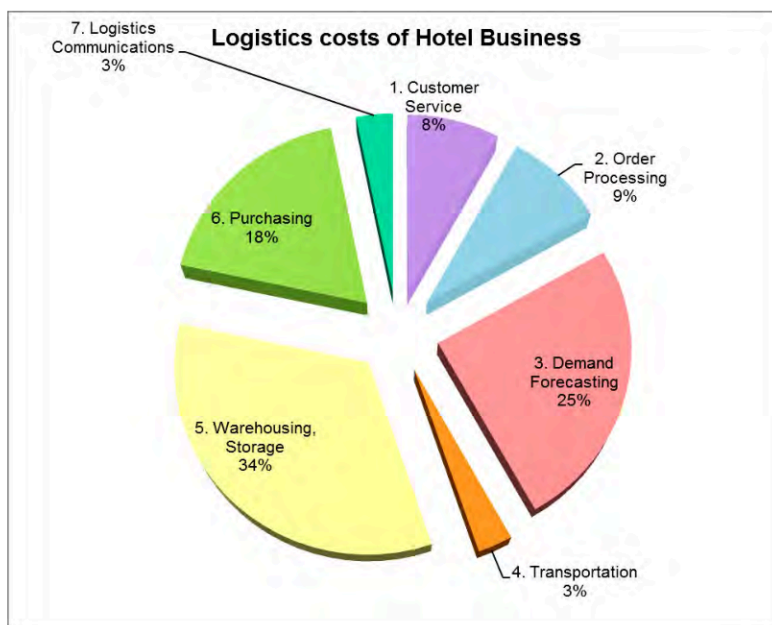


Figure 4: Logistics cost of Hotel Business

Figure 5 introduces the logistics costs per sales ratio for each industry including food, textile, electric and electronics, automotive and plastic industry compared with hotel industry. It shows that hotel industry has the highest logistics cost (about 10% of total logistics cost per sales ratio). Plastic industry is second, followed by automotive industry, electric and electronics industry, respectively. Food and textile industries have lowest logistics cost and they are equal at 6.6%.

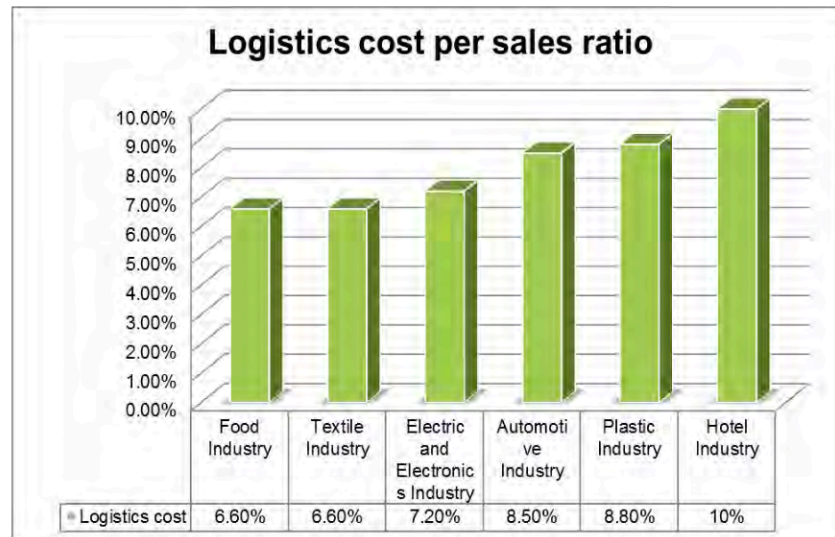


Figure 5: Logistics cost per sales ratio, adapted from Logistics Service Information Center: LSIC

Conclusion

This paper examines the logistics cost from logistics activities with information by Department of Primary Industries and Mines (DPIM). The logistics cost of each activity was then matched with activity of hotel business. In addition, our research validates the logistics cost through interview with stakeholders of hotel business. From the findings, it was shown that the logistics cost is accounted for about 10% of the hotel business. An analysis of comparative logistics cost per sales ratio with other industries is evaluated. It was found that the logistic cost of hotel sector is the highest sales ratio, hence, the highest logistics cost among major industries. Due to the logistics costs of hotel activities have a few portions in total cost of hotel business but it is latent costs which dispel every activities. However, if business owner can control the logistics cost of their business well, the business will be able to reduce the operating cost of running a hotel enormously.

Future work

This study of logistics cost can be adapted to incorporate the additional information applied to the model of logistics cost for further improvement. Moreover, value stream mapping may be used to measure the performances of each identified logistics activity. It will lead to improve the logistics cost of hotel business.

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