

MAKE-OR-BUY STRATEGY FOR CUSTOMS CLEARANCE SERVICES

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ABSTRACT

The customs clearance process is a function of supply chain management that deals with cargo at the port or airport. In addition to its usual range of services many third party logistics service providers (3PLP) expand their range of services by including customs clearance services internally in order to be a one stop service provider. Because of increased demand, the focus 3PLP firm in this study faces problems in providing effective, efficient and sufficient services in Thailand to its customers as the firm's manpower policy is to limit the number of employees, and if there are insufficient resources it will outsource some services to subcontractors yet without considering any adverse consequences. This study compares the advantages and disadvantages of Make and Buy Strategies for the customs services, so that the firm can decide which to select. Make Strategy refers to the whole process of the customs clearance tasks being operated internally, while the Buy Strategy means outsourcing services to a 3PLP. There are three selection criteria: on-time delivery, number of errors and costs. The decision was to adopt the 'make' strategy, keeping all services in-house.

บทคัดย่อ

ขั้นตอนพิธีการทางศุลกากรเป็นหนึ่งในฟังก์ชันของการให้บริการการจัดการโซ่อุปทานที่เกี่ยวข้องกับการจัดการสินค้าที่ทำเรือ หรือสนามบิน ปัจจุบันนี้เนื่องจากว่าความผันผวนของความต้องการของตลาดมีมากขึ้น จึงมีผู้ให้บริการด้านโลจิสติกส์จำนวนมากที่ทำกรขายขอบเขตของการให้บริการโดยรวมการบริการด้านพิธีการศุลกากรภายในประเทศ เข้าไปในการบริการด้านโลจิสติกส์แบบครบวงจร การวิจัยฉบับนี้จะทำการศึกษาการให้บริการของบริษัท AAA ที่กำลังประสบกับปัญหาในการให้บริการที่มีประสิทธิภาพ เพื่อตอบสนองกับความต้องการของลูกค้าที่มีจำนวนเพิ่มมากขึ้น เนื่องจากว่าในขณะนี้บริษัทฯ มี นโยบายที่จะจำกัดจำนวนของพนักงานเพราะ ผู้บริหารระดับสูงเล็งเห็นว่าหากบริษัทฯ มีทรัพยากรไม่เพียงพอ ทางบริษัทฯ ก็สามารถทำการซื้อบริการจากผู้ให้บริการภายนอกรายอื่นแทนได้ เพื่อเป็นการลดค่าใช้จ่ายในการดำเนินงานของบริษัทฯ โดยการพิจารณาในครั้งนี้ไม่ได้มีการเปรียบเทียบกับผลกระทบที่เกิดขึ้นจริง วิธีการศึกษาในครั้งนี้คือการเปรียบเทียบ ข้อดีและข้อเสียของกลยุทธ์การทำ

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และซื้อบริการพิธีการศุลกากร เพื่อให้ บริษัทฯ สามารถเลือกกลยุทธ์ที่เหมาะสม โดยคำว่ากลยุทธ์การทำ หมายถึง กระบวนการทั้งหมดของงานพิธีการศุลกากรที่จะดำเนินการภายใน ในขณะที่คำว่ากลยุทธ์การซื้อ หมายถึง การจ้างผู้ให้บริการภายนอกกรายอื่นให้จัดการกับ กระบวนการทั้งหมดของงานพิธีการศุลกากร โดยใช้สามเกณฑ์ในการประกอบการตัดสินใจดังนี้ การส่งมอบตรงเวลา จำนวนข้อผิดพลาด และค่าใช้จ่ายที่เกิดขึ้น ผลที่ได้ คือ การเลือกใช้กลยุทธ์การทำเองภายในบริษัท

INTRODUCTION

The focus firm in this study is a third party logistics service provider (3PLP) in Thailand that provides a full set of logistics services to customers. Customs clearance is one of these services, which is the process of clearing import and export procedures at the Thai Customs Department at the port or airport. This firm is part of an international company which has built a network of relationships and local knowledge with its unique distribution system and has a leading edge IT platform processing one million transactions each month.

In 2010 - 2012, there was increasing demand for Fast Moving Consumer Goods, Technology, and Healthcare products. Thus, the supply team of each business unit cannot meet the demand correctly. As a result, the firm's Customs Clearance Services Business Unit, even with its vast experience, struggles to provide efficient and sufficient services to customers due to the huge increase in the number of these customers.

The firm's manpower policy limits the number of employees, and outsources increased demand to other subcontractors, as a means of coping with fluctuating demand (which may decrease as well as increase) in order to minimize their operation costs. This led to increases in the number of customer complaints: a 50% increase in inaccuracies in import declarations, and a 33% increase in long lead times for customs clearance.

There had not been a systematic assessment of the actual consequence of this manpower planning outsourcing policy, such as the impact on costs and revenue, advantages and disadvantages, and controllable and uncontrollable factors, which could harm customer satisfaction, with the potential consequence that some customers could switch to competitors.

Therefore, as part of an overall best practice review of core functions, the firm's top management undertook a full review of its import process, including the activities of its Customs Clearance Services Business Unit. This research, as part of that review, performs a strategic analysis as to whether the firm should keep all its customs clearance

services internally, or should outsource all these service to a subcontractor, or should partially outsource to a subcontractor. The advantages and shortcomings of each strategy are critically considered in reaching a decision.

The research has to assess the options of make or buy strategies: a make-internally strategy compared with a buy-in strategy. The three criteria for deciding which to choose are: on-time delivery, number of errors, and costs.

REVIEW OF RELATED LITERATURE

Third party logistics providers have been researched as they are an important part of supply chains, and have great potential (Berglund, Laarhoven, Sharman, and Wandel, 1999) and are obviously concerned with make or buy strategies. Dale & Cunningham (1983) stated that a make-or-buy decision is needed when a company encounters demand problems and has to decide whether a part of the service needed should be purchased from an outside supplier or be done internally. Generally, make or buy decisions are strategic decisions regarding what products or services will be provided internally, and which will be provided by external supply chain partners (Bozarth & Handfield, 2008).

Many authors have identified the factors which influence Make-or-Buy strategy selection (Ford and Farmer, 1986). From their research, Kulkarni and Jenamani (2008) divided the factors into two categories: positive and negative. Positive factors are those which support the decision to outsource. Negative factors are those which oppose outsourcing. Focusing on what is the core business and cost reduction appear to be the major factor for management to analyze the Make-or-Buy decision. Hamel and Prahalad (1994) suggested that focusing only on cost reduction may result in the loss of core competencies which add value and establish a major determinant of competitive advantages. Quinn and Hilmer (1994) suggested that every organization should focus on and maintain core competencies, and outsource only activities that are non-core competencies. However, selecting the core activities, managers in each organization should be aware of any associated risks.

Regarding the previous research, it could be concluded that the company's core-competency is a major factor affecting Make-or-Buy decisions. Some details of previous research are summarized in Table 1.

Table 1: Factors Affecting Make-or-Buy Strategy Choice

| Authors | Factors Affecting Make-or-Buy Strategy |
|------------------------------|--|
| Kulkarni and Jenamani (2008) | <ul style="list-style-type: none">- Core competencies- Costs and benefit analysis- Expertise and capability of workforce- Workload Fluctuation- Sales Fluctuation- Trustworthiness of the subcontractor |
| Bozarth and Handfield (2008) | <ul style="list-style-type: none">- Environmental uncertainty- Competition in the supplier market- Ability to monitor supplier's performance- Relationship of product / service to buying firm's core competencies |
| Walker and Weber (1984) | <ul style="list-style-type: none">- Quality of actual capacity and core business- Price competition- Lack of capacity and Skills shortage- Need to increase quality- Cooperation between companies |
| Dale and Cunningham (1983) | <ul style="list-style-type: none">- Control of quality- Continuity of supply- Degree of Specialist "Know how" |

Source: Author's compilation

Platts et al. (2002) developed a framework for Make-or-Buy decision-making which consists of two objectives: creating a holistic understanding of Make-or-Buy decisions, and highlighting key areas and factors to be considered. Harrison (1996) provided a general guide to strategic decision making.

The outsourcing model of McIvor and Humphreys (2000) consists of four sequential stages:

- Stage 1 identifies the core activities and non-core activities of the organization, by top management with a cross functional team.
- Stage 2 benchmarks these core activities against best external suppliers.
- Stage 3 measures all actual and potential costs involved in sourcing activities internally or externally.
- Stage 4 is a relationship analysis based on the existing supplier base.

In addition, the model of Arnold (2000) is that if the market transaction costs for communication are very high, it makes no sense to outsource such an activity. Similarly, if the activity is strategically important, extremely important for a company's survival, it should not be outsourced. Kulkarni and Jenamani (2008) proposed a strategic framework algo-

rithm for making a decision about Make-or-Buy.

Azzi and Persona (2013) explored the situation and future expectation on whether to self-manage or outsource logistics in centralized healthcare networks, and to analyze and quantify the relationships between logistics outsourcing costs and performance, as in the following Table.

Table 2: Analysis of In-House and Outsourced

| Logistics Self-Management | Logistics Outsourcing |
|---|---|
| <ul style="list-style-type: none"> - Reduce time of service - Increase fixed costs - Cut economies of scale - Increase complexity - Reduce flexibility | <ul style="list-style-type: none"> - Increase time of service - Increase variable cost - Increase fixed costs - Increase economies of scale - Accessing know how - Reduce complexity - Increase flexibility Rising costs in relationship, management, contracts and negotiation costs |

Source: Azzi and Persona (2013)

Many authors identify advantages and disadvantages of Make or Buy Strategies, as shown in Table 2.

Table 3: Advantages & Disadvantages of Make-and-Buy Strategy

| Author | Advantages | Disadvantages |
|--------------------------------|---|---|
| Make Strategy | | |
| Burt, Dobler & Starling (2004) | <ul style="list-style-type: none"> - Design secrecy required - Control of production and service quality - Supplier will imitate as direct one stop service provider | <ul style="list-style-type: none"> - Incremental overhead costs will reflect total overhead costs - Supplier will imitate as direct Competitor |
| Buy Strategy | | |
| Bozarth and Handfield (2008) | <ul style="list-style-type: none"> - High strategic flexibility - Low investment risk - Improved cash flow - Access to state-of-the art products and services | <ul style="list-style-type: none"> - Possibility of choosing a bad supplier - Loss of control over the process and core technologies - Communication / Coordination challenges - Increased risk in supply chain |

Source: Author's compilation

Maltz et al. (1993) examined logistics functions to be outsourced as the most frequently used functions, which include customs brokerage, transportation, forwarding, and warehousing. Veugelers and Cassiman (1999) described an actual example of the experience of Belgian firms of make or buy strategies.

Logistics functions in Thailand will have to be aligned with the other nine Asian countries which become members of the Asean Economic Community (AEC) in 2015, which aims to become a duty-free Zone (ASEAN, 2008). Many companies are trying to minimize their overall logistics costs to gain competitive advantage in this huge new common market, as suggested by Gupta (2011).

METHODOLOGY

Data collection for the period 2010-2012 includes the number of import shipments, number of employees in customs clearance services, total operation costs per year, lead time for customs clearance process on a monthly basis, and number of errors. The data was analyzed according to the factors relevant to each Make-or-Buy decision criteria, by focusing on the current situation of the firm's customs clearance services business unit and that of subcontractors. Assessments are then made to decide which one is the most suitable for this firm.

In order to provide a more comprehensive view, interviews were held with the three departmental managers of the Fast Moving Consumer Goods Business Unit, the Healthcare Business Unit, and the Technology Business Unit, covering the following issues:

- Main causes for Make-or-Buy Decision;
- Factors to be considered;
- How cost comparison between internal cost and external price is undertaken;
- Relevance of developing a structured practical approach (comparison between costs and service lead-time); and
- Discussion of the customs clearance services' perspectives.

Data Analysis Criteria

On-Time Delivery

A study of the current customs clearance process flow shows the steps, starting from customer service staff receiving information and shipping documents from customers, then passing the completed set of shipping documents to operation staff to perform the customs clearance process at the port or airport, ending with a driver delivering the shipment to a warehouse. The analysis of the customs clearance services business unit is examined to see whether there is the right customs clearance process. This is compared with the KPI measurement in the firm's customs section for on-time delivery, with the

monthly target set at 95%. The clearance process times are:

- Air freight shipment takes only 2 working days; that is, after the customer service staff receives original documents from customers, the product will be delivered to a warehouse within 2 working days.
- Sea freight shipment takes only 3 working days; that is, after the customer service staff receives original documents from customers, the product will be delivered to a warehouse within 3 working days

In addition, in order to analyze this time factor for selecting a Make-or-Buy strategy, the standard of customs clearance process will be considered to see whether there is a conflict with any rules and regulation of the firm, the Thai Customs Department, and other related government departments. The main policy of the focus firm is “No Corruption and Anti-Bribery”.

Number of Errors

Relevant employees in the customs clearance process should have the right skills and knowledge for their job roles and responsibilities as identified in the standards set for customs clearance services. Therefore, to analyze the right skills of people who have specialist and professional degrees in the customs clearance process, the study looks at the number of errors in both the Customs Clearance Services Business Unit and other subcontractors. Then, this research analyzes whether the firm or its subcontractors have more errors.

Costs

Costs are compared. All operation costs of in-house service and outsource service fees, are compared to see whether the current process has more competitive costs rather than the subcontractors. This research will not only study the operation costs and expenses but also the service fees included in the proposed scope of wider services as the firm itself has the core-competencies of a third party logistics service provider that provides a full logistics service to its customers. Therefore, the service providers who will be partners of the firm need to be able to support the added value services

In addition to the scope of services, the assigned work will be examined to see whether it requires a professional to support that service. If yes, this research will measure Make-or-Buy Strategy as looking for a service provider who has more experience.

According to the above mentioned criteria, this research has another analysis, as the firm allocated a number of import shipments to the potential subcontractor, who will have to be compared with the costs and number of import shipments that are handled by the firm's Customs Clearance Services Business Unit. Finally, the firm will formulate guidelines for selecting the most suitable strategy for making or buying customs clearance services.

FINDINGS

The interviews with three department managers produced their goals and criteria, as in Table 4.

Table 4: Summary of Interviews with Department Managers

| | Fast Moving Consumer Goods | Healthcare | Technology |
|--|---|---|---|
| Main cause for make-or-buy decision | - To find the best value of Service | - To get quality of service | - To find expertise in operation team |
| Factors to be Considered | - Capability - Skill of workforce - Good performance (on-time delivery) - Good reputation | - Skill of workforce - Variety of services - Good reputation - Prices | - Skill of workforce - Good performance (on-time delivery) - Good reputation - Prices |
| Internal cost and external | - Internal costs are lower than external prices | - Internal costs are lower than external prices | - Internal costs are lower than external prices |
| Comparison between costs and service lead-time | - Service lead-time is more significant than costs - New structure should be based on good service lead-time | - They have to set up new structure with low costs and provide good service lead-time | - Service lead-time is more significant than costs - New structure should be based on good service lead-time |
| Customs clearance services' perspectives | There are two types - Standardized - Specialized | More important as AEC is coming, with pressure from competition | It should be linked with our firm in order to be one stop service provider |

Source: Author

The firm's data, based on the three criteria, was compared with the potential subcontractor, as explained in the following sections.

On-Time Delivery

During the trial period, the Customs Clearance Services Business Unit achieved an On-time Delivery Measurement that it is better than the potential subcontractor. This means that the Customs Clearance Services Business Unit can make customs clearance process and deliver the cargo to the destination warehouse within 2 working days for air freight shipments and 3 working days for sea freight shipment, achieving 100% on-time deliv-

ery. On the other hand, the potential subcontractor cannot make their customs clearance process deliver cargo to the destination warehouse within 2 working days for air freight shipments or 3 working days for sea freight shipments, achieving instead only 78% for air freight shipments and 86% for sea freight shipments.

Number of Errors

The finding indicated that of the 316 import shipments, the firm's Customs Clearance Services Business Unit made only 4 errors (1.27%) for inaccuracy in import entry declarations, and there were no errors in accuracy for physical customs clearance. The potential subcontractor made 15 errors (4.75%) for inaccuracy in import entry declaration and 3 errors (1%) for inaccuracy for physical customs clearance. Therefore, the firm's Customs Clearance Services Business Unit made fewer errors than the potential subcontractor.

Costs

In the findings for 316 import shipments, the firm's Customs Clearance Services Business Unit cost the firm about Thai Baht (THB) 4.0 million per year, whereas the potential subcontractor charged the firm about THB 5.0 million per year. This is inclusive of the value added services such as quality service, information tracking by linking all shipment information, pre-classification for a harmonized system code for import duty rate, and customs consultancy (for Free Trade Agreement and Customs Formality Processes). Therefore, the firm can save nearly THB 1.0 million per year (22.20%) for the in-house strategy when compared with outsourcing.

CONCLUSION

The results show that the in-house "Make Strategy" can be beneficial for the focus firm in terms of achieving on-time delivery, having fewer errors and lower costs, by comparison with a 'Buy' strategy. Therefore, the firm has decided to select the totally in-house 'Make' strategy for customs clearance services, and will add three staff to support the increased number of import shipments.

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