A study of Logistics Operation Governance Models for Hospitals

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ABSTRACT

In today’s keen competitive environment, logistics operations are one of the key value-added business activities. Besides directing the flows of commodities from manufacturers to consumers, logistics operations could help firms to gain competitive advantages and profits. The concept of supply chain could coordinate the logistics operations and promote the cooperation between manufacturers and end users. In health care industry, every hospital needs to provide many kinds of medical materials for daily or emergent medical treatment. To determine the right medical material stock in the right place on the right time with the right cost is a crucial multi-criteria decision problem. Owing to the complexity nature of the logistics operations of medical materials, a hospital should decide whether to outsource or to internalize logistics operations after considering resource positions, transaction cost and network relationship. This study aims to recommend logistics operations under various situations. Through reviewing relevant literatures, propositions are argued to provide the proper logistics governance models for hospitals in Taiwan.

Keywords: logistics governance model, transaction cost theory, resource-based view, social network theory

INTRODUCTION

In today’s keen competitive environment, logistics operations are one of the key value-added business activities. Besides directing the flows of commodities from manufacturers to consumers, logistics operations could help firms to gain competitive advantages and profits. The concept of supply chain could coordinate the logistics operations and promote the cooperation between manufacturers and end users (Brewer & Hensher, 2001; Gattorna, 1998; Lambert, Emmelhainz & Gardner, 1999). In medical industry, every hospital needs to provide many kinds of medical materials for daily or emergent medical treatment. To determine right medical material stock in the right place on the right time with the right cost is a crucial multi-criteria decision problem.

After a comprehensive study on scholars’ discussions about logistics strategies was made, it is found that a crucial issue has never been touched; that is, who should be responsible for logistics activities of an enterprise to be truly considered efficient (Grover & Malhotra, 2003). In other words, an enterprise should take responsibility for logistics activities at its own risk, or outsource to the third-party logistics (Sheffi, 1990), or even to the fourth-party logistics (Gattorna, 1998) so that the corporate goals of both cost reduction and efficiency enhancement can be truly reached. As in an economic society where specialization is emphasized, an enterprise should specialize in its own core values activities to pursue operational efficiency. And the marketing cost and management cost should be taken into relative consideration when the core values activities are differentiated (Coase, 1937).
The objectives of this study are as follows:
1. To review relevant literatures of logistics strategy and governance model.
2. To propose logistics operation decision propositions for hospitals.

LITERATURE REVIEW

Bowersox and Daugherty (1987) interviewed 16 consumer goods manufacturers of America and discovered that the strategic orientation of an organization would influence the adopted logistics strategies. They sorted out three strategic orientations and discussed the influences that these strategic orientations would have on logistics strategies as described below.

1. The first strategic orientation is called **Process Strategy**. This strategic orientation emphasizes that relevant logistics functions (procurement, schedule, and distribution) must be consolidated, regarding logistics operations as a series of value-added activities. It reaches the objective of efficiency maximization of cost control by means of the management of logistics operations.

2. The second strategic orientation is called **Market Strategy**. It emphasizes to reach the synergy by means of the distribution coordination. The objective is to promote the coordination of sale and logistics, to provide the inter-enterprise service and to satisfy customers’ fast-changing diversified needs. Its competitive advantage comes from the maximization of customer service.

3. The third strategic orientation is called **Information Strategy**. It values the network links surrounding manufacturers, putting emphasis on the coordination among organizations as well as the utilization of logistics and information management to reach the cooperation and common prosperity among organizations.

In the transaction cost theory, there are two governance models for manufacturers: hierarchy and market. According to the transaction cost generating from the transaction in the market, manufacturers determine whether to internalize the transaction (Williamson, 1975; Leiblein & Miller, 2003). In terms of transaction cost economics, there are three exchange conditions - uncertainty, asset specificity, and frequency - to determine which governance model to be efficient. In response to the criticism the academic circle made on transaction cost economics, Williamson (1991) analyzed and indicated that, in the light of institutional economics, contract law, and organization theory, and by employing the concept of transaction cost, there is another hybrid governance model in addition to markets and hierarchies.

The characteristics of transaction hierarchy can be illustrated with transaction cost economics while the characteristics of manufacturer hierarchy can be explained from the resource-based view. Through the resource-based view, the reason why a specific manufacturer will (or should) put activities into the internal hierarchy can be understood. That is to say, whether a manufacturer decides to produce on its own or to carry out business transaction in the market, how to develop and deploy the resources and abilities of the manufacturer should be considered so that competitive advantage can be created (Madhok, 2002). Leiblein and Miller (2003) think that, for a more completely vertical governance model, a dynamic approach should be adopted to assess the influences that the assets have on the optimal governance pattern in the future uncertainty value.

After the operations in the industries are observed, it is discovered that the governance model of an organization is not completely presented in a bisection method; that is, the transaction among organizations are not completely the market transaction or hierarchy one. Take joint venture, informal trading relationships, partnership, long-term contract, agency agreement and so forth, as examples. Some of the reasons for forming these governance models are because of the needs for the finance and
technologies and because of the search for complementary resources (Mariti & Smiley, 1983; Pfeffer & Nowak, 1976). Others are because the influence of the social network factor limits or fails to help manufacturers to find new alliance opportunities and choose partners (Gulati, 1995; Gulati & Westphal, 1997; Kogut, 1992). As they can not be fully explained in the light of transaction cost theory or with the resource-based view, it is necessary to make further exploration from the viewpoint on social networks.

Examining the governance model of logistics operations in terms of the network governance, Bowersox and Droge (1989) indicate that upper, middle and downstream manufacturers who own the cutting-edge technology can consider adopting the strategic alliance to replace vertical integration, due to the progress of information technology. When an enterprise chooses to outsource the supportive value activities to professional services in order to focus on the development of core abilities, logistics operation is one of the major outsourcing items. Lambert et al. (1999) indicate that the outsourcing partnership model which is between internalization and pure outsourcing can be adopted in logistics operations. The benefit is to increase the profits of partnership enterprise as well as to enhance competitive advantage.

RESEARCH METHOD

Ground theory is applied to formulate our logistics operation governance model selection propositions. We review relevant strategy management and logistics literatures, and then analyze the logistics operation characteristics of hospitals in Taiwan. Logistics operation governance models selection propositions for hospitals are derived on the premise of transaction cost theory, resource-based view and social network theory.

RESEARCH RESULTS

Bowersox and Daugherty (1987) argued three logistics strategy orientations: process, market and information. Williamson (1975, 1991) proposed three kinds of governance models: market, hierarchy and hybrid. We recommend the following propositions on the premise of transaction cost theory, resource-based view and social network theory.

<table>
<thead>
<tr>
<th>Proposition 1a: A hospital tends to apply hierarchy logistics operation governance model when the logistics strategy of the hospital is process orientation.</th>
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<tbody>
<tr>
<td>Proposition 1b: A hospital tends to apply hierarchy logistics operation governance model when the logistics strategy of the hospital is market orientation.</td>
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<tr>
<td>Proposition 1c: A hospital tends to apply hybrid logistics operation governance model when the logistics strategy of the hospital is information orientation.</td>
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<td>Proposition 2: A hospital tends to apply hierarchy logistics operation governance model when the medical materials of hospital have higher transaction frequencies and demand uncertainty.</td>
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<td>Proposition 3a: A hospital tends to apply hierarchy logistics operation governance model when the hospital considers logistics operation as the core competency for organization growth in the future.</td>
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<td>Proposition 3b: A hospital tends to apply hybrid or market logistics operation governance model when the hospital not considers logistics operation as the core competency for organization growth in the future.</td>
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</table>
CONCLUSION

Logistics operations play important roles at modern business management. To select appropriate logistics operation governance model will help business to reduce costs, improve business performance and create benefits. This study proposes three logistics operation governance model (hierarchy, market, hybrid) based on transaction theory, resource based theory and network theory. Owing to the complexity nature of the logistics operations of medical materials, a hospital should decide whether to outsource or to internalize logistics operations after considering resource positions, transaction cost and network relationship.

REFERENCES


