

IMPLEMENTING SUCCESSFUL LOGISTICS OUTSOURCING CONTRACTS: THE CASE OF 3PL PROVIDERS AND USERS IN SINGAPORE

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ABSTRACT

Purpose: This paper examines how a logistics outsourcing contract can be successfully implemented from the perspectives of both 3PL providers and users in the context of Singapore.

Design/methodology/approach: The case study design is adopted to empirically examine logistics outsourcing practices. Data are collected through in-depth interviews with senior logistics and supply chain managers from three 3PL service providers (logistics outsourcing firms) and one 3PL user (logistics outsourcer). These companies are engaged comprehensively in logistics outsourcing activities, and encompass both international firms that have their operations in Singapore and those local firms whose operations expand internationally.

Findings: Results suggest that although there are some differences between the 3PL user and 3PL providers, and among the 3PL providers themselves, most of the eight critical aspects of successful logistics outsourcing contracts are common between them and are in line with the relevant literature. What seems unclear in the literature however, is how cultural differences can make or break a logistics outsourcing contract. This research also confirms that these differences can be countered by using the “think globally, act locally” business strategy.

Research limitations/implications (if applicable): The major limitation of this research is the use of small number of cases. Future research needs to employ more cases from both 3PL provider’s and user’s perspectives.

Practical implications (if applicable): This research confirms the **significance of investigating the key success factors of logistics outsourcing contract implementation** from both 3PL provider’s and user’s perspectives, as well as the need for “cultural intelligent” through cultural training.

Originality/value: This is one of the few research on logistics outsourcing that employs case study design from both 3PL provider’s and user’s perspectives.

Keywords: logistics outsourcing, 3PL, critical success factors, Singapore

Introduction

This paper examines how a logistics outsourcing contract can be successfully implemented from the perspectives of both 3PL providers and users employing case examples in Singapore. Given the widespread trend of logistics outsourcing in today’s business world, it is important that the logistics outsourcing contract is implemented successfully. Therefore, the identification and validation of critical factors for the successful implementation of logistics outsourcing contracts play a pivotal role. The remainder of the paper is organised as follows. First, a literature view to identify critical success factors for logistics outsourcing is given in section 2. Then a brief introduction to the development of the logistics and supply chain industry is provided in section 3. The research methodology detailing sampling and data collection methods is given in section 4. Findings from the empirical validation are presented in section 5 and the paper is concluded with a brief discussion on academic and empirical implications in section 6.

Literature review

As an organisation decides to outsource one or several of their operational functions or activities to an outsourcing provider, various critical factors are required to be considered for the successful implementation of outsourcing contracts. These factors have been identified and validated quite extensively in the contemporary literature. To name a few, the study by Leahy, Murphy and Poist (1995) is perhaps one of the earliest research in this area in which 25 factors were viewed by third-party logistics providers in the US as important in the success of business relationship with their customers. Among these, customer orientation, dependability, timeliness, control and performance appraisal, etc. are found to be the most important factors leading to successful business relationship perceived by the respondents. Specifically, performance measurement and appraisal has been consistently identified as critically important to the success of outsourcing in various sectors (Weimer and Seuring, 2009), and is also found to be one of the critical success factors (CSFs) contributing to successful IT outsourcing in many large multinational companies (Hodosi and Rusu, 2013). Among other factors include maintaining good communication between organisations, selecting the supplier that is compatible in business culture and size, and outsourcing only when it makes good business sense. Meanwhile, through empirical validation, Reddy, Jigeesh and Kumar (2013) confirmed that timely delivery, cost efficiency, project management capability, communication, transparency, and ability to manage the scope creep are critical factors for the successful delivery of pharmaceutical outsourcing projects in India. Whereas, a study by Min (2013) in the context of the US logistics outsourcing environment found that consistent/reliable services, 3PL's reputation, focused/niche capability are among the most important determinants when an organisation selects their 3PL service provider.

Throughout the literature on critical factors for the success of outsourcing contracts, relationship quality between the organisation and its outsourcing supplier has been constantly identified as an essential factor which plays a critical role for the successful outsourcing venture. To successfully manage this relationship, several key managerial practices are required, including the reliance on internal knowledge capabilities to evaluate the potential cost and process improvements proposed by the supplier, monitoring of supplier performance and their responsibilities, as well as the continual organisational control of the outsourcing process (Boyson, Corsi, Dresner and Rabinovich, 1999). From the industrial perspective, Webb and Laborde (2005) affirmed that successful relationships would lead to successful outsourcing arrangements and the more successful outsourcing relationships are those in which the outsourcing firm has become "like family" to the client. Hence, while the outsourcing firm should allow flexibility and change as their relationship with the supplier matures over time, the supplier must also take the customised approach to the relationship with their client so as to become their consultant and trusted advisor. This closer, longer-term relationship or "partnership" has since been acknowledged in various studies (for example, see Golicic and Mentzer, 2006; Hofer, Knemeyer and Dresner, 2009).

Consistently throughout the literature about outsourcing relationship, trust is identified as the key determinant which facilitates others. In this respect, the outsourcing firm's prior satisfaction with the supplier, the supplier's relationship-specific investment, information sharing and their reputation are key determinants of the outsourcer's level of trust toward the supplier (Tian, Lai and Daniel, 2007). Adding further, Swar, Moon, Oh and Rhee (2012) argued that the determinants of outsourcing success in the public sector should be treated separately from those of the private sector. By examining 93 IS/IT outsourcing projects in South Korea, the authors found that relationship quality, which is determined by cooperation, trust and mutual understanding between parties in the outsourcing contract, explains a significant amount of variance in IS/IT outsourcing success. Meanwhile, it was also found that trust is one of the main common factors leading to logistics outsourcing success, among others such as joint vision and objectives, clear role, top management commitment and support, and communication (Srabotic and Ruzzier, 2012). At the more specific level, Qi and Chau (2013) found that interpersonal trust plays a more dominant role than does interorganisational trust in making IT outsourcing successful, hence building a strong interpersonal trust with the key contact person in the service provider is essential to sustain a long-term relationship, and to achieve the final IT outsourcing success. In a recent study about logistics outsourcing in the US, it was found that trust plays a key role in the relationship between a government agency and its third-party logistics provider as it affects the level of information sharing and, without it, their relationship is purely transactional (Hooks, 2015). Table 1 provides a summary of key determinants of successful outsourcing contracts.

Key determinants	Sector	References
Customer orientation	3PL	Leahy, Murphy and Poist (1995)
Timeliness	3PL, Pharmaceutical	Leahy, Murphy and Poist (1995); Reddy, Jigeesh and Kumar (2013)
Dependability/reputation	3PL	Leahy, Murphy and Poist (1995); Min (2013)
Control and performance appraisal	3PL, manufacturing, IS/IT	Leahy, Murphy and Poist (1995); Weimer and Seuring (2009); Hodosi and Rusu (2013); Boyson, Corsi, Dresner and Rabinovich (1999)
Communication	IS/IT, Pharmaceutical, 3PL	Hodosi and Rusu (2013); Reddy, Jigeesh and Kumar (2013); Srabotic and Ruzzier (2012)
Compatible in business culture and size	IS/IT, 3PL	Hodosi and Rusu (2013); Srabotic and Ruzzier (2012)
Cost efficiency	Pharmaceutical	Reddy, Jigeesh and Kumar (2013)
Project management capability	Pharmaceutical	Reddy, Jigeesh and Kumar (2013)
Transparency	Pharmaceutical	Reddy, Jigeesh and Kumar (2013)
Consistency/reliability	3PL	Min (2013)
Focused/niche capability	3PL	Min (2013)
Capabilities to evaluate potential cost and process improvements	3PL	Boyson, Corsi, Dresner and Rabinovich (1999)
Continual organisational control	3PL	Boyson, Corsi, Dresner and Rabinovich (1999)
Personalised approach to client relationship	3PL	Golicic and Mentzer (2006); Hofer, Knemeyer and Dresner (2009)
Trust, interpersonal trust	3PL, IS/IT	Tian, Lai and Daniel (2007); Swar, Moon, Oh and Rhee (2012); Srabotic and Ruzzier (2012); Qi and Chau (2013); Hooks (2015)
Top management commitment and support	3PL	Srabotic and Ruzzier (2012)

Table 1. Selected key determinants of successful outsourcing contracts

Although the determinants of successful outsourcing are consistently found and/or validated in the contemporary literature, most existing studies were conducted either from the perspective of the outsourcing firm or that of their supplier but not both at the same time. It is believed that the concurrent examination of outsourcing practices from both players' perspectives would reveal significant insights about critical determinants of outsourcing success which in turn possess implications for both academics and practitioners.

Setting the context: Singapore

Despite being only a “red dot” in the world map, Singapore is well known for having a pro-business environment, which the government of Singapore has been promoting over the years. The transparent government’s policies and efficient government’s services, together with numerous favourable fiscal and other business policies have encouraged foreign investors to invest in Singapore. For many years, Singapore has been known to have the most conducive environment for business as compared to the rest of its neighbours – and the world. According to the Economist Intelligence Unit, Country Forecasts Report in 2014, Singapore was ranked the most attractive investment location, both regionally and globally (The Economist - Economist Intelligence Unit, 2014).

In terms of logistics and supply chain management, Singapore has also been ranked highly. The World Bank ranked Singapore as the number 1 logistics hub in Asia and 5th in the world in their 2016 Logistics Performance Index (World Bank, 2017). With an international seaport and airport that are consistently ranked as one of the busiest and best performing in the world, Singapore has continually been in the forefront as the preferred location for logistics and supply chain related operations. Indeed, Singapore today is a prime location for major logistics firms, with 20 of the top 25 global logistics players conducting operations here. Many 3PLs such as DHL, Kuehne + Nagel, Sankyu, Schenker, Toll, UPS and Yusen Logistics, have set up regional or global headquarter functions in Singapore. It is noteworthy to mention that Singapore is also the preferred logistics and supply chain management hub for leading manufacturers across industries, such as Avaya, Diageo, Dell, Hewlett Packard, Infineon, LVMH, Novartis, ON Semiconductor, Panasonic, and Siemens Medical Instruments (Economic Development Board EDB, 2015).

Given this business setting of Singapore, an examination of logistics outsourcing practices from the perspectives of both the outsourcer (the organisation) and their 3PL service providers in the context of Singapore would be significant to draw meaningful lessons for both academics and practitioners whose interest is in the area of logistics outsourcing theories and practices.

Methodology

The case study design

The case study design is adopted to empirically examine logistics outsourcing practices in Singapore. A case study is an empirical enquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2003). Case studies are widely used in various contexts such as in sociology, organizational psychology, employment relations, political science and business operations. While most existing research about logistics outsourcing in the contemporary literature employs survey method to generalise findings to the population, a case study design is used in this paper to gain further insights on the practices of logistics outsourcing in Singapore in various aspects, from the process followed to other determinants of successful outsourcing such as performance indicators, supplier relationship management, etc.

Sampling

This paper examines how a logistics outsourcing contract can be successfully implemented from the perspectives of both 3PL providers and users. For this purpose, the firms that are to be examined as case studies must engage comprehensively in logistics outsourcing activities. In addition, given the setting of Singapore being a global logistics hub, we aim to examine both international firms that have their operations in Singapore and those local firms whose operations expand internationally.

Consequently, three 3PL service providers and one 3PL user were selected. Among the three 3PL service providers, the first one is a leading company in the parcel delivery service originally in the US but has now become a true global logistics and supply chain service provider. The second 3PL service provider has its origin traced back to Germany as a famous land transport (rail) solution provider, however, over the past years has transformed into a global total logistics solutions provider. The third 3PL service providing firm has developed from a warehouse operator in in the Middle East to become one of the world’s largest integrated logistics service providers. Although these logistics firms are today acknowledged among the world’s top 3PL service providers, they have developed from different origins and thus an examination of their logistics outsourcing practices would render critical insights from the 3PL

service provider's perspective. Meanwhile, the 3PL user is one of the largest local Singaporean distributors of the world's leading manufacturers of fragrance, cosmetics and skin care products.

Interestingly, the 3PL user has been using the logistics outsourcing service provided by the three aforesaid 3PL service providers. These firms were selected as case studies as they met the criteria for the research to be conducted, and because the management of these firms were willing to elaborate various aspects of their logistics outsourcing practices. The descriptions about these firms are further elaborated in the below paragraphs.

Case 1: A local 3PL service user with headquarter in Singapore but operations expanded internationally.

This firm is a Singapore-based local distributor of more than 130 world's first class fragrance, cosmetics and skin care brands. Their business is expanded across the Asia Pacific region, including China, Hong Kong, Taiwan, India, Philippines, Vietnam, Indonesia, Thailand, Malaysia and Singapore. In the Singapore headquarter, the supply chain manager takes charge of the distribution not only in the local market, but also the foreign markets. Their suppliers are mainly located in Europe and the United States. All cargoes are shipped from the manufacturers to Singapore for consolidation in Full Container Loads (FCL). After cross-docking, shipments in small sizes are shipped to various countries according to the demand of each region.

This firm has its in-house logistics team in Singapore. They are in charge of in-bound and out-bound logistics and cross-docking. In recent years, as a result of the expansion, the workload of Singapore office increased dramatically. As a distributor, it was important to be competitive in terms of cost. As a leading distributor for fast moving consumer goods and fashion products in Asia Pacific, the required level of control over the whole supply chain is high for the case of this firm. Therefore, they rely largely on the in-house logistics arm and only three out of ten countries' logistics functions are outsourced, mainly because of the lack of resources. Firstly, in China and Vietnam, the language barrier prevented the in-house logistics team to execute logistics functions directly from Singapore. Moreover, the unsystematic logistics operations process and the complicated import policies further burdened the logistics department of the firm. More importantly, due to the small lot size of each shipment, the overhead transportation cost and warehousing cost is high, and thus it is more economically viable to employ a 3PL service provider to perform logistics functions in non-strategic and newly entered market such as Vietnam.

Case 2: A global 3PL service provider originally from the US

This firm is currently one of the world's leaders in the fields of logistics and supply chain solutions. Originally from the US market in the parcel delivery service, the firm has grown to become a giant with presence in nearly every corner of the globe, making it virtually the most international company in the world. The firm is now providing solutions for nearly every single logistics need including parcel delivery, express, forwarding, supply chain, e-commerce, etc. the company's service portfolio includes a widespread spectrum, from freight transportation (air freight, sea freight, road and rail freight, multimodal transport, industrial projects transportation, etc.), to Lead Logistics, warehousing and distribution, temperature controlled logistics, green logistics, supply chain solutions and industry sector solutions (for example in the sectors of aerospace, automotive, chemical, fashion, etc.). In Singapore, this 3PL service provider has an extensive coverage built up over 30 years in the region. The current facility for supply chain solutions occupies 1.2 million square feet of space in the island.

Case 3: A global 3PL service provider originally from Germany

This 3PL service provider is a global logistics expertise with a strong original foundation in land transport operations, especially in rail freight. In terms of revenue and performance, the firm is ranked in the top two transportation and logistics service providers worldwide. The company is also placed as one of the top providers of air and sea freight globally, while its land transport network is one of the most comprehensive in Europe. The firm is currently providing integrated logistics services in more than 140 countries across various modes and carriers seamlessly together with other additional logistics services. They are also the partner of specialised industries such as automotive, consumer goods and high-tech industries. In Singapore, the firm has developed over 44 years from being the first airfreight forwarder to

become a market leader for integrated logistics services with about 2.1 million square feet of modern warehousing space island-wide.

Case 4: A global 3PL service provider originally from the Middle East

From a humble start as a warehousing service provider in a country in the Middle East, this 3PL service provider has grown to become one of the world's largest integrated logistics service providers with more than 20,000 employees and operations in 100 countries. Being the largest logistics company in the Middle East, this firm has now had its footprints internationally especially in emerging markets. This 3PL service provider offers supply chain solutions including air, ocean and road freight forwarding, warehousing, distribution, and specialized services in project logistics, chemical logistics, etc. The firm is currently ranked in the top 15 logistics service providers worldwide. In Singapore, this 3PL service provider offer customers a wide range of products and solutions across the automotive, hi-tech, fashion and retail , FMCG, food and beverages, life sciences, industrial and chemical sectors with close to 50,000 square meters of warehouse space.

Data collection

The main method of data collection in the case study design for this research is in-depth interviews conducted with senior logistics and supply chain managers of the case companies. Overall, four face-to-face semi-structured in-depth interviews were conducted, followed by a couple of follow-ups via emails. On average each interview lasted for about 90 minutes. The semi-structured interview allows the interviewees to express their views and ideas and also the researcher to collect in-depth information on buyer's and supplier's perceptions of various aspects of logistics outsourcing practices. Before the face-to-face sessions, a cover letter detailing the project's objectives, research questions, etc. was sent to the interviewees so as to obtain their consent to participate in the research project.

Although the questions for 3PL service providers and users were worded a little differently to reflect their positions in the logistics outsourcing, they cover the same aspects of logistics outsourcing practices: *the process of logistics outsourcing, determinants of successful logistics outsourcing contracts, 3PL evaluation criteria, key aspects of a logistics outsourcing contract, partner engagement, contract performance measurement, common hindrances to the successful outsourcing contracts and solutions, and the importance of culture as a determinant of a successful logistics outsourcing contract*. This is important to ensure the same basis for cross-case analysis and discussion of findings. The investigation on the role of culture is essential given the global nature of logistics outsourcing contracts nowadays and the context of Singapore as a global logistics hub. The following sections present findings from analyses of cases.

Findings - Determinants of successful logistics outsourcing contracts

The cross-case analysis compares views, perceptions and shared experiences derived from cases toward the same eight aspects of logistics outsourcing practices as elaborated in the earlier section. Findings are interpreted by comparing these views, perceptions and shared experiences with the equivalences in the contemporary literature. Analysis results show some similar patterns but also differ quite significantly between the 3PL service providers and users, and among the 3PL service providers themselves, for various aspects of the logistics outsourcing venture.

According to the 3PL user (Case 1), a successful logistics outsourcing contract requires a *well-defined Service Level Agreement (SLA), clearly stated KPIs for the 3PL provider, and clearly stated SOW in the outsourcing contract*. Meanwhile, for the first 3PL provider (Case 2), logistics at the end of the day is still very much a service industry, and thus *having the right people* is a key to success. Successful outsourcing venture requires staff from both 3PL provider and user company being involved actively from the start. A steering committee is normally put in place to actively steer the direction of collaboration and resolve any disputes. In addition, as the length of contract is typically three to five years, the 3PL provider will need *ample time to understand and integrate into the client's business processes*. For the second 3PL provider (Case 3), the key determinants of logistics outsourcing success also include *having the right people to work with the client* and also both parties need to understand what are required in the Scope of Work (SOW) as well as the *KPIs* which are used to measure performance.

Meanwhile, for the third 3PL provider (Case 4), any successful outsourcing attempt must first be traced back to the SOW developed by the 3PL user. Specifically, it all depends on *who is in charge and how the SOW is crafted*. The person crafting the SOW must be familiar with the scope at hand. In most instances, the person preparing the RFQ may be from the procurement department and they may not be familiar with the entire scope that is at hand. Secondly, even if the procurement person ropes in the Subject Matter Expert (SME), the SME may keep certain part of the scope out of the document for fear that inclusion may increase the final pricing or deemed unattractive to potential bidders. Thus, what is in and what is out of the SOW has to be clearly identified. During negotiation and implementation, a common challenge is scope creep i.e. doing more than what was asked for, and that will create lots of unexpected hiccups during the process. In any outsourcing program, the more comprehensive the SOW is, the more time is needed to respond and chances are, the higher the cost elements. If the SOW is not thorough enough, there is a high chance of missing out the critical components and having challenges implementing the contract. Hence, it is critical that the SOW is clearly stated and the person who is in charge of drafting it understands the implications of not having the properly stated SOW. Secondly, *performance measures* (KPIs) must be clearly understood by both parties to ensure a smooth cooperation during the outsourcing process.

Table 2 provides a summary of determinants of successful logistics outsourcing contracts. It can be seen that while most of these determinants are in line with those in the contemporary literature such as teamwork between parties, performance measures, etc., it is worth noticing the importance of having a clearly stated SOW and its implications, which is currently not recorded in the literature.

Determinants	3PL user	3PL provider 1	3PL provider 2	3PL provider 3
Well defined Service Level Agreement (SLA)	√			
Clearly stated Scope of Work	√		√	√
Clearly stated key performance indicators (KPI)	√		√	√
Having the right people		√	√	
Ample time to understand and integrate into the client's business processes		√		

Table 2: Determinants of successful logistics outsourcing contracts

Conclusion

This paper discusses critical factors of successful logistics outsourcing with cases from both 3PL user and providers in Singapore. By reviewing the contemporary literature on the outsourcing process and determinants of successful outsourcing contracts, this paper examines how logistics outsourcing is conducted from the perspectives of both 3PL user and provider and whether critical factors for a successful logistics outsourcing contract appreciated by 3PL practitioners are in line with those reported in the literature. For this purpose, four cases were examined, one is a 3PL user and three others are 3PL service providers. Interestingly, it was found that, although there are some differences between the 3PL user and 3PL providers, and among the 3PL providers themselves, most of critical aspects of successful logistics outsourcing are the same between them and are also in line with those recorded in the literature. For example, all of them emphasised the importance of having the right SOW, performance measurement using widely accepted KPIs such as lead time, cost saving, etc. and those factors and aspects are also in line with those in the literature.

What seems unclear in the literature, however, is how cultural differences can make or break a logistics outsourcing contract. Although the literature reports that firms tend to select a 3PL partner which is compatible in terms of business culture, what remains unanswered is how to overcome cultural differences so as to secure business opportunities. It has been confirmed through the analysis of case studies that these differences may be countered by using the “think global, act local” business strategy. Furthermore, those involved in the outsourcing venture in each firm needs to be “cultural intelligent” through cultural training sessions. Of course, strong commitment in change management from the top management is always an important prerequisite. These are additional critical factors to make logistics

outsourcing a success in the context that 3PL users and providers in outsourcing contracts are today from different cultural regions of the world.

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