

**A STUDY ON INFLUENCING FACTORS AND PERFORMANCE OF
LOGISTICS OUTSOURCING PRACTICES
AMONG ELECTRICAL AND ELECTRONICS FIRMS IN MALAYSIA**

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**KAJIAN FAKTOR-FAKTOR YANG MEMPENGARUHI SERTA PRESTASI
AMALAN MENYUMBERLUARKAN AKTIVITI LOGISTIK DI KALANGAN
SYARIKAT ELEKTRIK DAN ELEKTRONIK DI MALAYSIA**

ABSTRAK

Penyumberluaran aktiviti logistik telah menjadi strategi popular bagi kebanyakan organisasi dalam memburu kecemerlangan operasi di era persaingan sengit pasaran global. Kebanyakan amalan logistik kini disumberluarkan oleh organisasi bagi memfokus secara strategik untuk membangunkan kelebihan kompetitif. Terdapat beberapa faktor daripada perspektif syarikat yang mempengaruhi amalan logistik untuk disumberluarkan kepada pembekal perkhidmatan logistik. Dengan Malaysia dinobatkan sebagai salah satu negara dengan amalan penyumberluaran yang semakin berkembang, adalah penting dan menarik untuk memahami sejauh mana amalan logistik disumberluarkan dan bagaimanakah prestasi amalan ini dalam kalangan syarikat elektrik dan elektronik di Malaysia sebagai unit analisis dalam kajian ini. Kadar maklumbalas 21% daripada 486 syarikat telah diterima dan respons ini ditetapkan sebagai data empirikal untuk kajian ini. Analisis menunjukkan kekurangan aset insan dan fizikal serta ketidaktentuan transaksi mempengaruhi amalan penyumberluaran logistik. Keempat-empat amalan penyumberluaran logistik yang dikaji didapati mempunyai hubungan positif dengan prestasi penyumberluaran logistik khususnya fokus strategik. Kajian ini menunjukkan walaupun pengurangan kos adalah tujuan utama penyumberluaran logistik, hanya pembungkusan dan pengelolaa mencapai faedah kewangan. Kesemua empat amalan logistik menunjukkan pencapaian fokus strategik yang merupakan salah satu ukuran prestasi. Oleh itu, pihak pengurusan syarikat patut meneruskan strategi penyumberluaran sebagai salah satu strategi bagi menumpukan fokus memperkasa keupayaan teras.

ABSTRACT

Logistics outsourcing has been growing as a popular strategy for many organizations in pursuit of operational excellence despite the fierce competitive market globally. Many logistics practices are now outsourced by organizations in order to strategically focus on core business activities to develop their competitive advantage. There are many firms-perceived factors that influence logistics practices to be outsourced to logistics service providers. With Malaysia ranked as one of the top countries with growing outsourcing utilization, it is vitally interesting to understand the present extent of logistics outsourcing practices and the corresponding performance among electrical and electronics firms in Malaysia as units of analysis in this study. A response rate of 21% out of 486 firms selected had been received and fixed as the empirical data for this study. The analysis showed that lack of human and physical asset capabilities and transaction uncertainty are influencing extent of different logistics outsourcing practices. The four logistics outsourcing practices under study were found to have positive relationship with logistics outsourcing performance, particularly strategic focus. This study has enlightened that despite cost reduction being most desired benefit out of logistics outsourcing, financial benefit was only true for packaging and handling. All logistics outsourcing practices achieved strategic focus as one of the performance measured. Therefore, management team of Malaysian electrical and electronics firms should seriously continue logistics outsourcing as one of the most eminent strategies to focus on their core competencies.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Companies strive to utilize the organization's competitive advantage to improve market and profitability (Handfield, 2006). During early years, many companies owned, managed and directly controlled their assets but later diversification took place to enhance corporate base and utilizing full advantage of economies of scale. Organizations tend to protect their profitability by diversifying, and to improve flexibility and creativity, most companies established strategic decisions to focus on their core business by identifying processes that are critical to make outsourcing decision.

As stated by Mullin (1996), outsourcing was only officially considered as a prominent business strategy since 1989. Many organizations are not totally self-sustained and would usually outsource certain functions that they do not own internal competencies. Support services were the next to be outsourced where in 1990s organizations started to focus on achieving cost-saving objectives and began to outsource functions needed to operate the organization but not specifically related to the core competence of the business. Outsourcing can be defined as strategic utilization of external resources carry out activities that were traditionally performed by internal employees and resources and also termed as facilities management. In an outsourcing strategy, a company contracts out certain tasks to service providers with dedicated expert capabilities.

According to Ronan (2006), outsourcing is regarded as an important strategy for cost reduction and performance improvement. Outsourcing is also an important approach for organizations to manage demand uncertainty by absorbing the advantages of economies of scale in logistics service providers in a range of business areas. Jussi (2009) who described outsourcing as shift of activities and processes originally performed internally to an external party explained that outsourcings can be performed using local or international arrangements. Outsourcing internationally is usually termed as offshore outsourcing and involves the change of ownership and demographic profile of the business operation. Offshoring although commonly used to describe offshore outsourcing actually describes the strategy of transferring functions across geographic boundaries. The strategy is executable by employing an outsourcing task (utilizing external resources) or through foreign direct investment (utilizing internal resources).

The research will study the effect of logistics outsourcing influencing factors on logistics outsourcing practices and how do extent of logistics outsourcing practices affect outsourcing performance. This chapter outlines the research direction of the study including background of study, problem statement, research objectives and research questions. Key terms to explain the major variables will be defined for a calibrated clarity. This chapter ends with significance of the study.

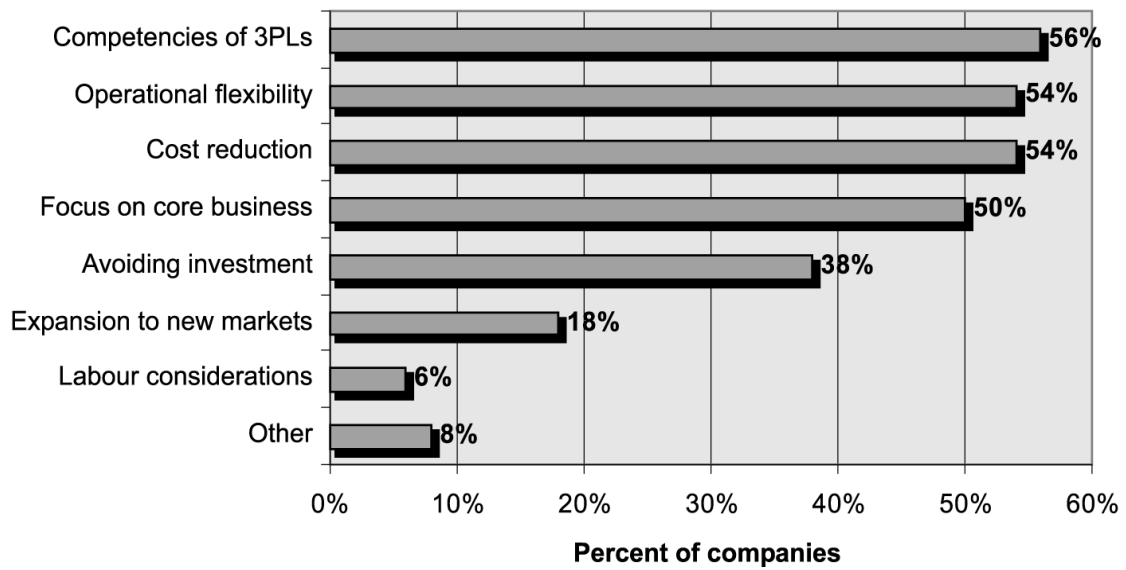
1.2 Research Background

There are many benefits sought from outsourcing. Vijay (2006) declared that more than 83% of the firms employing outsourcing strategies recorded significant drop in purchasing cost, more than 73% obtained savings in transaction cost and more than 60% were able to reduce sourcing and procurement cycles. Belcourt (2006) endorsed

this statement when he described that most popular reason quoted for the outsourcing move is cost reduction and more than 30% of outsourcing arrangements were not continued because the cost reduction targets were not met. Wilding and Juriado (2004) investigated and summarized as in Figure 1 that among the top reasons for firms to choose outsourcing are competencies of third party logistics companies, flexibility in operations, cost reduction and focus on core competencies. The summary shows that outsourcing logistics services is an important business strategy for most firms which intend to achieve operational flexibility in their supply chain activities.

Logistics outsourcing is also able to reduce cost and allow firms to pay more focus on their core business activities which directly impact their market positioning. Other than these factors, there are also firms which outsource logistics activities to avoid investment in specific areas thus allowing them to focus on core competence areas which will determine their business success. Companies also outsource logistics activities in order to expand into new markets and due to other labour considerations. The increased global collaboration and improved capabilities have been drivers of the growth of outsourcing as stated by Hirschheim (2006). According to Fawcett *et al* (2008), outsourcing is a process of shifting a particular aspect of internal business function and sourcing it to an external service provider. In sum, outsourcing takes place when an organization reach to an agreement with another organization to perform major activity related to products or services (Fawcett *et al.*, 2008). Outsourcing is different from alliances or partnerships or joint ventures because the resources flow is single directional, from the provider to the user.

Figure 1.1: Reasons for outsourcing:



Source: adopted from Wilding and Juriado (2004)

There are several outsourcing benefits discussed by different authors. Mingu (2009) mentioned that outsourcing offers low-cost strategy, proximity to foreign markets and easy access to innovative capabilities. Outsourcing will also allow firms to inject more investment on core competencies and enjoy other gains such as flexibility, assets reduction and economies of scale. As discussed by Buehler (2004), outsourcing helps firms to avoid fixed cost of producing in-house and buy it at a more competitive cost from outsourcing service provider. Burdon (2005) highlighted outsourcing benefit from cost and reliability aspects while Bin Jiang (2007) discussed on competitiveness. Holcomb (2006) stated that outsourcing brings cost efficiency to firms as supported by Belcourt (2006) who stated that organizations believe that cost can be reduced by outsourcing certain function in an organization.

Organizations employed many different outsourcing strategies to achieve most benefits from outsourcing practices. Burdon (2005) described contract, innovation, relationship and workforce management are important strategies for outsourcing.

Identifying core and non-core business in a company is also an important strategy in outsourcing as stressed by Bin Jiang (2007). Handley (2008), Hyun Soo (2007) and Webb (2005) wrote that successful outsourcing is influenced by relationship management between firm and outsourcing service provider. Assessment of business criticality supply market and appropriate type of supplier relationship and supplier selection are quoted as important strategies by Momme (2002).

There are various functions that had been outsourced by firms to gain business benefits. –The Global Sourcing Trend 2011” by Maughan *et. al* in January 2011 cited that there are several global factors in 2011 foreseen to influence outsourcing trend. These include market uncertainty, innovation, financial services regulation, demand for green business and globalization. The report also quoted 3Rs as been the overall outsourcing trend- restructurings, renewals and renegotiations. The 3Rs reflect the inclining trend towards outsourcing by most firms as one of their corporate strategy for business sustainability. The report described that outsourcing trend in Asia has been largely influenced by the continued growth due to recovering from the economic recession.

Momme (2002) stressed that most industrial sectors face intensified conditions both in the marketplace and within corporate boundaries. Globalization and technological innovation are the major denominators of the corporate business challenges. The globalization era witnesses many challenging trends such as advancement of information and process technology and extension of customer requirements. Companies are also reducing the total supplier portfolio and concentrate on core business rather than on diversification.

As indicated by Bahrami (2009), the sharp drop in information processing and communications in the past 20 years had resulted in firms to be able to create and

manage a globally dispersed production system thus increasing globalization of production and serviced. Outsourcing is crucially related to the advancement of information and technology which caused the world borderless and makes globalization possible. Hill (2007) mentioned that all evidence indicates that globalization and outsourcing has been increasing and will continue with the same trend in future. Many firms and multinational corporations are responding to this trend in an efficient manner to changing conditions in their operating environment. Globalization and outsourcing are changing the world economy into more integrated and dynamic enterprise which will result in healthy competition, increased efficiency and more jobs.

1.2.1 Outsourcing

Handley and Benton (2008) stated that outsourcing had clearly emerged as a prevalent and transformational business practice. The recent rapidity of market growth had stimulated the way firms manage their global supply chains. There are several reasons why outsourcing had become popular including new technological opportunities, cost reduction due to supplier's economy of scale, access to unique expertise and focus on core competence and differentiation. Edgell *et. al* (2008) discussed that during the earlier phases of outsourcing, cost saving was one of the primary drivers of outsourcing decision. However as outsourcing becomes more eminent, it is realized that outsourcing offers a range of additional benefits such as access to new skills, greater innovation and better speed-to-market for new products. It is believed that in slower economic times, cost plays a more important factor while in good times, other benefits of outsourcing.

As discussed by Diaz-Mora (2005), the determinants to outsourcing from many aspects including financial drivers and flexibility purposes. Financially, outsourcing reduces costs by offering economies of scale to firms and turning fixed costs into variable costs and enjoy flexibility during demand fluctuations. Outsourcing also offers better flexibility and allows firms to focus on their core competencies and outsource non-core activities to contract manufacturers. Wang and Koong (2005) suggested several determinants to outsourcing, including organizational characteristics, resource, strategy, technology, environment, outsourcing characteristics, benefit, long term risk, competition and others.

As highlighted by Parashkevova (2007), outsourcing allows organization to focus their effort in its basic activity. Organizations can outsource many of their business functions including human resources management, information management, production and logistics. Among others, outsourcing is expected to help organizations achieve strategic focus, better operative ability, financial benefit and overall improvement in the organization activities. Parashkevova also quoted several advantages of outsourcing including use of best method and experience, increase of competitiveness, cost reduction and application of high technology.

The trend towards outsourcing both locally and offshore has been increasing significantly throughout the developed economies of the world as supported by McIvor (2007). Many companies are looking for better efficiency and cost reduction as they opt for outsourcing. Most organizations are expecting performance improvement as they embark the outsourcing strategies. Leading firms are said to be adopting more sophisticated outsourcing strategies and have been outsourcing important functions like engineering, manufacturing, design and marketing. The outsourcing of these important functions also allows firms to focus more on other

value added activities such as research, design and competencies development. Dabhilkar, Bengtsson, Haartman and Ahlstrom (2009) described 5 purposes of outsourcing namely cost reduction, increase in focus, quality improvement, increase in responsiveness and increase in innovation capability. Organizations are also expecting outsourcing to help in boosting the increase in responsiveness and innovation capability despite other popularly discussed benefits such as cost reduction and quality improvement. Bryse and Useem (1998) mentioned that outsourcing is becoming an important trend in manufacturing, however when manufacturing outsourcing is discussed it tends to be in general terms. This research will focus on logistics outsourcing and contribute to the growth of literature in understanding the trend in logistics outsourcing practices in particular. The study scope would be in the context of electrical and electronics companies in Malaysia environment.

Figure 1.2 illustrates the future customer segments by 2015 for outsourcing practices as published by IBM Business Consulting Services (2006). 40 percent of customers are expected to use commodity outsourcers which require high level of operational efficiency and apply tactical outsourcing of foundation services such as transport, warehouse and freight forwarding. Another 30 percent are anticipated to be subscribing to high process conformance outsourcers that are characterized by specific operating model, types of people (skill) and systems. Another 20 to 25 percent are foreseen to be using wider service outsourcers who are required to provide economies of scale and economies of scope on top of other characteristics. The diagram also shows evolving outsourcing expectation from clients moving towards strategic outsourcers who will play roles in planning, formulation of supply chain strategy.

		Service requirements	Key features	Commercials and pricing	Indicative outsourced market share 2015
Emerging	Strategic outsourcers	<ul style="list-style-type: none"> Plan and deliver inventory requirements Shared formulation of supply chain strategy End to end scope 	<ul style="list-style-type: none"> Strategic relationship with "shared direction" 	<ul style="list-style-type: none"> Shared risk and reward 	5-10%
	Wider service outsourcers	<ul style="list-style-type: none"> High process conformance Planning and control, execution and technology Reduced complexity – "one throat to squeeze" 	<ul style="list-style-type: none"> Want economies of scale and scope in addition to all the other features 	<ul style="list-style-type: none"> Shared risk and reward 	20-25%
Today's customer segments	High process conformance outsourcers	<ul style="list-style-type: none"> High process conformance Remove data complexity of using multiple providers Wider range of services Continuous improvement 	<ul style="list-style-type: none"> Want services requiring additional capabilities (e.g. retail preparation, reverse logistics) and efficiency improvements each year Executional focus Some specify the operating model, types of people (skills) and systems 	<ul style="list-style-type: none"> Fixed and variable with some risk sharing Fixed and variable 	30%
	Commodity outsourcers	<ul style="list-style-type: none"> High level of operational efficiency; adequate process conformance 	<ul style="list-style-type: none"> Tactical outsourcing of foundation services: transport, warehouse and freight forwarding 	<ul style="list-style-type: none"> Transactional 	40%
	Insourcers	<ul style="list-style-type: none"> Established internally 			

Figure 1.2: Future customer segments adopted from IBM Business Consulting Services (2006)

1.2.2 Outsourcing in Malaysia

Asia is experiencing rapid growth establishment with growing trade and investment regionally and some studies reported positive predicted growth for logistics outsourcing in Asia (Hsiao *et al*, 2011). For example a study of logistics outsourcing services in Turkey by Aktas and Ulenin (2005) concluded that logistics outsourcing has a great potential for further development. Based on current application of contracted logistics services, Sohail *et al* (2006) underlined that there is wide scope of future logistics services in Malaysia and Singapore.

Malaysia and Singapore are described by Sohail, Bhatnagar and Sohal (2006) as two important countries in ASEAN with positive trade balances, capital flows and internationally competitive business environment and a diversified industrial base.

Malaysia has been developing progressively under prosperous political, social and economical stability which enable steady market growth in electrical and electronics industries. Kearney (2005) stated that Malaysia is one of the most attractive outsourcing locations in the world, ranking third after China and India. This is a clear indicator of investors' preference of Malaysia as their outsourcing site. Datamonitor (2009) stated that Malaysian outsourcing market has increased at the rate of 15 percent annually and expected to reach US\$1.1 billion in 2009 and increase to US\$1.9 billion in year 2013. This information is aligned with a statement by Kadir (2007) who mentioned that Malaysia is a leading destination for the outsourcing hub due to its low cost, modern infrastructure and business environment. Aroop Zutshi, President of Frost and Sullivan reported in MSC Highlights that Malaysia is continuing its role as a primary location for outsourcing in the region. The expanding role as outsourcing hub is contributed to the friendly government policies and serious initiatives in world class environment provision.

Jarman and Chopra (2007) mentioned that a recent global service location index ranks Malaysia third out of a study of 40 countries in terms of desirability as an offshore location. This is another evidence of Malaysia's potential to be a leading outsourcing hub in this region. Therefore it is very vital to identify the issues that affect outsourcing performance in Malaysia. According to them, Malaysia had also became third most attractive country for outsourcing after China and India.

United Nations (2005) in a report titled "Business Process Offshore Outsourcing Untapped Opportunities for SMEs" mentioned that among outsourced functions provided by business process outsourcing providers included IT services, hardware design, engineering, call centre and research and development. Malaysia, Thailand and Vietnam are listed as emerging countries from Asia Pacific for business

process outsourcing locations. The report also quoted Jack Welch, former CEO of General Electric mentioned that 70% of General Electric work will be outsourced.

Wai *et al* (2010) highlighted that Southeast Asian countries are observing MNCs and original equipment manufacturer (OEM) from developed countries existing in the market together with local SMEs and large electronic manufacturing service providers which are supporting by fulfilling subcontracting jobs to manufacture components and electronic parts. Outsourcing of electronics products and components in Southeast Asian countries were triggered by luxury pool of cheap labour and lower operation costs as well as the similarities in designing electronic components which makes an outsourcing project more successful in electrical and electronics sector. Sohail *et. al* (2006) stated that their analysis concluded that Malaysian companies used outsourcing to save time, improve customer service and benefit from good payment and credit terms. Malaysian companies had been reported using outsourcing more extensively for international business. Their study concluded that there is wide scope of logistics services in Malaysia and good potential for future development.

Outsourcing Malaysia stated that local outsourcing industry is expected to generate a total revenue of RM6.1 billion by 2013. To achieve this target, the industry must maintain its 15 percent annual growth according to David Wong, chairman of Outsourcing Malaysia. Although Malaysia is still left behind India and China in outsourcing services, it had been consistently rated as preferred location for outsourcing services in reports by A.T Kearney, a global management consulting firm. In order to increase competitiveness of Malaysia outsourcing companies, Outsourcing Malaysia is also planning to introduce policy incentives to encourage mergers and acquisitions. In order to incite local outsourcing industry, Outsourcing

Malaysia will be focusing on international partnership which is a key driver to accelerate local companies' competencies and move them to become global service providers.

The latest trend is observing many companies such as Avago Technologies, Alterra Technologies and Dell outsourcing their production to service providers. One of the factors contributing to this trend is shorter product life cycle especially in electronics industry whereby some products like cell phones have a shorter life cycle of six months. Being first to market is the key strategy for such products with short life cycle. The industry is moving towards a direction which competition is between supply chains and not just between companies. A rapidly increasing proportion of end products are now never been touched by the brand owner, instead the companies outsource the manufacturing to specialists called electronics manufacturing services providers. Companies such as Phillips, Apple Computer, Lucent Technologies, Hewlett Packard, Ericsson, Compaq and Nokia had liquidated their plants and chose to partner with top service providers to enhance their competitive advantages (Wai *et al*, 2010)

1.2.3 Logistics Outsourcing

One of the popular functions being outsourced has been logistics services. The recent trend shows that firms rely on the performance of their logistics outsourcing strategy for a more successful logistics management as supported by Aktas and Ulengin (2005). Another favourite advantage of using logistics outsourcing service is the cost reduction that leads to increased revenue. Outsourcing provides a unique power from different dimensions that is not available within an organization's internal department

including improved flexibility and procurement of new technologies as mentioned by Bendor and Samuel (1998).

Service outsourcing has recently moved beyond basic activities to encompass more elaborate activities of the value chain such as information technology systems, telecommunications, logistics and others (Barthelemy, 2002). In Australia for example, logistics sectors are worth approximately A\$60 billion or approximately 9 percent of Australia's GDP (Frost and Sullivan, 2005). Logistics services are now considered as popular functions selected by many firms to be outsourced to a third party company. From supply chain perspective, Razzaque and Sheng (1998) discussed that management of logistics functions in modern organizations involves decision making for the systematic distribution of goods and services. They stated that logistics function can be the key driver in the strategic effort towards supply chain integration. A growing interest in logistics outsourcing has been signified by the volume of articles on the subject in published journals, trade publications and popular media and the evolution of logistics outsourcing has been considered as one of the most popular discussion topics in business.

Logistics functions play important role in supporting export activities and effective logistics management is classified as a strong source of competitive advantage since it does not only provide an avenue for cost savings but also enhance quality of products and services offered by firms. Effective and efficient logistics services enhance firm's competitive advantage, therefore logistics management can be considered as a key component of organizational effectiveness and success (Banomyong, 2011). He also discussed that logistics service providers that are able to provide high level of logistics services to its clients should be able to reduce client's operational costs, lead time in transportation and support to provide better customer

service level to improve competitiveness of their clients. Therefore it is very important to understand the level of logistics services outsourced or the extent of logistics outsourcing practices in the organizations.

A firm's logistics activities can be a combination of in-house and third party facilities by an outside company that perform some or all of a firm's logistics activities. Sohail and Sohal (2003) mentioned that the most outsourced logistics activities are related to freight transportation. As indicated by Banomyong (2011), traders' spike in demand for international freight logistics services led to industrious growth of the LSP industry. Many freight companies even rebranded themselves to be LSP companies to compete in the logistics market. According to Rahman (2011), percentage of outsourcing shows increasing trend with logistics service providers' efforts in their efficiency and productivity improvement through service integration and maximum utilization of information technology. Technological enhancements in particular improve information management systems and ultimately enable LSP companies to develop customized solutions for end-users. Most firms demonstrate growing concern on logistics service providers towards cost, service, focus or core competence, experience, asset reduction and access to suitable information technologies. Rahman quoted that Bardi and Tracey (1991) and Lieb and Randall (1996) investigated firms using outsourcing services to determine extent of logistics outsourcing penetration. The survey results suggested that the logistics outsourcing is increasingly common and it is a dynamically expanding source of cost reduction, competitive advantage and customer service improvements.

In this modern globalized world, firms are very alert on the need to sustain a robust business model so as to protect their position in the industry. A global outsourcing trends review in 2008 by Edgell, Meister and Stamp revealed that

economic slowdown will see a move back towards cost-driven outsourcing. Kotabe and Mol (2009) mentioned that firms face intense competitive pressure due to factors like technological change and globalization. Due to these challenges, large and small companies are outsourcing their activities by shifting the traditionally handled in-house to external suppliers. Figure 1.3 illustrated the percentage of budget allocated for logistics outsourcing as studied by Wilding and Juriado (2004). 24 percent of companies under their study allocated approximately 30-50 percent of logistics budget for outsourcing. 34 percent of companies allocated around 50-100 percent of logistics budget for outsourcing. The logistics budget for outsourcing is a reflective indicator on the level of outsourcing for logistics activities by these companies. In summary, the study shows a significant trend of logistics activities outsourcing by companies whereby 34 percent of the companies outsourced more than 50% of their logistics activities.

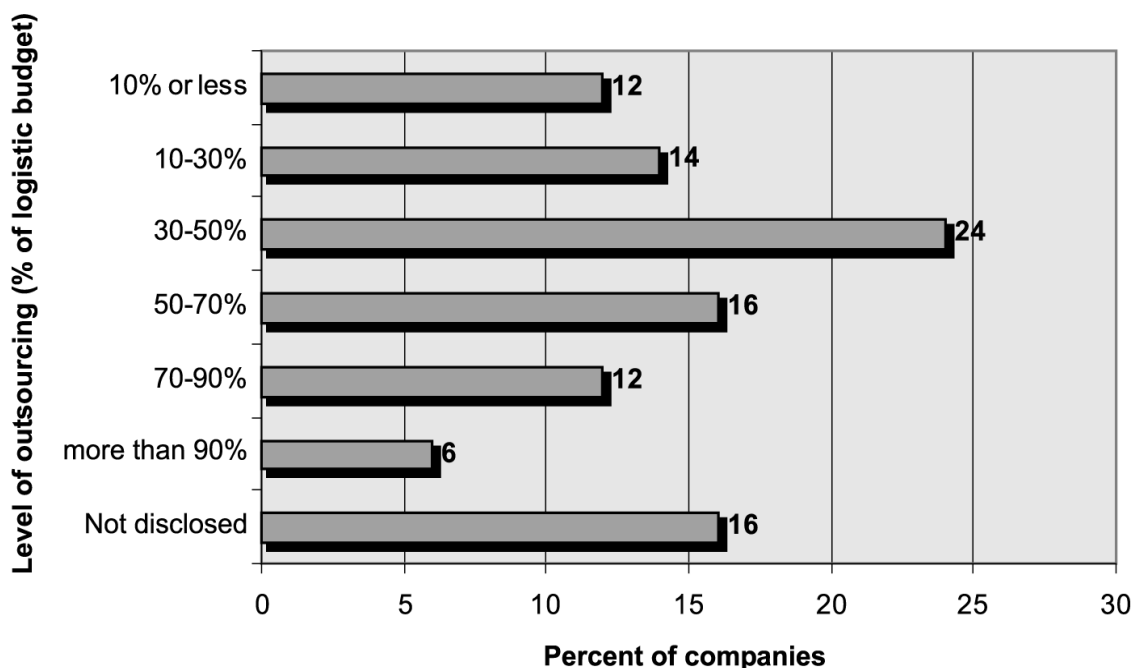


Figure 1.3: Level of outsourcing by percentage of logistics budget outsourced :

adopted from Wilding and Juriado (2004)

Logistics has been an important part of every economy and every business entity and logistics cost average about 12 per cent of the world's gross domestic product (Cheng, 2003). There are many different industries that are utilizing outsourcing as part of their business model. Figure 1.4 below from "The State of Logistics Outsourcing: 2008 Third-Party Logistics- results and findings of the 13th annual study" shows that a wide variety of industries are using third party logistics outsourcing. High technology and electronics industry is the largest sector using logistics outsourcing services followed by automotive (12 percent) and consumer products (11 percent). It is evident that logistics outsourcing service has been gaining a very popular demand with the recent market trend. Industrial manufacturing and defense and life science and healthcare contribute to 15 percent of logistics outsourcing service users.

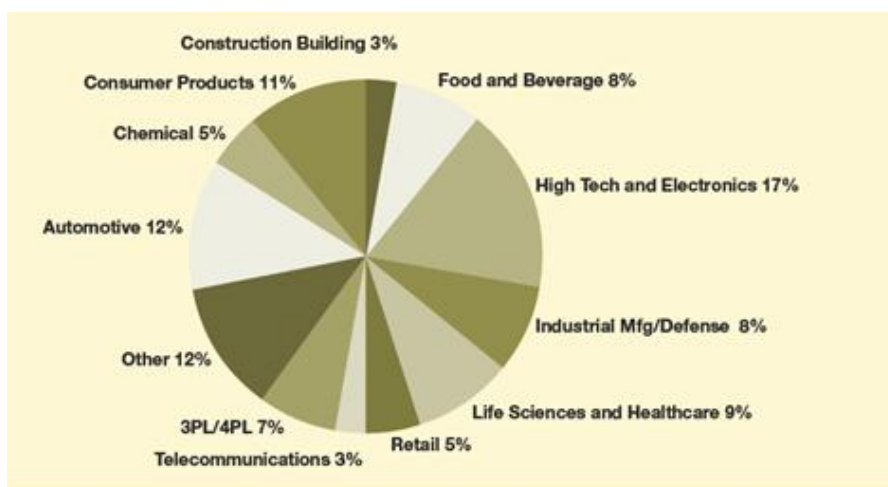


Figure 1.4: Third party logistics users from a wide variety of industries adopted from The State of Logistics Outsourcing: 2008 Third-Party Logistics

Figure 1.5 from the same report suggested that 90% of customers in Asia Pacific considered logistics outsourcing as successful with 20% concluded as extremely successful. This report quoted three factors as the drivers of logistics

outsourcing success that include strong relationship, strong contract and measurable and attained metrics. The report however also revealed that there are several challenges to logistics outsourcing, among others include commitment issues (hit 51% of customers), lack of continuous improvement (42%) and information technology capabilities issues (39%). This report also exposed the percentage of current logistics expenditures directed at outsourcing with Europe (61%), Asia Pacific 57% and North America (49%). This large expenditure signifies outsourcing as an important corporate strategy in the firms. On the whole, 86% of respondents consider their logistics outsourcing as successful with 21% as extremely successful. This is a clear indicator that most of the companies which use logistics outsourcing services deem this strategy as successful for their business.

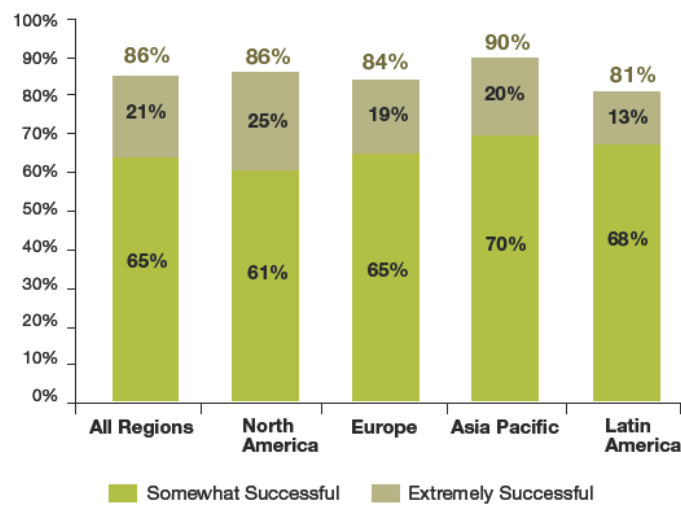


Figure 1.5: Customers' successful experiences with logistics outsourcing adopted from The State of Logistics Outsourcing: 2008 Third-Party Logistics

Figure 1.6 illustrates the functional modification of logistics approach adopted from Parashkevova (2007). The diagrams show evolution of logistics approach from transportation to logistics outsourcing to integral management of logistics chain in

year 2000 onwards. During the first stage between 1985-1995, outsourcing included unique functions and involved local or regional areas while consumers' main intention is for cost reduction. In the era of 1995-2000, multifunctional services are being outsourced in inter regional areas and consumer began to focus on expenditure evasion. The recent years of 2000 onwards showed a significant trend of integral multifunction services being outsourced in global locations. Clients now use logistics outsourcing as a strategy to achieve expenditure and services optimization.

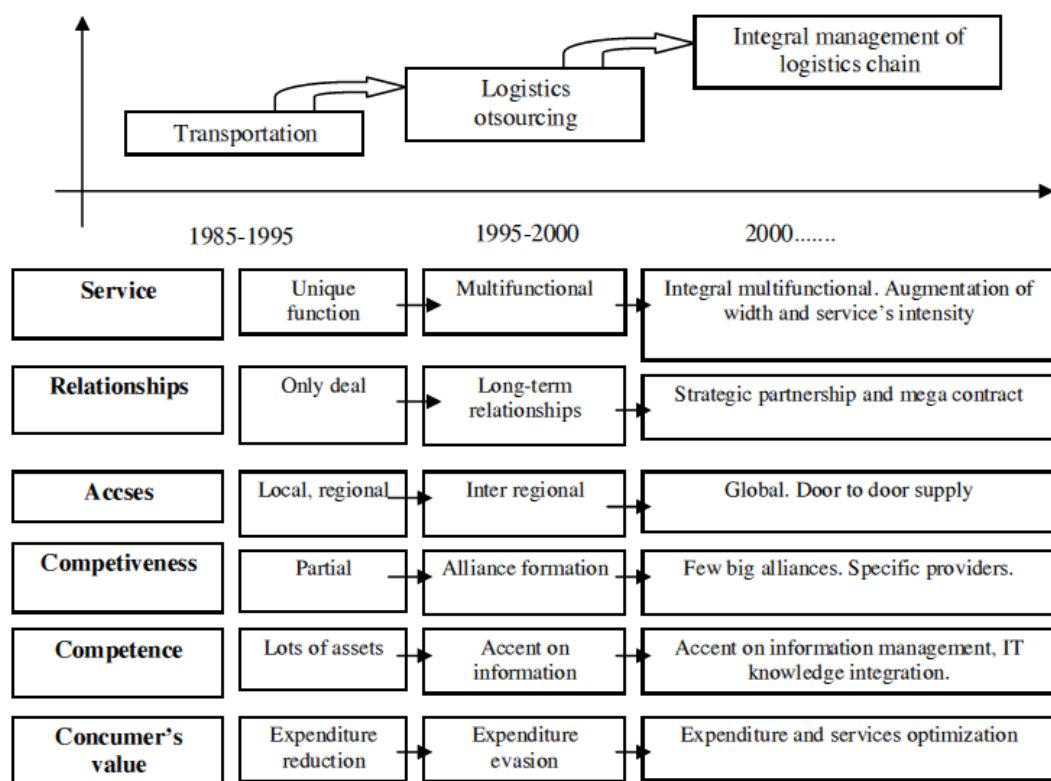


Figure 1.6: Functional modification of logistics approach adopted from Parashkevova (2007)

As illustrated in Figure 1.7 below, logistics service provider companies had evolved from different perspectives- services offered, outsourcing models, relationship and pricing. The scope and integration level can be seen narrowing from

fundamental services to core and extended services, lead logistics and ultimately achieve synchronized supply chains. The services offered had tremendously improved from foundation services to core and extended services and enhanced to lead logistics and ultimately synchronized supply chain. Transport and warehousing were the foundation services offered which later include inbound and outbound logistics services and freight forwarder. The recent trend revealed a new outsourcing model of synchronized provider and supply chain integrator as the role of logistics service provider.

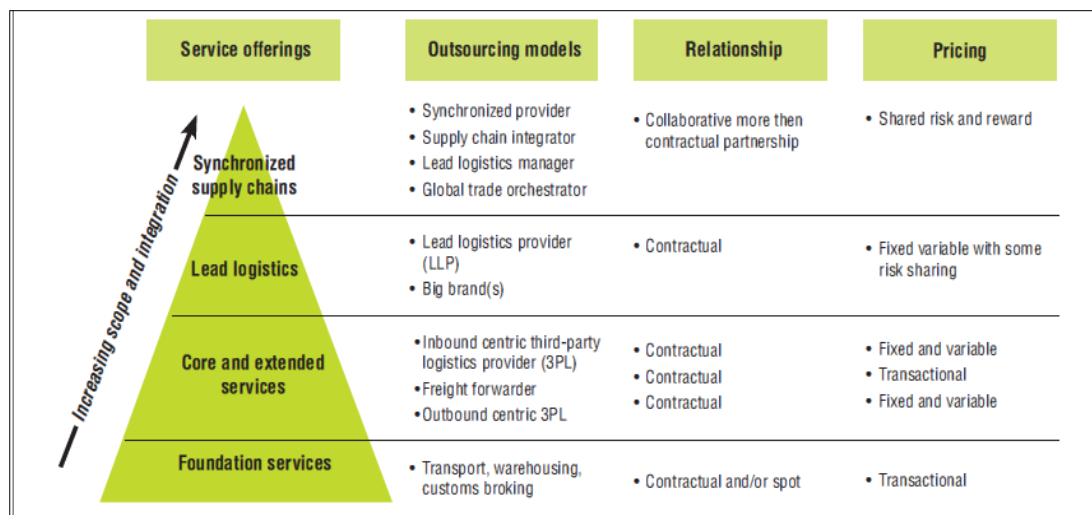


Figure 1.7: Evolution of logistics service provider model adopted from IBM Business Consulting Services (2006)

Kersten *et.al* (2008) discussed that the ever growing trend of logistics outsourcing in recent business environment resulting in many new outsourcing business models had been developed. The scope of logistics outsourcing grow from few simple functions including transportation and storage service to more complex bundles of logistics services which exhibits high growth rate. Logistics outsourcing

offers attractive benefits to firms ranging from cost reduction, improved quality of service and ability to focus on core competencies.

The aim of outsourcing has now shifted from short term cost reduction to a long term strategic business engagement between firms and outsourcing service providers as reported by Kersten *et.al* (2008). The cost aspect however is the most important factor for logistics outsourcing according to Wilding and Juriado (2004). Therefore it is very interesting to understand what are the real influencing factors of outsourcing, whether the long term strategic engagement or still the cost reduction purposes. Logistics providers are believed to have the ability to achieve economies of scale by performing logistics operations at lower cost Jung (2004). According to Wang & Regan (2003), many firms choose logistics outsourcing to restructure their distribution networks in order to gain competitive advantage. By outsourcing, non-core functions are turned over to contract manufacturer and thus enable firms to leverage their resources, spread risks and focus on more critical areas for long term growth for the organization. Logistics outsourcing has increasingly emerged as an effective way to reduce cost and spread risk. Elimination of infrastructure investments, access to world-class technology, reduced operating cost and access to resources not available in organization make economic advantages of outsourcing more possible.

Logistics outsourcing involves a wide range of services as illustrated in Figure 8. These include warehousing functions such as freight consolidation, product returns and product installation. Outbound transportation includes inventory management and order fulfillment while inbound transportation involves selected manufacturing activities and customer service. Product handling such as marking, labeling and

packaging, traffic management and fleet operation and order entry and processing are among the logistics services offered in freight bill auditing and payment.

<i>Warehousing</i>	<i>Outbound Transportation</i>	<i>Freight bill auditing/ payment</i>	<i>Inbound Transportation</i>
Freight Consolidation/ Distribution	Cross-docking	Product Marking/ Labelling/ Packaging	Selected Manufacturing Activities
Product returns & repair	Inventory Management	Traffic Management/ Fleet Operation	IT
Product Assembly/ Installation	Order Fulfilment	Order Entry/ Order Processing	Customer Service

Figure 1.8: Types of logistics services that can be outsourced adopted from Riordan and Sweeney (2007)

Outsourcing strategies play a very important role in ensuring outsourcing success for a firm. Luciana and Altair (2003) discussed that firms tend to outsource their specific process to a specialized provider who is an expert in that area. Firms will usually seek for performance improvements through economies of scale, efficient utilization of production capacity, overhead cost reduction, selective profitable market segments and gaining production process flexibility. Mello, Stank and Esper (2007) mentioned that *“one particular strategy that has become increasingly popular is the use of third-party logistics (3PL) support for global supply chain execution.”* They also declared that understanding of logistic outsourcing is critically important in order to capture the role and value of logistics from the aspects of competitiveness and corporate strategy. Logistics outsourcing in which a third party logistics (3PL) provider is contracted for certain portion of all sections of an organization’s logistics operations has seen consistently increasing use.

1.3 Problem statement

Qureshi *et al* (2006) cited that it has been estimated that about 40 percent of the global logistics is outsourced (Wong *et al*, 2000). Cheong (2003) wrote that logistics has been an important part of every economy and every business entity. Logistics cost average about 12% of the World's GDP. In Singapore, logistics cost accounts for about 11% of its GDP. The worldwide trend in globalization has influenced many companies to outsource their logistics function to logistics service provider companies in order to focus on their competitive advantage.

Razzaque and Sheng (1998) discussed that management's lack of confidence in an outside company to deliver service as high a level as the company employee is a major issue- firms are worried that service providers may not possess sufficient capabilities to perform a function. Difficulty to assess savings to be gained through outsourcing creates additional problems. Firms should not solely focus on cost issue but also consider how logistics service providers can help their business become sustainable through the development of symbiotic relationship (Banomyong, 2011). As suggested by Rao and Young (1994), leading companies have already identified opportunities for efficiency by sourcing globally for increase in market share and revenues through entry into overseas markets. Global distribution being more complex has become a necessary logistics function for many companies.

According to Rahman (2011), the first comprehensive study on the extent of use of third party logistics services was conducted by Lieb (1992) to identify extent of logistics outsourcing among American manufacturers, the benefit sought, impact of logistics outsourcing on logistics cost, customer satisfaction and the trends of use of third party logistics over time and across geographical locations. Rahman also discussed that Sohal *et al* (2002) and Bhatnagar *et al* (1999) also had similar studies

but for Australian and Singaporean context and reported that most users of third party logistics services are satisfied and tend to continue their usage of logistics outsourcing services in future. Arroyo *et al* (2006) studied logistics practices in Mexican firms and compared them to those in Europe and USA and found that Mexican firms aim for customer service and intend to concentrate on core functions. Firms in Europe and USA meanwhile put tactical focus on integrated functions when using logistics outsourcing.

Rahman (2011) further indicated that some studies compared usage of logistics services between different regions (Lieb *et al*, 1993) while Lieb and Miller (2002) investigated chief logistics executives of Fortune 500 manufacturers about their use of logistics outsourcing. It was concluded that users are generally satisfied with the benefit of logistics outsourcing services for their companies especially in the areas of logistics costs, logistics service levels and customer service. A few studies were conducted in developing economies which investigated extent and usage of logistics services from user's perspective. Sohail and Sohal (2003) investigated and concluded from analysis of 124 firms that most of these users are satisfied with the service providers and have seen positive developments within the organizations. **Their work however did not test the extent of logistics outsourcing practices particularly in any type of firms. Sohail and Sohal (2003) analyzed logistics outsourcing trend in Malaysia from an overall perspective without specific focus in any industry. Sohail and Sohal (2006) studied logistics outsourcing practices in Singapore and Malaysia generally however did not probe into the actual practices applied in the firms. This is an obvious research gap from existing literature on logistics outsourcing.**

Despite the growing trend of logistics outsourcing, there are very limited sources of literature on logistics outsourcing in Malaysia. Maelah, Aman, Hamzah,

Amiruddin and Md Auzair (2010) mentioned that there are limited studies on outsourcing. This is also an important research gap identified from the literature review. It is very crucial in the Malaysia context to understand the extent of logistics outsourcing in this country and the relevant trends. From the recent articles search, there is no specific study available to determine the extent of logistics outsourcing practices in Malaysia. No available literature found from the journal search that discusses the relationship between outsourcing influencing factors and extent of logistics outsourcing practices in Malaysia context. Therefore, this study is very relevant to investigate the extent of logistics outsourcing practices in Malaysia, relationship with their influencing factors and how do logistics outsourcing practices contribute to the overall outsourcing performance.

Hsiao *et al* (2010) in his case study analysis pointed out that companies outsourced logistics services because they do not own suitable transport vehicle which is one of the factor lacking in the firm's physical asset. There are companies which do not possess suitable transportation means to facilitate their logistics operations and outsourcing is a way out as one of their business strategy. This is supported by Kremic, Tukul and Rom (2006) who mentioned that the greater the asset, the less of a candidate the function is for outsourcing. Transport vehicle is basically a general and less specific asset thus making it an easy choice to be outsourced by most firms.

Kremic *et al* (2006) also quoted Green (2000) describing lack of human resources as another strategic aspect considered in an outsourcing decision. Firms which face challenges with need of skills and knowledge will be influenced to outsource their functions to gain world class capabilities from the logistics service providers. As stated by Kremic *et al* (2006), there may be cases when best alternative for an organization is to acquire needed skills from outside sources. Green (2010)