

3PL FINANCIAL PERFORMANCE IN
MALAYSIA – INTERNAL AND EXTERNAL
DRIVERS

by

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LIST OF ABBREVIATIONS

1PL	First Party Logistics
2PL	Second Party Logistics
3FL	Third Party Fulfilment Logistics
3PL	Third Party Logistics
4PL	Fourth Party Logistics
AVE	Average Variance Extracted
CBSEM.....	Covariance-Based Structural Equation Modeling
CEO	Chief Executive Officer
CMV	Common Method Variance
CA.....	Cronbach Alpha
CFA	Confirmatory Factor Analysis
CR	Composite Reliability
EDI	Electronic Data Interchange
ENDO.....	Endogenous Construct
EXO	Exogenous Construct
FDI	Foreign Direct Investment
FMFF	Federation of Malaysian Freight Forwarders
GDP.....	Gross Domestic Product
GLCs.....	Government-Linked Companies
HK	Hong Kong
ICT	Information and Communication Technologies
ILS.....	Integrated Logistics Services
IMP3	Third Industrial Master Plan
IT	Information Technology

IO	Industrial Organization
LPI.....	Logistics Performance Index
LSP.....	Logistics Service Providers
MBV.....	Market-Based View
MITI.....	Ministry of International Trade and Industry
NLDC.....	National Logistics Development Council
PLS.....	Partial Least Squares
PM	Prime Minister
R&D	Research and Development
RBV	Resource-Based View
RFID	Radio Frequency Identification
ROA	Return on Assets
ROI	Return on Investments
ROS.....	Return on Sales
SCP.....	Structure-Conduct-Performance
SEM	Structural Equation Modeling
SPSS.....	Statistical Package for Social Science
US.....	United States
VIF	Variance Inflation Factor

PRESTASI KEWANGAN LOGISTIK PARTI KETIGA DALAM MALAYSIA – PEMACU DALAMAN DAN LUARAN

ABSTRAK

Ekonomi global sedang mengalami keadaan yang tidak menentu dan tindak balas strategik logistik parti ketiga (3PL) di Malaysia tidak terkecuali. Permintaan yang tinggi daripada pengguna 3PL dan kemunculan 3PL yang ramai memang mewujudkan persaingan di antara firma 3PL untuk menarik pengguna. Ini memerlukan firma-firma 3PL untuk mengkaji semula strategi mereka bagi meningkatkan daya saing firma. Kajian ini memfokuskan kepada penilaian keadaan luaran dan dalaman dan diikuti oleh pemilihan strategik daripada firma-firma 3PL di Malaysia untuk mencapai prestasi pengoperasian dan kewangan dalam keadaan ketidakpastian ekonomi global. Pilihan posisi strategik firma 3PL adalah kos rendah dan perbezaan yang boleh menghasilkan prestasi pengoperasian kos dan perkhidmatan untuk meningkatkan prestasi kewangan. Model komposit yang dikaji adalah berdasarkan kedua-dua perspektif Pandangan Berasaskan Sumber Firma (RBV) dan Pandangan Berasaskan Pasaran (MBV). Hasil kajian ini menunjukkan bahawa keadaan luaran dan dalaman dapat mempengaruhi penekanan operasi dan prestasi pengoperasian, ini seterusnya memacu prestasi kewangan. Kajian ini juga berjaya menemukan 10 laluan penuh yang bermula sama ada dari keadaan luaran atau dalaman yang melalui penekanan operasi dan prestasi pengoperasian dan seterusnya memacu prestasi kewangan. Laluan penuh ini menunjukkan bahawa RBV dan MBV wujud sebagai pelengkap dan bukan model yang bersaing di antara satu sama lain. Dalam ekonomi global yang tidak menentu ini, firma-firma 3PL menggunakan keupayaan kos dan perkhidmatan sebagai strategi. Hasil kajian ini disokong oleh teori keupayaan kumulatif. Tesis ini mengusulkan

kepada pengamal industri dan kerajaan bagi mengemukakan sumber-sumber yang dapat meningkatkan prestasi pengoperasian apabila menghadapi keadaan luaran ketidaktentuan untuk meningkatkan prestasi kewangan. Tesis ini juga mengemukakan cadangan bagi kajian akan datang.

3PL FINANCIAL PERFORMANCE IN MALAYSIA – INTERNAL AND EXTERNAL DRIVERS

ABSTRACT

The global economic environment is experiencing uncertainties and the strategic responses of third party logistics (3PL) in Malaysia are not precluded. With the 3PL industry experiencing growing demands of 3PL users and the emergence of more 3PL service providers, these have created further competition within the 3PL industry to attract user firms. This requires 3PL firms to review their strategies to become more competitive. This study focused on the evaluation of external and internal environment followed by strategic choices made by 3PL firms in Malaysia to produce operational performance achieving financial performance in the wake of economic global uncertainties. The 3PL firms strategic positioning choices are low costs and differentiation yielding operational performance of cost and service to achieve financial performance. A composite model was studied based on both perspectives of Resource-based view and Market-based view. The findings show both the external and internal environment influence operations emphases and operational performance leading to financial performance. This study has also found 10 full paths in the model beginning from either external or internal environment through operations emphases and operational performance driving financial performance of 3PL firms. These full paths indicate RBV and MBV are complementary rather than competing frames. In this uncertain global economic environment, firms exercise both cost and service capabilities as their strategies. This finding is supported by the theory of cumulative capabilities. This thesis makes several recommendations for industry practitioners and government to leverage resources producing operational performances when encountering the uncertain

external environment to achieve financial performance. The results of this thesis also give directions for future research.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This is a study about third party logistics service provider (henceforth known as 3PL) industry competitive environment in Malaysia and in particular relating to the making of strategic decisions to achieve financial performance. This chapter begins with a background of the study followed by the development of 3PL in Malaysia. The current problems faced by 3PL in Malaysia are described in the problem statement followed by research questions and research objectives. The significance of this study and definitions of key variables are also described ending with organization of the rest of this thesis.

1.2 Background of the Study

The Malaysian economy is likely to grow 5.4 percent in 2013 (Kumar, 2013) albeit at a slower rate compared to the previous year (Table 1.1). This is because the persistent uncertainties and challenging external environment continued into 2013 (Alias et al., 2012; Ho, 2013). In the event of an economic downturn similar to the one following the 2008 crisis, sharp declines will likely occur in the demand for machinery, capital goods and durables (Tan, 23rd Sept 2013). Countries that depend heavily on this type of production would be most vulnerable to postponement in capital expenditures by investors and government (Burns & Van Rensburg, 2012). The countries that rely heavily on manufactures are China, India, Korea, Malaysia, the Philippines, Thailand, Taiwan and Turkey would be affected (Burns & Van

Rensburg, 2012). In such a case, manufacturing goods would be expected to see the sharpest drop in volumes which will have exporting countries more likely see bigger hits to their GDP (gross domestic product) (Burns & Van Rensburg, 2012; Kok, 22nd Aug 2013). Against the unfolding of such global and local economic events, service which was the fastest growing sector at 7.0 percent in 2011 decreased to 6.4 percent in 2012. In spite of the decrease, the service sector remained the highest growth in 2012 and manufacturing which recorded the second highest growth at 4.7 percent in 2011 increased slightly to 4.8 percent in 2012 as illustrated in Table 1.1.

Table 1.1: Annual Change

Year	Annual Change (%)			
	2009	2010	2011	2012
GDP	-1.6	7.2	5.1	5.6
Service	2.6	6.8	7.0	6.4
Manufacturing	-9.0	11.9	4.7	4.8

Source: Department of Statistics, Malaysia (2013)

Service has played a greater role over the years and is envisaged to provide the source for the sustained rapid growth of the economy to achieve the vision of becoming a developed nation by 2020 (MATRADE, 25th March 2011). Therefore, the aim of the Third Industrial Master Plan (IMP3) 2006-2020 is also to position the service sector as a major source of growth in addition to manufacturing with eight non-Government service sub-sectors targeted for development. The eight non-Government service sub-sectors targeted for greater development and promotion were (1) business and professional services, (2) distributive trade, (3) construction, (4) education and training, (5) healthcare and services, (6) tourism services, (7) ICT (information and communications technologies) services, and (8) integrated logistics services. These eight non-Government services were targeted to grow at 7.5 percent

annually and contributed 59.7 percent to GDP in 2020 (Ministry of International Trade and Industry (MITI), 2006). This could explain why the service sector is larger than before and a growing component of Malaysia’s expanding economy accounting for 54.6 percent of the country’s GDP in 2012 (Malaysia, 2013). The service sector in fact clearly took the lead as the main contributor to the economy (MITI, 2012) and breached the 50 percent contribution to GDP in 2001. It gathered momentum to attain 53 percent in 2007 and beyond (Table 1.2).

Table 1.2: Contribution (%) in GDP by Sector

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Service	51	51.3	50.5	50.3	51.2	52	53.6	55	53.2	53.2	54.2	54.6
Manufacturing	29.4	29	30	30	30.7	31.1	30.1	29.2	24.2	25.2	25.1	24.9

Source: MITI (27th Mar 2012) and Malaysia (2013)

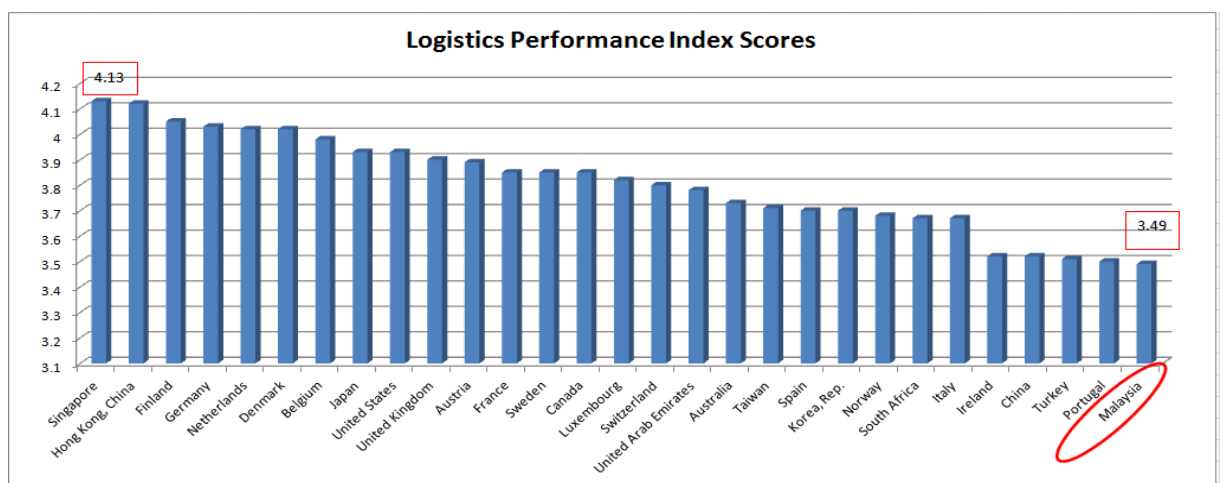
With respect to the service sector as a new source of economic growth, it brought significant contribution of 54.6 percent in 2012 to the Malaysian GDP (Malaysia, 2013). The economic growth of Malaysia has prompted the development of an efficient logistics sector capable of transporting manufactured products to international markets quickly and inexpensively (MITI, 2006; Sohail et al., 2006; Alejandro et al., 2010). Examples of the development are the substantial investments made in roads resulting in well-maintained highways that support efficient overland shipping and the country’s participation in a proposed 5,500-kilometer trans-Asia railway linking Singapore, Malaysia, Thailand, Cambodia, Burma, Laos, Vietnam and China (Alejandro et al., 2010). A strong emphasis was also put on the development of transport infrastructure namely ports, airports, road and rail under its various development plans (“Significant contribution by transport sector towards Malaysia's economic strong growth in 2nd quart”, 19th Aug 2010) to establish new

capacities and facilities in ports and airports in order to position the country as a regional hub for logistics (“Malaysia identifies logistics industry as among sector that need to be beefed up”, 13th Jan 2010). Examples of new capacities and facilities are the seamless and efficient maritime cargo transportation infrastructures and services found in the government Strategic Plan 2008-2015 to enhance Malaysia’s competitiveness in order to cultivate the ability to handle bigger volumes of trade (“Significant contribution by transport sector towards Malaysia's economic strong growth in 2nd quart”, 19th Aug 2010).

The aforesaid development was necessary to keep pace with the increasing demand of international trade and the logistics industry needed further development to provide a source of growth to the national economy (MITI, 2006). This is consistent with Armstrong (2006) claiming “logistics is the backbone of global trade and identified as a service sector that needs to be beefed up as trade remains an important lifeline for Malaysia.” Similarly, logistics gave Malaysia its competitive edge (Kang, 24th Nov 2008) and was identified as a source of competitiveness (Malaysia, 10th June 2010). Therefore, this required the encouragement of LSP to develop in the direction which would result in the country being served comprehensively and efficiently in all the major modes (road, rail, air and sea) (MITI, 2006).

The logistics industry was expected to grow 9.5 percent to reach RM139.74 billion in 2013 which is a marked increase from RM127.66 billion a year ago due to strong sustainable economic growth in Malaysia and strong intra-Asian trade (Ali, 16th Jan 2013). Given the positive growth of the logistics industry, it was expected to

grow at a compound annual growth rate of 10.2 percent to reach RM207.4 billion in 2017 (Ali, 16th Jan 2013). Although the development of the Malaysian logistics industry is positive, it is ranked a mere 29th place on the Logistics Performance Index (LPI) scores obtaining only 79.8 percent (Figure 1.1). Malaysia scored 3.49 in LPI scores with a score of 1 as worst and a score of 5 as best possible. Therefore logistics performance in Malaysia was trailing behind other developed countries like Singapore, Germany, and Japan (Arvis et al., 2012). According to Kumar (2009), “the World Bank developed this LPI and serves as a benchmarking tool for measuring business performance along a country’s supply chain.” The 29th placement of Malaysia in the LPI (Arvis et al., 2012) would certainly raise concerns. In this connection, Ali (11th Oct 2010) cited Vizayer, a Dynamic Learning Resources trainer and consultant that “to achieve a strong logistics sector, a country must put in place the processes of logistics.” This would imply a research first focused upon a national study on logistics decisions which would obviously include making strategic decisions (such as low cost or differentiation) in its dynamic external and internal environment.



Source: World Bank, LPI Ranking and Scores 2012

Figure 1.1: Logistics Performance Index Scores

1.3 Logistics in Malaysia

The logistics industry in Malaysia comprises transport service providers and includes operators of road, rail, air and sea transport, multimodal operators, terminal operators, and logistics service providers (LSP) providing facilitation services, distribution services, integrated logistics and business support services (MITI, 2006). The logistics industry appears attractive enough as its growth is in tandem with its economic strength as evidenced by its strong contribution to GDP growth, significant external trade volumes, strong foreign direct investment (FDI) inflow and strong government support in Malaysia (Chopra, 2006). The external trade for Malaysia was expected to increase 6.5 percent to RM1.42 trillion in 2013 compared to RM1.34 trillion in 2012 (Ali, 16th Jan 2013), and the logistics sector was expected to experience positive growth. Therefore, it is not surprising the Federal Government expenditure was mostly channelled into the transportation, trade and industry sectors (“Developments in the Malaysian Economy”, 15th Feb 2011).

A major focus of development was the promotion of exports including positioning Malaysia to become a regional centre and trading nation to address the challenges in international trade (MATRADE, 18th Feb 2013; MITI, 2006). With exportation comes along the requirement to deploy a combination of different modes of transport like air, sea, rail and road. This called for the need to initiate an efficient and competitive logistics industry and promote the development of multimodal transport modes (MITI, 2006). Multimodal transport is defined as the transfer of goods from one mode to another in small cargo batches (Sgouridis, 2003). Multimodal transport operators are authorized to act as approved freight forwarders to handle the export and import of cargo for Government agencies and Government-

linked companies (GLCs) by providing a full range of logistics services (MITI, 2006). Freight forwarders also known as third party logistics (3PL) providers, act on behalf of exporters and importers in arranging services such as loading and unloading of goods, obtaining payment on behalf of customers, booking of space, and performing customs clearance for air cargo and sea cargo, and providing land transportation and rail freight, custom agency services, transport intermodalism, door-to-door pickup and delivery services (Sgouridis, 2003). Intermodalism is defined as the transport of goods on more than one mode in the same integrated form from origin to destination (mainly using containers) (Sgouridis, 2003). Therefore, 3PL would be required to develop an efficient multimodal or intermodal transport operations to support global and international trade for the exports and imports of goods (Sgouridis, 2003).

As of December 2005, there were 32 3PL companies registered with the Ministry of Finance (MITI, 2006). Presently, it is estimated there are 1,307 3PL companies in Malaysia based on the directory of Federation of Malaysian Freight Forwarders (FMFF) (Malaysia Logistics Directory, 2011/2012). The expansion of the logistics market has allowed 3PL providers play a major role in developing and industrializing economies especially the service sector. Consequently 3PL emerged as experts or professionals, particularly in their ability to integrate various components of the supply chain and ensure an efficient process flow (MITI, 2006). With respect to professionalism, 3PL leverages their integrated network to offer alternative solutions by helping clients maintain the distribution flow (Yunus, 7th Jan 2012). 3PL is also in a position to fully provide integrated ‘door-to-door’ logistics services compared to the traditional role of non-vessel operating common carriers in selling cargo space to smaller shippers using the ‘port-to-port’ approach (MITI,

2006). The definition of 'door-to-door' shipment is when the contracting carrier undertakes delivery of the goods until the destination as contained in the bill of lading or waybill ("Standard Trading Condition of FMFF", 23rd Apr 2012). With respect to 'port-to-port', which means the member company contracts to carry the goods from the port of origin, including any trans-shipment ports to the port of destination ("Standard Trading Condition of FMFF", 23rd Apr 2012).

With the supportive role of 3PL in international trade, some researchers have studied the usage of 3PL services in Malaysia. In the empirical research conducted by Sohail and Sohal (2003) on the use of 3PL services in Malaysia from the perspective of users, 94 percent of the respondents (117 respondents out of 124 questionnaires received) indicated the use of logistics services bore positive development. However, in the study conducted by Umar (2004) in the development of 3PL in Malaysia, local 3PL providers still offered traditional 3PL services such as transportation and warehousing, and only one or two offered overseas sourcing, order processing, goods return handling, service support and development of distribution strategy or system. Although the 3PL providers offered traditional services, users were satisfied with the service offerings. This is supported by the extended empirical research conducted by Sohail et al., (2006) whose survey indicated 11 percent of the respondents were "very satisfied" and 87 percent indicated they were "satisfied" and only one organisation indicated it was "dissatisfied". Such satisfaction could have accrued from cost savings, followed by time savings, improved customer services and freight payment or credit terms (Sohail et al., 2006). The survey also showed 83 respondent companies (out of 126 usable responses) in Malaysia prevalently used 3PL services in fleet management, shipment consolidation, freight payment, carrier

selection and warehouse management for both international and domestic operations. The recent literature concerning the usage of 3PL services is the study by Salleh (2009) from the perspective of LSP and yielded the following important functions outsourced by Malaysian companies to 3PL. The functions are transportation, logistics technology, inventory replenishment and warehousing.

The development of 3PL is evident in Malaysia with the 3PL market expected to grow at a 9.9 percent compound annual rate to reach a size of USD9.3 billion (approximately RM21.79 billion) in 2013 (“Third-Party Logistics Mart Forecast to hit USD6.3billion”, 2nd April 2007). Such expected aggressive growth of the 3PL sector followed that of the rapid expansion of the Asian logistics market due to the growth in consumer markets, liberalization of trade, low-cost offerings of the region and adequate support from the government (“Third-Party Logistics Mart Forecast to hit USD6.3 billion”, 2nd April 2007). The aforesaid forecast of the 3PL market in Malaysia for 2013 (RM21.75 billion) in fact exceeded the achievement of RM27.5 billion in 2011 (Malaysia Logistics Directory, 2011/2012). Therefore, in the latest news report written by Kang (16th Dec 2013), she claimed 3PL market in Malaysia has huge potential and maybe even more now with the Economic Transformation Programme (ETP). The above literature and news reports clearly illustrate the good potential to further develop the 3PL industry in Malaysia.

1.4 Problem Statement

The problem statement is divided into (1) managerial and (2) academic followed by a short summary. A managerial statement relates to (i) a problem that currently exists in an organizational setting or (ii) an area that the manager believes

need to improve in the organization (Sekaran & Bougie, 2010). From the academic perspective, a research problem is relevant if (i) nothing is known about topic, (ii) much is known about the topic, but the knowledge is scattered and not integrated, (iii) much research on the topic is available, but the results are partly contradictory or (iv) established relationships do not hold in certain situations (Sekaran & Bougie, 2010).

1.4.1 Managerial

About 20 years ago, Malaysia was largely dependent on Singapore logistics but now Malaysia has developed its own 3PL companies that offer services of international standards by companies such as Century Logistics Holdings Bhd., Freight Management Holdings Bhd., Tiong Nam Logistics Holdings Bhd., Freight Mark (M) Sdn. Bhd. (Ali, 11th Oct 2010), and Kontena Nasional Bhd. (KN) (“Kontena unveils logistics package for SMEs”, 7th June 2011). Meanwhile, many international 3PL companies have also set up their hubs in Malaysia and they are DHL, Schenker and Ceva Logistics (Ali, 11th Oct 2010). This explains why Razak (2011), as chairman of Freight Management Holdings Bhd claimed there is a bright prospect in the 3PL sector with a strong growth for 3PL to enjoy high profit margin in Malaysia. The growth in the 3PL sector would invariably attract more competitors making the 3PL environment competitive (Sgouridis, 2003; Vasiliauskas & Jakubauskas, 2007). For example, ocean carriers in Malaysia are beginning to compete directly with 3PL because of the attractiveness of 3PL services created by the opportunities to expand with potential businesses bringing in profits (MITI, 2006). This development has posed further threats and challenges to the logistics industry in Malaysia (MITI, 2006).

In addition to the threats and challenges from ocean carriers, the logistics industry in Malaysia is also affected by cross border flow of foreign investment that has altered world trade patterns (MITI, 2006; Kang, 16th Dec 2013). To stay afloat in world trade, manufacturers increasingly outsourced their transport and logistics activities to maintain lower inventories and meet customer demand without disruptions in supply (MITI, 2006). This outsourcing effort in logistics was the acquisition of 3PL services and involved integrated warehousing with transport services customized to meet customer needs based on markets, demands and delivery requirements (Ali, 11th Oct 2010). The importance of the 3PL services can be found in the study of Sohail et al. (2006) and attributed it to 3PL expertise and capacity to offer users new services, better space utilization, access to new markets and up-to-date technology. However, the changing trade patterns and increasing demand of manufacturers have put pressure on 3PL to minimise costs and enhance their operational efficiency (MITI, 2006). With rising competitive pressures, the performance and sustenance of 3PL providers would depend upon their ability to deliver service quickly and on time to all parts of the world (Sohail & Sohal, 2003). The cost and service squeeze caused 3PL to consider alternative approaches in pricing their services offered to customers to maintain profitability (Ross et al., 2007). This is consistent with the findings of several researchers such as Yeung et al. (2006), Wang et al. (2006) and Huo et al. (2008). They saw the paramount importance in the choices of competitive strategies (low cost or differentiation) for 3PL to obtain business and compete in this growing and attractive 3PL market.

The importance of 3PL services attracted the attention of the Malaysian government way back in 2002 to promote continual growth. The Malaysian

government then introduced the integrated logistics services (ILS) incentive to encourage LSP to consolidate or integrate their activities to become 3PL (Chopra, 2006; Alejandro et al., 2010). With such incentive, the logistics industry has benefited from government efforts to improve its efficiency by developing and implementing market-friendly policies (Alejandro et al., 2010). As of December 2007, only twenty companies have taken advantage of ILS incentives by investing USD1.2 billion in logistics consolidation (Alejandro et al., 2010). In the most recent news reported by Kang (16th Dec 2013), logistics players are once again hoping that the government would give more support to the sector long ignored for its contribution to Malaysia's economy. Therefore, this study is important and has provided a guideline for government and logistics providers in identifying various factors that significantly affect the cost, service and financial performance in logistics industry.

To create an efficient and competitive logistics industry, the government has amended the Custom Act (1967) by limiting the manufacturer appoint no more than three 3PL providers to manage its customs brokerage in its freight forwarding activities. Apparently, it was found such service contract spans an average duration of 4.5 years. This datum indicates 3PL users preferred to stay with a particular 3PL provider and would mean the difficulty experienced by competitors to draw such users away from their existing 3PL providers. This difficulty points to at least one possible reason and that is the competitive intensity of the 3PL business. Apparently, those 3PL providers have a stranglehold on or attractiveness for their users for some reasons. The competitive intensity was most likely aggravated by the weaker external conditions that have adversely affected the export-oriented manufacturing industries

and trade-related services in Malaysia (Malaysia, 21st Mar 2012; Kok, 22nd Aug 2013). This is explained by the country's close integration with the world economy and reliance on exports and therefore the lower than expected growth in global trade would put the 2012 growth forecast at risk ("Economic and financial developments in Malaysia in the fourth quarter of 2011", 2011; Krishnan, 2012). The growth of firms such as 3PL is invariably tied to the slower growth in the export-oriented (manufacturing) industries (Sgouridis, 2003; MITI, 2006). The downside risks of aforesaid bleak and uncertain global economic outlook would be expected to generate further intense competition within the national 3PL industry (Tan, 16th Dec 2013).

Despite the effort and support by the government, 3PL contributed RM27.5 billion which is only 23.3 percent to the overall logistics industry valued at RM117.8 billion in 2011 (Malaysia Logistics Directory, 2011/2012; Yunus, 7th Feb 2012). This relatively low contribution reflected the country's total export competitiveness as 3PL is intimately tied to export activities and hence global trade. To assist in export growth of the country, it is important to study 3PL strategic decision making that could help firms remain competitive in the market. These competitive pressures and low contribution to the overall logistics industry poses a managerial problem for 3PL and requires 3PL to take strategic initiatives by first examining its internal and external environment to achieve financial performance since financial performance is an indicator of the firm's success (Hitt et al., 2009). In the next four paragraphs, the internal and external factors of the firm which are inextricably tied to this managerial problem will be described to explain their influence upon 3PL financial performance.

1.4.1.1 External environment

Porter's five forces is sometimes referred to as an "outside-in analysis" which focuses on the competitive environment rather than the internal environment (resource) of an organization (Chen, 2005). The importance of Porter's five forces is to allow a systematic and structured analysis of market structure and competitive situation (Recklies, 2001). Therefore, those forces are widely used to determine best strategies with market analysis for a competitive position (cost leadership, differentiator or focus) in an industry (Csiminga & Iloiu, 2007). More specifically, the five forces analysis can become the basis for distinct strategies allowing firms to think comprehensively about their industry structure which can reveal opportunities and take a position that is more profitable from the five competitive forces: customers, suppliers, substitutes, potential entrants and rivals to yield superior performance (Porter, 2008). In this case, firms could be lucky and profitable if they are responsive or far sighted in dealing with the five competitive forces (Cockburn et al., 2000). Along this line of reasoning of usefulness, irrefutably the five forces model has long been widely used to assess the competitive environment since 1980 (Boulding & Staelin, 1993) and can be applied to any industry (Porter, 2008). Since competitive intensity is identified earlier as a managerial problem in 3PL industry, this justifies the use of Porter's five forces model as the industry structure analytical tool to formulate a strategy in the face of competition.

A review of the five forces (threat of new entrants, substitutes, rivalry, bargaining power of buyer and supplier) of 3PL has yielded the following. Potential entrants that could emerge from the information technology, management consultancy and financial services areas are more likely to have a greater competitive

advantage due to their skills as they play a substantial role in supply chain optimization and integration activities (Berglund et al., 1999). Firms that traditionally operate as ocean carriers, trucking companies, warehousing or other logistics services also want to become 3PL as this sector is made attractive by the opportunities to expand with potential businesses bringing in profits (Craig, 2002; Hertz & Alfredsson, 2003). The substitute of 3PL is 4PL which has better functionality because 4PL providers have stronger logistics and IT capabilities by offering higher value added advisory services to the manufacturer (Vasiliauskas & Jakubauskas, 2007). 4PL as a prime contractor monitors and coordinates the activities of multiple 3PL across the supply chain (MITI, 2006). The 3PL industry has grown and become more competitive with new entrants coming in as rivals with strategic advantages of low cost and differentiation (Hertz & Alfredsson, 2003; Sgouridis, 2003; Ali, 11th Oct 2010; MITI, 2006). Such market dynamics influence the bargaining power of buyers and suppliers on the profitability of an industry (Walter, 2008). Therefore, this study assessed the current state of Porter's five forces occurring in the 3PL industry as market forces analysis is a requirement before strategic decision making to seize opportunities and neutralize threats.

1.4.1.2 Internal environment

3PL in Malaysia should view the current global economic slowdown as an opportunity to relook their existing organizational process and reinvent them to remain relevant to the needs of their users (Kang, 24th Nov 2008). This would imply a research first focused upon their internal environment which includes functional involvement and capability of IT to achieve a competitive advantage. In the process of formulating a strategy to achieve a competitive advantage, especially in

information gathering and processing activity, participation in formulating is neither limited to a few individuals who are located at the very top of organization (Fredrickson, 1984) nor merely talented employees (Coff, 1997). The strategic decision making comes from cross-functional areas and in an integrated manner by operations, marketing and finance to ensure product or service development is driven by customer needs and operating costs are kept in check (Hill & Jones, 2001). In relation to the creation of strategic competitiveness, Hitt et al. (2003) proposed firms use their resources, capabilities and core competencies. It is safe to assume those resources, capabilities and core competencies reside across the various functions of a firm. This presupposition of cross functional participation and contribution in the aforesaid areas is supported by Chen (2005). Therefore this research studied the extent of cross-functional involvement but in the specific area of strategy formulation (decision making) to achieve financial performance in 3PL industry.

To strive towards global competitiveness, 3PL in Malaysia needed to enhance its industrial capabilities to meet global challenges (MITI, 2006). Therefore, many 3PLs have developed the expertise, capacity and capability to become suppliers of a wide range of services, both for the domestic and overseas markets (MATRADE, 25th March 2011). One such capability is the introduction of some major IT related development within the logistics industry to improve the existing systems and operations (MITI, 2006). Evidence has it that the use of electronic data interchange (EDI) and electronic tracking by some logistics companies are still limited in Malaysia according to Sgouridis (2003). IT plays an essential role in such development as logistics covers both the flow of goods and information (MITI, 2006). This is because the process of planning, implementing and controlling the flow and

storage of goods from the point of origin to the point of consumption requires timely and accessible information (MITI, 2006). IT related development would include RFID (radio frequency identification), wireless technology, etc. that have increased the demand for more highly skilled, flexible and adaptable knowledge workers to enhance competitiveness (MITI, 2006). The introduction of EDI services has led to improvement in the productivity of the logistics industry in Malaysia as cargo turnaround time was reduced from about five days in 1994 to three days in 2005 (“PM launches Third Industrial Master Plan 2006-2020”, 18th Aug 2006). To strengthen the IT related development, a research on logistics was initiated to study the development trends on IT and efficiency indicators for logistics operators (MITI, 2006). Therefore this study also investigated the capability of IT as an independent variable in the internal environmental factors toward competitive strategic decision making to improve financial performance in 3PL firms in Malaysia.

In summary, this study was embarked upon to help 3PL understand their business environment (internal and external) and to implement competitive strategies that ultimately would affect 3PL financial performance. The findings from this research should also help the Malaysian government formulate policies to further assist the development of the logistics industry in Malaysia.

1.4.2 Academic

According to Mentzer & Kahn (1995) and Lai et al. (2008), very few logistics researches have provided information on validity and reliability of data with the latter citing small sample size as an additional problem. At the same time, they also found most of the logistics researches are largely exploratory in nature. Exploratory

study is used when there is no prior theory on the inter-relationship between the variables (Steven et al., 1994). To solve the validity and reliability research problems cited by Mentzer & Kahn (1995) and Lai et al. (2008), this study used the confirmatory method to arrive at a more objective interpretation of validity (Gerbing & Anderson, 1988); and the criticism of exploratory studies is rebutted using theories to support this research.

The roles of RBV and MBV are complementary rather than competing frames (Peteraf & Bergen, 2003) and the empirical studies examining the complementarities of RBV and MBV are still limited (Weerawardena et al., 2006). This study considers RBV and MBV as complementary in the conceptual framework with RBV focusing on internal resources and MBV on the external environment. However, it is important to take note of the different views of researchers such as the following. These views point to the role of RBV and MBV are somehow interestingly debatable and yet complementary (Roquebert et al., 1996; Makhija, 2003). RBV is considered more stable when the external environment is in a state of flux (Makhija, 2003). McGahan and Porter (1997) also agreed RBV is more important than MBV in explaining financial performance. That seems to contradict with the finding of Teng and Cummings (2002) that since RBV is too narrowly focussed on resources and capabilities, external environmental factors are then essential in competitive decision making and the consideration of external environment could improve business performance. MBV plays an important role in analyzing external environment the industry operates in prior to selecting a competitive strategy to compete in the marketplace (Ashman et al., 2006). The industry structure in MBV is also viewed as a precursor to market opportunity for competing firms, where the greater the

uncertainty and change (dynamism), the greater the market opportunity exists within the industry (Weerawardena et al., 2006). Regardless of the arguments, in general, the use of RBV and MBV are essential in the field of strategic decision making, although the question on the relative importance of MBV and RBV remains unsolved (Hawawini et al., 2003). In the presence of these problematic academic controversies and therefore uncertain possible applications in Malaysia, it would be useful to discover the roles of RBV and MBV in the study of strategy making by 3PL specifically in Malaysia to achieve financial performance yet to be determined before.

Therefore the problem statement is related to two areas namely that of (1) managerial and (2) academic and are as follows. As described above, the managerial problem statement consists of the expected intense competition within the 3PL industry in Malaysia because of the uncertain global environment and should be addressed together with the application of RBV and MBV theories leading to firm financial performance. The financial performance is important as the industry recognizes a successful firm as one having performed financially (Wan & Bullard, 2009). The problem statement relating to academic is primarily to confirm the roles of both RBV and MBV amidst academic controversies (McGahan & Porter, 1997; Teng & Cummings, 2002) in relation to financial performance. Both the managerial and academic problem statements converge upon a common research platform in the form of the conceptual framework.

1.5 Research Questions

The purpose of this study was to identify the structural characteristics of the environment (internal and external) faced by 3PL and how these drivers influenced

their selection of competitive strategies to achieve operational and financial performance. The external environment was adapted from Porter's five forces of extended rivalry (rivalry within industry, threat of new entrants and substitutes) and bargaining power (customer and supplier). Functional involvement and the capability of IT are included in the internal environmental analysis in this study. Therefore, the 11 research questions each represented by its hypothesis are as follows:

1. Does the external environment positively influence operations emphases?
2. Does the internal environment positively influence operations emphases?
3. Does the internal environment positively influence operational performance?
4. Do operations emphases positively influence operational performance?
5. Do operations emphases positively influence financial performance?
6. Does operational performance positively influence financial performance?
7. Do operations emphases mediate the relationships between external environment and operational performance?
8. Do operations emphases mediate the relationships between external environment and financial performance?
9. Do operations emphases mediate the relationships between internal environment and operational performance?
10. Do operations emphases mediate the relationships between internal environment and financial performance?
11. Does operational performance mediate the relationships between operations emphases and financial performance?

1.6 Research Objectives

The following research objectives address the stipulated research questions for the 3PL industry in Malaysia.

1. To investigate the relationships between the external environment and operations emphases.
2. To investigate the relationships between the internal environment and operations emphases.
3. To investigate the relationships between the internal environment and operational performance.
4. To investigate the relationships between operations emphases and operational performance.
5. To investigate the relationships between operations emphases and financial performance.
6. To investigate the relationships between operational and financial performance.
7. To investigate the mediating roles of operations emphases between external environment and operational performance.
8. To investigate the mediating roles of operations emphases between external environment and financial performance.
9. To investigate the mediating roles of operations emphases between internal environment and operational performance.
10. To investigate the mediating roles of operations emphases between internal environment and financial performance.
11. To investigate the mediating roles of operational performance between operations emphases and financial performance.

1.7 Significance of the Study

This thesis has several contributions having both practical and theoretical significance. First, in terms of practical significance, this study provides a conceptual framework and empirical support by determining the relationships among Porter's five forces of industry competition and competitive strategies (operations emphases) and the latter's impact upon financial performance of 3PL. This study has included the environmental forces of Porter's five forces (1980a) that help an industry assesses the environment in order to establish appropriate operations emphases. Second, this study assessed the extent of participation by the different management functions and the capability of IT of which both are applicable when an organization plans its competitive strategies that ultimately affect 3PL financial performance. Third, this empirical research has allowed the 3PL industry to keep abreast of the development in environmental analysis consisting of internal and external drivers driving competitive strategies to achieve financial performance. In summary, this research has brought some important managerial implications with insightful guidance in practical competitive strategic decision making for 3PL managers, the government, educational institutes, researchers and investors in Malaysia. It will also benefit the users of 3PL providers as they would understand better the significance or otherwise of operations emphases, operational performance and concerns of their 3PL providers in Malaysia.

With respect to theoretical significance, this study used the RBV and MBV theories to justify the conceptual framework. By doing so, this study has added to the growing body of literature that relies on environment-strategy-performance, RBV

and MBV theories, and this particular research has extended theoretical usefulness of the theories to explain the achievement of financial performance in 3PL industry. RBV offers an analysis to understand and explain how the resources or capabilities of the firm with the four attributes of value, rarity, non-substitution and inimitability may be significant in making competitive strategic decisions. On the other hand, MBV uses structure-conduct-performance to analyse external environment in strategy management. In sum, the findings of this thesis has shed some light on environmental competitiveness research by specifying internal or external drivers that may affect operations emphases to improve firm performance (operational and financial). Second, with the application of the theories, this research has ascertained the pivotal role of competitive strategy (operations emphases) as a mediator between environmental factors and operational performance in 3PL. This research also has assessed the role of operational performance as a mediator between competitive strategies and financial performance. This is followed by empirical evidence to explain the relationships among environmental (internal and external drivers), operations emphases, operational and financial performance in the 3PL industry. Third, this study has answered the call for more research of logistics providers, instead of logistics users (Maloni & Carter, 2006; Selviaridis & Spring, 2007) filling the literature of 3PL providers in Malaysia and investigated the extent of the environmental factors contributing to competitive strategic making in improving firm performance.

1.8 Definition and Notes of Key Variables

After a review of the literature regarding the factors that may influence competitive strategies to achieve financial performance in the 3PL industry,

altogether nine variables were selected and they are functional involvement, capability of IT, extended rivalry (rivalry within industry, threat of new or potential entrants and substitutes), bargaining power (customer and supplier), low cost emphasis, differentiation emphasis, cost performance, service performance, and financial performance. The following are definitions of those variables.

a) **Extended rivalry** – it contains threat of new or potential entrant, threat of substitutes and rivalry within industry (Narayanan & Fahey, 2005).

b) **Threat of new or potential entrants** – defined as the likelihood of the entry of new competitors into the industry (Pecotich et al., 1999).

c) **Threat of substitutes** – defined as the extent to which other products that are similar in physical, structural and functional characteristics that perform the same generic functions is available to consumers (Pecotich et al., 1999).

d) **Rivalry within industry** – defined as the extent to which firms in this industry frequently and vigorously engage in outwardly manifested competitive actions and reactions in their search for competitive advantage in the market place (Pecotich et al., 1999).

e) **Bargaining power** – it contains bargaining power of customer and supplier (Makhija, 2003; Narayanan & Fahey, 2005).