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**INFLUENCY FACTORS OF INFORMATION AND
COMMUNICATION TECHNOLOGY (ICT) IN LOGISTICS
ON THIRD PARTY LOGISTICS SERVICE PROVIDERS IN
MALAYSIA.**



**MASTER OF SCIENCE
(TECHNOLOGY MANAGEMENT)
UNIVERSITI UTARA MALAYSIA.**

**INFLUENCY FACTORS OF INFORMATION AND COMMUNICATION
TECHNOLOGY (ICT) IN LOGISTICS ON THIRD PARTY LOGISTICS
SERVICE PROVIDERS IN MALAYSIA.**

BY

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UUM
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**Thesis Paper Submitted To The School of Technology Management and Logistics
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(Transportation & Longistics)**

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ABSTRACT

The function of Information Communication Technology is still unevenly distributed among the logistics providers leading to sizeable front-liners in controlling the market. The ICT involves directly with the customers' relationships, manufacturing, transportation, warehousing networks and data streams directly. The concepts of third party logistics came to bear from the arising needs to extend transportation services by transportation industries to its numerous customers. This study targeted at providing remedies to the most of existing gaps relating the influence of ICT facilities in logistics especially among the Third Party Logistics Services in Malaysia. Third Party Logistics Services can be referred as an outsourcing of transport and logistics activities to outside companies that are not consignors or consignees to the transaction. In most cases, more than one activities are outsourced and it includes storage, warehousing and transportation. In malice of the effort put into action by organisations in creating a high responsive team that will run into the commuting and increasing demand of their highly fickle and impatient clients and the companies supply chain challenges. Grounded on this fact, this study targeted at providing antidotes to most of the existing lacuna relating the role of ICT facilities in logistics and supply chain management, most especially among the 3PLs in Malaysia. The study utilized in the used of questionnaire to gather the required information from Third Party Logistics service providers. The data were analysed among 150 respondents and correlated result shows that the selection on an appropriate tools of ICT has a significant effect on the competitive advantage of third party logistics' companies. The result of study is able to be used for the measurement of the performance and benchmarking on the importance of ICT in leading the 3PLs logistics industry.

Keywords; Information, communication, technology, third party Logistics, competitive advantage.

ABSTRAK

Fungsi teknologi maklumat dan komunikasi (ICT) masih lagi tidak tersebar secara sama rata dalam kalangan pembekal-pembekal logistik menyebabkan pengawalan pasaran dalam saiz yang agak besar oleh barisan hadapan. ICT terlibat secara langsung dengan perhubungan antara pelanggan, pembuatan, pengangkutan, rangkaian pergudangan dan aliran data. Konsep untuk pihak ketiga logistik diperkenalkan adalah bagi menghadapi sebarang peningkatan keperluan dan meluaskan perkhidmatan pengangkutan oleh industri pengangkutan kepada pelbagai pelanggan. Kajian ini bertujuan menyediakan jalan penyelesaian bagi kebanyakan jurang yang wujud berkaitan dengan pengaruh kemudahan ICT dalam bidang logistik terutamanya dalam kalangan Third Party Logistics Services (Perkhidmatan Logistik Pihak Ketiga) di Malaysia. Third Party Logistics Services boleh merujuk kepada penyumberan luar bagi aktiviti pengangkutan dan logistik kepada syarikat-syarikat luar yang bukan merupakan pengirim atau penerima barang dalam transaksi. Dalam kebanyakan kes, terdapat lebih daripada satu aktiviti yang disalurkan dan ianya merangkumi penyimpanan, pergudangan dan pengangkutan. Terdapat beberapa usaha daripada pihak atau organisasi yang berniat jahat untuk mewujudkan satu kumpulan responsif tinggi di mana mereka akan meningkatkan permintaan yang tidak stabil, sering berubah-ubah dan juga pelanggan yang tidak sabar. Berdasarkan fakta ini, kajian mensasarkan penyediaan “antidotes” atau penawar untuk masalah yang sedia ada berhubung peranan kemudahan ICT di dalam logistik dan pengurusan rantai bekalan, terutama di kalangan 3PLs di Malaysia. Kajian ini menggunakan soal selidik untuk mengumpul maklumat yang diperlukan daripada pembekal-pembekal Third Party Logistics Services. Data yang diperolehi dianalisa dalam kalangan 150 responden dan hasil berhubung kait menunjukkan pemilihan peralatan ICT yang sesuai mempunyai kesan yang ketara dalam kelebihan daya saing bagi syarikat-syarikat logistik pihak ketiga. Keputusan kajian boleh digunakan sebagai ukuran prestasi dan tanda aras terhadap kepentingan ICT dalam menerajui industri logistik 3PL.

Katakunci; Maklumat, Komunikasi, Teknologi, Logistik pihak ketiga, pengangkutan, kelebihan daya

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LIST OF ABBREVIATIONS

3 P L	Third Party Logistics
I C T	Information Communication Technology
G P S	Global Position System
I T S	Intelligent Transport System
R F I D	Radio Frequency identification
E R P	Enterprise Resource Planning
E D I	Electronic Data Interchange
S C M	Supply Chain Management
L I S	Library Information Science



CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Logistics and supply chain businesses all over the world are commencing some strategic worldwide networks that can deliver both efficient and high quality, swift response to customer's demand from all over world market segments. This they do in order to withstand international competition. The process of efficient and integrated organization of these series of activities is often referred to as global logistics or preferably supply chain management (SCM), this in the sector has been seen as the front lines of competitive power globally.

The reasons why logistics and supply chain businesses adopt information and communication technologies can be adduced to the facts that some companies experience low and shrunk margins, competition is also fiercer, globalization has consolidated itself rather enduringly and supply chains have become more extended and dispersed. Also, energy and labor costs are on the rising side, environmental impact are growing due to increasing public awareness of issues at stake, customization can be said to be increasing meanwhile the lifecycle keep reducing, there are costly remediation of shipment errors and delays, (Blanchard 2010; Sarac, Absi et al., 2010; McCormack et al. 2010).

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