

Profiling the Malaysian Logistics Industry

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Abstract

For any industry, the need of well established profile is necessary in order to stay ahead in the competition. The logistics industry is an example of the birth and development of a vital new service-based industry. This industry has been transformed from a support business for the others industry into the logistics services provider which serving the entire logistical needs. The need of a logistics industry profile is very important in order to know the industry structure. In order to gain a good structure for the Malaysian logistics industry, it is essential to do a profiling to the industry. However, the profiling activities or process in logistics industry is very limited. Other than that, it is important to know the definition, dimensions and the importance of profiling before it is used to analyze the logistics industry in Malaysia. This paper presents comprehensive information about the definition of profiling, dimensions covered in the profiling process and the understanding of how importance profiling in logistics industry.

Introduction

Logistics is a major element which supports the economic growth in the world. Logistics is a part of the supply chain process that plans, implements, and controls the of efficient, effective flow and storage of goods, services and related information from the point of origin to the point of consumption in order to meet consumers' requirements (Souza & Goh, 2007). Logistics holds a major function in the import export and plays a significance role in the international trade growth. Logistics not only consists of the physical movement of goods but it has to be efficient in facilitating the movement of documents processing, coordination, monitoring and financing activities (Zuraimi & Dahlan, 2012).

Logistics industry also include the process which require for the conveyance, storage and additionally handling of production raw material and culminated goods from producer to end consumer. Due to the trend of nationalization and globalization in recent decades, the conventionality of logistics management has been growing in retail trade (Tseng, 2005). The main consumers for logistics industry normally comes from different industries such as automotive, agriculture, manufacturing, food and beverage, electronics and others which use logistics as a medium for them to sell their finish goods and at the same time to get the raw material for their products. Therefore, the efficient and more preponderant supply of logistics can avail to simplify international trade. Apart from inspiring local trade, the economic magnification withal much more depend on the international trade which is at this stage the utilization of logistics industry seems very consequential in order to gratify both party, end users and supplier.

The rapid growth of the logistics industry in Malaysia increases significantly and has become one of the main contributors to the national Gross Domestic Products (GDP). Thus, it is essential for the logistics industry to have standard established data which can show a structure or profile of the industry.

Literature Review

The logistics industry is important for efficient international trade and also important for the economic development of a country. Logistics industry in Malaysia is supported by four mode of transport which are maritime, road freight, aviation and rail freight. The strategic location of Malaysia which is in the one of largest industrial regions lead to the rapid growth of the logistics industry. Malaysian ports have been located at one of the busiest shipping routes which is Port Klang and the Port of Tanjung Pelepas become an important transshipment hub for Asia (MITI, 2014). The Kuala Lumpur International Airport (KLIA) and Senai Airport are key cargo airports. Both airports are expected to be expanded and become a regional air cargo hubs over the coming years.

In addition, the economic growth in Malaysia is supported by further development of the five economic growth corridor which are Iskandar Malaysia in Southern Johor (IRDA), Northern corridor Economic Region (NCER), East Coast Economic Region (ECER), Sabah Development Corridor (SDC) and Sarawak

Corridor of Renewable Energy (SCORE) (MIDA,2014).The availability of trade related infrastructure such as roads, airports, railways and ports play an important role in a country's logistics industry performance. The support services such as third party logistics and fourth party logistics in the industry help the economic growth by providing a smooth and quality services to the local and global trade. Figure 1 shows the Malaysian logistics industry framework.

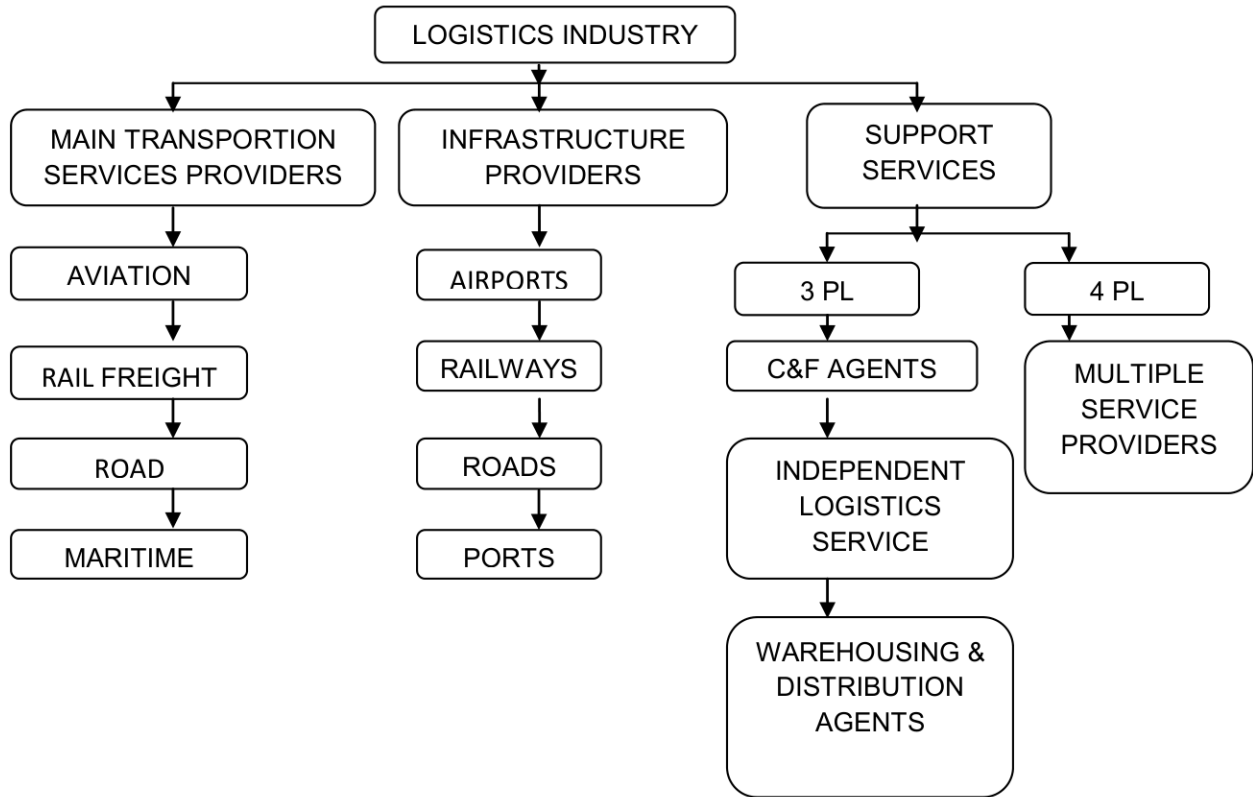


Figure 1 : Malaysian Logistics Industry
 Sources: Adapted from Srinivas, K., & Krishna, K. (2009). Technological Innovations in the Indian Logistics Industry : The Case of Freight Handling, VII(Imi), 114–125.

In Malaysia, there is no single established data about Malaysian logistics related company (Ali, Jaafar, & Mohamad, 2008). The current data is from various database and directories which contains very limited information and some of the sources is not really informative. Each current database or directory have different number of logistics companies. This inconsistencies depicts the difficulties in estimating the exact number of logistics companies in Malaysia. This situation lead to difficulties in identifying and classifying the issues arise in the logistics industry. By having a record of this information, it is very useful to various agencies to identify and analyse the current strength and weaknesses of the industry, so that a better action plan can be taken and implement by the respectives agencies to rectify such weaknesses.

According to the Malaysian Productivity Report 2012-2013 (MPC,2014), there are about 42,115 establishments of logistics services companies in 2012. The huge numbers of companies and the liberalisation in this services sector attracted the foreign company to invest in Malaysia through the transparency in the logistics industry policies. However, this information or data is doubtful because it is contradict with the other sources of data. For example, in Registrar of Companies (ROC) there is only 3188 registered company, for Malaysian Logistics Directory the numbers of companies is only 776, Super Pages recorded 1693 companies while Land Public Transport Commissions (SPAD) only 34 companies. This inconsistencies lead to the research of profiling Malaysian logistics industry and this paper trying to describe and identify the meaning and dimensions of the profiling process together with the analysis of the

importance of profiling in logistics industry. Table 1 shows the analysis of Malaysian logistics databases and directories.

DATABASE	WEBSITE	TOTAL REGISTERED COMPANY
Registrar of Company (ROC)	www.ssm.com.my	3188
Malaysian Logistics Directory	www.msialogistics.com	776
Super Pages	www.superpages.com	1693
Land Public Transport Commissions (SPAD)	www.spad.gov.my	34

Table 1. Malaysian Logistics Databases

Research Methodology

In understanding the profiling terms, it is useful to understand the terms from various field of knowledge. From the previous literature on profiling in various field can provide an insight of information for this terms in various perspectives. In this study, the term profiling has been used as a keyword for the purpose to identify the definition of profiling, dimensions covered and also the importance of profiling in the logistics industry. The literatures mainly obtained from MARA University of Technology (UiTM) subscribed databases especially Science Direct, Emerald, ABI/INFORM, EBSCO Host and SpringerLink and websites. This databases and websites contain list of journals related to research topic such as Journal of Business Logistics, Transportation Journal, International Journal of Retail & Distribution Management, International Journal of Physical Distribution & Logistics Management and many more.

The searches was restricted to the keyword profiling only in order to analyze and get in depth information on this term. The time period covered was 1990 until 2014 and the the abstracts of all issues of the journal from this period was systematically searched. The search was restricted to the past 20 years because it seemed clear, on the basis of existing information, that earlier literature already been discovered through other procedures (Tähtinen, 2002). For the first phase of the searches, the term profiling was the keyword to search in all field such as in the Journal of Consumer Affairs, Third World Law Journal and Management of Environmental Quality: An International Journal. Then a selected article and journal was analyzed to gather the information. The purpose is to investigate the definition, dimensions and importance of profiling from various field of knowledge. For the second phase of the searches, the focus is to identify previous literature about profiling process from a specific journal or databases. At this stage, the study focus in any journal that are related to the logistics and transportation only.

Results and Analysis

Based on the first and second stage searched, the definition, dimensions and the importance of profiling from logistics and transportation perspectives together with from others field of knowledge are highlighted. The results for both phase of the research were combined together in this study in order to show the similarities and differences from various perspectives.

Profiling from different field of knowledge

Definition

The definition of profiling is different depends on the field of knowledge. Profiling was defined as the approach used to identify the consumers characteristics and the study of an individual behaviour (Durvasula, Lysonski, & Andrews, 1993). This definition was analysed from the Journal of Consumers Affairs. On the other hand, profiling in the International Journal of Production Economics is known as the process of examines the characteristics of people and categorizes them into a specific group (Johansson & Olhager, 2004). From the information sciences field, the profiling definition is the process of examining the characteristics of people and categorize them into a specific group (Huntington, Nicholas, & Williams, 2003). While from legal perspectives, the profiling known as the practices of ascribing certain behaviour (positive or negative) to a certain personal characteristics (Petrocelli, 2006). In the economic and social review, profiling was defined as a method of assessment which is generated by a formal statistical model that uses a range of characteristics of the individual concerned (e.g. age, education level, unemployment history, etc.) (J.O'Connell, Seamus, & Elish, 2012). Even though this definition is from different

perspectives, the profiling definitions focus on individual or groups of human and non human characteristics. The definition of profiling in Malaysian logistics industry was discussed in section 4.2.1.

Dimensions

The profiling activities covered by a certain dimensions which will reflect the outcome (profile/structure) of the sample. The dimensions or variables play a critical role in constructing the profile of specific elements. For example, a demographic characteristics of peoples user type, user characteristics and site preferences has been used by Huntington et al., (2003) in profiling the health web users. Other study showed that, the nature of services offering and the characteristics of process choice (Johansson & Olhager, 2004) are the variables used to profile the industrial services and in matching service offering and process. Other than that, racial profiling used a race, national origin, religion, ethnicity and behavior of an individual as variables to create a profile of a suspect. It is important to classify any crime based on the profile of suspects. Hill, Marino, & Chae (2003) in their study the Global Industry Profiling : machine tool industry, used global industry overviews, global consumption analysis and global production analysis as the dimensions for profiling where their main concern is the element of leading firm, major player, location product expertise, market sizes, market demand, major producers and sales of major products. The dimensions or variables used for profiling activities are different based on the research purpose. However, the basic dimensions used in profiling any sample is the demographic characteristics of the sample. Besides that, most of studies in profiling will gather other related information of the sample such as site preferences (Huntington et al., 2003) for the study of internet health seekers and consumer style characteristics (Durvasula et al., 1993) in order to get other information in profiling consumer's decision making styles. The dimensions of profiling in logistics industry is discussed in section 4.2.2.

The importance of profiling

There are several purpose in doing profiling to a certain subject of area. The purpose to conduct a research based on profiling activities give a significance result which can lead to achieve a research objectives. It is important to conduct a profiling research, which at the end will produce a profile or structure for certain elements of the study. The importance of profiling is to understand human behavior, to segmenting human into various niches and to do a comparison between two or more country (Durvasula et al., 1993). The other study stated that profiling is important to identify and profile meaningful group of users by using a variety criteria, help website managers to target their services more effectively and knowing more about user profiles can lead to more site's information provision, presentation and also site classification (Huntington et al., 2003). Johansson & Olhager (2004) stated that profile can reveal possible mismatches in existing operation and also can be used to identify areas in need of corrective actions. In legal perspective, profiling is importance in identifying the profile of the criminals and this will lead them to the specific characteristics of suspect (Petrocelli, 2006). Besides that, profiling is important because it helps the researcher assess the factors influencing an individual's decision, provides the policy makers with a framework that will enable them to estimate what will be happen in advance so that they can create an action plan in facing any problem that could arise in future. The importance of profiling are discussed in section 4.2.3.

Profiling from logistics, supply chain and transportation perspectives.

The definition for profiling in logistics industry is not clearly mention in previous literature. However, each study showed the criteria needs in order to create a profile of logistics industry. From there, the definition of profiling can be translate into a meaningful definition, which can be use as starting point in developing a profile of logistics industry in Malaysia. Table 2 shows the number of profiling research conducted in logistics industry based on UiTM's subscribed database and website.

Journal/Publication	Number of Articles
International Journal of Physical Distribution & Logistics Management	3
Transportation Journal	2
Logistics and Transportation Review	2
American Journal of Business	1
The Eight international Conference of Chinese Logistics and Transportation Professionals	1
International Journal of Purchasing and Materials Management	1
Journal of Business Logistics	1
Journal of Small Business and Enterprise Development	1
Journal of Technology Management in China	1
TOTAL	14

Table 2. The journal in which profiling in logistics industry that have been published, 1990-2014.

A total of 14 article was found and have been analyzed in order to get the definition, dimensions and the importance of profiling in logistics industry. Table 2 shows that, there is still lack of research on profiling in logistics industry from year 1990 to 2014. Most studies were published in International Journal of Physical Distribution & Logistics Mangement folowed by Transportation Journal and Logistics and Transportation Review.

Definition

The definition of profiling in logistics industry was not mentioned directly and clearly in previous literature even though the studies about profiling of logistics industry. The researchers, normally focused on the dimensions and the importance of profiling activities. Only a few studies had mentioned or characterized the definition of profiling in their articles. For example, profiling is the process of study the corporate demographics characteristics such as firm size, firm age, logistics diversification, sources of revenue and peak demand period 3 . Aihu & Hong, (2008) describe the profiling as a data collection of firms characteristics like number of years in business, the services provided, the annual revenue and the number of employees. Johnson, Clure, Kenneth, & Wood (2004) indirectly stated that profiling is the classification of company and the study of operating characteristics which lead to the understanding of short line railroads. The term profiling in logistics industry is normally used in International Freight Forwarders (IFFs) industry. Most of studies normally conducting a profiling research based on their own country. For example, (Murphy, Daley, & Dalenberg, 1992; Murphy, Daley, & M, 2001; Murphy & Daley, 1995, 1996) conduct a profiling of IFFs industry in US, while (Markides & Holweg, 2006) study the profile of IFFs in United Kingdom.

Dimensions

A wide variety of dimensions covered in the profiling of the logistics industry heavily on the research purpose. However, almost all articles found that discussing about the demographics characteristics of the industry. This shows that the industry demographics characteristics is the main idea or criteria needed in conducting profiling logistics industry research. From the analysis, the demographics characteristics in profiling logistics industry covered firm size, firm age, sources of revenue, logistics diversification and peak demand periods. All these elements are important in developing a profile of logistics industry. The firm size is the main element used by previous researchers in order to establish a profile of industry followed by the sources of revenue and logistics diversification. Firm age also has been as one of the important criteria in profiling logistics industry research. However, only one study used peak demand periods as a profiling variable. Table 3 shows the analysis of dimensions covered in profiling logistics industry from previous literature.

Dimensions	Firm Size	Firm Age	Source of Revenue	Logistics Diversification	Peak Demand Period
Authors					
(Murphy et al., 1992)	/		/		
(Richard & Judith, 1993)	/				
(Theodore et al., 1994)	/		/		
(Murphy & Daley, 1995)	/		/		
(Murphy & Daley, 1996)	/				
(Murphy et al., 2001)	/	/	/	/	/
(Murphy & Daley, 2002)	/		/		
(Johnson et al., 2004)	/	/			
(Murphy & Daley, 2004)	/	/	/	/	
(Markides & Holweg, 2006)	/		/	/	
(Lin, 2007)	/		/	/	
(Aihu & Hong, 2008)	/	/	/	/	
(Baregheh et al., 2012)	/	/		/	

Table 3 The dimensions covered in profiling logistics industry

The importance of profiling in logistics industry

Profiling in logistics industry is very important. The analysis from the previous study showed that profiling is important to compare the characteristics involved in the research. Previous authors also described that profiling is important because :-

- 1) The need for a structured information
- 2) Help researcher to study the future direction
- 3) To identify the overall situation/characteristics
- 4) To estimate the conflict exist/issues
- 5) Help to identify a strategies for future conflicts
- 6) To identify a definition of any services in logistics industry

Conclusion

The definition of profiling in other field of knowledge and in logistics perspectives almost the same. The main idea is to gather a data demographic characteristics of individual/human or non human in order to get a framework's subject of study. In profiling Malaysian logistics industry, the most suitable definition of profiling is the techniques used to collect a demographics data which is to construct a structure of logistics industry.

The dimensions that are proposed to profile the Malaysian logistics industry are the elements used in Murphy et al.,(2001) the study on profiling International Freight Forwarders in US. The dimensions demographic characteristics which is include the element of firm size, firm age, sources of revenue, logistics diversification and demand periods. The replication of this previous study is because the similarities and the suitabilities of the demographic characteristics which can be implement and conducts in Malaysian logistics industry. The information of the demographic characteristics of Malaysian logistics industry can provide a depth information on industry environment.

The importance of profiling Malaysian logistics industry is to establish a structure of logistics industry in Malaysia since there is still no single established data about logistics industry. Other than that, it is important to study the future direction of the industry, thus it gives a benefit to researcher to identify the conflict exist in the current market. Consequently a strategies or action plan would be developed in order to overcome and solve any issues in the future. In Malaysia context, profiling is important, so that the definition of logistics industry would be defined since there is because there is no standard definition for Malaysian logistics industry. Profiling activities is very important to generate the structure or profile of the

industry. It is very crucial to have a standard definition and profile for the Malaysian logistics industry so that better policies could be formulated in future.

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