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A review of logistic management, knowledge management and e-business- how is Malaysia's e-business development and logistics management practices now?

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Abstract: The term ''logistics management and e-business'' has been in use for more than 10 years, but has recently become an important subject of analysis and empirical investigation. Beginning with a literature review, this paper presents and discusses the features of e-business and also role with importance of logistics management in e-business development systems. The following questions are considered; (1) How is e-business and logistics management defined? (2) How development of e-business and logistics management industries in Malaysia? And, (3) How the dimensions of e-business development and logistics management been integrated into knowledge management?

Key words: Logistics management; logistics service providers; E-business performances; Knowledge management

1. Introduction

As a complex activity, logistics comes constantly across the challenge of assisting specific demands according to several parameters of marketing especially for today in e-business development, sales, production and others. These activities repeat in each player of the supply chain, and besides having synchronized such activities they should contemplate each participant's in balanced and maintainable objectives (Morin, 1999).

E-business has received much attention from entrepreneurs, executives, investors, and industry observers recently. As information technologies (IT) develop, novel ways of business process redesign emerged, creating turmoil in the industry. Organizations today frequently integrate Internet technology to redesign processes in ways that strengthen their competitive advantages. Success breeds imitation and invites more entries (Dien, 2003).

The rapid expansion of e-commerce values in the past few years convinced many people that a new economy has emerged. Nowadays, many business managers frequently expressed their fear that technology is about 5 years away from failure, which somewhere out there is a formidable competitor, unborn and unknown, who will use better business models to put companies like technology more sophisticated and advanced into obsolescence. And the most successful new business models are probably those that can integrate Internet technology and knowledge management (KM) to all activities of the enterprise-wide value chain (Koh et al., 2004).

In the post-industrial or knowledge economy (Drucker, 1993), knowledge management has become an emerging discipline that has gained enormous popularity among academics, consultants and practitioners. It has been argued that it is no longer traditional industrial technologies or craft skills that drive competitive performance but, instead knowledge that has become the key asset to drive organizational survival and success. Therefore, this paper will discuss and review relationship between logistics management, e-business development and knowledge management.

2. Overview of logistics management and e-business development in Malaysia

2.1. Malaysia's Logistics Management

Firstly, logistics has been called by many names, including the following: business logistics, channel management, distribution, industrial logistics, logistical management, materials management, physical distribution, quick-response systems, supply chain management and supply management (Lambert et al., 1998).

Managing the logistics industry has been a neglected area of business activity in Malaysia. In the past, companies are not aware of the advantage of having an effective distribution system and thus have not given sufficient priority to the development of effective distribution strategies. However, the transformation of economy from agriculture-based to a trade-driven based as well as the development of international trade within the last decade has

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stimulated awareness that transport and logistics sector plays a critical role in facilitating the country's economy (MIMA, 2004).

A recent report highlighted that Malaysia has the opportunity to create an additional value of about RM9-11 billion over the next decade, which contributes approximately 12.1% to the GDP, if the supply-chain competitiveness is improved through more efficient transport and logistics services. The report also emphasized that by reducing the supply chain cost will ultimately stimulate further national growth as the World Bank has estimated that a 10% reduction in transportation costs can increase trade by 20% (Anonymous, 2003).

Similarly, McKinsey Global Institute who studied productivity improvements in various industry sectors around the world, indicate that such efficiency improvements are likely to translate into a GDP growth effect of at least the same order. Consequently, this creates a virtuous and perpetuates effect on the economy. Various incentives have also been introduced by the government. One of the incentives is Integrated Logistics Services (ILS) incentives. The purpose is to encourage logistics service providers to consolidate or integrate their activities to include other services as well as encouraging them to venture into business abroad (MITI, 2007, 2008). As at December 2007, a total of 20 companies have been granted the Integrated Logistics Services (ILS) incentives, which amounted to RM 4.1 billion (MITI, 2008). As a result of an active development of the industry, in 2005, the industry, which comprises of transport, storage and communication services contributed 8.8% to the country's GDP.

In Third Industrial Master Plan (2006-2020) (IMP3), Malaysia is recognizing the significance of the logistics sector towards the enhancement of Malaysia's progress in industrialization and international trade, the role and importance of the logistics industry has been officially mentioned and highlighted in the Third Industrial Master Plan (2006-2020) (IMP3, 2005). The targets underlined by the government includes the achievement of overall growth of 8.6% by the year 2020, which is equivalent to approximately 12.1% contribution to the GDP; to increase the total marine cargo by more than three-fold, air cargo trade by more than two-fold and railway freight by more than four-fold in the year 2020.

2.2. Malaysia logistics council (MLC)

Parallel to the establishment of the liberalization; at national level, the Malaysia Logistics Council (MLC) has been launched in order to strengthen and promote the crucial logistics services in Malaysia. MLC provides leadership for the overall coordination of strategies, policies, regulations and rules associated with the development of the logistics industry. Four (4) focus groups representing the maritime transport services; land transport services; air transport services; and ancillary logistics and supply chain management are helping MLC in achieving its mission. Human resource development (HRD) is also crucial in ensuring the activities of all logistics sectors are developed in a coordinated manner.

The setting up of MLC involves a strategic partnership with the private sector. These partnerships provides a structured platform for both the private sector and government agencies to work together in addressing challenges facing the industry as the industry gears itself towards global competitiveness. The members include the leading industry Figs, academics, and technocrat whose inputs and expertise are expected to contribute significantly to the development of the sector. In line with the targets underlined in the IMP3, the specific responsibilities of the Council are:

•To provide leadership in the overall development of the logistics industry, as well as coordination and implementation of policies and programmers;
•To monitor the implementation of programmers and activities of the respective ministries, state governments and authorities involved in the development and promotion of the industry; and
•To ensure that the development of the industry is in line with the overall strategic thrust of the IMP3 (MITI, 2007).

2.3. Current trends in logistics management practice in Malaysia

Within the last decade, several changes have stimulated interest in developing logistics and supply chain management, in which several trends have taken place. First, companies have now realized that logistics function could play a prominent role as a strategic tool in gaining competitive advantage. Consequently, the tendency towards keeping low inventories to reduce the cost of storage, as underlined by the production concepts such as Just-In-Time and Zero-Inventory became obvious. Thus, logistics activities have become a concern of Chief Executives and Managing Directors of many companies, rather than the logistics managers previously (MIMA, 2008).

Second, in a recent Seminar on "Enhancing the Competitiveness of the Logistics Industry", it was highlighted that there has been a key trend that many manufacturers outsource their production function worldwide to achieve cost competitiveness as well as to attain economies of scale. A cost-effective management of logistics and supply chain is extremely crucial among the companies in satisfying the demand of their customers as well as to attain competitive advantage (MIMA, 2008).

Third, the outsourcing of the production function has also led to the outsourcing of logistics activities. Many multinational companies, such as the automobile, electronic and electrical companies have outsourced their logistics activities to third party logistics (TPL) service providers to enable the companies to focus on their core business (MIMA, 2008). Accordingly, these changes create further

opportunities for value creation that could significantly enhance the economic growth.

2.4. Malaysia's e-business development

Table 1 shows the development of logistics management as a global, where is Malaysia's logistics management began growth during 1990s (MITI, 2008). Today, the internet is a public, cooperative and self-sustaining facility accessible to hundreds of millions of people worldwide (Turban et al., 2006). In some sectors, new and efficient internet business method is done on the web primarily in identical manners as on the physical market (Anckar et al., 2002). In Malaysia, e-business has growth well and currently almost of organization looking on it.

Online business in Malaysia is still green when compare to other country such as United States, United Kingdom, Canada or other develop country (Kurnia et al,. 2015). There is lack of research especially in publish report or journal about e-business development in Malaysia. Recent studies only focus about the factors affecting online purchasing in urban area. However, for other countries, some of the report saying that there is a few obstacles facing by the company in using World Wide Web (WWW) in their e-business. The obstacles facing by the entrepreneur such as problem in locating desired information, rising cost of utilizing the internet, security problems, rapid changes and technology advance and long waiting time to access the internet like a server problem (Geroski, 2000).

Therefore, this paper focuses on literature review on the role of logistics management in Malaysia's e-business of performance and development through issues and challenges faced by the practitioners as well as the relevant parties involved in the industry.

Table 1: The Development of Logistics Management

Period	Development
Prior to the 1980s	Logistics was primarily concerned with the outbound flow of finished goods and services, with an emphasis on physical distribution and warehouse management. As a managerial activity, logistics focused on its role to support an organization's business strategy and to provide time and place utility.
During the 1980s	The industry globalization and transportation deregulation led to the expansion of logistics beyond outbound flows to include recognition of materials management and physical distribution as important elements. In 1986, CLM (now CSCMP) defined logistics as "the process of planning, implementing, and controlling the efficient, cost effective flow and storage of raw materials, in-process inventory, finished goods, and related information flow from point of origin to point of consumption for the purpose of conforming to customer requirements" (see www.clm1.org).
During the 1990s	Logistics was defined as "the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory and related information flow through the organization and its marketing channels". The definition was changed as a result of accelerated market changes due to shrinking product lifecycles, demand for customization, responsiveness to demand, and increased reliance on information" (Christopher, 1998).
During the 2000s	These years experienced further changes as to how logistics is defined. Development in international trade, supply chain management, technology and business process reengineering generated a need to re-evaluate the logistics concept. As a result, in 2001, it was defined as "that part of supply chain process that plans, implements, and controls the 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 customer requirements".

*Adapted from Gundlach, G.T.; Bolumole, Y.A.; Eltantawy, R.A. and Frankel, R., (2006), The Changing Landscape of Supply Chain Management, Marketing Channels of Distribution, Logistics and Purchasing, Journal of Business and Industrial Marketing, Vol.21/7, pp 428-438.

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issues and challenges faced by the practitioners as well as the relevant parties involved in the industry.

3. Definition of logistics management

Competitive pressures and resource constrains of today's operating environment have elevated logistics management to an important strategic level within many firms. The function of a logistics network should be to maximize profits and provide least total cost system, and also to achieve certain desire customer service levels. In addition to that, the Council of Supply Chain Management Professionals (CSCMP) (2010), defines logistics as planning, implementing, and controlling the efficient and effective flow and storage of goods, services, and related information from the point-of-origin to the point-of-consumption in order to meet customer requirements. According Dornier (2000), logistics refers to management of flows between business functions. A modern definition of logistics encompasses a wider range of flows than it did in the past, including several manners of product transportation and information assessment. Wars have been won or lost on basis of logistics. Table 2 showed more definition of logistics management.

Similarly, supply chain management has the power to build companies and the ability to destroy those (Kesteloo et al., 2005). As well as this study aware linking between logistics management and e-business performance, which is logistics management give stronger ability to e-business, also e-business give much opportunity to logistics. But for today, in development of Malaysia's logistics management, they must remember that e-business have many choice to whom can be their business partner based on logistics creative ability, such as services through high technologies like; delivery on time, widely coverage geographic, cheaper, creative packaging and safety warehouse (Rosena et al., 2008).

Additionally, different point of view to explain logistics as a holistic approach to the management of material and information flows play a significant role in satisfying the customers' needs and requirements. In detail, the three basic components of logistics are: resources, information technology, and time of logistic response. To create new way in this dimension, a company can streamline the flow of information through the supply chain, change its structure or enhance the collaboration of its participants. For example, one can consider how the apparel retailer Zara in La Coruña, was able to create a fast and flexible supply chain by making counterintuitive choices in sourcing, design, manufacturing and logistics (Oliva et al., 2011).

Table 2: Lists the Definitions of Logistics Management.

Author	Years	Definitions
The Council of Supply Chain Management Professionals (CSCMP)	1993	Logistics Management is the process of planning, implementing and controlling the effective flow and storage of goods, services and related information from point of consumption for the purpose of conforming to customer's requirements.
Copacino. W	1997	Logistics Management refers to the art of managing the flow of materials and products from source to user.
Lambert D. M. et al.	1998	Logistics Management is the integration of business processes from end user through original suppliers that provides products, services and information that add value for customers.
Dornier	2000	Logistics Management refers to management of flows between business functions.
Gundlach et al.	2006	The recent Logistics Management research is directed into two perspectives: 1. Supply chain logistics: concerned with the flow of goods. This includes traffic and transportation, warehousing and storage, inventory management, packaging and returns goods handling, salvage and scrap disposal, which are the key focus of supply chain logistics. 2. Service response logistics: concerned with the coordination of non-material activities necessary for the fulfillment of the service in a cost and customer service effective manner such as order processing, information systems, customer service and procurement.
Mallik S.	2010	Logistics Management is having the right item in the right quantity at the right time at the right place for the right price in the right condition to the right customer
Martin C.	2011	Logistics Management is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfillment of orders.

Based on previous definitions (Table 2), this study can define the Logistics Management is a combination between management principles, logistics operations and integration business through understanding the customer (meeting standards of customer service), maximize customer satisfaction, managing the uncertainty with true information flow and smoothly, try for responding to globalization and at same time reduced cost (reducing total distribution costs and reducing cycle time) for increased profits (freight forwarders, brokers and evaluating the major alternatives).

4. Definition of e-business

There are many descriptions of e-business. In essence, e-business is about business innovation, about serving new and changing markets. E-business is meant to reshape the way companies go to markets, the way customers buy products and services. It can also be defined as a tool that forward-looking enterprises are racing to adopt (Lal, 2002). E-business technologies are meant to help adopters reach new customers more efficiently and effectively. E-business transforms the exchange of goods, services, information, and knowledge through the use of ICTs. There are several models of e-business, namely, (i) business-to-business (B2B), (ii) business-to-consumer (B2C), (iii) consumer-to-consumer (C2C), (iv) business-to-government (B2G), and (v) government-to-business (G2B).

Broadly defined, there are three modes of e-business transactions. These are offline, online, and e-business using shared or individual portals. First and comparatively less effective than other forms of e-business tools, that is, offline e-business is enabled by electronic messaging systems. Offline e-business is normally done through e-mail systems while online e-business transactions take place with uniform resource locators (URLs) of companies. Having a URL does not necessarily mean that an enterprise is able to process online e-business transactions. The URL must be dynamic and should have online transaction facilities such as active server pages (ASPs) that allow online transactions. The third and most effective way of doing e-business is through portals. Portals are essential additions in network technologies. They fulfill the important role of aggregating contents, services, and information on the net. Broadly speaking, their position on the net is between users (buyers) and web contents. This unique position enables portals to leverage marketing and referrals as they are intermediaries between web users and companies.

If transactions are conducted electronically (e-transactions), they constitute ecommerce. Transactions can be broken down into different phases and related business processes, each of which can be relevant for e-commerce (see Fig. 1). The pre-sale (or pre-purchase) phase includes the presentation of (or request for) information on the offer, and negotiations over the price. The sale/purchase phase covers the ordering, invoicing, payment and delivery processes. Finally, the after sale/purchase phase covers all processes after the product or service has been delivered to the buyer, such as after sales customer services (e.g. repair, updates) (see Table 3).

GLOSSARY

Definitions by standardization groups (ISO, ebXML)

The term 'business transaction' is a key concept underlying the development of e-standards for B2B exchanges. Therefore, definitions have been developed by standards communities to underpin their practical work.

Examples include:

Business: "a series of processes, each having a clearly understood purpose, involving more than one party, realized through the exchange of information and directed towards some mutually agreed upon goal, extending over a period of time" [ISO/IEC 14662:2004]

Business transaction: "a predefined set of activities and/or processes of parties which is initiated by a party to accomplish an explicitly shared business goal and terminated upon recognition of one of the agreed conclusions by all the involved parties even though some of the recognition may be implicit" [ISO/IEC 14662:2004]

e-Business transaction: "a logical unit of business conducted by two or more parties that generates a computable success or failure state" [ebXML Glossary]

Fig. 1: Glossary of Business to E-Business
Source: Final Report of E-Business Watch, (2008)

Table 3: E-Transaction
Source: Final Report of E-Business Watch, (2008)

Pre-sale/pre-purchase phase	Sale/purchase phase	After sale/after-purchase phase
Request for offer/proposal	Placing an order	Customer service
Offer delivery	Invoicing	Guarantee management
Information about offer	Payment	Credit administration
Negotiations	Delivery	Handling returns

Practically each step in a transaction can either be pursued electronically (online) or non-electronically (offline), and all combinations of electronic and non-electronic implementation are possible. It is therefore difficult to decide which components actually have to be conducted online in order to call a transaction (as a whole) 'electronic'.

In 2000, the Organization for Economic Cooperation and Development (OECD) proposed broad and narrow definitions of electronic commerce, both of which remain valid and useful today. While the narrow definition focuses on 'internet transactions' alone, the broad definition defines e-commerce as "the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organizations, conducted over computer-mediated networks. The goods and services are ordered over those networks, but the payment and the ultimate delivery of the goods or service may be conducted on- or offline" (OECD, 2001). The addendum regarding payment and delivery illustrates the difficulty mentioned above to specify which of the processes along the transaction phases constitute ecommerce (see Table 3). The OECD, (2008) definition excludes the pre-sale/pre-

purchase phase and focuses instead on the ordering process.

GLOSSARY

Definition of key terms for e-business by E-Business Watch, (2008)

E-Transactions: commercial exchanges between a company and its suppliers or customers which are conducted electronically. Participants can be other companies ('B2B' – business-to-business), consumers ('B2C'), or governments ('B2G'). This includes processes during the presale or pre-purchase phase, the sale or purchase phase, and the after sale/purchase phase.

E-Commerce: the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organizations, conducted over computer-mediated networks. (OECD)

E-Business: automated business processes (both intra- and inter-firm) over computer mediated networks. (OECD)

E-Interactions: covers the full range of e-transactions as well as collaborative business processes, such as collaborative online design processes which are not directly transaction focused.

Fig. 2: Glossary of key terms of e-business
Sources: OECD, (2008)

Using the OECD (2001) definition, e-commerce is a key component of e-business but not the only one. A wider focus oriented on business processes has been widely recognized. This vision of e-commerce also covers the digitization of internal business processes (the internal processing of documents related to transactions) as well as cooperative or collaborative processes between companies that are not necessarily transaction focused (for example industrial engineers collaborating on a design in an online environment). The OECD proposes a definition of e-business as "automated business processes (both intra-and inter-firm) over computer mediated networks" (OECD, 2004). In addition, the OECD proposed that e-business processes should integrate tasks and extend beyond a stand-alone or individual application. 'Automation' refers here to the substitution of formerly manual processes. This can be achieved by replacing the paper-based processing of documents by electronic exchanges (machine-to-machine) but it requires the agreement between the participants on electronic standards and processes for data exchange. For summary of key terms of e-business see Fig. 2.

In the past ten years, e-business, as an overarching business concept, has received increasing attention from academics and practitioners alike. The term 'e-business' was introduced by IBM in 1997. In its origins it is defined as "the transformation of key business processes through the use of Internet technologies" (IBM et al., 2000). Amor (2000) expands the definition by describing it as a secured, flexible and integrated approach in order to offer various companies values through the combination of systems and procedures and so being able to manage the core business procedures with the simplicity and penetration of Internet technology.

These two definitions of e-business both refer to using the Internet to link with customers, suppliers and other associated partners. However, the term also implies the transformation of existing business processes into more efficient ones. E-business has generally been pioneered by information technology (IT) companies, where demand is constantly changing and products have very short product life cycles and short order-to-delivery times as a result. Organizations successfully engaging in e-business are able to convert data from their back-end systems into a common readable format and thus are able to share information and conduct electronic transactions with their business partners via the Internet (Wagner et al., 2013).

It also encompasses the adoption of creative ability and innovative business concepts, such as dynamic pricing through auctions/reverse auctions, co-petition via purchasing consortia and direct online sales to customers. E-Commerce can be regarded as a subset of e-business. While e-business refers to the whole spectrum of online information exchanges, e-Commerce only encompasses online transactions (Wagner et al., 2013). To more understanding about characteristics and components in e-business development we will discuss subtitle of ICT adoption indicator and software of e-business development systems.

The power and properties of information and communication technology (ICT) can be leveraged in several ways across functional domains, with online selling to customers constituting only a fraction of the potential possibilities engendered by e-business (Wu et al., 2001). Companies are increasingly incorporating e-business concepts as an integral part into their strategy in order to achieve competitive advantage. In particular, vertical Business-to-Business (B2B) applications and systems have enabled companies to interact in a dynamic, innovative and real-time environment and, as such, allow superior supply network integration. To clearly understanding about e-business we showed at the Table 4 as a definition of e-business development.

Table 4: List of E-Business Definition

Authors and Year	Definitions
Kalakota et al. (1996)	They define e-business as the complex fusion of business processes, enterprise applications, and organizational structure necessary to create a high-performance business model. E-Business includes e-commerce, as well as both front- and back-office applications that form

	the engine of modern business.
IBM et al. (2000)	E-business is the transformation of key business processes through the use of Internet technologies.
Amor (2000)	It as a secured, flexible and integrated approach in order to offer various companies values through the combination of systems and procedures and so being able to manage the core business procedures with the simplicity and penetration of Internet technology.
Hau et al. (2001)	E-business is the planning and execution of the frontend and back-end operations in a supply chain using the Internet.
Lal. K (2002)	E-business is about business innovation, about serving new and changing markets. E-business is meant to reshape the way companies go to markets, the way customers buy products and services. It can also be defined as a tool that forward-looking enterprises are racing to adopt. E-business technologies are meant to help adopters reach new customers more efficiently and effectively. E-business transforms the exchange of goods, services, information, and knowledge through the use of ICTs. Broadly defined, there are three modes of e-business transactions. These are offline, online, and e-business using shared or individual portals. There are several models of e-business, namely: (i) business-to-business (B2B), (ii) business-to-consumer (B2C), (iii) consumer to-consumer (C2C), (iv) business-to-government (B2G), and (v) government-to business (G2B).
O'Brien (2002)	He describes e-business trading as a platform of buyers and sellers exchanging products and cash through inter organizational information systems and trading mechanisms.
Wu et al. (2003)	E-business is the use of Internet technologies to link customers, suppliers, business partners, and employees using at least one of the following.
Zhu et al. (2005)	E-business is an integrated value chain activity (including sales, customer services, procurement, information sharing and coordination with suppliers) by using the Internet platform (e.g., TCP/IP, HTTP, XML) in conjunction with existing information technology (IT) infrastructure.
Sorensen (2012)	E-business developments is comprises a number of tasks and processes through IT generally aiming at developing and implementing growth opportunities between multiple organizations. It is a subset of the fields of e-commerce and organizational theory. An e-business development is the creation of long-term value for an organization from customers, and relationships via virtual market.

Examining these definitions and interpretations, the authors will, as much as possible, utilize the term e-business throughout the article, and define e-business as any business carried out over an electronic network especially in exchanging data files, having a website, using other companies' websites or buying and selling goods and services online. Normally it does include internet, intranet and extranet.

4.1. ICT Adoption Indicator and Software in E-Business Systems

Based on various types of trading partners, there are many categories of e-business, for example: Business to Business (B2B), Business to Consumer (B2C), Consumer to Business (C2B), Consumer to Consumer (C2C), People to People (P2P), Government to Citizen (G2C), Citizen to Government (C2G), Exchange to Exchange (E2E) and Intra-business (Organization Unit to Organization Unit) (Lal, 2002; Dien, 2003). Without the use of face to face operations, all e-business transactions are performed electronically by using computer and communication networks. The three principal categories of e-business applications are (Senn, 1996); 1) Electronic markets or e-marketplaces: buying and selling goods and services. 2) Inter-organizational systems: facilitating inter-organization and intra-organization flow of goods, services, information, communication, and collaboration. 3) Customer service: providing customer service, help, handling complaints, tracking orders, etc.

Table 5 shows ICT adoption indicator in e-business, and Fig. 3 illustrated that eight (8) of e-business software systems. ICT adoption and e-business software systems must have or at least four (4) in e-business management development and operationally (E-Business Watch Report, 2008; Gunasekaran et al., 2004). In report of E-Business Watch they presented that e-business adoption in EU versus US firms (in %, by their share of firms) in year 2007. According to the survey, US companies from the transports and logistics services industry (TLS) industries are slightly better equipped with ICT infrastructure and e-business software systems than their European counterparts.

For example, the diffusion of Intermodal Transportation Management Systems (ITMS) or Radio Frequency Identification Device (RFID) technology is more widely used in the US. On the other hand, in some other areas, European companies appear to be more active using specific software systems, like Warehouse Management Maintenance Management Systems (MMS). The self-assessment of firms to what extent their data exchanges with business partners are conducted electronically, however, suggests that enterprises in Europe and in the US have reached a similar status. Therefore, this study believes about relationship between logistics management with e-business development is strong.

Table 5: Components of e-business adoption in EU versus US firms (in %, by their share of firms) year 2007

Components of E-Business	USA	EU
Internet Access	100	97
Wireless LAN	43	22
Intranet	29	24
ITMS (Intermodal Transportation Management System)	8	4
RFID (Radio Frequency Identification Device)	7	2
Data Exchange mostly electronically	13	13
WMS (Warehouse Management System)	6	15
ITS (Intelligent Transport System)	1	7
MMS (Maintenance Management Systems)	11	15
SMC (Supply Chain Management)	4	6

*EU include UK, SE, PL, IT, FR, ES, DE.
Source: E-Business Watch, 2008.

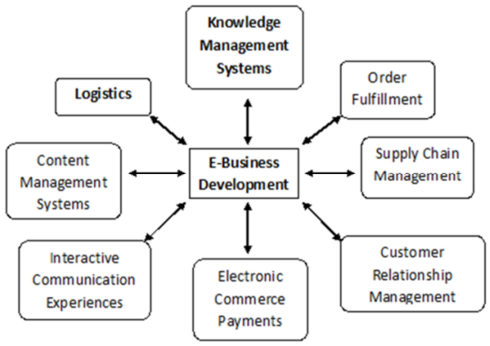

Fig. 3: Software of e-Business Development Systems
Source: Gunasekaran et al., 2004

In Malaysia's e-business terms of logistics, KMS and e-commerce are basic, so they must have both of them to complete e-business activities, therefore this study believe on importance of role of logistics management in e-business development, and also confident with their strong relationship, because at the same time it can enhance of e-business's performance (Kurnia et al., 2015; Chuan et al., 2013; Rosena et al., 2008). Other software systems for internal process integration basically they use in Malaysia such as SCM, CRM, WMS, CMS, order fulfillment, interactive communication technologies, and a software application to manage the placing or receipt of orders only (Hanitahaiza et al., 2012; Syuhaidi et al., 2014; Azlin et al., 2014; Rosena et al., 2008).

5. E-business performance and development

5.1. E-Business measurement of financial performance and non-financial performance

Performance is a crucial issue for all individuals and organizations. Holsapple et al., (2011) asserted that asset of unique resources owned by the firm namely valuable, rare, difficult to imitate, and irreplaceable by other resources is the main driver of corporate or business performance. Moreover, excellent corporate or business performance is the key to competitive advantage. Most scholars have similar perspectives on the definition of performance; however, many different criteria have been used to measure performance. As such, the performance measurement index applied in a study should be chosen according the research topic (Evans et al., 2005).

Besides that, performance evaluation is often employed as the basis for corporate reward and punishment; hence, selecting the appropriate measurement index becomes ever more important. In order to consider both financial and non-financial measures, Maltz et al., (2003) proposed five (5) performance indexes, namely financial performance, and under non-financial performance basically such as; market/customer, process development, people development, and future, to evaluate corporate/organizational performance. Therefore, this study consider to discuss of e-business performance from two (2) side, 1) financial performance and 2) non-financial performance which is we focus on process development and level of customer satisfaction (Maltz et al., 2003).

5.2. Financial performance

Chakravarthy (1986) found that classic financial measures (such as ROE, ROC, and ROS) are in capable of distinguishing the differences in performance between firms. Kaplan et al., (1996) also asserted that traditional financial accounting measures (e.g.,ROI,EPS) can give misleading signals regarding continuous improvement and innovation. Financial performance is a concept used by any entity and accountantships, management or audit professional (Elena, 2012). It is measuring the results of a firm's policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, value added, etc.

Further, Germain et al. (2001) stated that performance control can be of two types: internal performance, which is related to issues such as cost, product quality, and profit level; and benchmarked performance, which compares cost, quality, customer satisfaction, and operations to a standard, such as the industry norm or the practices of its leaders. Fliaster (2004) argued that the strong orientation of executive culture towards short-term financial performance measures and its ignorance of personnel issues are supported by current remuneration systems. This implies that financial measures that are based on traditional accounting practices, with an emphasis on short term indicators such as profit, turnover, cash flow, and share prices, are not entirely suitable for measuring corporate or business performance.

But, according Mauro et al., (2011), financial can measuring corporate or business performance for competitiveness sides, then it can be defined along the macro and the micro economic dimension. At the macro level, competitiveness focuses on the aggregate price or cost dimension as well as on specialization patterns across the value chain. At the micro level, competitiveness relates to firm level performance within and across sectors (Claudia et al., 2013). Besides that, it can be tools measuring to the knowledge management capabilities of e-business developments were determined by its financial strength.

5.3. Non-financial performance

Non-financial measures, such as customers, investors, and stakeholders, have become increasingly important (Lee et al., 2005). Supported by Markus, (2011) he described that customers, investors and stakeholders is widely regarded as an essential factor for any business, and is important that the rate of the expectation should be measured regularly in order to define how successful the business actually is, and it is a rather good indication when the company is making profit.

Besides that, Cotora (2007) indicated that it is not possible for a performance measurement system to appraise corporate performance or analyze value creation patterns without identifying the inter-relationships and the conversion processes among situations, contexts, and intangible values such as knowledge, competencies, and partnerships. As we mention above, according Maltz et al. (2003) proposed five performance indexes, namely financial performance, and the rest under the non-financial performance are widely, therefore this study emphasized on e-business development process only, to more focus for these variables.

5.4. E-Business development

E-business developments level is a valuable construct that can be used to understand various issues of developments related to e-business systems, including expected functional level and the degree of importance an organization needs to attach to certain adoption factors. Based on firm e-business strategy and functional characteristics (Chan et al., 2002; Lewis et al., 2002; Chen, 2003; Teo et al., 2004), this study proposes five levels of e-business systems adoption. These levels are discussed below.

Firstly, Initiation Level; the first level is an initiation level in which firms begin to recognize the importance of e-business systems and prepare for web site implementation efforts. This level simply involves using internet technology to access information and brochures (Lin et al., 2005).

Second, Propagation Level; the propagation level involves firms starting to invest in building their e-business infrastructure to enable internal activities such as intranet. Intranet allows internal operating processes to run smoothly and coherently through real time management and provision of information to enhance internal resource control (Chan et al., 2002). This level merely involves the internal use of intranet functions.

Third, Networking Level; this level is an external integration level where online interaction is networked not only within a firm but also among firms and other organizations. Most firms at this level establish business-to-business (B2B) e-commerce and business-to-customer (B2C) e-commerce. This level supports business partnerships in an electronic online environment for business transactions.

Fourth, Business Integration Level; Web site adoption is incorporated into the business model and integration of business processes (Teo et al., 2004). Links exist between suppliers and customers regarding the consideration of data from various business processes and integration of firm's business strategy, for example the enterprise resource planning (ERP), supply chain management (SCM), and customer relationship management (CRM) systems.

Fifth, Business Transformation Level; this is the highest level of e-business developments systems adoption. This level of systems adoption transforms the overall organizational business model (Teo et al., 2004). The key e-business management issue for this level of systems adoption is how to integrate the diverse and distributed organizational knowledge and seek new business opportunities.

Therefore, development of e-business processes and financial performance will increase of organization performance (Lin et al., 2005) and all these term in one roof of organization. So as we seen Fig. 4, that e-business development and logistics management can enhance of e-business performance.

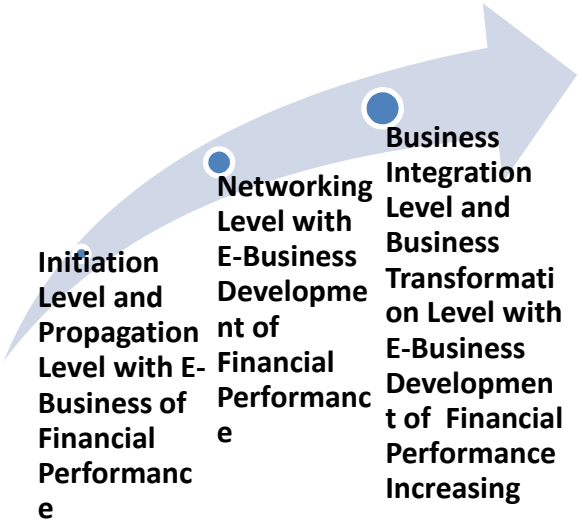

Fig. 4: Increased E-Business Performance and Development (developed by this study)

6. Relationship between logistics management and e-business

Network technologies enabled by e-business standards have the potential to transform and integrate the functional elements of many industries. The Internet facilitates the abolition of the trade-off between richness and reach of information, which means that communication can occur at almost zero cost, without constraints on the richness of information (e.g. Graham et al., 2004; Evans et al., 2005). Richness of information includes characteristics such as bandwidth, customization, and interactivity.

Reach is defined as the connectivity, and is the number of agents involved in exchanging information. Before the development of the Internet, to reach large numbers of people with rich information was a costly and time-consuming process and prone to errors due to manual information replication. Sweeney, (2007) depicts that managing information flows in the supply chain is one of the most crucial activities in SCM as the flow of materials and money is usually initiated by information movements. Hardaker et al., (2001) reinforce this by outlining that coordination in a supply chain occurs through the communication of orders, stock levels and demand feedback. Poor management of information flows essentially leads to the so-called bullwhip-effect that requires the holding of excessive levels of inventory.

High demand visibility plays a strategic role in reducing inventory levels (Sweeney, 2007). Efficient and effective network-based communication structures in a supply chain have the potential to offset these effects. Logistics management integrated or Supply Chain Integrated (SCI) and e-business are interrelated insofar as integrated e-business functions facilitate undistorted and accurate information sharing (Sweeney, 2007). In this way, optimal alignment of business functions represents the means to an effective overall SCI strategy (Wagner et al., 2013).

6.1. Examples of the role of logistics management in e business development

One of the greatest challenges for e-business is actually the fulfillment, or delivery, of the order. It is not coincidence that some of the earliest success stories in e-business were firms like Amazon, that started by selling CDs, books and videos online – relatively low-value, non-perishable, uniform items that can easily be posted through a standard letter-box. Products that present particular challenges may show one or more of the following characteristics. In each case there are one or more suggestions as to how to overcome these possible problems by Whitely, (2000).

Table 6: Role of logistics management on e-business

Characteristics of items in e-business	Role of logistics management
High value	• Special Delivery, insured, signed-for and courier services
Large and/or heavy items	• Specialist courier or company owned delivery services • Timed deliveries • Customer collect locally
Variation in size/fit	• Provide comprehensive size information. Smooth mechanism for returns.
Perishable goods	• Careful packaging • Company-owned delivery (e.g. Tesco, Ocado) • Time-slot deliveries, so customer already wait at home
Delivery queries	• On-line tracking services (e-services)
Customs liabilities (Imports)	• Good information for buyer and efficient local delivery partners to handle the paperwork.

Sources: Whitley, 2000

Twilight deliveries is the parcels and courier firms, such as the Royal Mail and Parcel force have all been geared up towards delivering to and collecting from, businesses in normal office hours on weekdays. E-commerce deliveries too many consumers have been a particular problem, because many are out at work when deliveries are attempted. This often necessitates a visit to a depot some miles away in the evening or weekend to collect one's parcel, which may negate any benefits from purchasing on-line. Some of these courier firms are waking up to this opportunity and are now carrying out 'twilight' deliveries, in the early evening, when consumers are more likely to be at home.

Addition, deliveries to place of work is one of the most interesting phenomena is that of consumers having their purchases delivered to their place of work. Some firms report having to take on extra post-room staff just to handle these extra items. Firms that take a co-operative attitude towards this may find that employees consider delivery at work a valuable benefit. However, some firms find that their merchant agreement with their bank for credit and debit card sales, limits them to posting items to the cardholder's home address.

Several other approaches have included some kind of lockable box or safe outside the house that the couriers can access with a 'once-only' code, to secure the item in the box awaiting the owner's return. Some examples have even been made with a cooling system, for keeping foodstuffs fresh (e.g. Tesco Online Shopping) A great idea in principle, but suffers from low take-up rates. Other local delivery services have experimented with handling delivery of internet purchases, such as milk rounds such as Tesco Online Shopping Malaysia, which is now delivering other goods in timed slots alongside its foods.

Based on the results of above studies, the following hypothesis is forwarded as follows:

H1: Logistics management directly influences e-business development

7. Definition of knowledge management

For researcher, the multitude of offerings on knowledge management in books, journals and magazines can appear rather daunting and confusing at first. The fact is that it is a relatively young discipline trying to find its way, while recognizing that it has roots in a number of other, very different disciplines. Some literature on knowledge management is heavily information oriented, giving the impression that it is little more than information management. Other literature looks more at the people's dimension of knowledge creation and sharing, making the subject more akin to is often little crossover between them. Each world fails to comprehend the other, as the language and assumptions of each disciplinary linkage that provide the most rewarding advances in this field.

Given the interdisciplinary nature of this emerging field, conventional academic demarcations in traditional subject areas do not help. For example, it is relatively rare for computer or information science graduates to gain sufficient grounding in logistic management and vice versa with traditional business management students. This impasse is often based on fear on both sides about the nature and relative merits of their respective skills and expertise. Beyond these two dominant dimensions, there are some additional perspectives within the knowledge management literature, ranging from strategy to cultural change management. It is not surprising that there is little coherence between these offerings, as many authors orientate the subject area to their singular discipline perspective. While based on previous researchers, Table 7 shows that representative sample of KM definitions in various perspectives.

Table 7: Representative sample of KM definitions

Authors and Year	Definitions	Perspective
Wiig, (1993)	Knowledge is the insights, understandings, and practical know-how that we all possess and is the fundamental resource that allows us to function intelligently. Over time, considerable knowledge is also transformed to other manifestations such as books, technology, practices, and traditions, within organizations of all kinds and in society in general. These transformations result in cumulated (sic) expertise and, when used appropriately, increased effectiveness. And KM is one, if not the, principal factor that makes personal, organizational, and societal intelligent behavior possible.	Cognitive science or knowledge science
Grey, (1996)	KM is a collaborative and integrated approach to the creation, capture, organization, access and use of an enterprise's intellectual assets.	Business
Barclay et al. (1997)	Treating the knowledge component of business activities as an explicit concern of business reflected in strategy, policy, and practice at all levels of the organization; and, making a direct connection between an organization's intellectual Assets both explicit (recorded) and tacit (personal know-how) and positive business results.	Business
Thomas Davenport et al. (1998)	KM is draws from existing resource that your organization may already have in place, good information systems management, organizational change management, and human resources management practices.	Integration (information systems and human resources)
Swan et al. (1999)	KM is any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations.	Human resource process
Mertins et al. (2000)	KM is all methods instruments and tools that in a holistic approach contribute to the promotion of core knowledge processes.	Information systems
Uit Beijerse (2000)	KM is the achievement of the organization's goal by making the factor knowledge productive.	Strategy
David Skyrme (2001)	KM is explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusion, use and exploitation of organizational objectives.	Human resource process
Information Week (2003)	KM is the concept under which information is turned into actionable knowledge and made available effortlessly in a usable form to the people who can apply it.	Process and technology
Carl Frappaolo, Delphi Group, Boston (2003)	KM is leveraging collective wisdom to increase responsiveness and innovation.	Process and technology
Steve Ward, Northrop Grumman (2003)	A systematic approach to manage the use of information in order to provide a continuous flow of Knowledge to the right people at the right time enabling efficient and effective decision making in their everyday business.	Process and technology

Kimiz Dalkir (2005)	KM as an information technology system that dispenses organizational know-how. KM is in fact both of these and many more. One of the few areas of consensus in the field is that KM is a highly multidisciplinary field.	Process and technology
Filemon Uriarter (2008)	1-Simply-KM is the conversion of tacit knowledge into explicit knowledge and sharing it within the organization. 2-More technically and accurately-KM is the process through which organizations generate value from their intellectual and knowledge based assets. 3-Defined in this manner, it becomes apparent that KM is concerned with the process of identifying, acquiring, distributing and maintaining knowledge that is essential to the organization.	Integration (information systems and process)
Newell et al. (2009)	KM is improving the ways in which firms facing highly turbulent environments can mobilize their knowledge base (or leverage their knowledge 'assets') in order to ensure continuous innovation.	Strategy
Ashok Jashapara (2011)	KM is the effective learning processes associated with exploration, exploitation and sharing of human knowledge (tacit and explicit) that use appropriate technology and cultural environments to enhance an organization's intellectual capital and performance.	Integration (information systems and process)
Madalina Christine (2012)	KM is process for optimizing the effective application of intellectual capital to achieve organizational objectives.	Process and strategy

From the definition of KM given in Table 7, it is clear that any advancement in this field need to adopt an integrated (Davenport et al., 1998) interdisciplinary like a human resource, information systems, strategy and business processes. These different perspectives of KM have brought together into an integrated definition. Examining these definitions and interpretations, the authors will, as much as possible, utilize the term KM throughout the article, and define KM as a better understanding leads to improved decisions and innovation through conversation among members (people and learning organizations) with the help systems and technologies, processes, methods and techniques, managing knowledge assets (using information technology to gain and manage knowledge for ensure that your knowledge is state-of-the-art and kept up to date), a holistic initiative across the entire organization, and should be an integral part of every knowledge workers daily responsibilities.

8. Relationship e-business and knowledge management

Recently, numerous researchers have studied e-business development systems. For example, Eastin (2002) and Nurul et al, (2015) examined influences on the four e-commerce activities (e.g. online shopping, online banking, online investing, and electronic payment) adoption, and found that all diffusion attributions (perceived convenience and financial benefits, risk, previous use of the telephone for a similar purpose, self-efficacy, and internet use) significantly influence the adoption processes. Kendall et al. (2001) partially adapted the innovation diffusion theory of Rogers (1995) to investigate relative advantage, compatibility and trial ability factors affecting the adoption of e-commerce by small and medium-sized enterprises (SMEs). Horner et al., (2002) investigated whether the leadership characteristics required for e-business differed from those needed by traditional bricks and mortar organizations. A more recent survey by Patterson et al. (2003) examined the impact of organizational size, organizational performance, inter-organizational factors and environmental uncertainty on the success of supply chain technology adoption. Although these studies have provided and proved significant insights into the relationship between developments of e-business systems, exactly how factors related to logistics management and knowledge management affect the level of e-business development systems has received little empirically attention.

Knowledge management is emerging as an important concept and is frequently cited as an antecedent of innovation (Nonaka et al., 1995; Darroch et al., 2002). More and more companies are launching and maintaining knowledge management initiatives to benefit from the dynamic effects of interactive processes. Additionally, recent studies stressed that in a context of rapid technological innovation, firms consider organizational capabilities through the knowledge accumulation, combination and dissemination (Grant, 1996; Nurul et al., 2015). Efficient knowledge management processes, such as knowledge acquisition, application, and sharing, are important for new technology adoption as Malaysia's e-business development (Nurul et al., 2015; Nazatul et al., 2013).

Knowledge acquisition is defined as the business processes that use existing knowledge and capture new knowledge. Administrator and technical innovations require concerted effort and experience in recognizing and capturing new knowledge (Drucker, 1993). Moreover, Darroch et al., (2002) examined the link between knowledge management practices and innovation types, and found that the likelihood of effective firm innovation increases with the extent of knowledge acquisition. The e-business development infrastructure involves not only e-commerce initiatives but also is driven by acquisition knowledge and skills (Moodley, 2003). Relationships between knowledge acquisitions

capabilities thus are expected to be positively related to e-business systems adoption (Nurul et al., 2015; Koh et al., 2004; Malhotra 2001).

Knowledge application is defined as the business processes through which effective storage and retrieval mechanisms enable a firm to access knowledge easily. From the technological innovation perspectives, knowledge transfer, knowledge integration and practical application of knowledge are the main elements for developing technological capabilities (Gilbert et al., 1996; Sveiby, 1997; Johannessen et al., 1999). Firms that stimulate and improve organizational application of knowledge are more likely to adopt new information system (Nurul et al., 2015; Koh et al., 2004; Malhotra 2001).

Knowledge sharing is defined as the business processes that distribute knowledge among all individuals participating in process activities. The literature on the organizational effectiveness of information systems emphasizes that a knowledge sharing culture is the main organizational condition for successful knowledge management and exploitation (Damodaran et al., 2000). According to the survey of Caloghirou et al. (2004), openness towards knowledge sharing is important for improving innovative performance. Additionally, knowledge sharing is important in innovation processes in the e-business context (Liebowitz, 2002; Nah et al., 2002). Thus, knowledge-sharing processes are expected to be positively associated with level of e-business systems adoption (Nurul et al., 2015; Koh et al., 2004; Malhotra 2001).

The analytical results from Nurul et al., (2015); Koh et al., (2004); Malhotra (2001), in their study support the hypotheses that knowledge acquisition and application positively impact e-business development systems. This finding is consistent with Gilbert et al., (1996) conceptualization of knowledge acquisition and application as the facilitator of successful technological innovation. Specifically, e-business systems differ from many previously studied areas of information technology innovation because they integrate intra-organizational and inter-organizational business processes. Knowledge accumulation enables employees to both use existing knowledge and create new knowledge, both of which are crucial for e-business development systems. Consequently, in the context of e-business development systems, it is important to note that managers should encourage employees to create and use knowledge rapidly and effectively. That is, if organizational knowledge management processes are focused on making knowledge useful, firms are more likely to achieve increased levels of e-business level.

Contrasting with the literature on knowledge sharing practices, Lin et al., (2005) and Nurul et al., (2015) found that knowledge sharing did not significantly impact e-business development systems level. This phenomenon might result from the fact that employee relationships in local (Taiwan and Malaysia) organizations frequently are egocentric (Tang et al., 1996), because employees are afraid of giving away their expertise to colleagues who would use this knowledge to get promoted at their expense. Consequently, although knowledge-sharing processes may indeed provide increased substantive benefits leading to e-business development systems, the main challenge for respondents was that current organizational culture does not encourage knowledge sharing.

Given the other perception about knowledge management as seamlessly entwined with technology, its true critical success factors will be lost in the pleasing hum of servers, software and pipes. A few years ago, technologies such as intranets, Lotus Notes, MS-Exchange were being considered as enablers of knowledge management. The more recent interest is in technologies related to knowledge portals, artificial agents and push-based technologies. Despite significant advancement in technologies and substantial investment by companies in such technologies, most organizations are still trying to find answers to simple questions such as: How to capture, store and transfer knowledge? How to ensure that knowledge workers share their knowledge? Given the quest for answers to such questions, it becomes imperative for organizations to clearly understand the above strategic distinction between knowledge and information. This strategic difference is not a matter of semantics rather it has critical implications for managing and surviving in an economy of information overabundance and information overload. As most new media and Net executives competing for 'eyeballs', 'mindshare', and virtual communities, would realize, in the new world of e-business, the scarce resource is not information, but human attention.

Based on the above arguments, it seems logical to account for human attention, innovation and creativity needed for renewal of archived knowledge, creation of new knowledge and innovative applications of knowledge in new products and services that build market share. Related to the preceding schematic, a working definition of knowledge management-related e-business is proposed here: Knowledge management caters to the critical issues of e-business adaptation, survival, and competence in face of increasingly discontinuous environmental change. Essentially, it embodies e-business processes that seek synergistic combination of data and information-processing capacity of information technologies, and the creative and innovative capacity of employees.

Based on the results of above studies, the following hypothesis is forwarded as follows:

H2: Knowledge management directly influences e-business development

9. Relationship between logistics and knowledge management

As Fugate et al., (2012) study, they also suggested that logistics-related knowledge responsiveness is an inherently difficult to replicate element of the

logistics related knowledge management process, which is logistics systems are very customized to markets and require much specialized information or knowledge to set up, operate, and optimize (Bozarth et al., 2009; Kinra et al., 2008). The knowledge requirements for operating in Malaysia's logistics system are still developed and also variable, because it's differ based on industry, supply chain role, and are constantly evolving (Rosena et al., 2008). Because of the dynamic nature of logistics related information, it has been characterized as very difficult to manage without devoting significant knowledge resources to the problem (Bowersox et al., 2000).

As knowledge base-view (KBV) theorists have noted, in order to fully tap a knowledge base's potential to improve organization and e-business performance outcomes, it is important that knowledge transference be responsive: the cost and speed at which knowledge becomes available to the concerned group (Gupta et al., 2000) such that it can be received and used by the collective to perform tasks that influence work outcomes (Gupta et al., 2000; Sabherwal et al., 2003). The expedient and comprehensive transference of logistics related knowledge management through the supply chain network should allow firms to outcompete rivals based on logistics service. If a firm can act quickly and accurately through its logistics function to address a market opportunity or threat, it should realize logistics operational benefits (on-time delivery, fill rate, etc.). That are difficult to replicate due to the complexity and capital intensiveness of the logistics related knowledge management process; i.e., specialized logistics knowledge should lead to at least a short to medium term capability for providing logistics service better than market competitors (Fugate et al., 2012).

Furthermore, logistics related knowledge stores should enable more effective use of inventory due to firms' enhanced understanding of optimal inventory quantities and qualities from idea of creative ability, which translate on the balance sheet to increased sales, reduced costs, and better asset utilization (Rosena et al., 2008). Thus, Fugate et al., (2012) showed and find evidence it linkages between the firm's logistics-based knowledge responsiveness and overall firm performance of manufacturing industry.

Therefore, it shows directly of positive of relationship between logistics related knowledge management with firm level financial outcomes and non-financial from process of e-business development and also customer satisfaction side. As firms develop the capability to learn (Gray et al., 2009) and respond to logistics related knowledge, we expect they will reduce financial inefficiencies associated with knowledge gaps in the supply chain related to forecasting, i.e., inventory purchase and placement, as well as internal integration, i.e., communication and cooperation between organizational units (Choi et al., 2008). Specifically, reductions could be expected in inventory misplacement and shrinkage, necessity for hiring transportation and storage in sub-optimally small quantities (and thereby paying premiums), and fewer service recovery inquiries; they should also benefit from increased sales due to greater in stock levels in store shelves, and an overall reputation of availability and quality, which can manifest as consumer confidence in both current and new products.

In addition, we expect these elements to directly benefit the firm's financial position, and also the e-business performance from financial and non-financial side in the form of better market share, sales, return on sales, return on investment (capital efficiency), and new product sales. For future research, knowledge management related to e-business and logistics should have creative ability. The creative ability from side of organization or personnel is very important to enhance competitive advantage. Publication and writing about this element is still less exposed and less explored especially about e-business development and logistics management in Malaysia.

Based on the results of above studies, the following hypothesis is forwarded as follows:

H3: Knowledge management directly influences logistics management

Therefore, based on the results of above studies, it was hypothesized that logistics management directly influences e-business performances development, and e-business performances development mediates the influence of logistics management on knowledge management (see Fig. 5). Hence, the hypotheses for this study are forwarded as follows:

H4: Knowledge management directly influences logistics management on e-business development

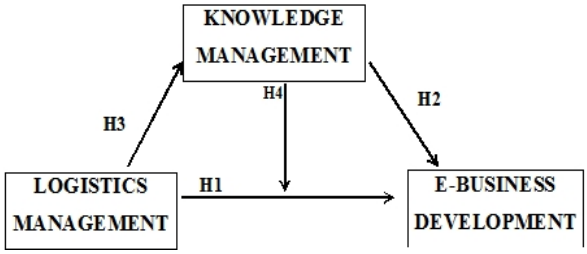

Fig. 5: A proposed conceptual framework and hypotheses

10. Conclusion

This paper review about logistics management, knowledge management and e-business, where is only a few previous study focus about these industry in Malaysia. Today, with rapid progress in activities of Malaysia's e-business development such as Go Shop, Tesco Malaysia Online, Zalora Online Shopping, Lazada Online Shopping, etc, this study realize that the impact between them. It's mean a good development in e-business growth will increase demanding of services like transport to delivery of goods, warehouse for keep of goods, packaging of goods etc. Therefore, the service

provided by logistic management should efficiency and effective, because of Malaysia have a lot of public logistics companies where is, they will compete with main of Malaysia's logistics transport like Pos Malaysia Sdn. Bhd. The competitive is good and it's can give advantage to them make better especially in services and management, so Malaysia's company should be aware to provide the best services for their customers especially to traders in e-business. Malaysia's logistics must able to be creative to compete with foreigner companies especially to grab or to attract customers from field of e-business operations.

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