

ROLE OF INFORMATION TECHNOLOGY AND BUSINESS ONLINE IN E-LOGISTIC SERVICES

Case Study: JNE, J&T and PT Pos Indonesia Logistic Services Company

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ABSTRACT

Logistics services have an important role in the context of a competitive global business. In addition, logistics has a strategic position and competitive advantage of a company. Most companies put logistics as the spearhead of their services. Information technology (IT) and the Internet have provided fundamental changes to the logistics system, namely by creating electronic logistics (e-logistics) that are practical, efficient and economical. Through e-logistics the company can expand its business more broadly and serve customers quickly. The purpose of this study is to explain new phenomena in e-logistics, namely the use of IT and the impact of online business growth on e-logistics services. However, e-logistics is a new paradigm in online service business in Indonesia.

Purpose of the study: explain the new phenomena in logistics services, namely the use of information technology (IT) and online sales which have driven the growth of logistics services

Methodology: This study uses a qualitative method

Main Findings: The impact of the development of advanced technologies such as the Internet, has created electronic logistics (e-logistics) which has many advantages, including being more efficient and economical. Through e-logistics, the logistics service company can develop its business more broadly and economically.

Applications of this study: Area study in Logistic Services Company

Novelty/Originality of this study: The increase in e-logistics services companies is the positive impact of online and IT sales. Online sales increase the quantity of logistics service companies. Whereas IT can improve the quality of its services, including tracking shipments. The use of IT in logistics services can also be a competitive advantage of a company that distinguishes it from its competitors.

Keywords: Business, e-logistics, global, online, information technology.

INTRODUCTION

For decades the logistics service sector business has shown bright prospects. In some developing countries service businesses rank first because they do not have natural resources. According to Wirtz and Lovelock, service is an economic activity: "Services are economic activities performed by one party to another." One of the services is logistical services according to Ballou (2004): "Logistics refers to all the move-store activities from the point of raw materials acquisition to the point of final consumptions. Its core elements include customer service, order processing, inventory management and transportation" (Lai & Cheng, 2016). Logistics has an important role in business strategy: "Logistics forms an important aspect of any business transaction." (Dignum, 2002). Bowersox and Closs (1996) state that logistics is an important factor of competitive advantage: "More recently, logistics has become more prominent and is recognized as a critical factor of competitive advantage" (Sum, Teo, & Ng, 2001). Logistics in the context of global competition has a strategic role in a company: "Logistics has a tremendous potential to play a major strategic role in companies. With increased global competition, the logistics function can be further exploited to allow a company to gain a competitive advantage." (Mari, 2006: 1). One of the factors that caused the weak competitiveness of Indonesian export products in the ASEAN single market was high logistics costs. As a result, many Indonesian export products are unable to compete with other ASEAN member products.

Logistics can be classified as follows: "... social logistics and corporate logistics. Corporate logistics includes supply logistics, production logistics, sale logistics, reverse logistics and disposal logistics." (Mari, 2006: 1)

Most logistics service companies are of the following types: "Most companies prefer 3PL. 3PL is contractual logistics focusing on regional operations" (Mari, 2006: 1-3). Understanding 3PL (third party logistics), which is a company or individual that provides transportation or warehousing services. Many companies use these services so that they concentrate more on the production process and to reduce production costs.

One of the roles of logistics management is the delivery of company products, for example Lazada or Tokopedia products - to buyers or customers. The faster the product is shipped, the more economical operating costs because it does not require storage or warehouse rental. The success of the Amazon.com business is in terms of implementing fast logistics services because all transactions are carried out virtually and digitally without the need for physical space. Such a transaction system can cut various operational costs, including construction costs or warehouse rent. The Amazon.com business model is different from conventional bookstores or publishers that still use the old logistics system. The large bookstore in the Netherlands, De Slegte, has closed its stores because they have switched to online sales. In Indonesia, several large retailers such as Matahari Department Store and Metro Department Store have also closed outlets in several locations because most consumers switch shopping online. On the contrary, the phenomenon of online business has driven the growth of logistic services to increasingly develop and varied types.

Actually logistics has been used for a long time, especially in the military, as stated below: "The concept of logistics has existed for centuries with the most early references to the concept being found primarily in military applications" (Sweeney, Grant, & Mangan, 2017). The traditional role of logistics is to support various business sectors: "Logistics has traditionally played a supportive role to functional areas such as marketing and production, and its scope is limited to transportation and warehousing (Sum et al., 2001). Although there are many definitions or understanding of logistics, but most refer to physical movement and material storage activities (Sweeney et al., 2017).

In the last few decades since the discovery of computer technology and the Internet has caused fundamental changes in logistics, namely creating a new approach to logistics systems: "Attitudes towards distribution and logistics have changed quite dramatically in recent years." (Rushton, Croucher, & Baker, 2010). Basically logistics has a variety of functions and is dynamic so it must be flexible, changeable, and be able to adapt to the work environment: "Logistics is a diverse and dynamic function that has to be flexible and has to change according to the various constraints and demands imposes upon it and with respect to the environment in which it works". (Rushton et al., 2010)

Logistics growth in Indonesia is inseparable from the increase in trade in the ASEAN region: "The dramatic growth in external trade in countries such as Singapore, Malaysia, Thailand, and Indonesia have translated into an increase in demand for logistics services" (Sum et al., 2001) Logistics services are urgently needed for large companies that market their products in the global market so that their marketing reach is wider and their market segments increase. These opportunities are driving the growth of logistics services.

The impact of the development of advanced technologies such as the Internet, has created electronic logistics (e-logistics) which has many advantages, including being more efficient and economical. Through e-logistics, the logistics service company can develop its business more broadly and economically. The understanding of e-logistics is: "E-logistics can be defined as the transfer of goods and services using Internet communication technologies such as electronic data interchange (EDI), e-mail and the World Wide Web (WWW)." (Mari, 2006: 3)

The purpose of this study is to explain the new phenomena in logistics services, namely the use of information technology (IT) and online sales which have driven the growth of logistics services. In the opinion of Dawe (1994) that IT is: "Information technology (IT) offers a great opportunity to improve logistical efficiency, effectiveness and flexibility. IT was considered a key component in future logistics systems" (Sum et al., 2001). The IT functions include tracking the position of goods or documents by the company or sender. According to Lamb (1995) and Gooley (1994) that IT and telecommunications have contributed to the logistics system: "... the advent of advanced information and telecommunication technologies has also contributed to the increased interest in logistics in many companies" (Sum et al., 2001). (Jackson, D., & Humble, 1994) explain the role of IT in service satisfaction: "... IT can be used to help an organization achieve outrageous levels of customer satisfaction. The IT function has been actively involved in helping the organization deliver service excellence". The benefit of this research is to provide data and information on the development of e-logistics,

especially logistics services business JNE, J&T, and PT. Pos Indonesia (Persero) in the city of Bandung. The results of this study can be preliminary data for further studies.

METHODOLOGY

This study uses a qualitative method. Understanding qualitative research is: "A qualitative research is inductive processes which build concepts, hypotheses, or theories rather than testing hypotheses" (Merriam, S., 2009). The method is a case study that has the following characteristics: "Qualitative case studies can be characterized as being particularistic, descriptive, and heuristic" (Merriam, S., 2009) "The type of research is a descriptive case study, namely:" Providing narrative accounts " (Cohen, Manion, & Morrison, 2007). The type of sample is a purposive sample chosen based on population characteristics and research objectives. The research sample is logistics company JNE, J&T, and PT Pos Indonesia (Persero), the three logistics service companies were chosen because they have several characteristics in common.

DISCUSSION / ANALYSIS

The service sector in almost all countries in the world has increased: "The size of the service sector is increasing in almost all countries around the world" (Wirtz, 2019). In the last few decades the logistics service business in Indonesia has increased. This is indicated by the increasing number of companies engaged in the business, including PT. Tiki Jalur Nugraha Ekakurir (hereinafter referred to as JNE) which was established in 1990. Currently JNE logistics services are widely used by consumers to deliver goods or documents to all regions of Indonesia. One of the advantages is the fast delivery of goods or documents. One of them is the YES service (Yakin Esok Sampai) which is widely used for shipping goods or documents. So that the shipment is on time, then JNE picks up the shipment from all agents three times a day. Besides YES there are other services. As a logistics service company, JNE has made several innovations using IT and digital technology so that the quality of its services satisfies consumers.



Fig. 1 (Left) The atmosphere of one of JNE's logistic service branch offices. (Right) PT. Pos Indonesia in Ujungberung, Bandung. Both logistics service companies utilize IT in an effort to improve services to their customers.

Another logistic service company is PT Global Jet Express (hereinafter referred to as J&T), which focuses on online businesses, for example shipping Lazada brand products. J&T is a new logistics service company that was founded in Indonesia in 2015. But in its development J&T has experienced a significant increase, especially in the delivery of online products. J&T is an innovative logistics services company, which utilizes IT and digital technology as a competitive advantage. The digital role in business has changed the way in which customers, businesses and partners interact. Whereas the shipping rates between J&T and JNE are almost the same but JNE is cheaper.

Logistics service company PT. Pos Indonesia (Persero) (hereinafter referred to as PT. Pos) has a lot of experience in logistical matters and has an extensive network throughout Indonesia. Even before, PT. Pos once monopolized the delivery of letters and money services. However, the monopoly began to diminish due to intense competition from several financial and banking companies. Whereas the mail delivery service has been eliminated by e-mail. Goods and document delivery services also face competition from private logistics

service companies such as JNE, J&T and the like. Including competition with foreign logistics service companies such as UPS, DHL and FedEx. The new logistics service companies have made innovations, namely by utilizing IT as one of their competitive advantages. Basically, IT has many functions in logistics services, including tracking goods or documents. Previously, the process of shipping goods or documents using an old logistics system that was difficult to track. As a result, the whereabouts of the item or shipment document is difficult to know, so its arrival time cannot be ascertained. Including facing difficulties in tracking the position of goods or shipping documents lost on the trip. By using e-logistics, the above obstacles can be avoided.

Each of the three logistics service companies each has a competitive advantage, for example JNE which has many agents that are spread out throughout the industry. So, the sender or customer can easily send goods or documents. Whereas J&T as a new service company does not yet have many agents. The number of PT Pos agents for logistics services is still limited when compared to JNE. In facing this competition, PT Pos has cooperated with the private sector through the formation of agents. In addition, PT Pos's operational hours began to be extended in order to serve consumers. However, PT Pos's logistics services need to be further improved to be able to serve the needs of consumers. So far, the market segment of PT Pos has been eroded by the two logistics service companies

CONCLUSION

The increase in e-logistics services companies is the positive impact of online and IT sales. Online sales increase the quantity of logistics service companies. Whereas IT can improve the quality of its services, including tracking shipments. The use of IT in logistics services can also be a competitive advantage of a company that distinguishes it from its competitors. JNE and J&T are two logistics service companies that respond to the need for online product delivery services. PT Pos is also a similar company but is a long-standing and experienced company. The three logistics service companies competed with each other because the market segments were relatively similar. PT Pos needs to innovate to be able to compete with the two companies above.

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