

**IMPACT FACTORS FROM THE MOVEMENT PKT
LOGISTICS RENTED WAREHOUSE MOVEMENT TO
ONE AUTO HUB (OAH), BATU KAWAN ON INOKOM
AND NAZA MANUFACTURING OPERATION**

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**LAPORAN INI DIKEMUKAKAN UNTUK MEMENUHI
SEBAHAGIAN DARIPADA SYARAT MEMPEROLEH
DIPLOMA LOGISTIK DAN RANGKAIAN BEKALAN**

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VERIFICATION OF PROJECT

Title of this research report "**Impact Factors From The Movement Of PKT Logistics Sdn. Bhd Rented Warehouse To One Auto Hub (OAH) Batu Kawan**" this report has been submitted, checked and verified as a research report according to the terms and conditions that has been set.

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““We admit that this work is the result of our own work, each piece unless we have explained the source”

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ABSTRACT

Transportation is an important aspect for the community as a link and activator to economic activities of region. The main function of the transportation is to move from one place to another place. From the perspective of logistic, transportation also is an important to a logistic company which may needs to move or deliver the goods to the supplier or customers in a need of time. Therefore, this research aims to examine the factor by moving rented warehouse PKT Logistics Sdn. Bhd to OAH which located and newly developed at Batu Kawan. In addition, the method that carried out for this research is method of interview with PKT Logistics Sdn. Bhd together with two sub companies which is Inokom Corporation Sdn. Bhd and Naza Group Of Companies. With the teamworks together with the parties researcher has able to solve the research according to the requirement of the objective. This research has been done as a qualitative.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Logistics is one of the backbones that contributing to the Malaysia's economic growth. Logistics support all of the sectors in the economy and facilitates trade as well as reduces the cost of doing business while increasing productivity and efficiency. Traditional logistics focuses on activities such as procurements, distributions, transportations and inventory management. According to Hesse and Rodrigue (2004), the logistics sector includes all sets of activities involved in the transformation and distribution of goods for example, core distribution, production supply and transportation, retail and wholesale functions and they also cover the provision of households with customer goods as well as related information flowing. Hence, logistics is related to the series of recruitment and placement activities of the planned place and time.

According to R. Gopal , Vice President of Global Transport and Logistics Practice , stated that Malaysia's external growth is expected to increase 6.5 percent to RM1.42 trillion in 2013 compared to RM1.34 trillion in 2012 (Sinar Harian, 16 January 2013). This assertion is based on projections based on cargo volume and value total volume of cargo of the country is expected to record 530.67 million tonnes in 2013, compared to 505.26 million tonnes in 2012. The number of marine cargo is expected to grow five percent to 523.3 million tonnes in 2013. Malaysia's logistics industry is targeted expanded at an annual growth rate of 10.2 per cent to RM207.4 billion in 2017 (Daily ration, January 16, 2013). Thus, based on the projection, it showed that the increasing in the cargo volume and value total volume of cargo will increase the Malaysia's economic growth. Therefore, all

the companies that involved in logistics sector will take this opportunities to widen their business.

1.2 BACKGROUND PROBLEMS

According to Michael Hugos (2011) logistics usually refers to activities that occur within the boundaries of an organization and the supply chain refer to the network of companies that work together and align their actions to deliver a product of marketing. Currently the responsibility for transportation and warehousing is to distribute goods or services between sellers, wholesalers and manufacturers. Distribution channels have been extended from suppliers to customers. (Rodrigue et al, 2009). This assertion is in the sense that the cost of logistics or transportation varies according to the type of transportation used to facilitate the supply chain.

According to Rodrigue, et al. (2009), costs associated with logistics, such as transportation costs, warehousing costs, inventory costs and administrative costs are included under the total logistics costs. Therefore, logistics costs will increase according to the level of service used as well as changes in the economic sector and the logistics technology sector. Transportation plays an important role in supply chain management activities. Developments and improvements in logistics efficiency can change the overall performance of the transport system and supply chain management.

Logistics is a process that focuses more on fulfilling customer needs. But at some point in time, the logistics situation or environment may be an obstacle to fulfill customer needs such as inadequate facilities, severe weather and inefficient use of space. This could result in a low level of efficiency that may affect customer satisfaction.

1.3 PROBLEM STATEMENT

PKT Logistics Group Sdn Bhd (PKT) is a company operating in the warehousing and logistics sector. The company's service commitment is towards automotive sector services, FMCG, F & B. As a leading logistics company, they provide the design, execution and operation of logistics solutions in forwarding, customs distribution, logistics contracts, transport and distribution for national companies and large medium multinational. PKT Logistics has many customers throughout Malaysia as well as overseas. However, the main customers are the two leading syndicates that are core to PKT Logistics business, which are Naza Automotive Manufacturing Sdn Bhd, Gurun and Inokom Corporation Sdn. Bhd, Kulim.

Naza Group of Companies is the largest private-owned industry in Malaysia with businesses in the automotive industry, property development, food and beverage and hotel management to name a few. The industry has also grown into a major importer and distributor of global automotive brands such as Ferrari, Maserati, Brabus, Peugeot, Kia, Chevrolet and Citroen. In addition to this brand, the Naza Group has distributors for Mercedes-Benz and Perodua.

While, Inokom Corporation Sdn Bhd is involved in the lightweight commercial vehicle installation and production industry as well as several other vehicle installation contracts. Inokom is principally owned by major shareholders comprising Sime Darby Motors Sdn. Bhd. (5%), Hyundai Motor Company from South Korea (15%) and Berjaya Auto Berhad (29%). Inokom has started the Hyundai Multi-Functional (MFV) September 2002. Since then, Inokom has produced various products at its assembly plant in Kulim, Kedah. This model comprises passengers to commercial vehicles and marketing and distribution of Inokom products operated by Hyundai Sime Darby Motors Sdn Bhd.

Based on the statement issued by PKT Logistic Sdn Bhd's transport operations manager stated that the operation situation at PKT Logistic Sdn Bhd currently requires a revolution especially for the deployment of warehousing operations involving Naza Group and Inokom(Hansen, 2017). The deployment should be based on the transportation, cost and environment that will have a major implication in the delivery of higher value-added shipping and warehousing services to both of these companies.

PKT Logistics currently, facing some problems in the financial burden as it incurred because of the rental warehouse owned by Body Fashion Sdn. Bhd in the Kulim Kedah industrial area. Besides, the transportation services provided by PKT Logistics are also seen as one of the critical and important factors to be taken into account. Transportation services are the major support component of the effectiveness of the distribution system to customers. However, this factor has also been associated with operational management (cost), transportation planning and scheduling as well as product storage for PKT Logistics Sdn Bhd's customer needs. Therefore, PKT Logistics decided to operate their own warehouse, known as One Auto Hub (OAH) at Batu Kawan. Thus, the transfer of rental warehouse PKT Logistics Sdn. Bhd to OAH will seemly an give positive impacts especially to their customers.

Thus, the researcher has carried out a study in order to identify the impact factors from the movement of PKT Logistics Sdn. Bhd rental warehouse in Kulim, Kedah to One Auto Hub (OAH), Batu Kawan.

1.4 RESEARCH OBJECTIVE

This main objectives of this study are:

1.4.1 To identify the impact of transportation factor that influencing the movement of PKT Logistic Sdn. Bhd rented warehouse to OAH Batu Kawan.

1.4.2 To identify the impact of cost factor that influencing the movement of PKT Logistic Sdn. Bhd rented warehouse to OAH Batu Kawan.

1.4.3 To identify the impact of environmental factor that influencing the movement of PKT Logistic Sdn. Bhd rented warehouse to OAH Batu Kawan.

1.5 RESEARCH QUESTION

This study intended to answer the following questions:

1.5.1 What is the impact of transportation factor that influencing the movement of PKT Logistic Sdn. Bhd rented warehouse to One Auto Hub (OAH) Batu Kawan?

1.5.2 What is the impact of cost factor that influencing the movement of PKT Logistic Sdn. Bhd rented warehouse to One Auto Hub (OAH) Batu Kawan?

1.5.3 What is the impact of environmental factor that influencing the movement of PKT Logistic Sdn. Bhd rented warehouse to One Auto Hub (OAH) Batu Kawan?

1.6 RESEARCH SCOPE

The study was conducted to identify the impact factors influencing the movement of PKT Logistics Sdn. Bhd rented warehouse to OAH Batu Kawan. The impact factors focusing on the transportation, cost and environmental factors only. The topic was selected as it is related to the logistics field. This study has been use the qualitative approaches. Thus, the data was collected by using interviews and observations method.

1.7 SIGNIFINCANCE OF THE STUDY

This study was conducted on the relocation impact factor of PKT Logistics Sdn. Bhd to OAH Batu Kawan. To ensure that this study is successful, the interview method has been implemented. The main objective of this study is to identify factors affecting the transfer of rental of PKT Logistics Sdn Bhd rental to OAH. Impact that arise in this study are in terms of transportation, cost, and environmental.

The importance of this study can be divided into:

1.7.1 Signifincance to PKT Logistic Sdn. Bhd

Besides growing their current logistics company in Malaysia, they are partnering with others in several different markets and other countries around the world. PKT is a leader in the logistics company in Malaysia for being focused on sustainability efforts. It is important for PKT to have visibility for where the mobile workforce is. This will give PKT the ability to have an understanding of the utilization of their vehicles within the fleet, which will translate into a great understanding of how much fuel costs along with other aspects which is environment that affect the bottom line of the business.

1.7.2 Signifincance to potential customer

All products are manufactured using the same methods, technologies and quality

system, which the company already possessed the needed facilities and system. Initial material sourcing for the new products have been finalized and identified suppliers are ready to commence production. Some of the products have current suppliers in the industry, therefore, the company is making effort to penetrate the industry through better cost and quality to the potential customer.

1.7.3 Significance to current customer

By looking into the importance to the current customers it helps to increase the efficiency in terms of transportation management and warehouse management as well. In addition, the transportation cost incurred is higher than the rented warehouse, Kulim, the current customer is willing to pay because of the new warehouse management system is more systematic by using the latest facilities which is more to green technology such as battery forklift, natural air ventilation provided at the new warehouse OAH Batu Kawan.

1.8 OPERATIONAL DEFINITION

The operational definition terms are purposely to avoid any misinterpret related to this study. The operational terms that will be used are as below:

Logistic

Logistics can be defined as a resource flow process consisting of raw materials, products or information from the process it starts up to end users. It involved with the production of products, packaging and warehousing; and transporting products from their origin to the final destination.

Transportation

According to Second Edition Student Dictionary (2005), transportation is a motor transport system such as buses, taxis, trucks, and trains that can be used by the public. Transportation is also divided into three types, namely road transport, water transport and

air transport.

Cost

Based on Aini Aman (1998) cost is a measure of the quantity of resources that has been used for a particular purpose specified in terms of money. Money is a general measure that encompasses a number of different sources, measured in their own distinctive mixes for the purposes of determining the amount of resources that have not been used and will be used.

OAH

One Auto Hub (OAH) is a warehouse owned by PKT Logistics Sdn. Bhd located in Batu Kawan, Penang. OAH is the longest warehouse in Malaysia. This warehouse is made up of 12 modular wavelets resembling a wave.

Rented Warehouse

The rented warehouse is a special warehouse or place rented by made a payment after the consent of both parties. The warehouse is usually used as a storage place.

Movement

In general, movement means an act or process of moving especially change of place or position or postures other words is a particular manner or style of moving.

Environment

The environment means the surrounding area or area around a place. Such an environment should be emphasized in several aspects such as the air, water, minerals, organism and all other external factors surrounding an affecting a given organism at given time.

1.9 LIMITATION OF STUDY

There are some limitation due to this study. This study focusing on three factor only which is transportation, cost and environmental factors. However, there are several factors that can influences the move of PKT Logistic Sdn. Bhd rental warehouse in Kulim, Kedah to One Auto Hub (OAH), Batu Kawan such as human factor, location and so on. In addition, the technical problems such as less commitment from the workers can lead to the lack of information. In this research, Naza Manufacturing and Inokom Corporation is the main client to PKT Logistics Sdn.Bhd.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is the fact or about the fact that supports the objective. This proves that the theories used are all facts. In this literature review contains statements, theoretical methods, opinions, assessments and research reports on the topics chosen by researchers. These resources can be drawn from research articles, thesis journals or statements from the experts. Hence under this chapter, the study was conducted on the study of the factor affects the transfer of PKT's rented warehouse to OAH Batu Kawan. With this study, the empowerment of acquiring and obtaining information helps in achieving the objectives to be carried out. Summarized in the following literature review are factor of transportation, factor of cost and environmental factor.

2.1 TRANSPORTATION FACTOR

In an industrial context, a complete logistics system involves transporting raw materials from a number of suppliers, delivering them to the factory for processing, transporting the products to different depots, and finally distributing them to customers. In this case, transportation for both supply and distribution requires effective management procedures to optimize routes and costs. These procedures form part of the overall supply-chain management of the company, (C.G.Sorensen, D.D.Bochtis, 2010).

In addition, transportation management involves supervising the use and maintenance of vehicles and associated administrative functions, including coordination and dissemination of tasks and related information to solve the heterogeneous scheduling and vehicle routing problem.

According to Dr Jean Paul Rodrigue (2017), transport systems face requirements to increase their capacity and to reduce the costs of movements. All users (e.g. individuals, corporations, institutions, governments, etc.) have to negotiate or bid for the transfer of goods, people, information and capital because supplies, distribution systems, tariffs, salaries, locations, marketing techniques as well as fuel costs are changing constantly.

The choice of a transportation mode to route people and freight between origins and destinations becomes important and depends on a number of factors such as the nature of the goods, the available infrastructures, origins and destinations, technology, and particularly their respective distances.

According to S. Tan and J. Lu (2014), transportation management system is a complex network to manage and control. It is well known that most real-world management systems are typical complex and evolving networks and fleet management systems are no exception. Therefore, PKT Group Sdn Bhd is developing their transportation systems to enhance its competitiveness in the industry and to achieve the goals given by the corporation, in the hope that these systems would lead to higher corporate operating efficiency.

According to Brian, James and Lawrence (2003), factors that influence the selection of motor vehicles or non-motorized vehicles are based on the aspect of land transportation which is used to meet the need to connect a trip. This requirement is based on the rapid development in the urbanization process and the delimitation of the geographical area of a country.

According to Minfei Gong and Yanjun Kong (2013), transportation in the logistics sector is the process of delivery among the parties involved in logistics activities. The process of delivering goods to consumers or customers is very important to emphasize because it does not merely impact the business but it is also important in shaping consumer loyalty.

Logistics firms that operate their own fleets, tend to use a route plan that has the vehicles starting and ending at the same location. This ensures the minimum repositioning of vehicles and personnel. However, to develop routes that cover all deliveries and pickups to and from numerous customers is extremely complex and to develop the routes that are most efficient is becoming increasingly difficult, (Martin Murray, 2016).

2.2 COSTING FACTOR

Logistics service providers run business under a considerable pressure. They have to provide high quality logistics services at lowest possible prices and at the same time have to ensure a sustainable, profitable operation. This kind of business management requires reliable and true information about costing in logistics, (Zoltan Bokor, 2015).

Cost factors are the most important factors which should be mainly concerned by a firm or company. The varied costs involved are shipping costs, vehicle selection cost, maintenance costs and fixed costs that includes toll rates and workers' salaries. The exact calculation of logistics costs has become a real challenge in logistics and supply chain management. It is essential to gain reliable and accurate costing information to attain efficient resource allocation within the logistics service provider companies. Traditional costing approaches, however, may not be sufficient to reach this aim in case of complex and heterogeneous logistics service structures, (Rita Markovits-Somogyi, 2015).

The strong competition in the logistics market enforces the service provider companies to enhance the capabilities of their management accounting systems, (Karmazin, 2014). It is of high importance to know the real costs of services as well as the cost efficiency of activities contributing to the production of services. This information is needed for assessing the profitability and operation efficiency and for determining the price of services.

According to Ilyasak (2008), costs are sacrificed resources (in the form of monetary value or equality of money) to get products and services that will benefit current or future benefits to the organization. Costs are calculated in the money unit to pay for the goods and services. There are various types of costs that are used for different purposes in managing an activity in an organization. Among them are fixed costs and variable costs. Each and every activity in an organization will affect the cost of the company.

The choice of a transportation mode to route people and freight between origins and destinations becomes important and depends on a number of factors such as the nature of the goods, the available infrastructures, origins and destinations, technology, and particularly their respective distances. Jointly, they define transportation costs.

Transport costs are a monetary measure of what the transport provider must pay to produce transportation services. They come as fixed (infrastructure) and variable (operating) costs, depending on a variety of conditions related to geography, infrastructure, administrative barriers, energy, and on how passengers and freight are carried. Three major components, related to transactions, shipments and the friction of distance, impact on transport costs, (Dr. Jean-Paul Rodrigue and Dr. Theo Notteboom, 2017).

The price of a transport service does not only include the direct out-of-the-pocket money costs to the user but also includes time costs and costs related to possible inefficiencies, discomfort and risk (e.g. unexpected delays). However, economic actors often base their choice of a transport mode or route on only part of the total transport price.

The required cost should be prioritized so that the company can minimize the cost of each planning that has been made. According to Annalee Chiswell (2009), 60% of the transportation cost can be reduced if the company chooses to "outsourcing" from a transportation perspective as a key alternative to the company in deliveries.

Its impacts mainly involve distance and accessibility. Distance is commonly the most basic condition affecting transport costs. The more it is difficult to trade space for a cost, the more the friction of distance is important. It can be expressed in terms of length, time, economic costs or the amount of energy used. It varies greatly according to the type of transportation mode involved and the efficiency of specific transport routes. Transport activities are often taxed, such as vehicle sales taxes and registration fees. Fuel taxes are the most significant form of taxation levied by governments with revenues often used to cover maintenance and infrastructure investment costs. Tolls are also commonly levied on the usage of transportation assets, particularly at bottlenecks such as bridges and tunnels, (Dr. Jean-Paul Rodrigue and Dr. Theo Notteboom, 2017).

According to Martin Murray (2017) the cost of carrying inventory is used to help companies determine how much profit can be made on current inventory. The cost is what a business will incur over a certain period of time, to hold and store its inventory. The carrying cost of inventory is often described as a percentage of the inventory value. The storage space cost is a combination of the warehouse rent or mortgage, lighting, heating, air conditioning, plus the handling costs of moving the materials in and out of the warehouse. Some of the costs are fixed, such as rent or mortgage, but there are variable costs, such as the handling of the materials that will vary with the level of inventory.

The costs for packing sales units are attributed as production costs, whereas the costs for other packing material, pallets, bins etc. are classified as material costs of logistics. (Gudehus & Kotzab 2009). Meanwhile, Inokom gets value added services such as packaging as they stored their goods in OAH Batu Kawan compared to Naza who directly send the goods to their own warehouse by outsourcing PKT Group Sdn Bhd trucks.

Frequently, corporations and individuals must take decisions about how to route trucks (transport mode) through the transport system. This choice has been considerably expanded in the context of the production of lighter and high value consuming goods, such as electronics, and less bulky production techniques. It is not uncommon for transport costs to account for 10% of the total cost of a product.

2.3 ENVIRONMENTAL FACTOR

In general, Logistics is the integrated management of all the activities required to move products through the supply chain. For a typical product this supply chain extends from a raw material source through the production and distribution system to the point of consumption and the associated reverse logistics. The logistical activities comprise freight transport, storage, inventory management, materials handling and all the related information processing.

The logistics industry is seen as a business to maximize business profits. The environment within the logistics industry is an emphasis on the social and technological impact of which the industry operates. The emphasis on the concept of Green Transportation is seen as a last resort in maintaining a sustainable environment. Conceptual green transport refers to all types of carriers from suppliers to buyers with very low impact on environment and society (Minfei Gong and Yanjun Kong, 2013).

Although some early researchers focused on carbon emission models and pollution studies, 'green' as a definition was not institutionalized until last decade. Hervani (2005) was probably the first academic who coined a clear definition for green supply chain stating; "Green supply chain is a concept that combines green procurement, environmental management of manufacturing materials, environmental circulation, marketing, and reverse logistics".

Later in 2010, Sundarakani et al. (2010) defined "green supply chain management can be defined as the integration of environmental thinking into supply chain management, including product design, supplier selection and material sourcing, manufacturing processes, product packaging, delivery of the product to the consumers, and end-of-life management of the product after its use".

Green Logistics is a logistics activity, which aimed to reduce pollution of the environment and consumption of resource, using of advanced logistics technology planning and implementation of transport, storage, packaging, handling, processing and distribution. It is an effective and efficient flow of goods that connecting the main green supply and the main green

demand to overcome the obstacles between space and time and green services activities in the process of economic management, also known as environmental logistics.

The emphasis on the logistics industry was also implemented through the Green Logistics concept. Conceptually, the emphasis on green logistics is to encourage all stakeholders involved in the industry to re-evaluate the actions and frameworks in the industry that will have implications for the environment. The main objective of Green Logistics is to coordinate every activity in the supply chain process to provide minimal impact on the environment.

The storage of products also has an environmental impact although this is less visible than the transportation of products. Inventory holding costs play a large part in supply chain design, and the more storage is centralized, the less the storage costs. The environmental storage footprint consists of cooled/refrigerated storage for food or heated storage (in case of some oils) and evaporation during storage.

A major element in stimulating green behavior is the inclusion of environmental aspects in the procurement or tendering process. In this way, green behavior pays off for companies. However, it also makes these processes more complex and in fact multi-criteria decision approaches are needed. Ates et al. (2011) study the impact of external environmental investments, i.e. investments in collaboration activities with suppliers, related to production and logistics. Such investments may take the form of joint problem solving sessions, information sharing or establishing common goals, etc

The environmental problems can manifest in the form of global warming, hazardous waste, ozone depletion, rain forest destruction and pollution contribute towards the damaging the environment (Mansor, Yahaya, Nizam, & Hoshino, 2014 ; Ramlogan, 1997). In addition, within the area of logistics, the main negative environmental impact contribute from transportation activities as the related to move, collect and distribute (Wijittra, 2013; McKinnon, 2006). Furthermore activities of moving and warehouse management in logistics sector also related to packaging patterns which was the paper box around 86-88% the paper from pulpwood was the important raw material from natural resource (Wijittra, 2013).

In the 21st century, the greening of supply chains has become an increasing concern for many businesses and a major challenge for their logistics management, (Zhu, Q., Sarkis, J., & Lai, K, 2008). In addition, environmental aspects of the transport and logistics have become a more serious concern since products are being moved over greater distances and this trend is forecast to continue (ITF, 2013)

One of the green awareness event done yearly by the global community is the Earth Hour event, an energy-saving campaign of switching off lights for one hour aims that to reduce environmental impact to the earth. The event is held annually encouraging individuals, communities, households and businesses to turn off their non-essential lights for one hour, from 8:30 to 9:30 p.m. towards the end of March, as a symbolic for their commitment to save the planet.

Hence, Abbasi and Nilsson (2012) elaborate on environmental challenges from a supply chain perspective and classify these into costs, complexity, operationalization, mindset and cultural changes, and uncertainties. While, Mallidis et al. (2010) include a choice of port of entry in their supply chain design model. As transport by ship is environmentally friendly, it pays off to choose the nearest port for a customer.

Two main reasons for choosing a Logistics Service Providers' (LSPs) are their dominant role in handling freight due to the increased outsourcing of logistical services to LSPs (Wolf and Seuring, 2010) and, the limited research available with an LSP perspective on sustainable development (Lieb, 2010).

In order to improve the overall carbon footprint of a product, it is necessary to assign the footprint to material used, energy used, production, use and transportation (Quariguasi et al., 2010). According to some reports (Palanivelu and Dhawan, 2011) packaging represents some 23% of all waste weight. As all packages have to be transported to the retailer as well as to the waste processor, it is clear that reducing packaging saves the environment

Last but not least, according to European Union (2011) highlights some of the current and future trends, such as migration and internal mobility, aging, urbanization, and globalization,

all of which may challenge social and economic developments. The increasing scarcity of fossil fuels and global warming are examples of environmental challenges.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter will explain the research design of this study, the method of data collection, the population as well as the sample of this study and the analysis of data. The data that has been analyzed will then be presented in the next chapter

3.2 RESEARCH DESIGN

This study will be carried out using a qualitative approach only. Under qualitative approach, a survey research design that will be used in this study is an interview and also observation scheme as well. Interview is “an informal interview that is not aimed at obtaining answers to predetermined questions but rather to obtain information about where the participants are coming from and what they have experienced” (Gay, Mills & Airasian, p. 386). An observation scheme is where the researcher will observe the situation and the related place to do analysis that can support the interview. These are the research designs that will be used to gather the data that is needed for this research.

3.3 POPULATION AND SAMPLE

The major target population of this study is the clients of PKT logistics which are Naza Manufacturing Sdn.Bhd and Inokom Corporation. The purpose of using clients of PKT Logistics is because as being stated in the significance of the research. From the report that given by Mr. Hansen from PKT logistics, the main clients of PKT Logistics are Naza

Manufacturing Sdn.Bhd and Inokom Corporation. It is best to use samples from those companies in order to see whether or not the findings of this study are contradict with the report from given by staff of PKT logistics.

3.4 RESEARCH INSTRUMENT

3.4.1 Interview

The first interview that will be used in this study is interview. The purpose of interviewing the samples is to complement and extend the data from the report that given by Mr. Hansen from PKT logistics as well as to find out where the samples are coming from their experiences. The interview is aimed at finding out the impact of moving PKT Logistics rented warehouse to OAH.

Apart from that, the main staffs of the companies will be interviewed as to obtain their views on this matter and possible ways that they have been used to overcome the impact of moving PKT Logistics rented warehouse to OAH and possible ways that they would apply in future. Even though interview does not require predetermined questions, it is suggested researchers should prepare a set of questions in order to guide the conversations. The interview questions are included in the appendix section.

3.4.2 Observation scheme

The second instrument that will be used in this study is an observation scheme. The observation scheme is systematically structured in order for the data from the observation to be systematically recorded. The observation scheme consists of three criteria which are 'effects on fleets', 'effects on cost' and 'effects on environment'. Each criteria is provided with four qualities ranging from one as most positive description and four as the most negative description of the criteria listed in the observation scheme. Each quality specifically describes the criteria that are being observed. The researcher will choose the