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THE STUDY OF ECO-INNOVATION FACTORS TOWARDS SME  
TOURISM INDUSTRY IN MALACCA

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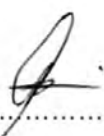
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JUNE 2015

**DECLARATION**

“I declare that this project is the result of my own research except as cited in the references. The research project has not been for any degree and is not concurrently submitted in candidature of any other degree.”

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## DEDICATION

This research is special for my lovely mother and father that have been supporting me along my journey in this life.

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## ABSTRACT

The increasing number of business competition and high demand in the small medium enterprise, Malaysia government has stressed the importance of SME to go globalization. In order to make SMEs sustain in their business, SMEs embarks with innovation. This research will be conducted in Malacca because the researcher will focus to tourism in Malacca that is and at the same time it considering to environment pollution. Actually, it is a big chance for SMEs in Malacca to do eco-innovation. Malaysia and other developed and developing country strive for a green economy, which is considering with 2 aspects that is profit and the environment. Because of that, the researcher decided to find out did SMEs of tourism in Malacca understand with eco-innovation concept and the factor that may influence them to do eco-innovation. There will be 100 respondents from tourism industry in Malacca. The methodology choice use of this research is quantitative and the technique to collect the data is using a survey in questionnaire. At the last of this research, the researcher will find out the most dominant factor that contributes to eco-innovation.

## ABSTRAK

Peningkatan jumlah persaingan perniagaan dan permintaan yang tinggi dalam perusahaan sederhana kecil, kerajaan Malaysia telah menekankan kepentingan PKS ke arah lebih globalisasi. Dalam usaha untuk membuat PKS bertahan dalam perniagaan mereka, PKS boleh mencuba dengan inovasi. Kajian ini akan dijalankan di Melaka kerana penyelidik akan memberi tumpuan untuk industri pelancongan di Melaka dan pada masa yang sama ia mengambilkira mengenai pencemaran alam sekitar. Sebenarnya, ia adalah satu peluang besar untuk PKS di Melaka untuk melakukan eko-inovasi. Malaysia dan negara maju yang lain sedang berusaha untuk membentuk ke arah ekonomi hijau, yang memberkaitan dengan 2 aspek iaitu keuntungan dan alam sekitar. Oleh kerana itu, penyelidik mengambil keputusan untuk mengetahui kefahaman PKS dalam industri pelancongan di Melaka dengan konsep eko-inovasi dan faktor yang boleh mempengaruhi mereka untuk melakukan eko-inovasi. Terdapat 100 responden daripada industri pelancongan di Melaka. Penggunaan metodologi pilihan kajian ini adalah kuantitatif dan teknik untuk mengumpul data adalah kaji selidik dalam bentuk soalan kaji selidik. Pada akhir kajian ini, penyelidik akan mengetahui faktor yang paling dominan yang menyumbang kepada eko-inovasi.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of study

In Malaysia, SME define as Small and Medium Entrepreneur which is playing a vital role in the country's economy in Malaysia. They are the backbone of industrial development in this country. SME Corp Chief Executive Officer Datuk Hafsa Hashim (SMIDEX, 2014) said the SME sector's current growth momentum and the country's healthy economy have allowed the sector to consistently exceed the economy's growth rate. SMEs in Malaysia is on track to contribute 41% to the country's gross domestic product by 2020 compared to 32% in 2012, said Minister of International Trade and Industry (MITI) Datuk Seri Mustapa Mohamed (FoKeM, 2014).

Malaysia used the term SME to refer to the business base on two main criteria. First is the number of annual sales turnover and second is the number of employees. These two main criteria have been applied in various sectors in Malaysia such as agriculture, manufacturing and service (SME Corp. Malaysia, 2013).

Malaysia SME has been defined into 2 broad categories (Ali Salman Saleh, 2008) which is manufactured (including Agro-based) and Manufacturing related Services annual sales turnover of less than RM 250 Million and full time employees of less than 150 while services, primary agriculture and Information & Communication



Technology (ICT) with annual sales turnover less than RM 5 Million and full time employees are not less than 50.

Today, humanity uses more natural resources than the earth can sustain on the long run. The bio-capacity of the earth (including both extraction and absorptive capacity for waste and emissions) has already been exceeded by around 50% (WWF et al., 2012). However, in Malaysia nowadays put an effort to keep their natural eco system. Based on RTM interview at Galeri@1 in 2012, Y. Bhg. Dato' Dr Halim Bin Man said that government today efforts to implement green technology should be viewed from two aspects. The first is the aspect of innovation, which is a partnership to create or develop green technologies. We do not necessarily create something complicated or complex.

Products that are environmentally friendly and practical for our country can be generated. At higher levels, our Malaysian researchers can produce a technology that can produce a product without wasting resources such as energy and water. The new design should be practical designs that can be commercialized for tourism sector.

In this research, the researcher will only highlight the aspect of innovation due to the environmental awareness among Malaysian. This research may open SMEs mind about eco-innovation in their business. Apart from that, eco-innovation can encourage SMEs awareness of environmental conservation. This can make Malaysia maintaining natural ecosystem which not every country can have this natural environment. This natural environment is actually being Malaysian pride and heritage. At the same time it can nurture the new generation not to be materialistic until they are willing to sacrifice Malaysian pride and make pollution to the earth.

Malaysia's National Policy on the Environment focuses on developing "economic, social and cultural progress of Malaysia and enhancement of the quality of

life of its people.” (National Policy On The Environment, 2002) in (Aseic.org, 2015). Innovation can be the best way to improve SMEs business in various aspects which may increase their annual turnover and at the same time they can achieve government GDP and also can improve competitiveness by embarking into global as while respecting the natural environment. This may contribute to Malaysia economy as well as helping Malaysia become a developed country. Moreover, tourism sector also can help to promote Malaysia to other country. At the same time, Malaysia can show to people outside the natural resources that still exist until now which is only had in Malaysia. Today, just a few country still protect their natural resources from pollution and some other country have explore their natural resources for technology and development.

## 1.2 Problem Statement

In this industry chain, each tourism activities contribute both direct and indirect carbon emissions. Carbon emissions from sources that are directly engaged in the economic activity of the tourism sector are considered direct emissions in term of accommodation, the carbon emissions from the usage of electricity by hotels and resorts while in term of transportation it come from passenger aircrafts and railways. It can be describe that emissions from electricity usage in airline or travel agent offices, and emissions from transportation of hotel consumables, such as food or toiletries (Yang, W., 2010).

Environmental benefits are positive spillovers, but to innovative firms, it might be a problem because all of these extra investments are paid for only by innovative firms themselves while environmental benefits are shared by the whole civil society. This decreases firms' incentive to invest in environmentally friendly solutions (Yan Yang Jette Egelund Holgaard, 2012). As we are aware, there are various tourism activities in

Malacca. However, a tourist attraction is the traditional transport; trishaw and the uniqueness of historical building around Malacca. The main attraction for tourists is use trishaws as tourism transport. However, there is a positive reason unconscious by tourist is about the ability of trishaws in protecting environmental destruction effect from diesel use by vehicle engine (Sa'arah, 2007). However, according to M.Nusaibah et.al (2011) Malaysian customers' readiness to accept green technology is still need to be research.

There has been a lack of positive economic goals and vision which could guide the transformation from the current high-carbon, resources inefficient economy to a low-carbon efficient economy (Andersen M.M. & T. Foxon, 2009). The process perspective to the phenomenon of innovation, particularly amongst SMEs, is more meaningful and relevant than its determinant based view because of its sensitivity to the 'micro-processes of innovation' and its ability to explain 'the embeddedness of innovation in SMEs' (Edwards et al., 2005) in Vyas, V. (2009).

In 'Bologna+10' High-Level Meeting (2010), they have mentioned that without a global shift to a low-carbon, resource-efficient economy, the world is on track for increasing greenhouse gas (GHG) emissions by 70% by 2050, and temperature increases of 4-6 °C by the end of the century. Sustainability and green growth continue to gain momentum in the international community as solutions for revitalizing the stagnating world economy as well as preventing further environmental & economic loss from climate change. Against this backdrop, eco-innovation has become a great significance to policymakers and businesses. However, some businesses achieve product eco-innovations even without a clear indeed purpose of avoiding environmental. The problem is does SMEs in Malacca have been exposed to the eco-innovation? As we know that Bumiputera SMEs has future prospect to further enhance. (Mohd Zain et al, 2012).

### 1.3 Research Question

Small and medium enterprises (SMEs) are playing significant contribution in the economic development, social uplifting and political stability of every country. The business needs some change according to the current environment. As we know, the technology is always growing up and the technology nowadays is a need to serve people life better. However, customer nowadays is really concerned about our environment and no wonder if they willing to spend a lot for the thing such as solar water heater which can reduce electricity usage in the home.

With value added by eco-innovation on their product, service and processes can improve the SME in tourism industry to stay strong in the market for a long time. This research question comes out base on below:

1. What is the understanding of SMEs toward eco-innovation in tourism industry?
2. What are the factors that contributed to SME toward eco-innovation in tourism?
3. What is the dominant factor of eco-innovation contributed to SME in tourism industry?

#### 1.4 Research Objective

The research objective of research is to study the factor affecting innovation in growing Malaysian SME. Below is the objective of the research:

1. To investigate the understanding of SMEs towards eco-innovation in tourism industry.
2. To find out the factors contribute to SME toward eco-innovation in tourism.
3. To investigate the most dominant factors of eco-innovation contributed to SME in tourism industry.

#### 1.5 Scope Limitation

There are many factors influencing the growing Malaysia SME which is one of the big factors is an eco-innovation in tourism industry and the area chosen is in Malacca. This research will focus on 3 independent variables that contribute to the factor for SME to do eco- innovation in tourism industry which is one of the special attractions in Malacca compare to food industry.

Eco-innovation is the best strategy SME can apply on the transportation tourism which at the same time they really concern in environmental. This research is using quantitative method which there is questioning distribute to respondents from SME in tourism industry. The respondent will be 100 SME in Malacca due to time limitation to finish up this research and the respondent may not be enough as well as time may not be valuable for the researcher to collect above than 100 respondents. This data collection

technique really helps the researcher to find out the best factor lead SME in tourism industry from Malacca to do eco-innovation.

## 1.6 Important of Research

This research is important to show eco-innovation initiatives in the tourism industry have focused on improving the energy efficiency in this industry. Implementing eco-innovation in tourism industry is actually something unique when the historical tourism is combining with eco-innovation concept. Eco-innovation is able to control the air pollution and carbon dioxide from transportation diesel. A factor also can help the Malaysia SMEs to be aware with their current industry issue.

Chairman of the Education Committee, Higher Education, Science and Technology, Green Technology and Innovation, Datuk Md. Yunos Husin said in his speech at Earth Day UTem 2014, the state government gave serious attention to the development of green technologies and environmental care in this country in line with the objectives of the Second Phase of Melaka Maju 2013 to 2023. Because of this, the researcher strongly agrees that SMEs in Malacca should take this opportunity to support the government objective and it is relevant for SMEs in tourism to implement eco-innovation in this state.

The motivation to invest in eco-innovation may be driven by the necessity to reduce costs for materials or fuel energy in order to increase competitiveness and obtain economic benefit. Eco-innovation could be a good solution both for business and the environment. Moreover, Eco-friendly lifestyle and quality of life would be enhanced by implementing eco-innovation (Ganapathy, S. P., et al., 2014).

Meanwhile, this research also focuses on the changing and increasing is important role that SMEs have on innovation mechanisms for the tourism industry. More specifically the assumption that causality runs from historical to science innovation has led to a belief that simply investing more in low-carbon will bring about efficient eco-innovation (Andersen M.M, 2010).

### **1.7 Organization of the Thesis**

Chapter 1 discussed about the overview of this research topic. In this chapter, the researcher will set the research to be studied. Here the researcher provides a precise picture of what the research is about. This chapter will point to the research problem, research question, research objective and signification of the research.

Chapter 2 will discuss the literature review of this research. There will explanation detail on theories of innovation and eco-innovation, types of the eco-innovation. There is also a bit explanation of tourism industry practicing in Malaysia and eco-innovation practice by SMEs. Priority research serves as the foundation of the study. It let us be aware of what is known so as to explore the unknown.

In chapter 3 explain more about the methodology. There will state how to gather and analyze data, which will be the respondent and lastly the reason the researcher wants to do research. This research will conduct in quantitative and the data collection will analyze using SPSS 22.0.

Next is chapter 4 which is in this chapter will analyse the independent and dependent variable in this research. The variable will be analyse based on correlation, Cronbach's Alpha and Multi Regression Analysis. From this analysis, the searcher can

gain result of this research. This chapter will help the researcher to answer all the research question in chapter 1.

The last chapter is chapter 5, in this chapter the researcher will discuss the result gain base on chapter 4. This research finding will conclude based on result in chapter 4. The researcher also gives a recommendation for future study to expand this research.

## **1.8 Summary**

At last, the factor affecting innovation can benefit the SMEs to be successful entrepreneur as well as to help them increase their business potential. The reason tourism industry does innovation in their business can help them to combine an existing idea or technology in creative ways to produce a new product or process and eco-innovation is needed to nurture the SMEs to love the earth for next generations.

Eco-innovations, as defined by the Observatory, are the introduction of any new or significantly improved product (good or service), process, organizational changes or marketing solutions that reduce the use of natural resources (including materials, energy, water, and land) and decreases the release of harmful substances across the life-cycle (EIO, 2010). This research can give a clearly about eco- innovation in what aspect they can focus to make business decisions.