# The Role of Opportunities for Green Entrepreneurship Towards Investigating the Practice of Green Entrepreneurship among SMEs in Malaysia

Review of
Integrative
Business &
Economics
Research

Rafidah Nordin Faculty of Business, Economic and Accountancy, University Malaysia Sabah

Ramraini Ali Hassan\* Faculty of Business, Economic and Accountancy, University Malaysia Sabah

#### **ABSTRACT**

Due to sustainability development, green entrepreneurship concept is gaining a significant momentum and is considered as one of the major drivers for the green economy. In Malaysia, the Small and Medium Enterprises (SMEs) form and contribute tremendously towards the GDP of Malaysia as a rapidly developing country. One of the areas that is highly influenced by the participation and support of SMEs is that of sustainability development. Much effort has been formulated over the recent years to strengthen green practice among entrepreneurs. However, this topic has been given less limelight with regards to the SMEs in Malaysia. Thus, this study aims to investigate the practice of green entrepreneurship among the SMEs, namely opportunities for green entrepreneurship among the SMEs entrepreneurs in Malaysia. This study applies a quantitative approach to collect data by using purposive sampling in selecting the respondents. The respondents will be among the SMEs entrepreneurs in Malaysia who have been practicing green entrepreneurship in their business activities. The questionnaires were sent to respondents consisting of the owners, managerial level or decision makers of SMEs from the services and manufacturing sector in selected regions of Malaysia. The finding from the study can be used to develop a policy that will promote the practice of the green entrepreneurship among SMEs in Malaysia.

Keywords: Green Entrepreneurship Practices, Green Economy, SMEs and Green Opportunities.

#### 1.0 INTRODUCTION

Environmental issue since the first United Nation Conference on the Human Environment in Stockholm in 1972 has become an immense issue to the world as something that is vital. Some notable progress has since been made and been discussed from time to time globally in an effort to raise the awareness and understanding of the issues that must be addressed. In addition, based on the United Nation Environment (UNEP) assembly in the Global Environmental Outlook (GEO-6) in Nairobi, the regional assessments find that the world shares a host of common environmental threats that are rapidly intensifying in many parts of the world. Environmental changes are occurring at a faster pace than previously thought. As a

result of this, the world is observing a growing need to adapt a more environmentally sustainable approach as well as gear towards more socially responsibly products and services that will cater towards sustainability development. The SMEs growth is the primary focus of every country's government because growth determines the success of SMEs businesses in any countries (Tehseen & Sajilan, 2016).

Therefore, some researchers and based on the periodically United Nations Sustainable Development Conference (Sustainable Development, 1992) suggests that entrepreneurs ought to assist in the environmental problems. Their business practice could preserve the ecosystem towards a greener economy. The functions within a business such as manufacturing, processing, operations, marketing, sales and distribution logistics are said to be among the sections within a business that are impacted by green business practices (Smith and Perks, 2010).

In developing a global economy and to gain natural resources, nature have been sacrificed and being destroyed for the sake of profit and rapid industrialization. This has led to the climate change in global (Uslu, Hancioglu, and Demir, 2015). In the consequences to that, the entrepreneurial organizations are called upon to contribute to society and nature in response to the environmental challenges faced by the human race in order to achieve sustainability development through a few channels such as green economy.

Due to sustainability development, green entrepreneurship concept is gaining a significant momentum and is considered as one of the major drivers for the green economy (Ahmad, Abdul Halim, Ramayah, & Rahman, 2015). Green entrepreneurship emerged in response to the environmental challenges that we are facing as a human race. In a broader sense, it could be well defined as pertaining to the process of creative destruction, which was described by Schumpeter (1934) in the first half of the 20th century.

Since it has been discussed that the entrepreneurial activities are regarded as a cause of environmental degradation, entrepreneurs themselves have to play their part in managing the sustainability issues (Hockerts and Wustenhagen, 2010) whereby this effort and movement has developed a new discipline that is called "green entrepreneurship" (Dean and McMullen, 2007). However, this discipline has been popularized for years especially among the big companies who as their part of responsibility towards society and environment. Having said that, however it still receives low acceptance from the other group of entrepreneurs, that is Small and Medium sized entrepreneurs (SMEs) particularly in a developing country like Malaysia.

Malaysia has long undergone policy reforms towards sustainable development with process of greening Malaysia's economy started as early as the 1970's by the introduction of regulation to manage pollution from the palm oil industry. Since then, the importance of environmental or ecological protection in Malaysia's economic development has been incorporated into the five-year development plan. However, though the effort towards sustainable development has long been initiated in the country, Malaysia had only officially launched its ambitious plan to build a "green economy" status transforming from its status as a "manufacturing hub" in 2009, in

order to establish low carbon emissions, highly efficient use of resource as well as a healthy well-educated populace.

#### 2.0 PROBLEM STATEMENT

Despite the fact that green entrepreneurship practices are less embraced by the SMEs entrepreneurs as compared to the large multinational companies; it is hardly to be ignored that the business activities among the SMEs entrepreneurs have somehow create impact towards the environmental. This is due to the reduction of environmental impact by the economic activities. Furthermore, it has been acknowledged by government and society everywhere throughout the world that entrepreneurship is a significant for a better sustainable society (Braunerhjelm, P. 2010). Notwithstanding with the contribution of this kind of business, there is a lack of literature of green business in Malaysia as researchers of small and medium enterprises (SMEs) in the country have concentrated their studies in the areas of finance, micro credit, human resource management, strategic management, marketing as well as leadership. Against this background, a study of green entrepreneurship is paramount (Mohd Rafi Yaacob, 2010).

However, the study found that insufficiency of control to effectively promote indigenous firms, especially the small and medium scale industry's retard renewable energy and energy efficiency in Malaysia. This is normally the case in most developing and emerging economies (Hussin, et al., 2017).

Some of the SMEs entrepreneurs have implemented the green practices in their business activities. However, the main factors that influence them to practice green is unidentified particularly on the role of opportunities for green entrepreneurship practices among the SMEs' entrepreneurs.

#### 3.0 LITERATURE REVIEW

## 3.1 Environment Issues

The effect of the climate change had impacted the environmental status globally including Malaysia. Pollution and the depletion of non-renewable natural resources such as petroleum, natural gas for instance, has given rise to the environmental awareness (Smith and Perks, 2010). Then again, where economic growth has prompted upgrades in the living standards, it has sometimes been achieved in ways that are globally damaging in the more drawn out. A significant part of the change in the past has been founded on the utilization of expanding measures of crude materials, vitality, chemicals, and synthetics and on the making of contamination that isn't sufficiently represented in figuring the expenses of creation forms. These patterns have effectively affected the earth. In this way, the present environmental challenges emerge both from the lack of development and from the unintended results of a few types of economic growth.

### 3.2 Green Economy

The concept of green economy focuses on the intersection of the environment

and economy and has become the issues being discussed in the 1992 Rio Conference Summit. Within the summit, it seems that all parties cannot mandate green economy in consensus. Instead, the summit requires entrepreneurs to respond to green economy policy incentives by themselves with the support of United Nation under United Nations Environment Programs (UNEP, 2011). Due to that, it is important to shift to the green economy in order to overcome environmental related problems, the depletion of scarce natural resources as well as the well-being of those at the bottom of the economic pyramid. Most of the international organization which include the World bank, The United Nations Conference on Trade and Development (UNCTAD), Organization for Economic Co-operation and Development OECD, World Trade Organization (WTO) and Food and Agriculture Organization (FAO) have shared the view that the necessities for global in the change towards greener economy (Ndubisi and Nair, 2009).

Green economy is driven by many major drivers. One of those major drivers is green entrepreneurship (Ahmad, Abdul Halim, Ramayah, and Rahman, 2015). Many researchers mentioned that green entrepreneurship is a new concept which links sustainable development to business activities.

## 3.3 Green Entrepreneurship

Here, green economy is considered as the trail to sustainable development, poverty eradication, and quality of life (UNEP, 2011). Though it is inaccurate to claim that the private sector has totally embraced the need to become greener, it is sufficiently reasonable to state that the topic is now getting more prominent in the business decision making, strategic planning and performance management as what have been discussed in the Rio Summit.

The focus on the comprehending environmentalism and sustainability business practices has uncovered that green orientation can be beneficial as far as business main concern and world natural resources is concern. Thus far, the green entrepreneurship concept is significantly progressing trend from the development perspective. The SME owner-managers' cognitive process is an important factor of the green entrepreneurship engagement (Koe et al., 2014).

In this study, however the green entrepreneurship practices and its similar terms and definition will be emphasized and the factors that influence towards its practices among the SME entrepreneurs will be discussed and determined based on the independent variables to be presented in the study. In other words, this study aims to determine the role of opportunities for green entrepreneurship as the factor for the SME entrepreneurs to practice green.

The existence of green entrepreneurs is recognized to play a substantial role in the development of a more sustainable economic and commercial system. Based on previous researches, different writers and scholars such as Michael T. Schaper (2002) have used different terms describing the phenomenon. The term "green entrepreneurship" and other terms such as "sustainable entrepreneurship", "ecopreneurship", "environmental ecopreneurship have been used interchangeably. Previous research highlighted that most developed countries often stress more on

being green in their attempts to exploit market opportunities whereby the green economy concept is engaged, while developing countries often focus more on entrepreneurship alone in their efforts to fulfil the market needs.

According to SwitchMap, the key aspects of green entrepreneurship includes about developing innovative business solution to environmental challenges that are economically viable and social empowering whereby the green entrepreneurs are those individuals or groups of people aiming to start-up green business. They are willing to launch viable green products or services in the market by which their green enterprise concepts tackle not only environmental but also social challenges. Green entrepreneurs grasp new business opportunities in the field of productive, circular and sharing economies.

## 3.4 Entrepreneurship / SMEs

In Malaysia, there are many types of entrepreneurs who contribute to the country's economic growth. Among them are Small and Medium enterprises (SMEs) entrepreneurs and it is found that business which reported sustainability practices were mainly large and listed corporations. Besides, sustainable development initiatives were mainly exercised by giant multinational manufacturers such as Panasonic, General Electric (GE) and Toyota (ACCA, 2010, 2011). At the same time, the information of sustainable entrepreneurship being practiced by the small and medium sized enterprise in Malaysia is rather scarce.

As mentioned by Omar and Samuel in Koe, Omar, and Majid (2014), SMEs embarkation on environmental management was still less promising as compared to larger firms. The SMEs contribution towards the economy development is significant whereby it contributed 35.9 per cent of the Growth Domestic Production (GDP) in the year 2014 (Malaysia, 2015). Table 1 below shows the SMEs contribution towards Malaysia's Gross Domestic Product (GDP).

Table 1: Value Added and Percentage Share to GDP and Constant 2010 Prices year 2014

CATEGORY	VALUE ADDED (RM BILLION)		SHARE (%)	
	Current Prices	Constant 2010 Prices	Current Prices	Constant 2010 Prices
SMEs	396.6	363.5	35.8	35.9
Large Enterprises	710.0	649.0	64.2	64.1
GDP	1,106.6	1,012.5	100.0	100.0

Source: Department of Statistic Malaysia (2014)

Malaysia is still considered as a developing country and is expected to become a developed country by the year 2020. In terms of Malaysia's context, entrepreneurial activities had contributed some tremendous benefits to the mankind. Small Medium Entrepreneurs (SMEs) plays a crucial role in the developing country like Malaysia. This is because they make up a large portion of business activities whereby through the entrepreneurial activities by the SMEs entrepreneurs do not only create jobs, establishes new business firms and opportunities but also changes people's lifestyles and lives.

Talking about entrepreneurs in Malaysia, (SMEs) are said to play a crucial role in developing a country's economy. This is due to the large portion of business activities they have participated (Koe W.L, Omar R, and Majid I.A, 2014). Looking at the Table 1 above, entrepreneurship has been acknowledged as a significant channel for a better sustainability society (Rahman, Amran, Ahmad, and Taghizadeh, 2013).

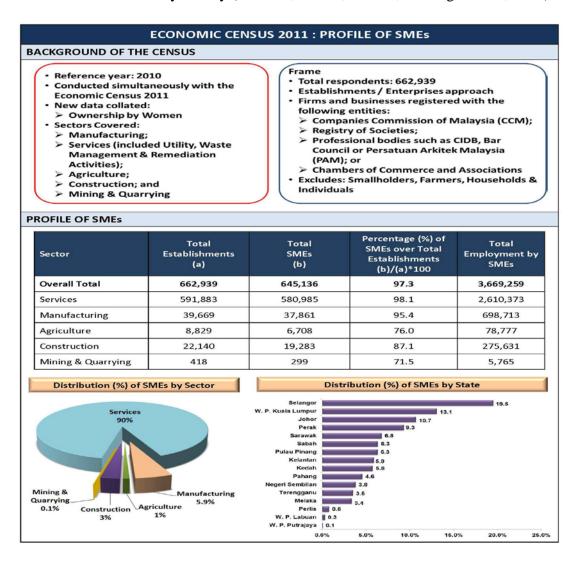


Table 2: Economic Census 2011 (Profile of SMEs)

Source: Department of Statistic Malaysia (2016)

#### 3.5 Relationships between opportunities for green entrepreneurship and green

## entrepreneurship practices among SME entrepreneurs.

There are a number of opportunities that provide a barrier or future development of the environmental industry sector. Some of these are avoided, reusing and recycling wastes. The new drivers of change are legislative and regulatory pressures, introduce technologies to minimize wastes, to process waste and to support green business initiatives (Roberts, 2004 in Hussin, et al., 2017).

The adoption of environmentally responsible business practices of green entrepreneurship, can possibly open up an additional range of opportunities. (Schaper, 2010). These include, among other things, the development of new products and services, improvements to the efficiency of existing firms, new methods for marketing as well as the configuration of existing business models and practices. As mentioned by Sharma and Kushwaha, (2015); Elms and Low, 2013), most of the companies from all over the world including Malaysia, are now implementing green practice not only they are concern about the environmental concerns but also due to the benefits and opportunities carries along with that favours their business. These companies that practicing the green practices in their business operation are engaging the green entrepreneurship practices. It improves corporate image, showing that they care about environmental well-being.

To take into account the environmental issues as a responsibility for SMEs entrepreneurs in doing their business, green entrepreneurship could open up an additional range of opportunities. Nonetheless, green entrepreneurship is not just important because of the new opportunities it provides for the vivacious first movers who recognize and exploit such opportunities but also because the opportunities and potential to be a major force in the overall transition to a more sustainable business paradigm. In fact, the organizations do not see opportunities, instead the individuals do. As what Krueger and Brazeal (1994) stated, entrepreneurial potential requires potential entrepreneurs.

The green entrepreneurship opportunities are focusing on monetary advantages that originated from being greener; the incentives being provided by the authorities as well as it could lure other different firms to proactively practice environmental awareness. In other words, they could be the "pull" factor that entices others to proactively go green. This will accordingly ensure the existence and survival of the SMEs entrepreneurs in the market. For SMEs entrepreneurs to practice or incorporate green entrepreneurship in their business activity, making profit is a vital aim. If there are no profitable opportunities existed, there would be no entrepreneurs. Thus, in the case of SMEs entrepreneurs, including environment-related ones, looking for business funding scheme has been the opportunity for their business development.

Off late, due to the environmental concerns that have turned out to be pressing globally, surprisingly, numerous gainful have been found to lessen environmental pollution. For sure, in opposition to neoclassic financial aspects lessons, free markets are portrayed by a consistent disequilibrium, which permits the rise of phenomenal benefits. Nonetheless, green entrepreneurship is not only important because it provides new opportunities for the nimble first-movers who are able to

identify and exploit such opportunities but also the potential that come along with it, to be a major force in the overall transition to a more sustainable business paradigm.

The SMEs entrepreneurs who are the vital players in the adoption of green practices will become the lead by demonstrating the economic benefits that come from being greener or in the other words have become ecopreneurs; act as a 'pull' factor that entices other firms to proactively go green. This is in contrast the 'push' factors of government regulation and stakeholder or lobby-group pressure (Schaper, Making Ecopreneurs: Developing Sustainable Entrepreneurship, 2010).

The green practice adopted by the SMEs entrepreneurs will indirectly encourage the SMEs to dominate the technology. The entrepreneurs who improve their technology, organization and processes, and innovate are the catalysts of this disequilibrium. Such imbalance in the market is not only the result of the creative destruction of entrepreneurship. They originate also in numerous "market failures". Largely based on the theory of market failure, the field of environmental economics focuses on how various types of market failure create environmental damage (Radygin and Entove, 2015). For example, industry and consumers have not always chosen the optimal energy technologies, even at present prices. Entrenched oligopolies or monopolies, established regulatory bodies, institutional separation between decision-makers and final consumers who pay the costs, lack of technical information are the most likely failures. Yet another source of opportunities for environmental-friendly goods and services comes from the market place. Consumers are willing to spend up to 10 percent more for products which are environmentally safe.

Consumers, aware of the environment and what they eat pose an ever-increasing demand for ecological goods and services. This largely fuelled some companies having established what amounts to a complete "green philosophy". The cosmetic industry is perhaps the archetype of this new approach that covers the ingredients, production, packaging, advertising, and general image. Over the last two decades, a variety of inter-organizational partnerships and networks have been formed to raise consciousness, share best practice, and co-ordinate action. An organization with a strong orientation toward seeing opportunities must support individual organization members who have that orientation toward opportunities. For the environmental issues for instance, is an ongoing process of turning threats as opportunities (Krueger, 1993).

Here, categorize environmental issues (from a strategic perspective) tend to be categorized into opportunities and threats in an ongoing, continuous process. We also know that perceptions of opportunity depend closely on perceptions that a situation is positive and that it is controllable (Dutton, 1993). Opportunity perceptions reflect an intentional process. In short, intentions are driven by perceptions of feasibility (for example, controllability) and by perceptions of desirability (for example, positiveness). Another, there are some understanding of the mental models that entrepreneurs (innovators) share, the scripts and schema that differentiate entrepreneurs from non-entrepreneurs (Bird, 1988; Mitchell and Chesteen, 1996). It seems probable that we have cognitive access to both an opportunity schema and a

threat schema. Which schema is activated first (or activated more strongly) depends on critical cues from the environment. A review of the literatures on entrepreneurship and innovation finds strong arguments for intentionality (Bird, 1988; Katz & Gartner, 1988), existing applications of intentions models and the impact of self-efficacy (Krueger & Brazeal, 1994).

#### 4.0 METHODOLOGY

#### 4.1 Research Framework

This research is done to examine and identify relationships between a variable that are assumed to have influence against each other. The framework for this research was then developed based on previous literature whereby it was found that there is an abundance of empirical studies with regards to green practice. In this study, the variables are divided into two (2) types of variables. They are namely independent variables and dependent variable.

The framework used in this study is originally adapted from the integrated model created by Piaralal *et al.* (2015) and integrated with the findings from Mukonza (2016) and Kousar *et al.* (2017) to create a more specified framework that focuses on examining all the relationships stated in this study. The theoretical framework of this study is as described in the following **Figure 3.1**.

Opportunities for Green
Entrepreneurship

Dependent Variables

Green Practice
of SME Entrepreneurs
in Malaysia

Figure 3.1: Theoretical Framework

Based on the findings gathered from the literature review, it was discovered that various factors lead to the implementation of green practice among the SME entrepreneurs in all parts of the world. One of them is opportunities for green entrepreneurship. Based on the theoretical framework and literature review, this study shall test the hypotheses as described below: -

**H1:** There is a positive relationship between Opportunities for Green Entrepreneurship and Green Practice among SME entrepreneurs in Malaysia.

## 4.3 Research Design

The purpose of this research is to determine the factor of opportunities for green entrepreneurship that influence the green practice among SME entrepreneurs in Malaysia to carry out green practice and this is aimed to be achieved through a cross-sectional survey test. In order to conduct an exploratory analysis, this study will employ the measurement in terms of a questionnaire survey.

Quantitative research is to be carried out where it is viable to find quantifiable data which, in nature, is objective and tangible in manner. The self-administered questionnaire survey shall be used due to the reason that the information for this study is taken from the respondents' ratings, personal experiences as well as current practice that are measured using the Likert rating scale. The data will be collected from various regions in the country namely the Northern Region, Southern Region, West Region and East Region of Peninsular Malaysia as well as both states from the East of Malaysia that are Sabah and Sarawak which will then be analyzed using the Partial Least Squares (PLS) regression. The data will be gathered through a questionnaire survey as the research instrument for the study.

## 4.4 Instrument Design

The study uses a questionnaire-based form as the measurement device in conducting this research. In order to ensure the process of data collection to be smooth, the instruments were distributed to the respondents by using appropriate level of questionnaires to suit with the selected respondents. The questionnaire was adapted and designed from previous studies relevant to the variables to be tested in this study and has been amended to adapt according to the suitability of this study. Response of these items will be according to the five point Likert scale format ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

# 4.4.1 Demographic Profile

The items used to measure the respondents' demographic profile consist of nine (9) items which are age, gender, highest academic qualification, respondents' position in the company, years of experience as an entrepreneur, operating years of the company, sector or industry the company is involved in and size of the business (as defined by SME Corporation Malaysia). These items were measured using nominal (dichotomous and category) scales.

### 4.4.2 Current Green Practice

The green practice currently being implemented by the respondent or the firm/company is measured using the list of green practices as compiled from Smith and Perks (2010). These items were adapted to form the items in the questionnaire and were carefully screened to only include those items that is seen relevant to a more generalized context and thus enable for respondent to be able to answer regardless of their industry background. To measure the level of implementation a five-point Likert scale is used where 1 is "Never Use" and 5 is "Frequently Use". A total of thirty (30) items were listed in the questionnaire.

**Table 3.1:** Measurement Items for Current Green Practice

Table 3.1: Measurement Items for Current Green Practice				
No.	Statement	Source		
1.	Prioritise the reduction of the impact of facility	Smith & Perks (2010)		
	construction and operation.	Swith & Darles (2010)		
<u>2.</u> <u>3.</u>	Use resources more efficiently.	Smith & Perks (2010)		
3.	Create by-products, recycle and re-use to eliminate	Smith & Perks (2010)		
4.	waste.  Avoid actions causing changes to the climate, water,	Smith & Perks (2010)		
4.	infrastructure and nature.	Siliui & Terks (2010)		
5.	Use alternative energy sources in production and	Smith & Perks (2010)		
٥.	manufacturing processes.	Similification (2010)		
6.	Use green technology to remain competitive and	Smith & Perks (2010)		
	increase productivity.	,		
7.	Use green initiatives to attract new market	Smith & Perks (2010)		
	opportunities.	, ,		
8.	Use only green packaging for products.	Smith & Perks (2010)		
9.	Be committed to investing in green research and	Smith & Perks (2010)		
	development initiatives.			
10.	Use green marketing to make customers aware of	Smith & Perks (2010)		
	environmentally friendly business.			
11.	Sell only green products.	Smith & Perks (2010)		
12.	Ensure brand loyalty by being an environmentally	Smith & Perks (2010)		
12	friendly business.	C :(1 0 D 1 (2010)		
13.	Advertise positive environmentalism.	Smith & Perks (2010)		
14.	Continually remind customers in advertisements of eco-friendly products.	Smith & Perks (2010)		
25.	Develop the company's reputation as a supplier of	Smith & Perks (2010)		
	eco- friendly products.			
16.	Ensure that all businesses in the supply chain meet	Smith & Perks (2010)		
	ISO 14000 standards.			
17.	Purchase only from suppliers selling	Smith & Perks (2010)		
	environmentally friendly products.	G 11 0 D 1 (2010)		
18.	Produce/ supply eco- friendly products in spite of	Smith & Perks (2010)		
10	higher production costs.	C:41. 0 D		
19.	Use space- saving warehousing or storage facilities to reduce environmental impact.	Smith & Perks (2010)		
20.	Use alternatives means of transport to make	Smith & Perks (2010)		
۷٠.	transport efforts greener.	5111111 & 1 51K5 (2010)		
21.	Use containers at full capacity to reduce the number	Smith & Perks (2010)		
<b>~</b> 1.	of trips to distribute products.	5		
22.	Share warehouse facilities / transportation networks	Smith & Perks (2010)		
	to avoid traffic congestions.	. ( - 2)		
23.	Avoid penalties, fines, and legal costs for non-	Smith & Perks (2010)		
	compliance with environmental legislation.	·		
24.	Expand the use of sustainable paper products while	Smith & Perks (2010)		
	reducing the use of paper.			
25.	Complete a green business audit to ensure that green	Smith & Perks (2010)		

	business standards are met.	
26.	Produce or sell eco- friendly products according to	Smith & Perks (2010)
	consumers' demands.	
27.	Implement green human resource policies to	Smith & Perks (2010)
	cultivate a green business culture.	
28.	Support community action programmes in green	Smith & Perks (2010)
	awareness.	
29.	Ensure top management support in all green	Smith & Perks (2010)
	initiatives.	
30.	Establish a formal team of people to monitor and	Smith & Perks (2010)
	promote green issues.	

# 4.4.3 Opportunities for Green Entrepreneurship Factor

The category of external factors includes the determinants of green practice that describe the characteristics of opportunities, competition, technological changes, demand for green practice as well as support from the government and the public. This factor is tested to find out if its influence towards SME entrepreneurs to practice green in their business.

Thirteen (13) items of measurement are adapted from Mwakambirwa (2013) and Mukonza (2016). Respondents were asked to indicate their level of agreement towards each statement with reference to a 5-point Likert scale where 1 indicates "Strongly Disagree" and 5 indicates "Strongly Agree".

**Table 3.5:** Measurement Items for Opportunities for Green Entrepreneurship Factor

No.	Statement	Source
1.	Loans for green activities are available.	Mukonza (2016)
2.	There is a fund for green entrepreneurship.	Mukonza (2016)
3.	Reduced paper work for access to green funding.	Mukonza (2016)
4.	There are subsidies given to green business.	Mukonza (2016)
5.	There are low interest loans available to green	Mukonza (2016)
	entrepreneurs.	
6.	There are wide varieties of financing programs for	Mukonza (2016)
	companies who are practicing to green practices.	
7.	There are enough policies and strategies in place to	Mukonza (2016)
	provide support and financial access for green	
	entrepreneurs.	
8.	There is government support for green innovation.	Mukonza (2016)
9.	There are public policies supporting green initiative.	Mukonza (2016)
10.	There are no entry barriers into market venture to	Mwakambirwa (2013)
	implement green practices.	
11.	There is a high demand for green production and	Mwakambirwa (2013)
	services.	
12.	There are wide opportunities for green procurement.	Mwakambirwa (2013)

## 13. The customer/public has support for green activities. Mwakambirwa (2013)

## 4.5 Unit of Analysis

The unit of analysis for this study consist of the SME entrepreneurs in Malaysia, with specific requirement of those that practice at least one (1) element of green practice, preferably from the sector of manufacturing and /or services. They can consist of owners of the company, managerial level staffs, supervisors or decision makers of the company or organization.

Focus is given towards the SME entrepreneurs in the manufacturing and service sector due to the reason that these sectors constitute the most number of SMEs compared to the other sectors in the country. According to the Department of Statistics Malaysia (2016) a percentage of 89.2% of the total number of SMEs in Malaysia occupy the service sector.

### 4.6 Sampling Design

The purpose of this study is to examine the key determinants or factors that lead towards the application of green practice among SME entrepreneurs in Malaysia and also to study the moderating variables that influence such practice among them. The target population of this study are the private organizations that are registered with Suruhanjaya Syarikat Malaysia (SSM) and SME Corporation of Malaysia (SMECorp). To be more specific, this study is expected to gather information from the SME entrepreneurs that come from the service and manufacturing sector from the chosen states to represent the main regions throughout Malaysia.

As recorded in the SME statistics, the total number of SMEs in Malaysia for the year 2016 was 907,065 firms with 809,126 of the firms from the services sector and 47,698 firms from the manufacturing sector (Department of Statistics, 2016). With regards to this massive population, non-probability sampling method shall be implied and purposive sampling will be used to reach the targeted respondents quicker. As discussed earlier, data collection will be conducted in selected states in Malaysia and the research will focus on the collective result from each of the five regions throughout Malaysia. This method was chosen due to the imbalance of distribution of the SME firms in Malaysia whereby Selangor and Kuala Lumpur constitute the highest number of SME firms, respectively 19.8% and 14.7% of all SME firms but on the other hand, states like Perlis have only recorded 0.8% of SME firms from the whole population. The difference shown is highly due to the economic imbalance in Malaysia especially in the areas of less economic activity control (Yussoff, Hassan and Jalil, 2000). Thus, collecting data by region will lessen the gap of imbalanced economic development in Malaysia.

Restrictions and limitations to reach the targeted SME entrepreneurs are also one of the concerns of the study. Therefore, the snowball sampling technique of the non-probability sampling method has been chosen. This technique is chosen to be employed as the sample is rare (Dragan and Isaic-Maniu, 2013). In an SME firm, the number of employees working in the services sector are basically set to not exceed 75

4.8

workers whereas in the manufacturing sector the maximum workers should not exceed 200 (SMECorp, 2017). Consequently, the current study limits the respondents to consist of only the owners of the companies, managerial level staff, and supervisors or decision makers of the company or organization. Thus, snowball sampling is seen as the most appropriate method to adopt while the informal social networks may help to identify the specific target respondents (Trochim, 2006).

# 4.7 Sample Size

The sample size is vital for representing the population. There are several ways to identify and determine the appropriate sample size. Five (5) to ten (10) respondents per variable or item are the usual requirements and most common sample size that is usually used in marketing studies (Hair, Black, Babin, Anderson, and Latham, 2006). However, Tabachnick and Fidell (2007) share a different method, where they consider a minimum of 300 respondents as the best sample required to run the factor analysis (p. 608).

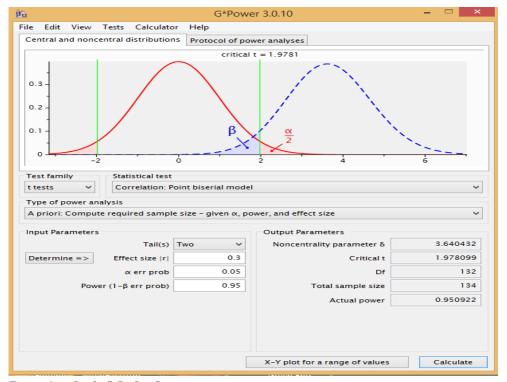


Figure 3.2: G\*Power Analysis for Total Sample Size

**Data Analysis Method** 

Structural equation modelling (SEM) will be applied to the study and Smart PLS (PLS-SEM, version 3.0) software will be used to assess both the measurement and the structural model of the proposed research framework. PLS-SEM was selected mainly because this software can accommodate and fulfil the study by predicting the key determinants for green entrepreneurship practices among SME entrepreneurs in Malaysia, extending the Resource Based View Theory (RBT) and General System Theory (GST).

#### 5.0 IMPLICATION OF THE STUDY

This is a preliminary study on green entrepreneurship in Malaysia with regards to investigate the role of opportunities for green entrepreneurship on the reason why the SMEs entrepreneurs in Malaysia of to practice green entrepreneurship. Therefore, at this stage only one key variable is highlighted particularly when established data on the green entrepreneurship practices among SMEs in Malaysia is seen scarcely available. The acceptance of SMEs in adopting the green entrepreneurship practices in their daily operation can also be questioned. In general, the perception among the industry players is an extra cost that will be directly associated with the green entrepreneurship practice. Lacking of available data can be challenging. This is similar for the key determinants that influence the adaptation of green entrepreneurship practices. There could be other key determinants that act as independent variables for the similar study will be discussed other than opportunities for green entrepreneurship. This study will help to provide an understanding on the role of opportunities for green entrepreneurship, as different nature of businesses required different approach in adopting green entrepreneurship practice. Hence, proper planning can be done beforehand, which will result in higher probability of success. Green entrepreneurship among SMEs in Malaysia, is obviously scarce. The acceptance of SMEs in adopting the green technology in their daily operation can be questioned since in general, one will think that extra cost will be directly associated with it. Lack of studies and available data are noticeable when carrying out the studies. This is also the same for the key determinants that influencing the adaptation of the green technology. Further studies will be carried out in near future on other key determinants. Realizing on the opportunities for green entrepreneurship for available factors can be performed and thus will be benefited to the development of the green technology among the SMEs in Malaysia.

#### REFERENCES

- [1] ACCA, A. o. (2011). Report of the Judges: ACCA Malaysia Sustainability Reporting Awards (MaSRA). Kuala Lumpur: ACCA Malaysia.
- [2] Ahmad, N., Abdul Halim, H., Ramayah, T., & Rahman, S. A. (2015). Green Entreprenurship inclination among Generation Y: the road towards a green economy. *Problems and Perspectives in Management*, 13(2).
- [3] Ayyagari, M., Beck, T., & Asli, D.-K. (2007). Small and Medium Enterprises Across the Globe. *Small Business Economics*, 29, 415-434. doi:10.1007/s11187-006-9002-5
- [4] Babiak, K., & Trendafilova, S. (2011). CSR and Environmental Responsibility: Motives and Pressures to Adopt Green Management Practices. *Corporate Social Responsibility Environmental Management*, 11-24.
- [5] Baron, R.A. and Shane, S.A. (2008), Entrepreneurship: A Process Perspective, 2 Ed., Mason, OH: Thomson South-Western.
- [6] Braunerhjelm, P. (2010). *Entrepreneurship, Innovation and Economic Growth:*Past experiences, current knowledge and policy implications. Stockholm: Swedih Entrepreneurship Forum.
- [7] Brünjes, J., & Diez, J. R. (2012). Opportunity entrepreneurs-potential drivers of non-farm growth in rural Vietnam? (No. 01.12). Working Papers on Innovation

- and Space.
- [8] Brundtland. (1987). Report of the World Commission on Environment and Development: Our Common Future. United Nations World Commission on Environment and Development (WCED).
- [9] Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, 22, 29-49.
- [10] Dean, T. J., & McMullen, J. S. (2007). Toward a Theory of Sustainable Entrepreneurship: Reducing Environmental Degradation through Entrepreneurial Action. *Journal of Business Venturing*, 22, 50-76.
- [11] Department of Statistics. (2015). *Statistics*. Retrieved 2017, from Small and Medium Enterprises 2014: https://www.dosm.gov.my
- [12] Dutton, J. 1993. The makings of organizational opportunities. In B. Staw & L. Cummings (Eds.), Research in Organizational Behavior, 15, JAI Press
- [13] Edobor, F. O., & Ogunleye, J. (2015). A review of literature into the nature and purpose. *Research Papers on Knowledge, Innovation and Enterprise*, *3*, 105-124.
- [14] Farinelli, F., Bottini, M., Akkoyunlu, S., & Aerni, P. (2011). Green Entrepreneurship: The Missing Link Towards a Greener Economy. *ATDF JOURNAL*, 8(3/4), 42-48.
- [15] Farreny, R., Benet, A., Morales, L., Cerantola, N., Cormenzana, M., Iglesias, J., & Merlo, G.-F. (2015). *Create your Green Business: The Handbool for Green Entreprenuers in the Mediterranean*. Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC).
- [16] Gevrenova, T. (2015). Nature and Characteristics of Green Entreprenuership. *Trakia Journal of Sciences*, *13*(2), 321-323.
- [17] Giacomin, O., Janssen, F., Guyot, J.-l., & Lohest, O. (2011, January). Opportunity and/or Necessity Entrerpeneurship? The Impact of the Socio-Economic Characteristics of Entrepreneurs. *Munich Personal RePEc Archive*, No 29506.
- [18] *Green Economy*. (2015, December). Retrieved from United Nations Environment Programme: www.unep.org
- [19] GREENT. (2012). An Attempt to Define "Green Entrepreneursship". Retrieved from http://greentproject.eu/.
- [20] Ho, Y. P., & Wong, P. K. (2007). Financing, regulatory costs and entrepreneurial propensity. *Small Business Economics*, 28(2), 187-204.
- [21] Jan Khan, M., & Khalique, M. (2014). An Overview of Small and Medium Enterprises in Malaysia and Pakistan: Past, Present and Future Scenario. *Business and Management Horizons*, 2(2).
- [22] Kamarulzaman, Hirawaty, N., Nawi, M., & Nolila. (2012). Ecopreneurship in Malaysia: Sustainable Forest Utilisation: Concept and Practices. *University Putra Malaysia Institutional Repository (UPMIR)*.
- [23] Katz, J., & Green, R. (2014). *Entrepreneurial Small Business* (4th ed.). New York: McGraw Hill.
- [24] Kaur, S. (2014). Green Entrepreneurship. *International Journal of Scientific Research*, *3*(12).
- [25] Kirkwood, J., & Walton, S. (2010). What Motivates Ecopreneurs to Start Businesses? *International Journal of Entrepreneurial Behavior & Research*, *16*(3), 204-228. doi:http://dx.doi.org/10.1108/13552551011042799

- [26] Koe, W.-L., Omar, R., & Majid, I. A. (2014). Factors Associated with Propensity for Sustainable Entrepreneurship. *Procedia- Social and Behavioral Sciences*, *130*, 65-74.
- [27] Kuratko, D. F. (2014). In *Entrepreneurship:Theory, Process, Practice* (9th ed., pp. 104-106). Cengage Technology Edition.
- [28] Lacroix, R. N., & Stamatiou, E. (2007). Green Architecture and Sustainable Development: Applications & Perspectives. *Proc. of the 3rd IASME/WSEAS Int. Conference on Energy, Environment, Ecosystems and Sustainable Development*, (pp. 603-606). Agios Nikolaos.
- [29] Madanchian, M., Hussein, N., Noordin, F., & Taherdoost, H. (2015). The Role of SMEs in Economic Development; Case Study of Malaysia. *International Journal of Academic Research in Management (IJARM)*, 4(3), 77-84.
- [30] Malaysia, T. O. (2015, September 11). Small and Medium Enterprises 2014.

  Retrieved from Department of Statistics Malaysia, Official Portal:

  <a href="https://www.statistics.gov.my/index.php?r=column/ctheme&menu\_id=TE5CRU\_ZCblh4ZTZMODZlbmk2aWRRQT09&bul\_id=YlVoaEczbld2TnJzTHljMjdvaGw0dz09">https://www.statistics.gov.my/index.php?r=column/ctheme&menu\_id=TE5CRU\_ZCblh4ZTZMODZlbmk2aWRRQT09&bul\_id=YlVoaEczbld2TnJzTHljMjdvaGw0dz09</a>
- [31] Mwakambirwa, B. A. (2013). Green Entrepreneurial Practices Among Small and Medium Emterprises in Mombasa County, Kenya. Mombasa: University of Nairobi.
- [32] Ndubisi, N. O., & Nair, S. R. (2009). Green Entrepreneurship (GE) and Green Value Added (GVA): A Conceptual Framework. *International Journal of Entrepreneurship*, 13(Special Issue), 21-34.
- [33] NK, S., & GS, K. (2015). Emerging Green Market as an Opportunity for Green Entrepreneurs and Sustainable Development in India. *Entrepreneurship & Organization Management*, 4(2).
- [34] Razak, N. (2010). https://www.najibrazak.com/en/speeches/malaysia-green-forum-2010/. Retrieved from NajibRazak.com: https://www.najibrazak.com/en/speeches/malaysia-green-forum-2010/
- [35] Schaper, M. (2005). *Making Ecopreneurs: Developing Sustainable Entrepreneurship*. New York: Routledge.
- [36] Schaper, M. (2010). *Making Ecopreneurs: Developing Sustainable Entrepreneurship* (2nd ed.). Farnham, Surrey, England: Gower Publishing Limited.
- [37] Sekaran, U., & Bougie, R. (2014). *Research Method for Business* (6th ed.). West Sussex: Wiley.
- [38] Sharma, N., & Kushwaha, G. (2015). Emerging Green Market as an Opportunity for Green Entrepreneurs and Sustainable Development in India. *Entrepreneurship & Organization Management*, 4(2).
- [39] SME Corp. Malaysia. (2013). *Guideline for New SME Definition*. Putrajaya: National SME Development.
- [40] Smith, E. E., & Perks, S. (2010). A Perceptual study of the impact of green practice implementation on the business functions. *Southern African Business Review*, 14(3).
- [41] Spaas, G. (2016). Organizing Fields towards a Breakthrough in Social Entrepeneurship. Lusaka: University of South Africa.

- [42] Tehseen, S., & Sajilan, S. (2016). Review of Integrative Business and Economic Research Impact of Innovative Practices on Business Growth Under The Moderating Impacts of Culture A Conceptual Model. *Review Of Intergrative Business and Economic Research*, 5(2), 28–46.
- [43] Yacob, P. a., & Moorthy, M. (2012, June). Green Practices: Perception of Malaysian SME Owners/Managers. *International Journal of Academic Research in Economics and Management Sciences*, 1(3).
- [44] Zahedi, A., & Otterpohl, R. (2015). Towards Sustainable Development by Creation of Green Social Entrepreneur's Communities. *12th Global Conference on Sustainable Manufacturing*. 26, pp.