
* Izaidin Abdul Majid  
Muhammad Hasfarizal Kamaludin  
MohdShamsuri Md.Saad  
Norazlina Ab. Aziz  
Universiti Teknikal Malaysia Melaka, Kampus Bandar, Jalan Hang Tuah, 75300 Melaka  
E-mail:*izaidin@utem.edu.my, hasfarizal.kamaludin@gmail.com, shamsuri@utem.edu.my, babylina_love@yahoo.com

This research is funded by Universiti Teknikal Malaysia Melaka (UTEM) through the Short Term Research Grant: PJP/2011/FPTT (5A)/S00911

Abstract

Generally, Small and Medium-sized Enterprises have been given high priority in Malaysia and identified as one of the engines of economic growth to drive Malaysia towards the New Economic Model (NEM) transformation. However, the environmental sustainability management of SMEs need to be taken into deep consideration in order to ensure sustainable entrepreneurship in Malaysia. This study focuses on the relationship between entrepreneurial orientation and opportunity–based management structure on environmental sustainability management of small to medium-sized enterprises (SMEs) with the prime intention to enlarge the element of sustainable entrepreneurship. The problem to be addressed in this quantitative study is to look into the level of commitment of entrepreneurial firm in indicate towards the effort to ensure sustainability of environment; the main concern of entrepreneurial firm in making as much profit and growth, it is also the importance of the society to know their perceptions and commitment towards maintaining the environment. Therefore, the main focus will be given on the relationship between Entrepreneurial Orientation (EO) and Opportunity-based Management Structure with environmental sustainability management in the Malaysian SMEs context. Finally, this paper concludes by presenting the conceptual framework of entrepreneurial orientation, opportunity-based management structure and environmental sustainability management in SMEs.

Keywords: Effect, Relationship, Malaysian small and medium-sized enterprises, Opportunity-based management structure, Entrepreneurial orientation, Environmental sustainability management

1. Introduction

Nowadays, the field of entrepreneurship has been considered as one of the important areas in a country's economic growth including job creation (van Praag and Versloot 2007) and economic development (McMullen, Bagby and Palich 2008; Audretsch 2007; Shu 2001). As a result, the entrepreneurship field has received much attention from public and private sectors as well as the government. Over the past three decades, the development of the field of entrepreneurship in Malaysia has significantly increased and may be attributed to the introduction of the New Economic Policy (NEP) in 1970. In addition, two recent prominent government policies; the Ninth Malaysian Plan (9MP: 2006-2010) and the Third Industrial Master Plan (IMP3: 2006-2020) have further strengthened entrepreneurial development based on the national mission as outlined in the NEP which is to reduce absolute poverty irrespective of race and to restructure society to correct economic imbalances.

The term “entrepreneurial orientation” has been used to refer to the strategy making processes and styles of firms that engage in entrepreneurial activities. A popular model of entrepreneurial orientation (EO) suggests that there are five dimensions of EO—autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness (Lumpkin and Dess 1996). The three most salient dimensions of EO are innovativeness, risk taking, and proactiveness, (Covin & Slevin, 1989a; Covin et al., 1991; Miller, 1983), and have been used consistently in the EO literature. In the last few years a lot of prominence has been attached to the analyses related to the companies’ environmental management, considering its multiple dimensions. However, studies of this sort, specifically in relation to small and medium-sized enterprises (SMEs), are very scarce, practically non-existent (ERMM, 2002).

Therefore, this study focuses on the relationship between entrepreneurial orientation and opportunity–based management structure on environmental sustainability management of small to medium-sized enterprises (SMEs) with the prime intention to enlarge the element of sustainable entrepreneurship.
2. Problem Statement and Objectives

The problem to be addressed in this quantitative study is to look into the level of commitment of entrepreneurial firm in indicate towards the effort to ensure sustainability of environment; the main concern of entrepreneurial firm in making as much profit and growth, it is also the importance of the society to know their perceptions and commitment towards maintaining the environment.

During the olden days, the general perspective of sustainability is defined as the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). Today, the deeply held assumption that any advances in environmental sustainability require an inherent trade off in economic profitability and is slowly giving way to a very different perspective; serves as the integrative concept which offers a long term perspective and provides opportunities for win–win solutions (Winn and Kirchgeorg, 2005).

In the research area, conventional perspective researchers tend to discovered any entrepreneurial activities that involve a profit motive as lying within their research domain and activities not involving a profit motive as lying outside of their domain. Thus, environmental, social and sustainability entrepreneurship is given due regarded as long as the motives of the entrepreneurs include at least some element of self-interested profit seeking.

On the environmental perspectives, economic development and environmental protection was viewed as a zero-sum game of social wealth. However, today most scholarly work to date focuses on corporate greening, revolving around firm efforts to reduce their environmental impacts in the process of transforming material and energy into saleable products and services (e.g., reduced resource consumption and waste generation per unit of output). SMEs have been selected as the main samples because of the steady growth in the economic perspectives as well as employment. Therefore, this study will investigate on the three main variables to enlarge sustainability in entrepreneurship. They are entrepreneurial orientation, opportunity-based management structure and environmental sustainability management.

For the entrepreneurial orientation (EO) conceptualization, it is being adopted from Covin & Slevin (1989); Covin et al. (1991); Miller (1983). They have indicate the three most salient dimensions of EO; innovativeness, proactiveness and risk taking. A popular model of entrepreneurial orientation (EO) suggests that there are five dimensions of EO—autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness (Lumpkin and Dess 1996). However, for this study, we will only use three dimensions of EO as this dimensions have also been selected and done by past researchers; Brown et al. (2001).

Looking on towards Opportunity-based Management Structure, it is being adopted from Stevenson’s (2000) six dimensional construct of Entrepreneurial Management (EM) as interpreted and operationalized by Brown et al. (2001). Finally, on the environmental sustainability management, the construct is adopted from ‘The 12 Principles of Green Chemistry’ (P.T. Anastas & J.C. Warner, 1998) and is based on the guidelines from ‘The National Green Technology Policy’ (Ministry of Energy, Green Technology and Water, KeTTHA, 2009). The main focus will be given on the relationship between Entrepreneurial Orientation (EO) and Opportunity-based Management Structure with environmental sustainability management in the Malaysian SMEs context.

3. Literature Review

3.1 SMEs in Malaysian Context

If the history of any large company is traced back, in most instances, these companies began as a small or medium establishment or even as a micro enterprise before graduating to what it is today. Hence, SMEs have long been recognised as the backbone to any economy as they have been an important generator of employment and growth. Similarly in Malaysia, SMEs account for about 99% of total business establishments and contribute to 31% of the nation’s Gross Domestic Product (GDP). SMEs’ shares to total employment and exports of the country are 56% and 19% respectively (www.smecorp.gov.my, 2012).

Going forward in order for Malaysia to achieve a developed nation and high income status, domestic SMEs are expected to be an important driver of growth. The focus in the New Economic Model and Tenth Malaysia Plan would be to unleash the untapped potential of SMEs and to transform these entities to be more competitive and resilient to the changing business environment. Based on the Census on Establishment and Enterprises 2005 conducted by the Department of Statistics Malaysia (DOSM), SMEs in Malaysia are mainly in the services sector, accounting for 87% or 474,706 of total business establishments. Most of these businesses are involved in the distributive trade which includes wholesale and retail, as well as hotels and restaurants.

The manufacturing sector, meanwhile accounts for 7% of total SMEs or a total of 39,373 businesses, of which more than half are in the three key subsectors, namely textiles and apparel, metal products and food and beverages (F&B). This is followed by the agriculture sector which constitutes another 6% of SMEs or representing 34,188 businesses. Most SMEs in the agriculture sector are involved in crop plantation, horticulture and fishing. While SMEs are an important agent of growth in many countries, the contribution of SMEs to the Malaysian economy is relatively low when compared with the
industrial countries and other developing countries. In today’s dynamic business environment, SMEs firms must ensure that they are able to sustain their business and most importantly their resources. Therefore, it is very important for them to be alert in the environmental matters and make changes to their management style in order to contribute to the environmental sustainability. Back then, in the year 1994, according to an APEC study, the SMEs in Malaysia are facing many challenges such as lack of policies that governs SMEs, too many agencies for SMEs, inadequate data and information for development of SMEs and etc. Nowadays, the challenges for SMEs have evolved into far new dimensions. According to the SMIDP’s 2001–2005 study report (SMIDEC, 2002), the challenges are such as intensified global competition (China and India), low productivity / quality output and low level of research to support the environmental sustainability.

3.2 The National Green Technology Policy

Despite the economic policies established by the government, there is also policy on the environmental aspect that embraces SMEs such as ‘The National Green Technology Policy’. This policy was established by the Ministry of Energy, Green Technology and Water (KeTTHA) on 24th July 2009. According to KeTTHA, the definition of green technology is the development and application of products, equipment and systems used to conserve the natural environment and resources, which minimizes and reduces the negative impact of human activities. Based on this, Green Technology shall be a driver to accelerate the national economy and promote sustainable development. This policy has covered five criteria of green technology. They are:

- minimizes degradation to the environment;
- has zero or low greenhouse gas (GHG) emission;
- safe for use and promotes healthy and improved environment for all forms of life;
- conserves the use of energy and natural resources; and
- promotes the use of renewable resources

Therefore, SMEs will not only be a profit-making organization, but at the same time, SMEs are the organizations that support the environmental sustainability. The establishment of The National Green Technology Policy also focussing on four main pillars consists of energy, economy, environment and social.

3.3 Entrepreneurial Orientation

A multi-dimensional construct (Covin, Green, & Slevin, 2006; Lumpkin, Cogliser, & Schneider, 2009; Lumpkin et al., 1996a), EO primarily evolved from the strategy, and entrepreneurship literature (Covin & Slevin, 1991; Miller, 1983). The term “entrepreneurial orientation” has been used to refer to the strategy making processes and styles of firms that engage in entrepreneurial activities. EO is considered as an alternative approach, and also a well-established entrepreneurship construct (Brown et al. 2001), to entrepreneurial style of firm management. Wiklund and Shepherd (2005) refer EO as a firm’s strategic orientation, capturing specific entrepreneurial aspects of decision making styles, methods and practices. A popular model of entrepreneurial orientation (EO) suggests that there are five dimensions of EO—autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness (Lumpkin and Dess 1996). The three most salient dimensions of EO are innovativeness, risk taking, and proactiveness, (Covin & Slevin, 1989a; Covin et al., 1991; Miller, 1983), and have been used consistently in the EO literature. Miller (1983) provides a useful starting point that initiates the formation of EO construct, which is widely used to measure firm-level entrepreneurship. He suggested that an entrepreneurial firm is one that “engages in product market innovation, undertakes somewhat risky ventures, and is first to come up with ‘proactive’ innovations, beating competitors to the punch” (Miller, 1983). Accordingly he established the dimensions of “innovativeness,” “risk-taking” and “proactiveness” to characterise and test entrepreneurship.

3.3.1 Innovativeness

Innovativeness is fundamental to contemporary definitions of entrepreneurship (Miller, 1983; Shane, 2000) as well as an important factor used to characterize EO (Covin et al., 1989b; Miller, 1983; Zahra, Sapienza, & Davidsson, 2006). It implies that one has a positive mind-set or predisposition to engage in creativity, and experimentation through the introduction of new products or services as well as technological leadership through research and development in new processes (Lumpkin et al., 1996a). Schumpeter’s (1942) concept of “creative destruction” highlights the importance of innovation in entrepreneurship, referring to the process where massive change occurred, either by the introduction of a new service or a new production method, the opening of a new market, the conquest of a new source of provisioning or the creation of a new organization.

3.3.2 Risk-taking

Risk-taking represents the likelihood that an individual will forego a safe alternative with a known outcome in favour of a
more attractive choice with a more uncertain reward (Brockhaus, 1982; Lumpkin & Gregory, 2001). Risk-taking is one of the concepts most commonly used by researchers to describe EO (Miller, and Friesen, 1982, 1983; Simon et al., 1999). Risk taking can be an individual level (Sitkin, and Pablo, 1992; Brockhaus, 1980) or a firm-level trait (Baird, and Thomas, 1985) that differs by a firm’s stage of development (Lumpkin, 2002). It involves taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments (Lumpkin et al., 1996a).

There is always a certain degree of risk, and error when entering a new industry or market (Schumpeter, 1934). It has been found that entrepreneurs are more inclined to take calculated risks (Begley, 1995; Begley, Tan, & Schoch, 2005), to reduce the probability of failure.

3.3.3 Proactiveness

Proactiveness suggests a forward-looking perspective characteristic of a marketplace leader that has the foresight to act in anticipation of future demand and shape the environment. This is consistent with Miller and Friesen’s (1978) view of proactiveness as changing the environment by introducing new products and technologies, and with Venkatraman’s (1989a) definition of proactiveness as “seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of life cycle” (Venkatraman 1989a: 949).

Proactiveness, a well-established part of EO (Covin & Slevin, 1988; Covin et al., 1989b; Miller, 1983), is an opportunity-seeking, forward-looking perspective or mind-set (Lumpkin et al., 1996b; Lumpkin et al., 2001) characterized by the introduction of new products, and services ahead of the competition, acting in anticipation of future demand, and shaping the environment (Lumpkin et al., 1996b). Various works include this characteristic as an important factor of EO (Covin et al., 1989b; Lumpkin et al., 1996a) emphasizing the importance of being first-movers as the best competitive strategy for profitability. Other activities include a constant search for new opportunities, identification, and monitoring of market trends; and new venture team formation.

3.4 Opportunity-based Management Structure

The third dimension of Entrepreneurial Management (EM) is Management Structure which suggests that the management structure of an entrepreneurial firm is organised with multiple informal networks and depends on loose informal relations. On the other hand, other researchers stated that administrative firms typically are organised as formalised hierarchies with clearly defined lines of authority and tight control of funds and operations (Brown et. al., 2001; Eliasson et. al., 2002; Stevenson, 2000). An entrepreneurial management structure is designed to access resources within the firm as well as through collaborative network relationships (Eliasson et. al., 2002).

This is in line with Drucker’s (1985) contention that “today’s managers and businessmen need not only managerial skills but entrepreneurial skills as well”. Although many people argued to the extent of suggesting that being a good entrepreneur prevents one from being a good manager, Stevenson (2000) maintained that management skills are nonetheless essential. Burton (1995) following Scott (1992) defined structure, within the context of a formal organisation as “the pattern or regularised aspect of the relationships existing among participants in an organisation”.

As appeared in the EM instrument, the management structure of an entrepreneurial firm is based on the following considerations: “We prefer loose, informal control. There is a dependence on informal relations”; “We strongly emphasise getting things done even if this means disregarding formal procedure”; “We strongly emphasise adapting freely to changing circumstances without much concern for past practices”; “Managers’ operating styles are allowed to range from very formal to very informal”; and “There is strong tendency to let the requirements of the situation and the personality of the individual dictate proper job behaviour”.

In contrast “administrators” were assumed to base their management structure on the following considerations: “We prefer tight control of funds and operations by means of sophisticated control and information systems”; “We strongly emphasise getting things done by following formal processes and procedures”; “We strongly emphasise holding to tried and true management principles and industry norms”; “There is a strong insistence on a uniform management style throughout the firm”; “There is a strong emphasis on getting line and staff personnel to adhere closely to their formal job descriptions”.

3.5 Environmental Sustainability Management

In the last few years a lot of prominence has been attached to the analyses related to the companies’ environmental management, considering its multiple dimensions. However, studies of this sort, specifically in relation to small and medium-sized enterprises (SMEs), are very scarce, practically non-existent. On the other hand, with respect to the demands made by their environment, it seems as if these types of companies enjoyed a privilege. Nevertheless, some
events are fostering a change in this situation precisely in the most demanding area of the planet in environmental matters: the European Union.

It all started in the Informal Environment Council, which was held in April 1997 under Danish chairmanship, and which addressed the problem of environmental management in SMEs. This report concluded that SMEs are an important driving force for economic growth and employment throughout the European Union. But, on the other hand, it is observed that they generate a great deal of the environmental contamination. As a consequence, the requisites demanded of them should be related to the nature and magnitude of the environmental contamination, and not to the company’s size (Berends et al., 2000).

3.5.1 Environmental Sustainability Management in Malaysian Context

Studies focusing on Malaysian environmental reporting, however, have not appeared in the literature until the turn of the millennium. In a study conducted by the Environmental Resources Management Malaysia (ERMM, 2002), the analysis of annual reports and standalone environmental reports of companies listed in the Kuala Lumpur Stock Exchange (KLSE) shows that environmental reporting is not widely practised in Malaysia. The report, however, highlights an increase in environmental reporting, albeit minimal: The number of reporting companies grew from 25 in 1999, to 35 in 2000, reaching 40 companies by 2001. This represented 5.3%, 7% and 7.7% of the KLSE main board listed companies in 1999, 2000 and 2001 respectively (ERMM, 2002).

Another descriptive study done by Thompson and Zakaria (2004), confirms that Malaysian environmental reporting is still at its infancy and that majority of environmental disclosers are large companies with seven of the top 10 companies providing mostly general policy statement accompanied by some unsubstantiated declarative statements. The Malaysian studies reviewed highlight a number of important points. First, although environmental reporting in Malaysia is still very limited, majority are driven by stakeholder concerns (Yusoff et al, 2006). The qualitative interviews and the perusal of relevant media or website reports point to a number of significant environmental issues that are specific in the Malaysian setting.

4. Conceptual Framework

Entrepreneurial Orientation (EO) which comprises of proactiveness (P), innovativeness (I) and risk-taking (R) is expected to have positive relationship with environmental sustainability management. At the same time, opportunity-based management structure is expected to play a very important role in mediating the relationship between entrepreneurial orientation and environmental sustainability management.

![Figure 1: The Conceptual Framework](image)

Based on Figure 1, the following hypotheses being articulated:

H1: Entrepreneurial Orientation (EO) is positively related to Environmental Sustainability Management (ESM).
H2: Opportunity-based Management Structure (OMS) is positively related to Environmental Sustainability (ESM).

H3: Opportunity-based Management Structure (OMS) will mediate on the relationship between Entrepreneurial Orientation (EO) and Environmental Sustainability Management (ESM).

5. Conclusion
This study is expected to shed light for firms to practice more environmental sustainability management to perpetuate the element of sustainable entrepreneurship. On the practical side, this study will benefit SMEs firms, government as well as public across Malaysia to realize the importance of environmental factors and how far these parties contribute towards maintaining and sustaining the environment. Also, this study will provides some useful recommendations especially in promoting sustainable entrepreneurship, which is in line with the government’s objective.

References


Howard H. Stevenson (2000). Why entrepreneurship has won! Harvard University Graduate School of Business Administration Coleman White Paper USA SBE Plenary Address.


This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE’s homepage: http://www.iiste.org

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. Prospective authors of IISTE journals can find the submission instruction on the following page: http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar