

Drivers for Malaysian SMEs to Go Green

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Abstract

Small and Medium Enterprises (SMEs) around the world have little knowledge about environmental management and do not understand the concept of environmental management. The concept of green is still very new to Malaysian SME owners/managers, although many green conferences, seminars and campaigns have been carried out for quite some time. The concept for green process and products in Malaysia is at the infancy stage. The drivers of environmental behavior in SMEs are relatively under-researched (Worthington & Patton, 2005) and more needs to be done to help SME owner-managers adopt environmental initiatives (Hitchens *et al.*, 2003) as poor environmental performance is not simply the outcome of negative attitudes by SME owner-managers to the environment. This study identifies five key drivers of environmental management practice for SMEs go green. The five drivers are: economic benefits, financial incentives, stakeholders demand, legislation, resources, motivation and knowledge. The Theory of Planned Behavior (TPB) is considered as the most appropriate theory to study the drivers of green environment behavior and to investigate the owners'/managers' perception and attitude towards Malaysian SMEs' green concept.

Keywords: SMEs, green concept, drivers to go green, Malaysia.

Introduction

Small and Medium Enterprises (SMEs) around the world have little knowledge about environmental management and do not understand the concept of environmental

management. Therefore, it is very difficult for SMEs to see the clear link between environment management system implementation and the benefits (Weerasiri & Zhengang, 2012). Empirical research on the effects of best practice of environmental management, which enable firms to simultaneously protect the environment and reduce cost on firm performance has so far been ignored (Christmann, 2000). Although much of the past researches have focused on the impact of large companies on the environment, it has been suggested that the estimated collective impact of small-medium enterprises (SMEs) on the environment is substantial (Hillary, 2000) and could outweigh the combined environmental impact of large companies. Therefore, it may be argued that greater attention should be given to the SME sector in the social and environmental management literatures.

The concept of green is still very new to Malaysian SME owners/managers, although many green conferences, seminars and campaigns have been carried out for quite some time. The concept for green process and products in Malaysia is at the infancy stage. There is only a little knowledge about the green concept in Malaysia despite all efforts from governmental and private institutions. The issue here is that “are Malaysian SME owners/managers familiar with the green concept and concerned about the environment”? The impact of owners/managers perception and attitude towards green concept are important, as the environmental awareness of consumers caused them to seek for environmental friendly products. Prior researches have shown that the implementation of environmental management practices is influenced by existing and potential stakeholder groups in the form of external pressures from legislators, environmental groups, financial institutions and suppliers, as well as internally, by employees and owner/manager attitudes and knowledge. However, there is need to determine the extent to which Malaysian SMEs owners/managers are actually aware of green concept and the underlying advantages come along with this concept.

Small and Medium-Sized Enterprises (SMEs)

Enterprises in European Commission (EC) qualify as micro, small and medium sized enterprises (SMEs) if they have not more than 250 full-time employees, has an annual turnover not exceeding €50 million, or balance sheet ceiling of €43 million. However, in Malaysia, there are several definitions of SMEs and it is based on the type of sector the enterprise is operating within (SME Corp. Malaysia, 2005). The detailed definition for each sector is defined in Table 1 and 2.

Table 1: Definition of SMEs based on the number of full-time employees

Definition of SME	Primary Agriculture	Manufacturing (including argo-based) & Manufacturing Related Services	Services Sector (including ICT)
Micro	Less than 5	Less than 5 employees	Less than 5

	employees		employees
Small	Between 5 & 19 employees	Between 5 & 50 employees	Between 5 & 19 employees
Medium	Between 20 & 50 employees	Between 51 & 150 employees	Between 20 & 50 employees

Source: Definition of SMEs (SME CORP, 2009)

Table 2: Definition of SMEs based on the annual sales turnover

Definition of SME	Primary Agriculture	Manufacturing (including argo-based) & Manufacturing Related Services	Services Sector (including ICT)
Micro	Less than RM 200,000	Less than RM 200,000	Less than RM 200,000
Small	Between RM 200,000 & less than RM 1 million	Between RM 250,000 & less than RM 10 million	Between RM 200,000 & less than RM 1 million
Medium	Between RM 1 million & RM 5 million	Between RM 10 million & RM 25 million	Between RM 1 million & RM 5 million

Source: Definition of SMEs (SME CORP, 2009)

Characteristics of SMEs in General

The characteristics of SMEs such as their heterogeneous nature, size, lack of resources, limited management capacity and skills, have often been cited as barriers to their engagement in other management areas, such as human resource management²⁹, strategic planning (Upton, Teal & Felan, 2001) and training (Storey, 2004). So it is not surprising that they do not engage readily in good environmental management practices.

In terms of their heterogeneity, SMEs in urban, rural, regional and remote areas, are owned and operated by both men and women of all ages, who have varying educational and ethnic backgrounds. This heterogeneous nature makes it very difficult to communicate with them as a discrete group and, therefore, to co-ordinate efforts to target specific technical assistance towards them (Condon, 2004; Rajendran & Barrett, 2003). This communication issue is exacerbated by the lack of capacity for environmental training (D’Souza & Peretiakto, 2002) and the fact that they are often less active in organizations that may be of assistance to them, for example, trade associations (Rothenberg & Becker, 2004).

Many of these problems stem from the fact that 'smallness' creates limitations on their resources and this is a consistent theme in the global literature (McKeiver & Gadenne, 2005; Jenkins, 2004; Lekas, 2006). In relation to good environmental management practices, size does matter. Size is intrinsically linked to the key driver, which is resources, including financial, human and time.

Drivers of SME in Going Green

The drivers of environmental behavior in SMEs are relatively under-researched (Worthington & Patton, 2005) and more needs to be done to help SME owner-managers adopt environmental initiatives (Hitchens *et al.*, 2003) as poor environmental performance is not simply the outcome of negative attitudes by SME owner-managers to the environment.

Five key drivers of environmental management practice have been identified in SMEs go green practice. The five drivers are: economic benefits, financial incentives, stakeholders demand, legislation, resources, motivation and knowledge. The context of their use as drivers appears to be critical to the results received (UNEP, 2004; De Bruijn & Lulofs, 2001). Therefore, a process needs to be followed that acknowledges the available drivers and the capacity of each to bring benefits to small and medium enterprises. This means engaging effectively with SMEs and communicating the message in the manner most appropriate to this sector.

Economic Benefits

Competitiveness has been identified as one of the major motivations for environmental responsive (Bansal & Roth, 2000). This suggests that environment practices may be undertaken in the economic self-interest of managers. It has been argued that improvement in environmental management practices can result in a multitude of benefits to SMEs including reduction in waste, cost saving, increased customers satisfaction, higher employee's commitment, improved products, better public relations and competitive advantage (Simpson *et al.*, 2004). Empirical studies have shown a correlation between the environment effort of the managers of SMEs and organizational operating efficiency, profit and business image (Naffziger *et al.*, 2003). Being able to demonstrate that the organization is environmentally responsible may be also used in a marketing strategy to maintain or increase market share and to differentiate the organization from its competitors (Porter and van der Linde, 1995). Actions to improve environmental outcomes could therefore be the result of perceptions that engaging in environment-friendly practices will result in higher profits for the business. It is unlikely, based on prior researches, that this is a common perception. Simpson *et al.*, (2004) reported that the majority of SME managers in their study considered environmental responsibility and improvement as a financial cost. On the whole, SME managers believed that waste reduction leads to cost savings and that good environmental practice results in better products. Almost half thought that customer satisfaction would be affected by environmental practices in the future. These scenarios provide easily quantifiable economic gains; however it is more challenging to estimate the long-term returns that may occur due to the implementation of

more major sustainable practices, such as those which might necessitate large-scale organizational changes or require long periods of information gathering and analysis.

Financial Incentives

Financial incentives to drive SMEs in environmental improvement can come in the form of subsidies (Mir & Feitelson, 2007), grants, soft loans and tax concessions (Bradford & Fraser, 2008; Clement & Hansen, 2003). Bradford and Fraser (2008) found that SMEs believe grants, loans and tax concessions would encourage them to use energy efficiency measures. Similarly, Pimenova & Van der Vorst's (2004) study showed that financial support was rated as the second highest to engage them in environmental improvement after information and advice.

Incentives related to finances are considered by SMEs to be of great importance driver in the context of environmental improvement. This includes availability of public funding programs dedicated for green initiatives and tax, fee and subsidy system in the country. For example, in Malaysia, Green Technology Financing Scheme (GTFS) was announced in National Budget 2010 and was the first soft loan given to companies towards supporting Green Technology. It is the first kind of green financing to be used on green initiatives such as minimizing degradation of environment, zero or low greenhouse gas emission, safe for use and promotes healthy and improved environment for inhabitants, conserve the use of energy and natural resources and promote the use of renewable energy resources. Apart from the awareness to the environmental and economic incentives such as soft loan under Green Technology Financing Scheme (GTFS), import duty and sales tax exemption for green concept equipment would also help SMEs to go green practices. These financial supports need to be interpreted with caution because some studies do not differentiate between the types of incentives. Distinguishing between the incentives is important because not all forms of support might appeal to all types of SMEs. Hence, financial incentives are vital to drive environmental improvement.

Stakeholders

Researches have clearly shown that stakeholders have an important role to play in increasing SMEs' performance in environmental management (The British Chamber of Commerce, 2006; Tilley, 1999). Stakeholders can be separated into two categories, internal and external. Internal stakeholders include the owner-manager, staff and other shareholders in the business. External stakeholders include government, agencies, environmental management organizations, financial institutions, customers, suppliers, the local community and the general public.

Internal and external stakeholder pressure appears to be one of the drivers with the greatest potential to encourage change, particularly with regard to implementing technological innovation (Henriques & Sadorsky, 2007), yet, to-date the stakeholders have been under utilised as drivers. This is, because, stakeholders are not always supportive or ready to assist. For example, internal stakeholders have been found to resist cultural change (Gunningham, Sinclair & Burritt, 1997; Studer, Welford & Hills, 2005) and employees of SMEs can be difficult to motivate or get involved (Jenkins, 2004). Moreover, within the workplace, employee support

is considered pivotal for driving environmental behavior (Henriques & Sadorsky, 2007). It has also been shown that management support of environmental practices is a driver of environmental performance (Nutek, 2005; Petts, 2000) and, the motivation of internal stakeholders is to portray a green image in some cases (Studer, Welford, & Hills, 2005)

Support from external stakeholders is also crucial (Marsden & Ashe, 2006). Three key external stakeholders have the ability and/or the authority to make a positive influence on environmental behaviour in SMEs. These are governments, trade or business associations, and the general public as consumers or customers. Support from government is important through incentives and the provision of information and training programs (De Bruijn & Lulofs, 2001).

Trade and business associations are also important (Rutherford, Blackburn and Spence, 2000) and may be the missing link in communicating environmental issues to the small and medium enterprise sector (Revell & Rutherford, 2003). Associations have direct contact with SMEs and can relate to them on a similar level. This capacity should help them to deliver relevant messages directly to the business and provide appropriate advice and support.

Finally, customers as the key stakeholders to all businesses also have a significant effect on implementation of environmental practices (McKeiver & Gadenne, 2005; Nutek, 2005) particularly through market forces (Rothenberg & Becker, 2004; Merritt, 1998) and overall public commitment (Tilley, 2000). It should also be restated that even though customers are the key drivers for all businesses, they also need to accept some responsibility for helping businesses achieve “greener” productivity.

However, there are some unrealistic expectations being placed on small and medium enterprise environmental engagement by stakeholders (e.g., zero waste, cutting carbon emissions) and there is also confusion created by conflicting messages provided in the media (e.g., the capacity for business to gain advantage from environmental initiatives) (Friedman, Miles & Adams, 2000). Hence, both categories of stakeholders are vital to drive environmental behaviour.

Legislation

Support from government is important through legislation although other incentives are often preferred by governments, researchers and SMEs over legislation. Legislation is still considered a driver of environmental action (Netregs, 2003; Nutek, 2005), however the context in which legislation is developed is also important (De Bruijn & Lulofs, 2001). Legislation may have a greater effect on behavior change than other strategies such as formal environmental management systems. Evaluation studies have shown that changes in legislation can increase SMEs efforts to reduce the environmental impact from their operations (e.g., disposal of industrial waste and chemicals). Importantly, environmental education and training of SMEs is largely driven by regulations (Hilton, Archer, & van Nierop, 2000), and businesses do participate in industry specific regulation programmes (Environment Canada, 2005). For these reasons, legislation as a method of persuading SMEs is supported in the global literature (McKeiver & Gadenne, 2005; D'Souza & Peretiatko, 2002; Revell & Blackburn, 2004; Smith & Skea, 2003).

Moreover, the need to reduce risks along with concern regarding the potential of future legislation and a desire to reduce the need for regulation can all help drive small and medium enterprises' environmental engagement. It is acknowledged that developing legislation is difficult, has disparate demands and can be politically unpopular (Hodgson, Buselich & Halpin, 2006); however, it is a tool that government can use effectively. To be more effective, environmental legislation needs to pay attention to specific policies and regulations that relate to SMEs (Rajendran & Barrett, 2003) (e.g., emissions); they need to be simplified (European Commission, 2006) particularly to reduce common problems across countries or industries, communicated appropriately through education and training (The Greening of Industry Network, 1999) and be enforced and enforceable (Revell & Blackburn, 2004).

Moreover, when developing legislation, consideration needs to be given to the fact that SMEs have minimal relations with government and can be isolated and difficult to reach with environmental messages (Katos & Nathan, 2004). Whilst legislation and implementation of formal environmental management systems are thought to be the best drivers of environmental behavior (McKeiver & Gadenne, 2005; Stokes, Chen & Revell, 2007), they are certainly not the whole solution. Legislation is both difficult and expensive to monitor and requires formalized standards, benchmarks and procedures. Whereas formal environmental management systems are used as a matter of course in big business, they are rarely used by SMEs as they are seen to be irrelevant and/or too expensive to implement (McKeiver & Gadenne, 2005; Hillary, 1999; Gunningham, 2003). And because of the diversity and number of small businesses, many simply fly under the radar when it comes to legislative compliance and will continue to do so unless they are better engaged in the whole process.

Resources, Motivation and Knowledge

Business is about the bottom line. Although there is not overall consensus in the literature about whether or not competitive advantage can be gained by SMEs from environmental management practices (Luetkenhorst, 2004; Simpson, Taylor & Barker, 2004; Walker, Redmond & Goeft, 2007), recent research has shown that the ratio of positive economic benefits rise as the firm environmental performance improves (Hitchen et al., 2003). Identified benefits include: bank loans based on environmental performance, competitive advantage and marketing potential driven by public purchasing, improved company culture, improved image and reputation; improved trust and understanding, improved ability to meet legal and regulatory requirements, improved environmental performance, increased employee motivation, increased attractiveness to potential recruits, reduced risk management concerns, resource savings, and waste reduction (McKeiver & Gadenne, 2005; Simpson, Taylor & Barker, 2004; Revell & Blackburn, 2004).

SME owner-managers do tend to participate in practices that give them some gain or advantage (Studer, Welford & Hills, 2005). Waste reduction is a very obvious practice (Simpson, Taylor & Barker, 2004) for three reasons. First, there is money to be made in waste, second, businesses have felt empowered to act because it is something tangible and straightforward

and third, perhaps of most significance, there are often existing infrastructure and support systems in place. Waste reduction is a good example of a relatively straight forward good environmental practice. This is because, it is a well-documented and supported procedure, so there is existing knowledge about it. This broad acceptance of knowledge being power can be used to turn existing barriers into drivers.

While the majority of SMEs have not engaged in environmental management, there are nevertheless a considerable number of enterprises that do participate voluntarily in environmental management practices (Simpson, Taylor and Barker, 2004). Businesses willing to participate in environmental initiatives have reported beneficial outcomes but the competitive nature of business can prevent others from voluntary environmental action (Gunningham, Sinclair & Burritt, 1997). It has been shown that one of the barriers to business engagement is lack of knowledge about environmental management issues in the broad sense including legislation and good environmental practices. There is a significant body of literature that supports a substantial increase in education and training to enhance SMEs' awareness and knowledge (Tilbury, Adams, & Keogh, 2005; Katos & Nathan, 2004; Hilton, 2002; Yacob & Moorthy, 2012). It is also considered that enhancing awareness and involvement among SMEs will increase the pressure to compete. It is crucial that SMEs are involved in education program development and design to ensure that it is specific, practical and focused on small and medium enterprise operations.

The above discussions lead to the following theoretical framework:

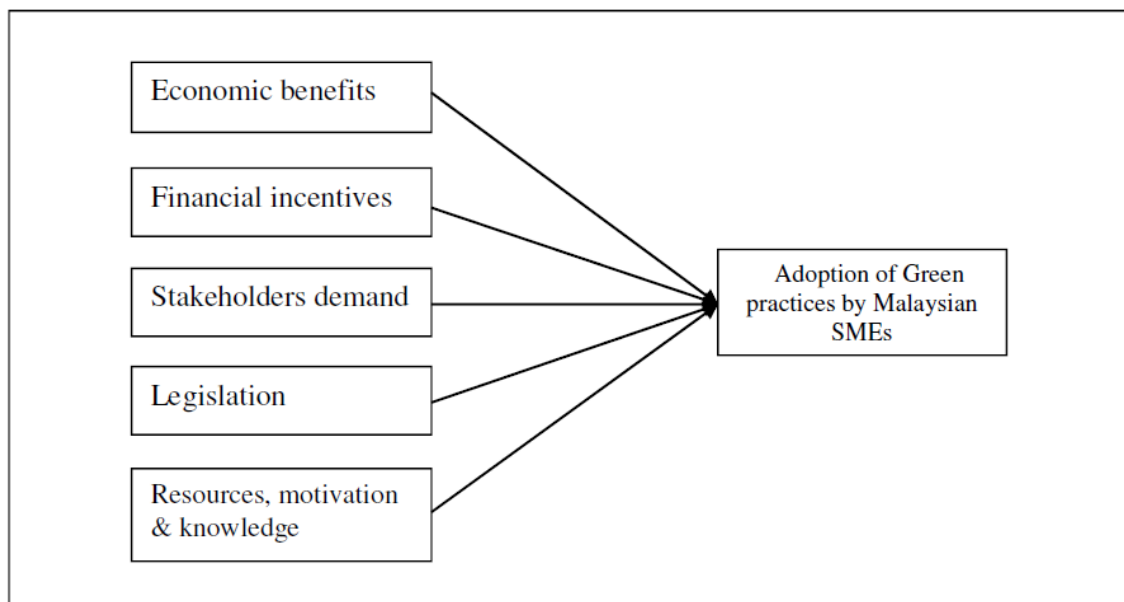


Figure 1: Theoretical Framework

Conclusion

This study sought to find out the drivers for adoption of green environment behavior by the Malaysian SMEs. The Theory of Planned Behavior (TPB) is considered as the most appropriate theory to study the drivers of green environment behavior and to investigate the owners'/managers' perception and attitude towards Malaysian SMEs' green concept. As far improvements, further surveys and research should be carried out to test, validate and enhance the model shown above. The results obtained will be presented in a later article.

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