Sustainability in Small and Medium Sized Enterprises in Regional Australia: A Framework of Analysis

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Abstract:

There is a lack of literature on the ecological sustainability issues specific to small and medium businesses operating in Australian regional areas. Although there are some isolated studies on attitudes to sustainability in Australian SMEs, they do not provide a comprehensive understanding of the actual sustainability environmental practices in regional businesses. To fill this gap, the proposed paper aims to contribute to narrow this knowledge gap through identifying the barriers towards sustainability that can be taken up by regional SMEs to promote a transition path towards a more sustainable business model which can be applied to Regional Australia. It can be used as a basis for wider applications in other regions where also the barriers are significant. In this paper, gleaned from the relevant literature, an innovative framework is developed and presented that takes into consideration the internal and external factors affecting the adoption of sustainability principles in SMEs in regional Australia. In further studies of SMEs, the factors are tested using this framework for their validity and for establishing their links to sustainability.

Keywords: Sustainability, Regional Studies, Small and Medium Sized Enterprises, Regional Australia, Ecological Footprint.

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INTRODUCTION

Region refers to the spatial scale below a state or province which is the most appropriate scale for studying sustainability because it is at this scale where environmental functioning and human activities interact most intensely (Coelho et al., 2006). Striking a balance between these two activities is critical to studying and resolving sustainability issues (Brunckhorst, 2000; Kim & Weaver, 1994; Norton & Ulanowicz, 1992). Although political and economic drivers at the national and international levels are critical for setting the sustainability framework, the key role of regions and local communities should not be neglected in the transformation of the communities toward sustainability (Potts, 2010).

In addition, in Australia, small and medium sized enterprises (SMEs) are playing an ever-increasing role in the national and regional economy. According to the latest government data, Australian small firms constitute approximately 95% of all businesses in services and industry subsectors in Australia (Australian Bureau of Statistics, 2011). It is obvious that the potential environmental and social impacts of the small firms should not be underestimated. The available information on research into business sustainability is loaded towards large firms, as they have a higher public profile generating more interest in their theories and research (Thompson & Smith, 1991). Moreover, like many aspects of business research, the sustainability literature has focused on the activities of larger organisations because small as well as medium sized firms are perceived to be lacking sufficient resources. Furthermore, research methodologies are developed for large companies and adopting these methodologies to small firms is considered difficult.

Hence, further research needs to be considered on the importance of the small firms’ impact on the environmental, social and economic problems, their challenges and possible solutions. It is particularly relevant in the case of regions and local communities in the context of pressures from a global financial crisis, impacts of climate change, depletion of natural resources and an aging population.

The main objective of this study is to examine the challenges preventing the development and implementation of sustainability and to look for the contributing factors on the sustainable business approaches for SMEs in Regional Australia. The next section of this paper briefly reviews the relevant literature for sustainability in regional SMEs. Gleaned from the literature review, a theoretical framework is developed underlying the effective factors on sustainability in regional SMEs in Australia. The last section summarises key findings of the paper.

CONTEXT

**Definition of Business Sustainability:**

The challenge of sustainable development for any business is to ensure that it contributes to a better quality of life today without compromising the quality of life of future generations. Concern for the ecological footprint is this essence of this challenge. If business is to respond to this challenge, it needs to demonstrate a continuous improvement of its triple bottom line, i.e. economic, social and environmental performance outcomes. This general concept known as corporate sustainability (CS) has become an invaluable tool for exploring ways to reduce costs, manage risks, create new
products and drive fundamental internal changes in culture and structure (Azapagic, 2003). Sharma (2003) defines business sustainability as the challenge to improve social and human welfare simultaneously while reducing their ecological impact and ensuring the effective achievement of organisational objectives. Business sustainability the term is adopted in this paper because it is a broader term encompassing all business forms.

**Definition of SMEs:**

The term SME covers a wide range of definitions and measures, varying from country to country and varying between the sources reporting SME definitions. Also, based on the economic activity sectors, the definitions are different.

Some of the commonly used criteria are the number of employees, total net assets, sales and investment level, number of annual working hours, annual turnover, annual balance sheet or production volume, and independence of the company (Harjula, 2008). Among the various criteria, the number of employee and the annual turnover seem to be the most important criteria used to define SMEs (Peacock, 2004).

The World Bank defines SMEs as follows: Small enterprise - up to 50 employees, total assets and total sales of up to US$3 million; Medium enterprise - up to 300 employees, total assets and total sales of up to US$15 million (Ayyagari, Beck, & Demirguc-Kunt, 2007). This definition provides a general context for understanding all SMEs studies.

The Australian Bureau of Statistics (ABS) defines an Australian small business as an actively trading business with 0-19 employees and a medium-sized business as an actively trading business with 20-199 employees. Thus, the two common ways of defining an Australian small business is by annual turnover and the number of employees or a combination of the two (Australian Bureau of Statistics, 2011). The specific definition adopted in this study is the one adopted by ABS.

**Barriers to sustainable practices of SMEs**

The literature on sustainable business practices and their barriers has naturally concentrated on the large, usually multi-national companies whose individual impacts are significant. Although SMEs have relatively minor importance individually, their collective impacts may be significant.

Brouwers (2010) believes that there are three key barriers to SME adoption of environmental practices. The first one is SMEs’ perception that they have little individual impact on the environment (Ammenberg & Hjelm, 2003; Hillary, 1995; Simpson, Taylor & Barker, 2004). Also, the lack of expertise and understanding of strategies to address environmental issues is the second barrier (Ammenbery & Hjelm, 2003; Simpson, Taylor & Barker, 2004; Tilley, 1999; Welford, 1994). Finally, cost is a major barrier to more proactive environmental oriented behaviour in SMEs, with their managers perceiving little financial benefit from environmental investments (Petts et al., 1998; Revell & Rutherfoard, 2003; Simpson, Taylor & Barker, 2004).

Welford (1994) suggests that smallness helps enterprise leaders consider the value of the scarce resources more accurately and use the Earth’s non-renewable resources as little as possible. However, SMEs have limited time and resources to dedicate to long-term concerns such as
sustainability strategies because they are normally fully occupied and also they operate very much on a daily basis (Hobbs, 2000).

As SMEs usually do not build strategically strong relationships with their communities compared to larger firms, the managers of SMEs do not translate any sustainability attitudes into management practices even if they have positive attitudes towards environmental issues (Yu & Bell, 2007). Furthermore, they seem to feel little responsibility towards the environment and their ‘ecological footprint’. Many managers of SMEs believe that the government should play the prominent role in environmental management rather than focusing on their own actions (Revell & Rutherford, 2003).

Since the SMEs are conditioned by their size and culture, and operate in different sectors, determining the obstacles of SMEs in adopting environmental management is very hard. However, there has been a substantial body of research literature that has identified a set of obstacles incurred by small and/or medium sized firms that constitute barriers to addressing effectively environmental issues. Some of these barriers that SMEs face are as follows:

- Supply chain routes that are long and energy intensive (Welford, & Gouldson, 1993; Petts, 2000; Friedman & Miles, 2002)
- Lack of awareness of existing environmental regulations (Hutchinson & Chaston, 1995)
- Low level of understanding of the principles of the environment (Tilley, 2000)
- Being compliance-driven and reactive to environmental issues (Clark, 2000)
- Lack of potential to save money and remain competitive (Petts, 2000)

The costs of ecological sustainability implementation in SMEs are high, especially in the manufacturing and primary resource sectors. The SMEs find it difficult to produce low environmental impact products (Princic, 2003). Also, due to the competitive nature of the business environment, the cost of environmental initiatives could not be passed on to the customer by SMEs because it is seen as a business cost. In other words, the firms have to make operational change which leads to reduced costs and progressive environmental performance, simultaneously. The motivating factor continues to be achieving cost efficiency rather than environmental responsibility (Simpson, Taylor & Barker, 2004).

**Factors affecting sustainable practices of SMEs:**

The purpose of every business is to serve its customers through a process which converts resources and distinct knowledge into a contribution of economic value in the market place by adopting to the customer needs, wants and benefits, and providing solutions to problems (Drucker, 1968). When customers evaluate a firm based on the sustainable practices, so the businesses are then challenged to incorporate sustainability concepts into the business performance in order to increase market value (Wells, 2011). In this respect, there are some factors which contribute to the adoption of sustainability practices within the business. Different scholars introduce various driving factors of sustainability, and past studies have mainly focused on the primary drivers behind the implementation of sustainability by firms which were thought to be external factors, including environmental regulation and standards set by governments (Azzone & Bertele, 1994).
In recent years, the internal organisational pressures for the adoption of sustainability have been pointed out by several studies such as:

- Staff turnover due to decreasing firm loyalty and work place satisfaction (Wilkinson, Hill & Gollan, 2001)
- Top management support for environmental change (Dunphy & Griffiths, 2007)
- Human resource management and organisational culture (Cameron & Quinn, 2006)
- Environmental training (Faber, Jorna & Van Engelen, 2005)
- Employee empowerment (Wilkinson, Hill & Gollan, 2001)
- Teamwork and reward systems (Dailey & Huang, 2001)

Crane (2000) argues that more far-reaching changes in employee values and underlying assumptions are required for firms to truly achieve sustainability. In recent years, in order to engage in sustainability, various approaches have been introduced by different firms such as processes to address pollution, minimize resource use, and improvement of community and stakeholder relationships.

Simpson, Taylor and Barker (2004) find that sustainability is seen as a business cost which is not transferable to the customers due to competitive nature of the business environment. It supports the findings of Revells (2003) study in which SMEs’ owner/managers perceive no link between improved sustainability performance and financial benefits. Revell and Blackburn (2007) also found that SMEs operators reject the business case for sustainability in favour of the more pragmatic view that environmental sustainability leads to an increase in business costs providing insufficient incentive to adopt sustainability voluntarily. Therefore, SMEs cannot be left to themselves to voluntarily change their impacts on the environment, government intervention whether through regulation or incentive and education are required.

Masurel (2007) argues that legislation and the desire to provide safe working conditions as the major motivating factors for SMEs to invest in improved sustainability performance. It supports Williamson, Lynch-Wood and Ramsay (2006) for stronger regulations as the best means for improving sustainability practices given it is perceived as optional and costly.

Lucas, Cunningham and Lamberton (2009) identify self-interest as an insufficient tool for promoting sustainability within small firms. They argue that government intervention is necessary for compelling businesses to engage in socially and environmentally responsible actions. Public, private and community environmental education plays an important role in generating support and ideas which lead to the creation of sustainable business. The awareness in the community of sustainable lifestyles can be developed by education and it can increase the demand for environmental products and services (Potts, 2010).

Above discussion reflects that self-interest alone is an inadequate vehicle to drive business along the path to ecological sustainability. So, a much stronger commitment from the business community is needed to fuel the adoption of sustainability principles by the firms in their performances (Lucas, Cunningham, & Lamberton, 2009).
Regional sustainability:

Regional sustainability requires the human population to live within the limits of the regional supporting systems (social, economic and ecosystem), ensuring equitable sharing of resources and opportunities for the current and future generations in the region (Graymore, 2005). Thus, sustainability requires equal access to a good quality of life with choice of lifestyle and employment for all citizens. For regional sustainability to be achieved, human activities impacting on a region have to be within its ecological limits including those occurring outside the region that impact on the region. At the same time, the impacts of human activities must also remain within a region’s social and economic limits to ensure these systems are able to continue supporting its population by providing adequate health care, education, employment, welfare and all the other services required in an equitable manner (Graymore, Sipe, & Rickson, 2009).

Although the differing institutional arrangements across regions is one of the challenge of regional planning for sustainability, the measuring of regional sustainability using the current methods is generally ineffective at regional levels (Graymore, Sipe, & Rickson, 2008). Graymore, Sipe and Rickson (2009) believe that an effective assessment method is needed to help achieve regional sustainability. This method should be able to produce well informed decision-making, policy development and implementation of sustainability programs and management actions. It also needs to facilitate learning about regional sustainability for managers and raise community awareness about sustainability, so the community can understand and participate in the sustainability transition.

Morrissey, O’Reagan, and Moles (2006) confirm that achieving regional sustainability requires methods that reliably and validly measure regional sustainability, provide information about the overall sustainability of a system without losing information about system parts. Moreover, this method should deliver information which is easy to understand and communicate to professionals, politicians, formal and informal stakeholders and the general public so its potential to guide strategic planning for sustainability is maximized.

Based on Besser’s findings (1999) there is a correlation between business operator demographics and business success in terms of sustainability, i.e. small firms owners who have higher levels of education and business experience are most likely to be committed to their communities in the local or global context.

Sustainability in regional Australian SMEs:

The literature on Australian SMEs and sustainability issues is very limited, especially in regional context. It can be due to lack of access to SMEs financial statements because of the confidentiality issues and the absence of comprehensive sustainability reports (Lucas, Cunningham & Lamberton, 2009).

According to Lucas, Cunningham and Lamberton (2009), the extent of socially and environmentally responsible behaviour in some Regional Australian SMEs has very low correlation with demographic variables like age. Also, significant differences exist in owner/managers’ attitudes towards environmental issues (Rutherford, Blackburn & Spence, 2000) and in their values towards their community (Miller & Besser, 2000).
Dawson, Breen and Satyen (2002) observe that for Australian small businesses operators, ethical concerns are significant but there are some variations according to age, gender and education. However, Smith and Oakley (1994) report that size of the community in which the business is located is a more reliable predictor of small business owners’ ethical values than age or level of education. They identify that the operation of firms in small towns is more vulnerable to public scrutiny and local community sanctioning mechanisms.

Lucas, Cunningham and Lamberton (2009) find regionally local aspects like recycling and local donations and sponsorship as the most commonly used environmental management techniques and socially responsible actions, respectively. Due to the low cost of these actions compared to other options, it can be concluded that cost factors are major barriers to small firms’ sustainability in regional and local areas.

THEORETICAL FRAMEWORK

Based on the above literature review, a conceptual framework is developed which shows the identified internal and external factors affecting the adoption of ecologically sustainable principles in regional SMEs, and this framework can then be applied in research to Australia.

As can be seen in Figure 1, among the internal factors affecting sustainability in regional SMEs are publication of sustainability reports, integration of sustainability measures in evaluation, environmental training and resource efficiency. These are all factors which are related to the internal performance of the regional SMEs. Graymore, Sipe and Rickson (2009) argue that these performance measures need to be integrated with environmental education strategies and programs that extend coverage to local business communities and SMEs.

Staff turnover, human resource management, employee empowerment, teamwork and reward systems and employees beliefs are internal factors that are related to employees and can impact on the regional community and its environmental sustainability. Also, internal factors which are directly related to owners or managers of SMEs include: level of knowledge and experience, provision of safe working conditions, implementation costs, owner or managers beliefs toward sustainability and owner/managers motivation. These latter internal factors deal with the regional and environmental engagement of the leaders who control the SMEs.
Figure 1: Theoretical Framework

- Publication of S Reports
- Integration of S Measures in Evaluation
- Environmental Training
- Resource Efficiency

- Staff Turnover
- Human Resource Management
- Employee Empowerment
- Teamwork & Reward Systems
- Employees Beliefs

- Level of Knowledge & Experience
- Provision of Safe Working Conditions
- Implementation Costs
- Owners/Managers Beliefs
- Motivation

- Pricing Tools
- Standards
- Regulation

- Customers Pressure
- Branding
- Market Value

- Stakeholder Engagement

Regional Community
SMEs Sustainability
Natural Environment

Government

Customers

Stakeholders
From the external factor perspective, government, customers and stakeholders are the three groups who impact on sustainability implementation in regional SMEs. Government regulation is one of the significant external factors affecting on sustainability in regional SMEs, as such regulation controls current environmental behaviour, but also encourages SMEs to look at ecologically-based innovations in the future (or “eco-innovations”) as outlined in Courvisanos (2012). Such regulation covers, for example environmental protection and labour health and safety legislation. Pricing tools is another external factor which can be implemented by government like incentives such as lower taxes for more sustainable businesses. The Australian Government’s Carbon Pollution Reduction Scheme provides an example of a pricing tool aimed at increasing the prices of economic goods to include the cost of carbon. Customer pressure for applying sustainability is also a major external factor. This operates, via market value of sustainable products and services and also branding of these products and services. Application of both these factors affects implementation of sustainability by customers. Stakeholders in regional areas can also play a significant role by affecting the sustainability of small and medium sized firms through engaging in different activities such as decision making, and encouraging environmental friendly practices.

CONCLUSIONS AND FUTURE RESEARCH

In ongoing studies being conducted on this project, these internal and external factors are being tested for wider application and validity. Also, the causal relationships between sustainability and these factors, and the challenges which SMEs face in embracing sustainability are examined. The strength and magnitude of these relationships would also potential be investigated. Furthermore, based on the theoretical framework, these firms would be ranked according to their engagement with sustainability as well as their similarities and differences in terms of sustainability. The framework specified in this paper is the starting point for investigating the nature of the ecological footprint of SMEs in Regional Australia. Moyeen and Courvisanos (2012) highlight the need for such a project, and this exploratory framework presented here opens up the prospect of a rigorous and coordinated analysis that is currently seriously lacking.

REFERENCES


