A Study of the Factors Affecting Sustainability in Regional SMEs

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Small and medium-sized enterprises (SMEs) in regional areas of Australia contribute the innovation and job growth and stability in the Australian economy. While Regional Australian SMEs contribute significantly to the economic development; they undoubtedly have a significant impact on the environment and social community. This paper examines effective factors on the adoption of sustainability in SMEs operating in a regional city of Australia. First, measurement scales for the impacting factors were developed and validated. Then the paper used survey data from 233 SMEs in the regional city of Ballarat. The paper also investigates any possible differences between the views of owner/managers of small businesses and medium ones on factors impacting the adoption of sustainability. Findings reveal that attitude, commitment and knowledge of owner/managers of SMEs are the most effective factors on the adoption of sustainable practices. Moreover, there is a significant difference in the effect of owner/managers’ perceptions on their businesses’ impacts between small and medium-sized businesses.

Keywords: SMEs, Regional Australia, Environment, Social Community, Impacting Factors

JEL Codes: M00, Q56, R10

1. Introduction

In modern economies, customers evaluate a firm based on its engagement with sustainable practices (Wells, 2011). Hence, if a business wants to be successful, it should respond to the sustainability challenges. To overcome this challenge, many business managers have accepted the adoption of sustainable practices as a precondition for starting a business. Whereas small and medium sized enterprises (SMEs) have not paid enough attention to the sustainability issues in their management strategies (Revell et al., 2010). Around the world, the largest portion of the total number of businesses, employment and gross domestic product belong to SMEs (Ayyagari et al., 2007; Organization for Economic Co-operation Development, 2009). Given the much larger population of SMEs than large businesses, it is estimated that the total environmental impacts of SMEs outweighs the total environmental impacts of large businesses (Martin-Tapia et al., 2010). As mentioned by Hillary (2004), the majority of global pollution (up to 70%) is due to the SMEs’ environmental impact. So the role of SMEs in achieving sustainable development is very significant and owner/managers and employees of SMEs are no more exempt from environmental and social ethics than anyone else in the society.

In Australia, SMEs in regional areas contribute the innovation and job growth and stability in the Australian economy (Evans & Sawyer, 2010). According to the latest government statistics, Australian SMEs constitute over 97% of all private sector businesses in Australia and their contribution to the employment is 49% of the private sector workforce (Australian Bureau of Statistics, 2011). Also around two thirds of Australia’s export earnings come from regional industries such as agriculture, tourism, retail, services and manufacturing (Australian Government, 2014). It is apparent that SMEs contribute significantly to the economic development in Regional Australia; meanwhile, they undoubtedly have a significant impact on the

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environment and social community. Hence, further research needs to be considered on the factors (both as drivers and barriers) which affect the regional SMEs’ orientation towards sustainability.

In Regional Australian context, there is a gap in the literature about the experiences of regional SMEs in dealing with sustainability (Goldsmith & Samson, 2006). Regional Australia refers to "non-urban areas within Australia where have unique qualities like small economic scale, landscape diversity and disparate communities" (Charters et al., 2011, p.3). Given the absence of relevant studies on Regional Australian SMEs in existing literature, this paper examines effective factors on the adoption of sustainability in small and medium-sized businesses operating in a regional city of Australia. Moreover, this research investigates any possible differences between the views of owner/managers of small businesses and medium ones on factors affecting the adoption of sustainability. For this purpose, positivist quantitative methodology was used and the following subsections present insight into the effect of different factors on the adoption of social and environmental practices in the light of the research findings and the extant literature.

2. Literature Review

SMEs act as the mainstay (Drew, 2003) and comprise a large number of businesses in many national economies, having a significant contribution to economic activities (Udayasankar, 2008). In other words, SMEs could act as an engine to facilitate the transformation of traditional economies to modern ones.

In modern economies, owner/managers of SMEs are demanded to operate in a socially and environmentally friendly manner. SMEs have responsibilities beyond the production of goods and services and making money, they should be involved in helping to solve the community problems (Frederick, 2006; Husted et al., 2008), support the community activities and programs (Pirsch et al., 2007; Shahin & Zairi, 2007) and be careful of their environmental impacts (Aragon-Correa et al., 2008). Furthermore, SMEs are significant regional development agents, so adopting social sustainability and regional-based economic strategies by SMEs, enables local communities to benefit from sustainable development, innovation and economic development in their regions (Goldsmith & Samson, 2006). This is especially the case in Regional Australia where SMEs constitute approximately 95% of all businesses in services and industry sectors (Australian Bureau of Statistics, 2011).

Considering SMEs’ significant impacts on the environment and social community, there are some factors which contribute SMEs to adopt sustainability practices. Salimzadeh and Courvisanos (2015) identify two groups of factors affecting the sustainability adoption in regional SMEs. For example, management attitudes and perceptions play a prominent role in the adoption of sustainability by SMEs (Salimzadeh & Courvisanos, 2015). In some cases, owner/managers of SMEs ignore the environmental impact of their enterprises due to what such SMEs perceive as little or negligible ecological impact that each individual SME contributes (Hillary, 1995; Hillary, 1999; Gerrans & Hutchinson, 2000; Ammenberg & Hjelm, 2003; Simpson et al., 2004; Gadenne et al., 2009; Revell et al., 2010). This supports Brouwers (2010) who has specified SMEs’ perception of little individual impact on the environment as the primary barrier to SMEs’ sustainability.

SME operators usually reject implementation of sustainability principles, as it is time-consuming and increases business costs (Tilley, 1999; Hillary, 1999; Biondi et al., 2000; Lepoure & Heene, 2006; Roberts et al., 2006; Revell & Blackburn, 2007;
Brouwers, 2010). In a survey study of UK SMEs by Simpson et al. (2004), they observe that 75% of owner/managers of SMEs consider environmental action as a business cost and 80% of them believe that there is no relationship between sustainability adoption and improved customer satisfaction. Cost, management time and knowledge/skills are reported as the three important limitations or barriers to the adoption of business sustainability in the study of Collins et al. (2010). SMEs are usually unable to pay the costs of addressing the social and environmental requirements of their stakeholders and natural environment (Luken & Stares, 2005). It confirms the study by Udayasankar (2008) who believes that lack of enough resources is the main reason for the SMEs to be unable to adopt sustainability. Generally, owner/managers of SMEs have a negative attitude towards the financial returns from sustainability investments (Petts et al., 1998; Revell & Rutherford, 2003; Brouwers, 2010; Revell et al., 2010) and the lack of resources exacerbates this situation. In contrast, Roxas and Chadee (2012) believe that the adoption of sustainable practices in SMEs is not related to their accessibility to different resources and they are capable to adopt sustainability much easier than large businesses.

Apart from financial issues, lack of knowledge and information about sustainability (Tilley, 1999; Del Brio & Junquera, 2003) is considered as one of the prevalent barrier to the adoption of sustainability by SMEs. The owner/managers of SMEs are reported to have poor knowledge about various environmental regulations and standards (Groundwork, 1998; Gerrans & Hutchinson, 2000; Simpson et al., 2004), leading to the low level of the sustainability adoption within SMEs (Gadenne et al., 2009).

Individual concerns of the owner/managers are reflected in their beliefs and attitudes towards sustainability issues (Ajzen & Fishbein, 1980). So respecting the environment and community in which SMEs operate, is an ethical concern (Gadenne et al., 2009) and those owner/managers who perceive ecological management as an ethical issue, will be more likely to involve in a group of environmental friendly practices like recycling and waste reduction irrespective of engaging in formal certification process (Hillary, 1999). For example, in UK, where SMEs constitute 99.8% of the businesses in private sector, a study about the environmental practices of 220 UK SMEs by Revell et al. (2010) reports that the large number of owner/managers of these firms are ready to pay the costs of the ecological regulations and taxation because they feel more responsibility towards the environment and their community. Naffziger and Montagno (2003) find that the owner/managers, who have more positive attitudes towards the environment, are more ready to spend time and resources on the environmental friendly practices.

Since preserving the environment is considered as an ethical issue, so some owner/managers adopt sustainability in their management processes due to their personal belief and commitment to their local community and environment, regardless of regulation pressure or financial benefits from sustainability adoption (Hillary, 1995; Naffziger & Montagno, 2003; Roberts et al., 2006; Lawrence et al., 2006; Gadenne et al., 2009). Potts (2010) believes that business sustainability originates from socially progressive influences on the traditional business base, but the points of distinction relate to the commitment to sustainable development.

Apart from internal factors originating from inside of SMEs, suppliers, government and customers are three external groups that can be effective in assisting the transformation of SMEs towards sustainable development (Salimzadeh & Courvisanos, 2015). The pressure on SMEs to adopt environmental and social
friendly practices can come from suppliers (by demanding ISO 14000 certificate), and customers (by observing the advantages obtained from other businesses’ adoption of sustainability) (Gadenne et al., 2009). Evans and Sawyer (2010) find that customer satisfaction is increased by giving responsibility to SME employees and addressing the feedback from them. Employees (through the participation in sustainable business activities) influence the owner/managers of SMEs to adopt social and environmental friendly practices (Smith & Oakley, 1994; Biondi et al., 2000; Yusof & Aspinwall, 2000; Gerstenfeld & Roberts, 2000; Lepoutre & Heene, 2006; Deeghan, 2007). Empowering employees by letting them to share their views with owner/managers and by providing training and development opportunities are important factors for having a sustainable SME. Moreover, sustainable SMEs are able to attract and retain employees because they adopt the services and activities which are not detrimental to employees and community health (O’Laire & Welford, 1996; Revell et al., 2010).

3. Data Collection and Methodology

In this study, survey data was collected by means of a questionnaire. The questionnaire was designed in five sections and 68 questions. The fourth and fifth sections of the questionnaire contained questions regarding the effective factors on the adoption of sustainability in SMEs. In section four, 23 questions were related to the internal factors which are originated from the inside businesses. Similarly, external factors scale was measured by asking 11 questions. These factors measure the outside influences on SMEs to adopt sustainability. The specific statements in each of sections of the questionnaire were extracted from insights gleaned from the literature and questionnaires used in the related studies (Lawrence et al., 2006; Yu & Bell, 2007; Gadenne et al., 2009; Lucas et al., 2009; Belz & Schmidt-Riediger, 2010; Brouwers, 2010; Evans & Sawyer, 2010; Collins et al., 2010; Revell et al., 2010; Chow & Chen, 2012; Roxas & Chadee, 2012; Schoenherr, 2012).

A header question was the hub of fourth and fifth sections of the questionnaire that read as follows: “Please indicate your level of agreement with each of the following statements”. Below this header question, the items were presented as statements. Five-point Likert scale was used so that a respondent could choose one of the five points for each item. The scale points were labeled in order to assist a respondent to perceive to what extent respondents agree or disagree with each statement (Nayak, 2007). This scale was coded from 1 to 5 in the SPSS file, i.e. number 5 was assigned to “Strongly Agree”, 4 was assigned to “Agree”, 3 was assigned to “Neutral”, 2 was assigned to “Disagree”, and 1 was assigned to “Strongly Disagree”.

The study area in this survey was the major regional city of Ballarat which is located in Western Victoria, Australia, with an estimated population of around 98,000 (City of Ballarat, 2013). Ballarat is the third largest city in the state of Victoria, and it is surrounded in its north, west and south by rural areas and small townships (City of Ballarat, 2013). The primary reason for selecting Ballarat as the study area is that it has a key strategic position at the center of Regional Victoria’s most important freight, tourist and commuter transport routes (City of Ballarat, 2013). As such, Ballarat is a good representative of a major regional city in Australia which has an economy with a large SME business population.

Due to the lack of statistical information and contact details on SMEs in the Ballarat region, all the SMEs registered on the “Manta” website were identified and the questionnaire was sent out to them. Manta is the world’s largest online community for promoting and connecting small businesses, with more than one million
registered users and 87 million company profiles (About Manta Website, 2014). The questionnaire was mailed out to all the accessible 1127 SMEs registered in Ballarat on this website. Because all SMEs in the database with a valid and current contact address were contacted, there is no sampling bias from the database itself. In other words, the census method on the Manta website was used for data collection and sampling methods were not applied in this study. The reason for applying the census method rather than sampling is that the response rate in past business studies was found to be low (Gadenne et al., 2009; Belz & Schmidt-Riediger, 2010; Revell et al., 2010). Thus, it was decided to include all the SMEs in Ballarat listed on the Manta to ensure that as large a number of responses as possible were collected. Ethics approval for the study was given by the University of Ballarat (former name of Federation University Australia) Human Research Ethics Committee (Project No. B13-146).

Before embarking on the main data collection, three academic staffs from the Research Services office and two PhD graduates in the Federation University were asked to read and answer the questionnaire. Pre-test respondents checked the design, structure and clarity of the questionnaire to ensure that there were no ambiguous, unclear and misleading questions. A few minor changes were made in the questionnaire after the feedback from the pre-test. Based on the pre-test respondents’ comments, the questionnaire was revised and prepared for a pilot study.

The pilot study was conducted before the main study in order to address any deficiencies in the questionnaire’s design before time and resources are expended on large scale study (Meyers et al., 2013). The pilot survey was able to test the validity and reliability of the scales in the questionnaire (Sekaran, 2003). A telephone call was made to 60 SMEs which were randomly selected from the Manta website and asked about their willingness to participate in the pilot survey. A total of 53 agreed to participate so copies of the questionnaire were post mailed out to them. Participants were asked to complete the questionnaire and return it within a week. A total of 48 completed questionnaires were returned, indicating a response rate of 90.57%. Cronbach’s α (alpha) for reliability of internal consistency (Pedhazur & Schmelkin, 1991; Tabachnick & Fidell, 2007) for internal and external factors were 0.914 and 0.824 respectively. Nunnally (1978) recommends a minimum Cronbach’s α of value 0.7. Caplan et al. (1984) state the value must be at least 0.5. Based on these two recommendations, it was concluded that reliability of two sections of the questionnaire was more than adequate.

The main data collection method in this study was a mail survey. For this purpose, the questionnaires were sent out to all 1127 businesses listed in the Manta website. Within two weeks, 158 questionnaires were returned to sender due to wrong address or addresses for which businesses had left. A total of only 102 questionnaires were completed and returned by mail showing a disappointing response rate of 10.53%. In order to increase the response rate, it was decided to embark on sending a reminder letter to the businesses that had not participated. After sending a reminder letter, a further 48 questionnaires were returned to sender due to wrong address or addresses for which businesses had left. An extra 163 questionnaires were completed and returned by mail, now showing a response rate of 28.77%. According to Hart (1987), response rate in business surveys vary from 17% to 60%, with an average of 36%. Therefore, the response rate for this survey was found to be within the acceptable range of response rates. After collecting the required data, the relevant analysis was performed using the statistical software SPSS for Windows Version 20.
4. Findings

4.1. Demographics

Although answering all questions in the questionnaire was completely voluntary, the majority of respondents answered all the questions. Missing responses were limited to the question regarding the gender. Total number of respondents was 265, of which 16 businesses were franchisees of a larger national/international firms and 12 businesses were branches of a larger national/international firms. After eliminating these 28 businesses, further analysis was conducted on the remaining 237 respondent businesses.

Based on the Australian Bureau of Statistics (ABS) definition, Australian small business is an actively trading business with 0-19 employees. Medium-sized businesses are actively trading firms with 20-199 employees. A large business is an actively trading firm with 200 or more employees (Australian Bureau of Statistics, 2011). The SME definition by ABS is the one adopted in this paper.

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-19 (Small Businesses)</td>
<td>193</td>
<td>81.4</td>
</tr>
<tr>
<td>20-199 (Medium Businesses)</td>
<td>40</td>
<td>16.9</td>
</tr>
<tr>
<td>More than 200 (Large Businesses)</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>237</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 provides the distribution of the three class intervals of number of employees in respondents’ business organisation. As this table shows the majority of respondents’ businesses in Ballarat (81.4%) were small businesses. Only four businesses were large and had more than 200 employees. Since this study is exclusively about SMEs, all businesses with more than 200 employees were eliminated from the database and further analysis was conducted on the remaining 233 SME respondent businesses.

<table>
<thead>
<tr>
<th>Business Category</th>
<th>none</th>
<th>Up to 4</th>
<th>5-19</th>
<th>20-199</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry and Fishing</td>
<td>1 (0.43%)</td>
<td>4 (1.72%)</td>
<td>3 (1.29%)</td>
<td>1 (0.43%)</td>
<td>9 (3.86%)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1 (0.43%)</td>
<td>10 (4.29%)</td>
<td>9 (3.86%)</td>
<td>5 (2.15%)</td>
<td>25 (10.73%)</td>
</tr>
<tr>
<td>Electricity, Gas, Water and Waste Services</td>
<td>1 (0.43%)</td>
<td>5 (2.15%)</td>
<td>2 (0.86%)</td>
<td>0 (0%)</td>
<td>8 (3.43%)</td>
</tr>
<tr>
<td>Construction</td>
<td>2 (0.86%)</td>
<td>10 (4.29%)</td>
<td>8 (3.43%)</td>
<td>3 (1.29%)</td>
<td>23 (9.87%)</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>0 (0%)</td>
<td>6 (2.57%)</td>
<td>2 (0.86%)</td>
<td>1 (0.43%)</td>
<td>9 (3.86%)</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>2 (0.86%)</td>
<td>15 (6.44%)</td>
<td>21 (9.01%)</td>
<td>7 (3%)</td>
<td>45 (19.31%)</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>0 (0%)</td>
<td>1 (0.43%)</td>
<td>6 (2.57%)</td>
<td>5 (2.15%)</td>
<td>12 (5.15%)</td>
</tr>
<tr>
<td>Transport, Postal and Warehousing</td>
<td>0 (0%)</td>
<td>3 (1.29%)</td>
<td>0 (0%)</td>
<td>1 (0.43%)</td>
<td>4 (1.72%)</td>
</tr>
<tr>
<td>Information, Media and Telecommunications</td>
<td>1 (0.43%)</td>
<td>4 (1.72%)</td>
<td>1 (0.43%)</td>
<td>2 (0.86%)</td>
<td>8 (3.43%)</td>
</tr>
<tr>
<td>Financial and Insurance Services</td>
<td>1 (0.43%)</td>
<td>6 (2.57%)</td>
<td>5 (2.15%)</td>
<td>2 (0.86%)</td>
<td>14 (6.01%)</td>
</tr>
<tr>
<td>Rental, Hiring and Real Estate Services</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>4 (1.72%)</td>
<td>3 (1.29%)</td>
<td>7 (3%)</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>0 (0%)</td>
<td>12 (5.15%)</td>
<td>12 (5.15%)</td>
<td>3 (1.29%)</td>
<td>27 (11.59%)</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>0 (0%)</td>
<td>3 (1.29%)</td>
<td>2 (0.86%)</td>
<td>0 (0%)</td>
<td>5 (2.15%)</td>
</tr>
<tr>
<td>Public Administration and Safety</td>
<td>1 (0.43%)</td>
<td>2 (0.86%)</td>
<td>1 (0.43%)</td>
<td>0 (0%)</td>
<td>4 (1.72%)</td>
</tr>
<tr>
<td>Education and Training</td>
<td>0 (0%)</td>
<td>2 (0.86%)</td>
<td>3 (1.29%)</td>
<td>2 (0.86%)</td>
<td>7 (3%)</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>1 (0.43%)</td>
<td>9 (3.86%)</td>
<td>9 (3.86%)</td>
<td>4 (1.72%)</td>
<td>23 (9.87%)</td>
</tr>
<tr>
<td>Arts and Recreation Services</td>
<td>1 (0.43%)</td>
<td>1 (0.43%)</td>
<td>0 (0%)</td>
<td>1 (0.43%)</td>
<td>3 (1.29%)</td>
</tr>
<tr>
<td>Total</td>
<td>12 (5.15%)</td>
<td>93 (39.91%)</td>
<td>88 (37.77%)</td>
<td>40 (17.17%)</td>
<td>233 (100%)</td>
</tr>
</tbody>
</table>

Table 2 shows the result of cross-tabulation between size and business category. It shows the number of observations (frequencies) in different common categories and their percentage. From 233 respondents, 45 had a business in the “Retail Trade”
sector. Only three businesses operated in the “Art and Recreation Services” sector. After “Retail Trade” (19.31%), “Professional, Scientific and Technical Services” sector had the highest number of businesses (11.59%). Further, 39.91% of businesses from different categories had up to four employees and 37.77% of them had 5-19 employees. Only 5.15% of them had no employees.

4.2. Factors impacting the adoption of sustainability

There are internal and external factors which impact on the ability of owner/managers to adopt sustainable practices, like customers, perception of environmental and social impact, suppliers, cost of sustainability implementation, government, level of sustainability knowledge of owner/managers and their attitudes and commitment to sustainable development (Salimzadeh & Courvisanos, 2015). Figure 1 shows the average of agreement of the respondents with each statement regarding the internal and external factors impacting the adoption of sustainability in regional SMEs. In this study, influencing factors were measured through an aggregate response to Likert scale questions relating to the impact and importance of each factor on the business. As seen in this figure, commitment, attitude, knowledge and perception are three most effective factors on medium-sized businesses’ engagement with sustainability. Also customers, cost and employees were recognised as the least effective factors within medium-sized businesses. In small business context, attitude, commitment and knowledge were the most effective factors. The owners/managers of small businesses showed that their perception on environmental and social impacts, government, and employees are the least effective factors on the adoption of sustainability.

According to Figure 1 the differences between small and medium-sized businesses are less pronounced in some of the factors, although there are still important differences. Medium-sized businesses generally agreed more than small ones on the view that internal factors are effective in the adoption of sustainability in SME context. For further evidence related to this finding, hypothesis testing was applied to
compare different factors between small and medium-sized businesses. Table 3 shows the result of this hypothesis testing to identify if there are any significant differences in internal and external factors between two business sizes of small and medium.

Table 3: Hypothesis Testing of Factors between Small and Medium-sized Businesses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>t-test for Equality of Means</th>
<th>Rejection/Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no significant difference in the effect of owners/managers' attitude on the adoption of sustainability between small and medium-sized businesses</td>
<td>0.093 df 231 Sig. (2-tailed) 0.926</td>
<td>Accept</td>
</tr>
<tr>
<td>There is no significant difference in the effect of owners/managers' commitment on the adoption of sustainability between small and medium-sized businesses</td>
<td>-0.011 df 231 Sig. (2-tailed) 0.992</td>
<td>Accept</td>
</tr>
<tr>
<td>There is no significant difference in the effect of owners/managers' knowledge on the adoption of sustainability between small and medium-sized businesses</td>
<td>0.602 df 231 Sig. (2-tailed) 0.548</td>
<td>Accept</td>
</tr>
<tr>
<td>There is no significant difference in the effect of owners/managers' perceptions on the adoption of sustainability between small and medium-sized businesses</td>
<td>-2.230 df 231 Sig. (2-tailed) 0.027</td>
<td>Reject</td>
</tr>
<tr>
<td>There is no significant difference in the effect of suppliers on the adoption of sustainability between small and medium-sized businesses</td>
<td>0.528 df 231 Sig. (2-tailed) 0.598</td>
<td>Accept</td>
</tr>
<tr>
<td>There is no significant difference in the effect of customers on the adoption of sustainability between small and medium-sized businesses</td>
<td>-0.374 df 231 Sig. (2-tailed) 0.708</td>
<td>Accept</td>
</tr>
<tr>
<td>There is no significant difference in the effect of government on the adoption of sustainability between small and medium-sized businesses</td>
<td>-0.334 df 231 Sig. (2-tailed) 0.738</td>
<td>Accept</td>
</tr>
<tr>
<td>There is no significant difference in the effect of cost on the adoption of sustainability between small and medium-sized businesses</td>
<td>-1.239 df 231 Sig. (2-tailed) 0.217</td>
<td>Accept</td>
</tr>
<tr>
<td>There is no significant difference in the effect of employees on the adoption of sustainability between small and medium-sized businesses</td>
<td>-0.424 df 231 Sig. (2-tailed) 0.672</td>
<td>Accept</td>
</tr>
</tbody>
</table>

As shown in Table 3, there is a significant difference in the effect of owners/managers’ perception on the adoption of sustainability between small and medium-sized businesses. Medium-sized businesses agreed on the effect of owner/managers’ perception of social and environmental impacts more than small businesses. In other words, medium-sized businesses believe more on the owner/managers’ perception of social and environmental impacts as a driving factor to adopt sustainability compared to small businesses. This finding is consistent with the other finding of this study, published in somewhere else, which shows medium-
sized businesses adopted some socially responsible practices more frequently than small businesses (Salimzadeh et al., 2015). It could be concluded that since medium-sized businesses generally agreed more than small ones on the view that internal factors are effective in the adoption of sustainability, so they would adopt more social practices. Internal factors refer to drivers or barriers which come from the inside of SMEs. These factors act on the ability of owner/managers to adopt sustainable practices (Salimzadeh & Courvisanos, 2015).

5. Discussion and Conclusions

Being the mainstay of Regional Australia’s development, SMEs will be a key player in achieving sustainability due to their significant contribution to the regional economy, environment and community. This paper examined the internal and external factors affecting the adoption of sustainability in SMEs in a regional area of Australia. Findings revealed that the most effective factors appear to originate inside SMEs rather than outside. It was found that owner/managers of SMEs play a critical role in the adoption of sustainable practices. In other words, owner/managers attitude and commitment towards the sustainability issue and their knowledge about this issue were found as the most effective factors in SMEs engagement with sustainability in Ballarat. This finding is consistent with the studies of several scholars which find personal responsibility and commitment of the owner/managers toward the community and environment as important motivators to adopt sustainable practices within SME context (Hillary, 1995; Naffziger & Montagno, 2003; Roberts et al., 2006; Lawrence et al., 2006; Gadenne et al., 2009). Furthermore, owner/managers' perception on the environmental and social impact of their businesses was found more effective in medium-sized businesses rather than small ones. It confirms that owner/managers of small businesses usually disregard the environmental impact of their businesses due to their smallness (Hillary, 1995; Ammenberg & Hjelm, 2003; Simpson et al., 2004; Revell et al., 2010).

The least important factors for engaging Ballarat area’s medium-sized businesses in sustainable practices were customers, cost and employees. About the effect of customers on the adoption of sustainability, Simpson et al. (2004) find a similar observation that there is no relationship between sustainability adoption and the improved customer satisfaction. They also found that owner/managers consider the adoption of sustainability as a costly action. In the current study, it was found that for medium-sized businesses, cost is not considered as a barrier to be sustainable. This contradicts this view that owner/managers do not show a great deal of effort to be sustainable as it increases the business cost (Tilley, 1999; Hillary, 1999; Biondi et al., 2000; Lepoutre & Heene, 2006; Roberts et al., 2006; Revell & Blackburn, 2007; Brouwers, 2010). Moreover, the effect of employees on the adoption of sustainable activities was found as an insignificant driver within Ballarat area’s SMEs. This finding contradicts the positive relationship between employees’ satisfaction and the adoption of sustainability expressed in the studies by Evans and Sawyer, 2010; O’Laire and Welford, 1996; and Revell et al., 2010. Lastly, this study found that government and legislation is not effective in the adoption of sustainability in Ballarat area’s small businesses. Hence, there is no need to enhance the enforcement of existing laws.

Given the international variation in defining SMEs, firms classified as SMEs in this study may be categorised differently in other countries. Hence the findings of this paper may not necessarily represent the sustainability orientation of firms that are categorised as SMEs in other countries. Also any generalisations that are made in the study are limited to the population of Ballarat’s SMEs provided in the electronic
database of Manta. Moreover, the findings in the study are limited by the extent to which the respondents were honest, careful, and without bias in responding to the survey instrument.

The findings highlight a key area of education for further improvements of Ballarat's SMEs. As suggested by Gadenne et al. (2009), government campaigns and promotional advertising are two effective ways to enhance SME owner/managers' knowledge about benefits associated with environmental and social friendly practices leading to positive attitude towards the sustainability issue. In other words, it is desirable that environmental education strategies and programs extend to cover local business communities and SMEs (Potts, 2010) in order to promote owner/managers' knowledge level about the sustainability.

From the preceding discussion, a number of directions for future research are suggested. Many Australian SME owner/managers have been unsure of the strategic value of sustainability due to a lack of empirical studies, particularly in Regional Australia. Hence, similar studies can be conducted in other regional areas of Australia to further confirm these findings. Second, some regression studies can be done to find the strength and direction of the relationships between effective factors and the adoption of various social and environmental practices.

References


