Environmental Management in Small Firms: Is There a Gender Gap?

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Environmental Management in Small Firms: Is There A Gender Gap?

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Abstract

In recent times, environmental or ‘green’ concerns have become a significant consideration in overall business management, policy-making and strategy. How to make firms ‘greener’, and hence more sustainable in the medium to long-term, is now an important factor in successful enterprise management. Research into environmental practices within businesses has traditionally focused on larger firms and corporations, even though most commercial organisations in Australia are actually small businesses employing less than 20 people.

Many aspects of the environmental activities of small firms are only poorly understood. One of the critical issues is whether particular types of business managers are more inclined to undertake environmental improvement activities than others. Preliminary evidence, for example, has suggested that female owner-managers are more likely to express concern about “green” issues than their male counterparts.

This current study examined differences in the environmental activities undertaken by small firms owned and managed by, compared to those operated by men. The environmental management practices of 185 small businesses in metropolitan Perth, Western Australia, were examined. The results study indicate that women in business are more likely than men to be involved in environmental management practices such as recycling, using energy efficient products, buying environmentally friendly products and promoting local community environment initiatives. However, fewer women have a formal environmental management plan than male owner-managers. Such findings appear to lend credence to the argument that there is a gender-based discrepancy in the way small firm managers respond to environmental challenges.

Introduction

A growing and topical area of modern business research deals with how businesses deal with environmental issues and the sustainability of an industry. Corporate social responsibility, ethical organisational behaviour and environmental management have become an increasingly important agenda in overall business management, policy making and strategic planning (Bucholz, 1998; Piascik. Fletcher and Mendelson, 1999; Schaltegger, Burritt and Petersen, 2003).

There are several reasons for this, such as a growing awareness of the impact that business has on ecosystems and the acceptance that some business practices can be detrimental to the environment (Fineman, 1997; Hoffman, 1997; Hutchinson and Chaston, 1994). Equally as important, many business operators and managers recognise that improving environmental performance can often be a source of innovation and productivity improvement leading to internal operational efficiencies and cost savings (Porter and van der Linde, 1995), and can
sometimes even be a significant motivator of employees (Wehrmeyer, 1996). Isaak (1998) argues that firms who adopt pro-active 'green' policies can position themselves in successful market niches and develop strong consumer loyalty from so-called ‘green consumers’. Finally, for some business operators there may be a need to transform personal values into workplace behaviour (Buttner and Moore, 1997; Still and Timms, 2000; Tsahuridu and Walker, 2001) and to ensure one’s own concern about the environment is reflected in the way one works (Wehrmeyer and McNeil, 2000).

However, most research into the ‘greening’ of industry to date has focused on large firms (Brown, 1992; Steel, 1996; Wehrmeyer and McNeil, 2000). Analysis of the small business sector has been somewhat limited, although a number of attempts have been made to determine if particular types of small firms are more likely to display better environmental performance than others (Hillary, 2000). However, this research is still in its infancy and few conclusive results have yet emerged from the limited body of literature in this area. Gender is one such variable that would appear a priori to have an impact on a small firm’s environmental performance, since it has sometimes been suggested that women place a greater concern on ‘green’ issues than their male counterparts (Brown, 1992; Steel, 1996; Wehrmeyer and McNeil, 2000).

**Background**

**Small business and environmental management**

In Australia, the majority of private firms are small in size. Approximately 96% of all commercial enterprises currently fall into the Australian Bureau of Statistics’ (2002) definition of a small firm (that is, a business organisation which employees less than twenty persons). Such firms typically have limited financial resources, relatively small production and operating processes, and only occupy a limited market share (Schaper and Volery, 2004). Ownership and management is usually synonymous, with the business owner also being the chief operating officer (ABS, 2002).

People start their own small business for many reasons, and this can have a substantial impact on the way the firm is managed (Still and Timms, 2000; Walker, 2002). The most common reasons individuals start a small enterprise is to secure personal freedom and independence – that is, ‘to be their own boss’, and to be able to make and implement their own decisions in the workplace (Birley and Westhead, 1994; Buttner and Moore, 1997; Still and Timms, 2000; Storey, 1994). For many small business owner-operators, it also provides a unique opportunity to ‘make a difference’ and put personal values into action in one’s own work (Feldman and Bolino, 2000; Tsahuridu and Walker, 2001). For example, it would be reasonable to assume that business owners with a high level of environmental concern will also operate their firm in a ‘green’ manner, by such means as recycling or using environmentally friendly products.

However, the reality of operating a business may be far removed from the initial idealistic motivations of ‘wanting to make a difference’ (Still and Timms, 2000; Walker, 2002). Most small firms face a relatively precarious existence and many will close, merge, be sold or fail within five to fifteen years (Australian Bureau of Statistics, 1997). In addition, many small businesses are mono-generational; there is little concern about building a multi-generational enterprise that can provide wealth, employment and opportunity for children and grandchildren (Birley, Ng and Godfrey, 1999; Walker, 2001). This may well have an effect
on environmentally-sensitive behaviour, as there is less pressure to make the business sustainable for one's own successors and heirs.

In general, small business owners seem to be at least as concerned about the environment as the general public. However, for a variety of reasons they often fail to put such concerns into practice within their business activities (Schaper, 2002; Steel, 1996; Wehrmeyer and Parker, 1995). The existing literature clearly indicates that most small firms tend to be laggards in environmental management; their performance rarely even matches that of larger corporations (Hillary, 2000; Siciliano, 1996; Steel, 1996).

**Gender and environmental management**

Gender-based differences in management styles and approaches has been a subject of considerable research in recent decades, with a number of researchers claiming that women operate their businesses in very different ways to men, and that they go into business for different reasons (Mellor, 1997; Robin and Robin, 1997; Wehrmeyer and McNeil, 2000). For example, one of the most recognisable public advocates of a more socially aware and family-friendly business paradigm in recent years has been Anita Roddick, the founder and CEO of the Body Shop.

It has sometimes been suggested that the environmental attitudes of men and of women differ (Brown, 1992; Steel, 1996; Schahn and Holzer, 1990), and that women overall appear to be more concerned about environmental issues than men (Australian Bureau of Statistics, 1999; Lothian, 1994). This, it is suggested, would make them more likely to undertake environmentally protective behaviours (Steel, 1996). If this is the case, it would seem reasonable to assume that female owner-managers would also be more environmentally sensitive and supportive than their male counterparts (Stern and Dietz, 1994). Some tentative evidence to support this proposition appears to have emerged from recent research. Robin and Robin (1997), for example, have suggested that women business owners are more likely to consider environmental factors, the impact of their actions on the wider community, and congruence with their personal values and belief system in their decision-making processes.

If this research is correct, then it might reasonably be hypothesised that women are more likely than men to be concerned about, and act upon, environmental management issues within their businesses. Such a supposition gives rise to a number of testable research questions:

1. Is there a difference in the actual current environmental management practices of small firms owned and operated by women, compared to those run by men?
2. Are female small business owners more likely to have a formal environmental plan for their future business activities?

This paper outlines the results of some preliminary research into these two issues.

**Methodology**

**Sample and data collection**

The study involved the distribution of a self-administered survey to small business operators in three metropolitan areas north east of Perth. Firms were drawn from a random sample of
small enterprises operating within three contiguous local government areas. To reduce the non-response rate, independent consultants were commissioned to personally distribute the measurement instrument and collect the completed responses from those owner-managers who agreed to participate in the study.

Questionnaire

The survey used in the study was part of a larger study collecting baseline information about the overall management and operating practices of SMEs in Western Australia. A total of eleven questions pertaining to environmental issues were included, drawn from pre-existing published instruments compiled by Schaper (2002) and the Australian Bureau of Statistics (1999). All questions were pretested before distribution to the final sampling group.

Results

A total of 270 surveys were distributed, with 196 completed and returned. Because this paper reports on gender differences, 11 respondents who failed to indicate the gender of the owner-operator were excluded from subsequent analysis, resulting in a total of 185 responses. Of these, 148 answers were from male small business owner-managers and 47 from female proprietors.

Research question 1: Is there a difference in the actual current environmental management practices of small firms owned and operated by women, compared to those run by men?

The data used in this analysis was categorical in nature and so the use of non-parametric chi-square tests of independence was used. This method of analysis is appropriate when (as is the case in this study) there is an uneven representation of data in any one category (Bollen, 2001; Portney and Watkins, 2001; Keller and Warrack, 2003). For convenience, only percentages are provided in the Table 1 below.

Table 1: Differences between males and female-run firms currently undertaking environmental improvement activities.

<table>
<thead>
<tr>
<th>Survey question: Does your firm...</th>
<th>Males (%)</th>
<th>Females (%)</th>
<th>χ²(df,1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Participate in energy reduction programs and activities?</td>
<td>66</td>
<td>76</td>
<td>4.56</td>
</tr>
<tr>
<td>2 Use energy efficient products in your work space?</td>
<td>54</td>
<td>62</td>
<td>3.987</td>
</tr>
<tr>
<td>3 Participate in cleaner production programs?</td>
<td>60</td>
<td>48</td>
<td>21.665</td>
</tr>
<tr>
<td>4 Recycle paper and other waste products?</td>
<td>70</td>
<td>88</td>
<td>3.123*</td>
</tr>
<tr>
<td>5 Buy environmentally friendly products for your work space?</td>
<td>63</td>
<td>85</td>
<td>2.987*</td>
</tr>
<tr>
<td>6 Use public transport/walk/bicycle for business purposes?</td>
<td>33</td>
<td>31</td>
<td>3.507</td>
</tr>
<tr>
<td>7 Support local community environment initiatives?</td>
<td>57</td>
<td>73</td>
<td>2.983*</td>
</tr>
<tr>
<td>8 Engage in greenhouse abatement activities?</td>
<td>56</td>
<td>43</td>
<td>5.901</td>
</tr>
<tr>
<td>9 Use florescent lighting in your work space?</td>
<td>71</td>
<td>68</td>
<td>5.001</td>
</tr>
<tr>
<td>10 Participate in environmental programs?</td>
<td>56</td>
<td>79</td>
<td>3.029*</td>
</tr>
</tbody>
</table>

* p < 0.05
These results provide clear support for the belief that firms run by female operators are more likely to participate in these practices than male-run firms. There are significant differences in the numbers of female operators who participate in recycling activities ($\chi^2 = 3.123,1; p = .034$), buying of environmentally friendly products ($\chi^2 = 2.987,1; p = .040$), being involved in local community environment programs ($\chi^2 = 2.983,1; p = .039$) and generally participating in environment management programs ($\chi^2 = 3.029,1; p = .034$). Although other environment activities assessed in the survey indicated no statistical significant differences between males and females, the proportion of female-managed firms participating in energy reduction programs (F = 76%, M = 66%) and using energy efficient products (F = 62%, M = 54%) in the work place was notably higher than in firms run by men. These results provide strong support for the argument that women business operators are more likely to participate in environment management activities in their businesses than men.

Research question 2: Are female small business owners more likely to have a formal environmental plan for their future business activities?

Whilst the first ten questions sought to evaluate the current level of involvement in environmentally-friendly activities, a final question was included to attempt to measure future intentions. In some cases, small firms may not currently be undertaking 'green' practices, although there may be plans afoot to do so in the near future. One way of measuring such intentionality is to ask the owner-operator if they have adopted a formal plan in regards to future business activity that may have an environmental impact. Intriguingly, the results of this question indicate that women are less likely than males to have a formal plan, although the difference is not statistically significant ($\chi^2 = 3.169,1; p = .134$) (see Table 2).

<table>
<thead>
<tr>
<th>Survey item</th>
<th>Males (%)</th>
<th>Females (%)</th>
<th>$\chi^2$ (df,1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have an environmental plan for your business</td>
<td>Yes 64</td>
<td>No 32</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Yes 12.5</td>
<td>No 87.5</td>
<td>3.169 (1)</td>
</tr>
</tbody>
</table>

* $p < 0.05$

Discussion

The results of this study indicate that small firms run by women are more likely to be involved in environmental practices than those managed by men. Such findings lend support to previous research conducted by several authors in this area (Brown, 1992; Steel, 1996; Schahn and Holzer, 1990; Wehrmeyer and McNeil, 2000). Although not all environment management practices considered in this study resulted in statistically significant differences, there is a notable likelihood that female-run firms are, overall, more inclined to engage in green practices than male-managed enterprises.
Significant differences were found in environmentally-friendly activities such as recycling, community environment initiatives, buying environmentally friendly products and participation in environmental management programs. In addition, although not statistically significant, women business owners were more likely than men to participate in other environmental management programs such as participating in energy reduction programs and using energy efficient products in their businesses.

Why does this gap exist? There may be several possible answers. It may be because women possibly have a greater awareness of the impact that business has on the environment in general. Another one may be that women have a greater concern about issues that are likely to affect other people, children and animals than men. Or, as has sometimes been suggested, it may be because women are more inclined to make managerial decisions based on a desire to do what is socially and environmentally better, whereas men make decisions based more on legal, moral, formal or consequential repercussions (Kreie and Cronan, 1998; Robin and Robin, 1997).

This last argument is also partially supported by the results of question two. This indicated that a greater number of male business owners had an environmental plan than women. In other words, men are more likely to undertake activities that involve formal planning and organising. But since possession of a plan does not necessarily equate to active environmental concern in the day-to-day process of running a small firm, men’s tendency to plan does not lead translate into actual green behaviours within the enterprise.

Conclusion

The findings reported in this paper support the argument that female business operators are more likely than male ones to participate in environmental management practices. This finding has some potentially significant impacts on the overall greening of industry. Given the growing number of women who are starting and running their own small businesses, it is likely that more small firms will become environmentally conscious over time. Accordingly, green management is likely to move from being considered a niche or boutique management issue, and may increasingly come to be seen as a common functional task for all business operators. This is an issue which other SME researchers may wish to investigate in more detail.

References


Still, L. V. and Timms, W., (2000), “Making a difference: The values, motivations and satisfactions, measures of success, operating principles and contributions of women small business owners”, Centre for Women and Business, Western Australia, University of Western Australia


