GREEN GOALS IN ORGANIZATIONS:
DO SMALL BUSINESSES ENGAGE IN
ENVIRONMENTALLY FRIENDLY STRATEGIES?

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ABSTRACT

“Green” environmental goals play a role in a firm’s decision making and goal setting. Large firms typically consider being socially responsible or more environmentally oriented as part of their mission, but are these initiatives the same for small businesses? Surveying a U.S. small business sample, this exploratory study finds firm size and industry type are the two demographic variables related to the importance of environmental business issues in small business decision-making processes. Company “Expertise,” an internal resource advantage, and the external factors of “Competitiveness” and “Environmental Hostility,” were found to influence small firms’ environmental goals. When examining business outcomes and small firms’ satisfaction with achievement of their environmental goals, all measures studied (cash flow, market share, sales, and earnings) were related to having such goals. This study extends the dearth of literature studying small firms and the role of environmentally friendly strategies in these ventures.

Keywords: corporate social responsibility, small business, strategic decisions, sustainability

INTRODUCTION

While large firms are often public corporations and must answer to shareholders and other invested stakeholders, small businesses are often privately held or are responsible to one or only a few shareholders. The owner’s
values drive many of the goals in small to midsized enterprise (SME) (Elizabeth, Martens, & Cho, 2010). When a small business stresses sustainable development, it is largely due to the small business owner personally having sustainable development as a business priority or a highly-motivated manager as a champion (Jenkins, 2006; Beaver, 2007). Kechiche and Soparnot (2012) believe the economic, social, and environmental impact of small business is significant given their number and size. Their study found a dearth of literature on the dynamic dimensions of corporate social responsibility (CSR) for SMEs, which limits understanding the evolution of life cycle stage of CSR-related practices.

In small businesses, CSR may take on a different character in that the small business owner’s resources to act environmentally and socially responsible and the culture and pace of their business is vastly different from large corporations. For the purposes of this paper, CSR and the subcategory of “environmental” or “green” issues is the focus of our investigation. While the broader CSR framework is more inclusive, with the dearth of small company literature focusing exclusively on green issues, a review of small firm CSR at least provides some insight into the role of social consciousness in strategy among SMEs and smaller firms. Furthermore, Kechiche & Spoarnot (2012) note a lack of studies within the small business sector comparing implementation of CSR, and they confirm the lack of resources is an obstacle. Furthermore, they also recommend that tools are needed to measure the impact of campaigns and initiatives in CSR for SMEs.

Similarly, Vives (2006) found company practices and procedures for internal environmental and social responsibility were the most common in SMEs, while external social responsibility activities occur less frequently. Also, in their study covering 1,300 firms over eight Latin American countries, medium-sized firms were shown more socially responsible and involved in more activities than the smaller firms. Obstacles to CSR in the smaller companies included lack of resources, knowledge, and perceptions of environmental impact, but perhaps greater attention to social responsibility is part of the maturity process as small firms grow to medium size and gain in resources and knowledge.

SMEs too often have a very casual business culture and structure, and they may not use formal strategy tools to measure or audit effective sustainable development practices (Fassin, 2008; Jenkins, 2004). Small businesses may not have the budget or time to address sustainable development, which is often perceived as being outside of the core business activities (Walker & Preuss, 2008). This lack of time, or “discretionary slack,” has been found to be an important “antecedent for innovative and environmental behavior” but extremely lacking in SMEs (Lepoutre & Heene, 2006, p. 262).

Media and public opinion are less significant motivators for SMEs who are less visible than large firms (Jenkins, 2005). Williamson and Lynch-Wood (2001) found SMEs employing up to 250 employees are, by nature, environmentally reactive with a low commitment to environmental issues; although, many would like to improve their environmental performance. This study found less than three percent of available time was spent on environmental issues in smaller firms.
Small versus Large Businesses
Most businesses are SMEs; yet, the primary thrust of research into social responsibility focuses on large organizations and their practices and behavior. Even the acronym “CSR” seems to imply the behavior takes place in large “corporations.” The large corporations are more likely to identify relevant stakeholders and meet their CSR requirements through formal, specific strategies (Perrini, Russo & Tencati, 2007). In their research, Baden and Harwood (2011) did find examples of positive CSR practice among SMEs, but the burden of imposed standards creates more bureaucracy and costs and caused a “ceiling effect” with lower overall CSR engagement by small businesses.

Similarly, Laudal (2011) studied the main drivers and barriers of CSR as they related to the size and internationalization of firms. This study found SMEs differed from larger multinational enterprises. Smaller firm barriers to CSR activity included capacity or the cost-benefit ratio of making a lasting environmental impact and the risk or degree of external control that could be realized. Similarly, drivers for CSR among SMEs included their sensitivity to local stakeholders, their reputation in the community, and their geographic scope, particularly if the SME has international competition.

Impact of Owner/Managers
Given the impact of SME owner-managers on the culture of their enterprises, Fassin, Van Rossem, and Buelens (2011) agree that corporate responsibility and ethics take a different route in small businesses. Owner-managers of small businesses are able to shape the corporate culture and enact values other than profit, often recognizing interrelationships. Similarly, Murillo and Lozano (2006) highlighted the role of the founder’s values in implementing CSR programs in SMEs and found that these founders have much room for improvement in informing their internal and external stakeholders of their best CSR practices. Wincent and Westerberg (2005) noted that personal traits of the CEOs in SMEs should be studied to better understand small firm behavior and performance, and they suggested inter-firm networking among SME participants is dependent on these traits.

Within SMEs, Ahmad and Seet (2010) studied gender variations in socially responsible considerations and ethical practices of entrepreneurs in Malaysia and found variations in the magnitude of the green practices. More specifically, women perceived social responsibility and ethical conduct to be more important in running their businesses than their male SME counterparts.

Gadenne, Kennedy, and McKeiver (2009) found that despite strong “green” attitudes of owner-managers in SMEs, the level of implementation of environmental practices remains low. Legislation was found to increase awareness of such practices, but SME owners have little awareness of the benefits that might arise from the cost reductions of such green practices. Suppliers may assist them in reducing waste, but most SMEs lack a formal environmental management system. SMEs also do not use environmental messages when marketing their products or services. SME owner/managers do seem, however, to be committed to environmental practices with their financial contributions to environmental organizations. Lee and Klassen (2008) agree the limited resources and capabilities within many SMEs limit their effective responses to environmental pressures.
Environmental Burden on Small Businesses

Lewis and Cassells (2010) assert the implementation of responsible environmental practices is more burdensome for SMEs, and thus, they often lag rather than lead in their green initiatives (Studer, Welford & Hills, 2006). But, because SMEs comprise the largest number of businesses in most countries, the impact of this lack of environmental engagement may be problematic. Chen (2008), in his study of the information and electronics industry in Taiwan, found the green core competence, green innovation performance, and the green images of SMEs were all significantly less than large corporations, further supporting the advantage of firm size for green performance. In a contradictory study of SMEs in the Philippines, Roxas and Chadee (2012) found a proactive environmental-sustainability orientation does not depend on financial resources, and they call for government policies and programs to encourage SMEs to emphasize sustainable issues and not just financial assistance.

Russo and Perrini (2010) agree that idiosyncrasies of large firms and SMEs explain the various approaches to CSR and found SMEs are more focused on social capital where large firms adopt a stakeholder approach to CSR. In their 2010 study of engaging small and mid-sized businesses in sustainability, Elizabeth, Martens, and Cho found SMEs need particular attention to business strategies for sustainable development since their strategy is not the same as large firms. They further assert that tools to support sustainability in SMEs should consider that these small businesses have fewer resources and a different profile than larger firms.

SME’s continue to constitute a major element in the world’s economy (Ansoff, 1965) but have been left out of the sustainable development initiatives (Labonne, 2006). In his study of environmental assessment tools, Labonne (2006) found SMEs were far less likely to examine their environmental impact, largely due to financial limitations and costs associated with measurement tools designed for large firms. Also noted is that SMEs’ lack of financial knowledge and employee resources limit the adoption of sustainable practices (Condon, 2004). SMEs tend to be reactive in adopting sustainability strategies, largely reacting only to strong pressures from external stakeholders (Bianchi & Noci, 1998). SMEs face less pressure about their sustainability and may perceive that engaging in sustainability practices is too difficult or complex (Dressen, 2009).

Many SMEs consider the environmental impact of their firm to be negligible (Simpson, Taylor & Barker, 2004) and believe environmental responsibility should rest with the government (Rutherford, Blackburn, & Spence, 2000). It is interesting, however, that other research suggests that SME’s small size and flexibility should make their environmental responsiveness easier to achieve than for larger firms (Condon, 2004).

Environmentally and socially responsible conduct implies careful consideration of the external environment surrounding a firm. The dominance of economic concerns can be seen in the SME literature, and financial strength is alluded to as the major factor in small business survival (Schafer & Talavera, 2009). Ascigli (2010) found size as a determining factor in CSR activities. For example, due to their more extensive financial and human resources, larger firms
are expected to allocate resources for CSR activities more easily than SMEs. Eilbirt and Parket (1973), in their seminal research on the topic, found an association between annual sales and the extent of CSR-related activity. Chrisman & Fry (1982) found SMEs indicated more concern for social responsibility as compared to the general public. Yet, the SME literature on CSR and related business, financial, and market outcomes needs further confirmation and replication (Thompson & Smith, 1991; Enderle, 2004).

Others have found SME survival depends on networks and relationships developed at the firm’s local level and that social responsibility can act as insurance within networks to develop sustainable business relationships (Curran, Rutherford, & Lloyd Smith, 2000). Fraj-Andres et al. (2012) found owner/managers’ values, laws, and market pressures to be key drivers of CSR in SMEs and that managers expect positive outcomes from the implementation of CSR. Yet, their study found proactive firms may benefit from an improved image and positioning, but reactive or opportunistic firms may be penalized by stakeholders.

Hence, the role, importance, and strategic implications of environmental/social responsibility in SMEs and small businesses are an issue warranting further study. Of particular significance is that the literature identified here largely focuses on SMEs, which are often much larger than “small” companies. This study’s research focus exclusively examines the role of “green” in the strategy of only “small” businesses. More specifically, to what extent does consideration of environmental decision making in a small business depend on the nature of the company relative to things, such as size or scope of operations, the resources the small firm has available to work with, the nature and aggressiveness, and uncertainty of the external environment the small business faces, or the level of financial and market success currently being realized by the small business? These issues could determine the extent to which environmental considerations become integral in the small businesses’ strategy, including goal setting, response to external opportunities, and their long-term aspirations.

HYPOTHESES

It is difficult to categorize small firms based exclusively on the size of the company, as there are a number of other characteristics that differentiate small firms. These often include their industry, scope of operations, and a host of descriptive characteristics and psychographic factors associated with a small firm. Traditionally, firms with 250 or fewer employees are categorized as “small businesses,” but this employee number may vary depending on the industry. Perhaps the size and nature of a small firm influences the extent to which environmental factors affect their decisions.

Small firms that have a broader reach may be more sophisticated or more influenced by environmental awareness trends. The scope of a small firm’s operations — whether it only services local, statewide, regional, national, and international customers — may influence the degree of the small firm’s environmental awareness in making their business decision. It is possible younger businesses may be more environmentally aware than businesses established for a longer time — before environmental and social topics were such a major consideration. Conversely, it is possible more established small businesses can better factor environmental concerns into their goals and strategy.
Additionally, the industry the small firm competes in may have more established cultural norms relative to environmental concerns. Perhaps the differences between the distributor, services, and marketing industry categories may be reflected in how environmental issues influence the way small businesses make decisions and develop strategy. The size of “small business” has a wide range of definitions, and size too may influence goal setting practices. Do firms at the micro-enterprise level respond differently than larger SMEs due to the resource disparity, or does the personal perspective of the owner in the very small business have more influence in how much concern there is for environmental issues? These issues lead to the first hypothesis, H1, which considers the extent to which a company’s descriptive characteristics influence the importance of environmental factors in a small business’ decision-making process.

**H1:** The importance of environmental (green) business environment issues in a small businesses’ decision-making process is related to the descriptive characteristics of the company.

Secondly, large firms generally have a broader, more diverse, and richer resource base than small companies. The literature indicates the ability of large firms to recognize environmental issues in decision making is, and is enhanced by, the resources available for engaging in environmentally conscious decision making. Not only are green issues a function of financial resources, but also of issues including the level of expertise large businesses have in their employment base, the depth of their technical skills, and their competitive advantages. This leads to the second hypothesis, H2, that among small firms, internal resource advantages will impact environmentally friendly company goals.

**H2:** A firm’s internal resource advantages affect the importance of being environmentally friendly as a company goal in a small business.

In addition to the internal resource environment of a small firm, the external macro-environment is both widely diverse among small businesses and vastly different than larger businesses. Firms in highly competitive environments may have difficulty turning their attention to environmental concerns as they focus on maintaining market share. Firms that compete in a very hostile environment, where regulatory and other forces outside their control continually make their decision process more challenging, may not have the broad view to accommodate environmental impacts in their goal setting. Also, in businesses with very turbulent environments, where change is the norm, decisions have to be made quickly because circumstances are continually in flux and green goals may not be a priority. Thus, the third hypothesis focuses on the impact of the external environment on the importance of environmentally friendly small company goals.

**H3:** A small firm’s external environment affects the importance of being environmentally friendly as a company goal.

It has been established in a number of prior research studies that satisfactorily achieving environmentally oriented goals is an effective part of a large company’s
achievement of financial and other market share related outcomes. This relationship has not been identified in small businesses however and is an important issue for further examination. If small businesses have satisfactory earnings and sales, and maintain their market-shares and cash flows, the small business feels confident and secure about these positive outcomes. The question remains if there is a link between being satisfied with the achievement of their financial outcomes and their environmental goals. Thus, the fourth hypothesis:

\[ H_4: \text{There is a relationship between how satisfied a small business is with their achievement of environmental (green) goals and the financial and business outcomes they are experiencing.} \]

To investigate the role of environmental issues in small company decision making, green strategy development, and goal setting, a study was undertaken utilizing many of the same variables identified in the CSR literature on SMEs and large companies.

**METHODOLOGY**

**The Sample**

Using addresses obtained from a national mailing list, a stratified random sample of 2,500 owner/operators of small businesses in the United States was created. The stratified sample included manufacturing, service, and distributor/wholesale/retail businesses with up to 50 employees (the less than 50 employee/small company category was constrained by the mailing list). Each business was mailed a cover letter addressed to the owner/operator, a survey, and a postage-paid return envelope. The cover letter explained both the nature of the study and its anonymity. A second complete mailing was sent to the entire sample three weeks later encouraging completion of the survey if they had not already done so.

Completed questionnaires were received from 240 recipients. This was a response rate of 9.6%, which is typical for mail surveys with no previous connection with the respondents. The first 20% (n=48) of the 240 responses were compared with the last 20% (n=48) on key variables, and no significant differences in response patterns were identified. According to Armstrong and Overton (1977), this provides evidence that non-response bias was not a problem.

As shown in Table 1, the sample is diverse in company size, scope of operations, company age, and industry type.

**MEASURES**

**Environment (Green) Company Goals and Decision Making Processes**

The primary focus of this research is how environment plays a role in a small firm’s decision making and goal setting. To assess the role of environmental issues in decision making, each small business respondent was asked to indicate on a five-point scale how important “environmental (green)” issues were in the small firm’s business environment and in the small firm’s decision making processes. The Likert-type scale’s values ranged from “Very Little” (1) to “Very Much” (5).

Secondly, company goals were examined in a similar fashion. First, each respondent was asked how “Important” environmentally friendly goals were in their small business. Respondents were asked to respond on a five-point scale from “Very Unimportant” (1) to “Very Important” (5). In a third set of items, each respondent indicated on a five-
point Likert-type scale, how “Satisfied” they were with the company’s achievement of their environmentally friendly goals. Respondents were asked to indicate their response on a scale which ranged from “Very Dissatisfied” (1) to “Very Satisfied” (5).

Table 1: Importance of Environment (Green) in Decision Making Process (ANOVA)

<table>
<thead>
<tr>
<th>Company Size</th>
<th>Sample Size (n)</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 (Micro)</td>
<td>89</td>
<td>2.64</td>
<td>2.251</td>
</tr>
<tr>
<td>6-10 (Extremely Small)</td>
<td>61</td>
<td>2.82</td>
<td>0.008</td>
</tr>
<tr>
<td>11-20 (Very Small)</td>
<td>53</td>
<td>2.83</td>
<td>0.005</td>
</tr>
<tr>
<td>21+ (Small)</td>
<td>31</td>
<td>3.29</td>
<td>0.001</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope of Operations</th>
<th>Sample Size (n)</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>130</td>
<td>2.76</td>
<td>0.32</td>
</tr>
<tr>
<td>Statewide/Regional</td>
<td>67</td>
<td>2.87</td>
<td>Not Significant</td>
</tr>
<tr>
<td>National/International</td>
<td>37</td>
<td>2.92</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Age</th>
<th>Sample Size (n)</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—10</td>
<td>37</td>
<td>2.65</td>
<td>1.19</td>
</tr>
<tr>
<td>11—20</td>
<td>59</td>
<td>2.64</td>
<td>Not Significant</td>
</tr>
<tr>
<td>21—35</td>
<td>93</td>
<td>2.95</td>
<td></td>
</tr>
<tr>
<td>36+</td>
<td>47</td>
<td>2.96</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry</th>
<th>Sample Size (n)</th>
<th>Mean</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributor/Wholesale/Retail</td>
<td>107</td>
<td>2.83</td>
<td>2.604</td>
</tr>
<tr>
<td>Services</td>
<td>88</td>
<td>2.65</td>
<td>0.008</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>35</td>
<td>3.20</td>
<td></td>
</tr>
</tbody>
</table>

Internal Resource Advantage Factors
To assess a firm’s relative resource advantage or disadvantage as an internal factor, potentially impacting the role on importance of environmentally friendly company goals, thirteen items were included on the questionnaire representing the resources used by the small firms. These items included such resources as the “availability of capital,” “marketing expertise,” or “access to low cost labor.” For each resource item, respondents were asked to indicate on a five-point Likert-type scale if each resource was a relative advantage or a relative disadvantage for their small company. The scale ranged from a “Great Disadvantage” (1) to a “Great Advantage” (5).

Using factor analysis of the thirteen items, three underlying internal resource factors were identified and labeled as “Expertise,” “Tangible Resources,” and “Low Cost.” Table 2 presents the factor analysis that created the three internal resource factors. The factor loadings on the “Expertise” factor include seven resources including “Technical Expertise” and “Expertise in Customer Service.” The Tangible Resources factor had three resource
variables including “Leading Edge Plant/Equipment/Production Facilities,” and the third factor “Low Cost” included resources such as “Access to Low Cost Labor” and “Access to Low Cost Raw Materials.”

Table 2: Factor Analysis of Resource Availability Advantage/Disadvantage Items

<table>
<thead>
<tr>
<th>Factors</th>
<th>Expertise</th>
<th>Tangible Resources</th>
<th>Low Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Expertise</td>
<td>0.633</td>
<td>0.387</td>
<td>-0.227</td>
</tr>
<tr>
<td>Expertise in Product/Service Development</td>
<td>0.738</td>
<td>0.233</td>
<td>-0.122</td>
</tr>
<tr>
<td>Marketing Expertise</td>
<td>0.552</td>
<td>0.445</td>
<td>-0.341</td>
</tr>
<tr>
<td>Highly Productive Employees</td>
<td>0.723</td>
<td>0.231</td>
<td>0.191</td>
</tr>
<tr>
<td>Expertise in Customer Service</td>
<td>0.798</td>
<td>0.074</td>
<td>0.274</td>
</tr>
<tr>
<td>Managerial Expertise</td>
<td>0.613</td>
<td>0.07</td>
<td>0.412</td>
</tr>
<tr>
<td>Employees Trained to Provide Superior Customer Service</td>
<td>0.789</td>
<td>0.117</td>
<td>0.114</td>
</tr>
<tr>
<td>Availability of Capital</td>
<td>0.195</td>
<td>0.685</td>
<td>0.217</td>
</tr>
<tr>
<td>Leading Edge Plant/Equipment/Production Facilities</td>
<td>0.131</td>
<td>0.817</td>
<td>-0.016</td>
</tr>
<tr>
<td>Innovative Marketing People</td>
<td>0.483</td>
<td>0.562</td>
<td>0.304</td>
</tr>
<tr>
<td>Access to Low Cost Distribution Channels</td>
<td>0.192</td>
<td>0.493</td>
<td>0.528</td>
</tr>
<tr>
<td>Access to Low Cost Labor</td>
<td>0.122</td>
<td>-0.035</td>
<td>0.845</td>
</tr>
<tr>
<td>Access to Low Cost Raw Materials</td>
<td>0.031</td>
<td>0.229</td>
<td>0.62</td>
</tr>
<tr>
<td>Alpha Reliability Coefficient</td>
<td>0.86</td>
<td>0.70</td>
<td>0.64</td>
</tr>
</tbody>
</table>

A Cronbach’s Alpha Coefficient was calculated for each of the internal resource factor measures. Expertise (.86) was the highest, but Tangible Resources (.70) and Low Cost (.64) were still quite acceptable for exploratory research.

External Environment Factors
To assess how external environment impacts the importance of environmentally friendly goals, three external environment variables were identified that have the potential to influence the role of “green” priorities in a small business. The first variable, “Environmental Hostility,” relates to the level of difficulty the firm faces in their business environment. The Environmental Hostility measure was developed using items from previous research (Chandler & Hanks, 1994) and modified for this study. Items in the Environmental Hostility measure are in a five-point Likert-type scale in the Agree/Disagree format and include “Low profit margins are characteristic of my industry,” or “The failure rate of firms in my industry is high.” The Environmental Hostility scale included six items with a Cronbach’s Alpha Coefficient of reliability of .62.
Similarly, “Environmental Turbulence” (sometimes referred to as Environmental Dynamism) was derived from Chandler and Hanks (1994) and adapted to this research. It too was a five item, five-point Likert-type scale in the Agree/Disagree format. Items in the Environmental Turbulence scale included “The set of competitors in my industry has remained relatively constant over the past three years” and “Actions of competitors are quite easy to predict.” This scale had a Chronbach’s Alpha Reliability Coefficient of .60.

The third measure of external environment, “Environmental Competitiveness,” was adapted from the Competitiveness scale of Green, Covin, and Slevin (2008). This scale contained ten items such as “We emphasize strict quality control to remain competitive in our business” and “We engage in novel and innovative marketing techniques to remain competitive in our business.” The Environmental Competitiveness measure was also in a five point Likert-type Agree/Disagree format and had a Chronbach’s Alpha Reliability Coefficient of .68.

Financial and Business Outcomes
The financial and business outcome measures are based on self reports by the owner/operator regarding how the small business is performing in four outcome categories. The measures are based upon a five-point Likert-type scale ranging from “Decreasing Significantly” (1) to “Holding” (3) to “Increasing Significantly” (5). Respondents were asked to indicate the response which corresponds most accurately with their business regarding “Cash Flow,” “Market Share,” “Sales,” and “Earnings.”

**FINDINGS**

Small Firm Descriptive Characteristics
To investigate the differences in the importance of environmental issues in a small firm’s decision making processes relative to the descriptive characteristics of a company, an ANOVA was calculated across firm size, scope of operations, company age, and industry type. Relative to size, the small firms were categorized as “micro” (1-5 employees), “extremely small” (6-10 employees) “very small” (11-20 employees) and “small” (21+ employees) businesses. A significant difference was identified (f = 2.251, p ≤ 0.08). This indicates there is a difference in the importance of green issues in a small business’s decision making relative to the firm’s size. A review of the mean importance scores across the four categories of small firm size indicated that the largest of the small companies (21 or more employees) believe environmental issues are much more important in their decision making processes.

Scope of operations was assessed by dividing firms into three categories – local (businesses that operate within their immediate vicinity), statewide or regional small businesses, and small businesses that operation on a national/international scale. No significant difference in the mean importance of environmental issues was indicated based upon their scope of operations. Today, breath of operations among small firms may not create distinctive perspectives as very similar small businesses can use technology to compete anywhere.

Relative to company age, firms were categorized into four groupings relative to the age of the business (1-10 years, 11-20 years, 21-35 years, and 36 years and over).
No significant difference was indicated across firm ages; hence, the longevity of a firm does not appear to impact the importance of environmental issues in a small company’s decision making processes. Age of a small firm may not be an influence on environmental awareness, but some firms may evolve into more green awareness as the firm matures in other ways.

Considering their industry, firms self-classified their small business as distributor/wholesale/retail, service, or manufacturing. An ANOVA, relative to industry type was significant (f = 2.604 and p ≤ 0.08). The importance of environmental issues among small manufacturing firms appears to be higher than that of distributor or services industry small businesses. Thus, there is partial support for H1. Both company size and industry type demonstrated significant differences.

**Small Firm Internal Resources**

Small firms rich in resources have the opportunity to be more environmentally conscious and participative when determining their company goals. When firms have a great deal of financial resources, they can use these funds in a more environmentally friendly way. Small firms with more expertise in technical or managerial skills, have an ability to utilize their knowledge base to be more environmentally aware in their goals and decision making. Similarly, when a small business can benefit from low-cost advantages, they have better margins built into their business model that can be utilized in environmentally friendly ways as compared to small businesses that do not have these internal resources. To examine H2, a stepwise-regression analysis was conducted to determine if any resource advantages explain the importance of environmentally friendly goals and goal setting in small businesses. One variable emerged as significant. As shown in Table 3, only Expertise, as an internal resource advantage, emerged as significant (t = 3.27 and p ≤ 0.00), thus providing some support for the influence of internal resource advantages on the importance of being environmentally friendly as a small firm goal. H2 is thus partially supported.

Similarly, H3 was investigated using stepwise regression with external variables includes in the analysis. Environmental Competitiveness indicates how aggressive the small business competitive environment is while Environmental Hostility investigates the level of external forces that can adversely impact the small business, and Environmental Turbulence is related to the uncertainty and unpredictability of the small firm’s external environment. Two of these three external environmental variables emerged as significant – Environmental Competitiveness (t = 4.868 and p ≤ 0.00) and Environmental Hostility (t = 1.835 and p ≤ 0.05). Environmental turbulence was not significant, indicating only partial support for H3.

Small businesses that enjoy positive financial outcomes are often linked to also being satisfied with their achievement of environmental goals. To investigate H4, four outcomes (cash flow, market share, sales, and earnings) were examined relative to the level of satisfaction a small company has with the achievement of their environmental goals. An ANOVA was utilized to compare the mean satisfaction with environmental goal achievement scores across each of the outcomes, relative to whether the outcome was decreasing, holding constant, or increasing. Interestingly, for all four outcomes the ANOVA was significant, as shown in Table
4: for cash flow ($f = 2.73$ and $p \leq 0.07$), for market share ($f = 3.810$ and $p \leq 0.02$), for sales ($f = 4.08$ and $p \leq 0.02$), and for earnings ($f = 4.11$ and $p \leq 0.02$). An examination of the mean values of all four outcome variables indicates the highest level of satisfaction with the achievement of environmental goals is always associated with small firms whose outcomes are either holding constant or increasing. In no instance was the cash flow, sales, market share, or earnings decreasing in firms that had a high level of satisfaction with environmental goals. In all instances when all four outcome variables were decreasing, the level of satisfaction with environmental goals was also the lowest. Therefore, there is complete support for H4.

**Table 3: Stepwise Analysis of the Impact of Internal Resources and External Environment on Importance of Environmentally Friendly Goals**

<table>
<thead>
<tr>
<th>Internal Resources Stepwise Analysis</th>
<th>Dependent Variable: Importance of Environmentally Friendly Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²=.06   F=10.68   P=≤.00</td>
<td></td>
</tr>
</tbody>
</table>

**Included:**

- **Expertise**
  - Beta: 0.215
  - t: 3.27
  - Significance: 0.00

**Not Included:**

- **Tangible Resources**
  - Beta in: 0.005
  - t: 0.06
  - Significance: 0.96
- **Low Cost Advantage**
  - Beta in: 0.093
  - t: 1.28
  - Significance: 0.20

**External Environment Stepwise Analysis**

<table>
<thead>
<tr>
<th>Dependent Variable: Importance of Environmentally Friendly Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²=.15   F=18.887   P=≤.00</td>
</tr>
</tbody>
</table>

**Included:**

- **Environmental Competitiveness**
  - Beta: 0.329
  - t: 4.868
  - Significance: 0.00
- **Environmental Hostility**
  - Beta: 0.124
  - t: 1.835
  - Significance: 0.05

**Not Included:**

- **Environmental Turbulence**
  - Beta in: -0.052
  - t: -0.803
  - Significance: 0.423
Table 4: Impact of Satisfactory Environmentally Friendly Goal Achievement on Company Outcomes (ANOVA)

<table>
<thead>
<tr>
<th>Cash Flow</th>
<th>Mean Decreasing</th>
<th>Mean Holding</th>
<th>Mean Increasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>F=2.73, p≤.07</td>
<td>2.57 (n=28)</td>
<td>2.94 (n=111)</td>
<td>3.06 (n=98)</td>
</tr>
<tr>
<td>Market Share</td>
<td>Mean Decreasing</td>
<td>Mean Holding</td>
<td>Mean Increasing</td>
</tr>
<tr>
<td>F=3.810, p≤.02</td>
<td>2.89 (n=28)</td>
<td>3.36 (n=111)</td>
<td>3.29 (n=97)</td>
</tr>
<tr>
<td>Sales</td>
<td>Mean Decreasing</td>
<td>Mean Holding</td>
<td>Mean Increasing</td>
</tr>
<tr>
<td>F=4.08, p≤.02</td>
<td>2.79 (n=28)</td>
<td>3.40 (n=111)</td>
<td>3.14 (n=97)</td>
</tr>
<tr>
<td>Earnings</td>
<td>Mean Decreasing</td>
<td>Mean Holding</td>
<td>Mean Increasing</td>
</tr>
<tr>
<td>F=4.11, p≤.02</td>
<td>2.54 (n=28)</td>
<td>3.17 (n=111)</td>
<td>2.96 (n=98)</td>
</tr>
</tbody>
</table>

**DISCUSSION**

As environmental issues continue to be an increasingly important topic impacting how all firms set goals, make decisions, and achieve outcomes, it is increasingly important to understand how environmental consciousness impacts decision making specifically for small businesses. Most research in this area is focused on large firms. Because small businesses are the largest class of firms, exploratory study on smaller business is important. This study examines four distinct factors that could influence the role of environment in small business operations, studied from a number of key perspectives— the descriptive characteristics (type) of a small business, the internal resource advantages and disadvantages of the small firm, the external macro-level industry challenges faced, and finally and perhaps most importantly, the small businesses’ financial and market/growth-related realization outcomes. Thus, the entire spectrum of small business circumstances, situational, external, operations (internal), and success outcomes, are examined in this study to provide a comprehensive and holistic view of these important topics.

Based on this study, small firms with more than 20 employees and small businesses
involved in manufacturing are more likely to consider environmental issues as part of their decision making. The “larger” small firms may have more economic momentum, meaning that they have achieved a stability level beyond start-up that can accommodate decision issues beyond survival. Once a start-up evolves beyond the chaotic early months or years, environmental issues can become a consideration in strategy. In general, manufacturing firms are likely to have more significant and diverse implications of environmental awareness, and they have more opportunities to be socially responsible in purchasing raw materials, managing production processes, or reducing and managing waste as compared to distribution/wholesale/retail or services businesses. The importance of the environment in decision making may be in part a function of having the opportunity to support environmental concerns as a competitive advantage. This is often inherent in manufacturing firms that are further evolved.

Looking internally, each small firm has a unique resource environment to call upon in making their decisions and setting realistic goals. The resource most closely related to being environmentally friendly was the expertise of the small business. A firm’s technical prowess, marketing skills, and managerial expertise were associated with the importance in a small firm of considering environmentally friendly issues as part of their company goals. Firms with more expertise can better understand the environmental issues and develop strategy and decisions that are environmentally oriented.

Relative to external factors, many firms face difficult environments that create unique and difficult issues they must consider in making strategic decisions. Firms involved in turbulent environments that are highly variable generally do not consider environmental issues as part of their goal development. The changeability and minute-to-minute decision making required in these firms do not allow for a long-term perspective that can accommodate environmental concerns. It is interesting that small businesses in highly competitive environments and hostile environments do recognize the importance of environmentally friendly goals. It could be that having an environmental consciousness in a competitive environment helps a small firm develop their strategic competitive advantage through their environmental awareness. The more aggressive or negative the external environment faced by a small business, the more environmentally friendly goals tend to be part of the goal setting process. This might inoculate the small firm from some of the pressure that comes from legal, social, political, weather issues, and a host of other macro-level variables that could impact them.

As might be expected relative to the large firm literature, small firms satisfied with their achievement of green goals also appear to have better financial and business outcomes in earnings, marketing share, sales, and cash flow. It is likely these four outcome measures are proxies for each other. Firms whose earnings and sales are increasing typically experience higher earnings and market advantages. While satisfaction with environmental goals is associated with small firms that have increasing outcome measures (in cash flow, markets share, sales, and earnings), satisfaction with achievement of environmental goals is not associated with decreases in cash flow, market share, sales, or earnings. Based upon this study, being environmentally friendly is an activity only
evidenced in firms who are stable or advancing relative to their financial or market success.

AREAS FOR FUTURE RESEARCH

Clearly the data in this exploratory study have identified that even in small firms the green or environmental issues influence decision making, goal setting, and satisfaction with goal achievement. More research is needed to confirm and extend these findings as well as identify specific environmental concerns that are most associated with positive outcomes. Similarly, additional research should consider how moderating variables influence attention to environmental or green strategy. Both gender and time pressures in smaller business have been suggested as important factors, which may be significant moderators.

Additionally, research is needed to more clearly identify other internal or expertise resources, such as sales and marketing costs, that are most conducive to environmentally friendly goals. Also, it is important to identify what external factors to the small business have the most impact on being environmentally oriented. Further research should extend these results to larger samples and international locations, as well as examine small firms with greater than 50 employees.

An exploration of differences among and between manufacturing, services, and distribution/wholesale/retailers is also needed. In-depth case studies also may better profile specific small businesses with success in achieving socially responsible goals and the factors that lead them to be environmentally oriented. Finally, future research to study the progression or evolution of CSR-related green practices is warranted. For example does this evolution follow a life cycle? Is there a difference in processes or even a potential gap between “green” strategy formulation and its implementation? Do small firms develop systems for environmental management and recycling over time? Do such recycling and reuse or reclamation practices provide differentiation or cost advantages to the smaller firm? These are interesting unanswered questions that require the measurement of this transition over time.

REFERENCES


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