

## **AN EXAMINATION OF FIRMS ENVIRONMENTAL MARKETING PRACTICES, SUSTAINABILITY AND BUSINESS PERFORMANCE**

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### **Abstract**

*These are interesting times and for many years now, sustainability (including environmental marketing) issues have become part of every serious business and government discussions. However, although organisations are expected to continuously improve their environmental marketing practices, very little is known as to the consequences of utilizing green environmental marketing strategy in Australian small business organizations. This study was designed to investigate whether or not there are significant differences between small business organizations with high versus low levels of green marketing on various aspects of business performance.*

### **INTRODUCTION**

Although Martin Diane and Schouten (2012) discussed the history of unsustainable marketing and environmental awakening, there are many ways to define sustainability, the dictionary of sustainable management (2010) defined it as the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. This definition according to the dictionary of sustainable management (2010) was created in 1987 at the World Commission on Environment and Development (the Brundtland Commission.” However, from business perspective, environmental sustainability according to Armstrong and Kotler (2009) can be defined as “a management approach that involves developing strategies that both sustain the environment and produce profits for the company” and environmental marketing is about “marketing activities that recognize environmental stewardship as a business development responsibility and business growth opportunity” (Coddington, 1993 p. 1).

According to the literature (e.g. Andrew Winston, 2009, Armstrong and Kotler, 2009; Cateora, 2009; Esty and Winston, 2009, Johansson, 2009; Keegan and Green 2008; Kotler & Lane, 2006; Kotler, Chandler, Brown and Adam, 1994) since businesses today are operating in an environmentally sensitive world, they should formulate appropriate competitive environmental strategies for their marketing practices. Many companies are therefore responding with green marketing - developing ecologically safer products, recyclable and biodegradable packaging, better pollution controls and more energy - efficient operations - an attempt to balance the pursuit of sales and profit with a concern for the environment and society.

Despite the growing importance of environmental green marketing, very little research has been done in Australia to examine the effect of environmental green marketing on business performance of small firms. According to Carlson et al. (1993) knowledge development regarding green marketing is particularly important because research indicates that a growing segment of consumers rewards businesses that address environmental issues in their marketing practices and punishes those that ignore or abuse environmental imperatives. This paper presents the results of an exploratory study that seeks to determine whether there are significant differences between small business organizations with a high level of green marketing versus organizations with a low level of green marketing, in terms of business performance.

**METHODOLOGY****The Sample**

Due to limitations of time and finances, only 301 small business from a list of small business organizations in Perth, Western Australia that engaged purely in manufacturing or engineering activities provided to us by the Chambers of Commerce were approached through a mail self-administered questionnaire for this study. To qualify for participation in the study, the organization must not employ more than 50 employees and must engage in manufacturing or engineering activities. Of the 301 questionnaire distributed to owner managers/marketing managers of these small businesses, only 75 usable questionnaires were received thus resulting in a 24.9 per cent response rate. Since this is an exploratory study, the response rate is deemed acceptable. Regarding the respondents characteristics, 78.7 per cent were between 35-60 years old, 81.3 per cent were male managers. About 61 per cent of the respondents had more than six years experience in managing businesses and more than 57 per cent of the respondents had held their current positions for more than six years.

**Instrument Development and Method of Data Collection**

A variety of sources including textbooks, journals, magazines and government publications were used for the development of the questionnaire. The information collected assisted in the operationalisation of variables and in the overall research design. A structured questionnaire using rating scales was administered to respondents since according to Malhotra (2004) and Zikmund (2003), structured questionnaires are easy to administer, easy to code and analyse compared to unstructured qualitative questions. The questionnaire was pre-tested and revised before it was administered. The final questionnaire was divided into two main parts, with further subdivision of one of the major parts. Definitions for the major concepts were provided to the respondents.

Perceptual measures rather than objective measures were employed in this study because according to Lysonski and Pecotich (1992) and Tan and Litschert (1994) managerial perceptions are the key determinants of an organization. This is so because only factors perceived as necessary by decision makers can be incorporated into the strategy of the firms (see Lysonski and Pecotich 1992; Tan and Litschert 1994). Previous studies also established these reasonings (e.g. see Pearce et al. 1987; Tan and Litschert 1994). Past research ( Dollinger and Golden, 1992; Powell, 1992) found that business performance rated by self-reported measures was positively correlated with objective performance indicators.

**Classification for Comparative Analysis**

In order that respondents may be categorized into two groups for comparison between those that are engaged in high and low levels of green marketing, this study followed approaches adopted by authors like Miller and Friensen (1982), and Ogunmokun et.al (2004) whose classification schemes employed multiple variables for classifying organizations into groups. The following elements were employed for distinguishing an organization's levels of environmental green marketing. Although the elements are from various sources in the literature, most of the elements were drawn from Denton's (1994) green management survey that was used in Iswariah and Ogunmokun (2000).

1. Strategic Initiative: Fourteen items indicative of a firm's environmental responsibility.
2. Operations management: Fourteen items to determine what operation techniques are in place for dealing with the environment.
3. Degree of Employee Involvement: Ten items that seek out the level of employee participation in environmental decisions.
4. Marketing Perspective: Twelve items to elicit the firm's marketing perspective in relation to the environment.
5. Business Philosophy: Eight items that indicate any existence of environmental consideration in a firm's overall business.
6. External Communication: Seven items measuring efforts to communicate environmental issues.
7. Assessment of Environmental Cost: Ten items that indicate the extent to which environmental costs were considered in the firms business operations.

This added up to a total of 75 items which were used to operationalize the level of environmental green marketing in each of the organizations. Each of the 75 items was measured on a seven point scale, where 1 = agree to a small extent and 7 = agree to a large extent. When all the scores were added the maximum score that a firm who agreed with every item to a large extent could obtain is 525 and the minimum score that a firm who only agreed to a small extent with every item could obtain is 75.

When all the green level marketing scores were added in this sample, the lowest score was 87 and the highest score was 418. The mean score was 261.89. Those firms with scores above the mean were classified as high level green marketing businesses, while those businesses with scores not above the mean were classified as businesses with low level green marketing practices. This yielded a total of 34 (45.3%) classified as businesses with low level green marketing practices and 41 (54.7%) classified as businesses with high level green marketing practices.

### **Measurement of Performance**

According to the dictionary of sustainable management (2010), sustainability can be assessed in many ways including using social criteria (e.g. being socially desirable, acceptable, psychologically nurturing); using environmental criteria (e.g. being environmentally robust, generationally sensitive, and being capable of continuous learning), it can also be assessed by employing financial criteria. Therefore, this study used financial measures to compare the performance of small business organizations with a high level of green marketing versus organizations with a low level of green marketing. Moreover, since there is no best way to measure performance, the performance measurement in this study is in line with other studies that employed multi-item measures of performance (e.g. Venkatraman and Ramanujam 1986; Tan and Litschert 1994; Lysonski and Pecotich 1992). This is so because using multiple performance measures should yield a more accurate picture of overall performance (Walker & Ruekert 1987). The performance dimensions should also include effectiveness which is commonly measured by items such as market share and relative sales growth (Walker et al. 1987). Relative market share in terms of the top three competitors rather than absolute market share can also be used to measure performance. Performance in this study was measured in terms of overall performance in relation to competitors, market share and profitability.

### **RESEARCH FINDINGS**

Regarding the performance of these small business organizations relative to their competitors, this study found that there is a significant difference between the organizations with a low level of environmental green marketing practices and the organizations with a high level of environmental green marketing practices in terms of after tax return on sales; firm's total sales growth, overall firm's performance, competitive position.

For example, as shown in table 1, the majority (68.3%) of organizations with a high level of environmental green marketing practices claimed that their performance in relation to competitive position was higher than their competitors compared to only 11.8 per cent of the organizations with a low level of environmental green marketing practices that made such a claim. More than a half (58.5 per cent) of organizations with a high level of environmental green marketing practices claimed that their firms' overall performance was higher than their competitors compared to 32.4 per cent of the organizations with a low level of environmental green marketing practices that made such a claim. Furthermore, about a half (48.8 per cent) of organizations with a high level of environmental green marketing practices claimed that their total sales growth was higher than their competitors compared to only 8 per cent of the organizations with a low level of environmental green marketing practices that made such a claim.

### **Market Share**

There is a significant difference between organizations with a high level of environmental green marketing practices compared to organizations with a low level of environmental green marketing practices in terms of their market shares. About 44 per cent of organizations with a high level of environmental green marketing practices had more than 40 per cent of the market share as compared to only 11.8 per cent of organizations with a low level of environmental green marketing practices that made such a claim (see table 2).

**TABLE 1: PERFORMANCE COMPARISON OF FIRMS HIGH AND LOW LEVEL GREEN MARKETING PRACTICES IN TERMS OF COMPETITORS PERFORMANCE**

Effectiveness of Performance Items	Level of Performance	Low Level of Green Marketing		High Level of Green Marketing		Chi-square Sig. level.
		N	%	N	%	
After Tax Return on Total Assets	Lower than competitors	26	76	25	61	N.S
	Higher than competitors	8	24	16	39	
After Tax Return on Sales	Lower than competitors	31	91.2	23	56.1	0.01
	Higher than competitors	3	8.8	18	43.9	
Firm's total Sales Growth	Lower than competitors	26	76.5	21	51.2	0.04
	Higher than competitors	8	23.5	20	48.8	
Overall Firm's Performance	Lower than competitors	23	67.6	17	41.5	0.04
	Higher than competitors	11	32.4	24	58.5	
Competitive Position	Lower than competitors	30	88.2	13	31.7	0.00
	Higher than competitors	4	11.8	28	68.3	

N.S = Means not significance at 0.10

**TABLE 2: COMPARISON OF HIGH AND LOW GREEN MARKETING FIRMS: MARKET SHARE**

Effectiveness of Performance Items	Level of Performance	Low Level of Green Marketing		High Level of Green Marketing		Chi-square Sig. level.
		N	%	N	%	
Market Share Held by Three Largest Firms	Less than 40%	13	38.2	13	31.7	N.S
	40% or more	21	61.8	28	68.3	
Market Share Held by You	Less than 40%	30	88.2	23	56.1	0.01
	40% or more	4	11.8	16	43.9	

N.S = Means not significance at 0.10

### Profitability

There is a significant difference between organizations with a high level of environmental green marketing practices compared to organizations with a low level of environmental green marketing practices with respect to profitability. The majority (73.1 per cent) of organizations with a high level of environmental green marketing claimed to be making a profit as compared to 53 per cent of organizations with a low level of environmental green marketing practices that made such a claim (see table 3).

**TABLE 3: COMPARISON OF HIGH AND LOW GREEN MARKETING FIRMS: PROFITABILITY**

Profitability Items	Low Level of Green Marketing		High Level of Green Marketing		Chi-square Sig. level.
	N	%	N	%	
Making a Loss	10	29.4%	2	4.9%	0.05
Breaking Even	6	17.6	9	22%	
Making a Profit	18	53%	30	73.1%	

### CONCLUSION

By using financial criteria to measure sustainability this study compared the performance of small business organizations with a high level of green marketing versus organizations with a low level of green marketing

This study found that those organisations with high levels of green marketing practices outperformed organisations with low levels of green marketing practices in terms of after tax return on sales; firm's total sales growth, overall firm's performance, competitive position and market shares.

This means that small business organizations who wish to increase their business performance should engage in a high level of green marketing practices. However, because this study is based on a small number of small business organizations (N=75) the study's findings may not be representative of the general population.

In future research, data should be collected from a larger sample size in order to present more generalised findings.

Moreover, because this research concentrated on manufacturing and engineering organisations within Western Australia, future studies could research different industries for comparative purposes. Future studies can also use other criteria apart from financial measures to assess whether or not organizations with a high level of green marketing will outperform organizations with a low level of green marketing.

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