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# A consumer perspective of green event performance

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## **A consumer perspective of green event performance**

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### **Abstract**

This paper looks at the under-researched area of assessing organisational green performance and its drivers from the consumer's point of view. Drawing on the green literature, a model is advanced in which certain environmental attitudes held by consumers drive or restrain the performance evaluation. Ultimately, the performance evaluation may be linked to consumers' willingness to pay more for a green product. The model is tested in the context of a major annual musical event. Four of the five consumer attitudinal factors, in particular green orientation and collectivist values, significantly predicted green performance assessment. In turn, consumers' green performance assessment was found to predict the probability of the willingness to pay more for a green ticket.

**Keywords:** Consumer behaviour, sustainability, event, green, survey, model testing, strategic marketing

## A consumer perspective of green event performance

### Introduction

The declining state of the Australian environment has led to a growing environmental consciousness in the marketplace (Fenna 2004). Consumer behaviour is also more influenced by environmental concerns than ever (Shrum, McCarty & Lowry 1995). Some think that consumer behaviour needs to be even more environmentally responsible and that this job falls to the marketing strategists (Hartmann & Ibanez 2006). More than ever, business is feeling the pressure of being seen to be green.

Environmental sustainability is just one of the three dimensions of corporate sustainability or the triple-bottom-line concept – the others being economic and social. While the three dimensions are inter-related, environmental issues generally lag behind economic and social interests (Dyllick & Hockerts 2002). The jury is still out on whether it pays to be green. Some have found that environmental corporate social responsibility is associated with reduced competitiveness (Levy 1995). A cost-benefit analysis of environmental management systems, such as ISO 14000 compliance, was inconclusive (Hamschmidt & Dyllick 2006), while another study found that the average payback on the adoption of ISO was 2.2 years (Hess, Kaouris & Williams 1999). A number of other studies have linked better environmental risk management practices (or enviropreneurial marketing strategies) to lower cost of capital and competitive advantage (Sharfman & Fernando 2008), sustained business performance, (2008; Menon & Menon 1997), improved differentiation strategies (Ambec & Lanoie 2008), preempting of government regulation that may hurt profits (Garvin 1983) and multiple other benefits (Bonini & Oppenheim 2008).

Essentially, marketing managers are on a quest for the appropriate shade of green or eco-efficiency (DeSimone & Popoff 1997)<sup>1</sup> for their organisation, whereby the ultimate ‘deep green’, ecological sustainable organisation referred to by Dyllick and Hockerts (2002) is proactive, long-term oriented, rejectionist of conventional beliefs and preserving of nature (Fenna 2004). The quest involves a two-fold challenge: Firstly, marketers need to understand which consumer attitudes determine more favourable green performance evaluations. The closer we move to appreciate what causes individuals to value an organisation’s green efforts, the better marketers will be able to develop strategies specifically targeted at these consumers. To date there has not been enough conclusive research on green consumer behaviour (Hartmann & Ibanez 2006).

The second challenge for marketing managers is to assess – from their target market’s perspective – how well they are doing at the greening task. Extant empirical research has studied green marketing strategy (product and communication) and business performance (Langerak, Peelen & van der Veen 1998), green innovation (product and process) and green image (Chen 2008) and agencies’ ratings (e.g. KLD) as measures of environmental performance (Chatterji, Levine & Toffel 2009). To our knowledge, no research has measured organisational green performance from the consumer point of view. Our study aims to fill these two research gaps and proposes a novel construct - ‘consumers’ green performance assessment’.

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<sup>1</sup> Eco-efficiency is achieved by the delivery of competitively-priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the lifecycle to a level at least in line with the Earth’s carrying capacity.

## Literature review and hypothesis development

A review of the relevant literature yielded relatively little empirical research into the consumer factors which predict organisational green performance. Closest to the mark was a large-scale U.S. study by Laroche et al. (2001) in which profiles of consumers who are willing to pay more for green products were developed. Five main categories of factors were shown to predict consumer willingness to pay more for a green product: collectivist values, green buying behaviours, importance of being green, perceived severity of environmental problems and inconvenience of being green. In our research, we seek to investigate whether these factors could also predict more favourable consumer assessments of an organisation's green performance. Hence, the following hypotheses were developed for further testing:

**Personal values** define normal behaviour for an individual (Blackwell et al. 2007). Laroche et al. (2001) found that collectivism and security were important principles guiding ecologically conscious consumers. Such consumers care about their relationships with others and have a greater concern for the welfare of others. We hypothesised that consumers' collectivist values are positively associated with favourable green organisational performance evaluations (H1).

Consumers who consider environmental issue when making a purchase are more likely to exhibit **green buying behaviour**, that is spend more for green products (Laroche, Bergeron & Barbaro-Forleo 2001). Such consumers check that any product wrapping is recyclable and refuse to buy products from polluting companies. Consumers who make a special effort to buy green, consider themselves to be opinion leaders (Shrum, McCarty & Lowry 1995). H2 is that consumers' current green buying behaviour values is positively associated with favourable green organisational performance evaluations.

Consumers for whom it is important **to behave in an ecologically favourable way** are willing to pay more for green products (Laroche, Bergeron & Barbaro-Forleo 2001). Amyx et al. (1994) define perceived importance of the environment as the degree to which one expresses concern about ecological issues. The choice of a green brand may allow consumers to demonstrate their environmental consciousness to others (Hartmann & Ibanez 2006). Therefore, our third hypothesis was that consumers' perceived importance of organisations being green is positively associated with favourable green organisational performance evaluations.

Consumer attitudes regarding the **severity of environmental problems** may also influence green performance perceptions. According to Banerjee and McKeage (1994), green consumers strongly believe that current environmental conditions are deteriorating and represent serious problems facing the world. Conversely, consumers who perceive that ecological problems will 'resolve themselves', do not engage in green buying behaviour. Laroche et al. (2001) found that the preoccupation with the severity of environmental problems is evident with most consumers, and does not in itself indicate the willingness to pay more for green products. As current evidence is mixed, we seek to test the following hypothesis: H4 is that consumers' perceived severity of environmental problems of being green is positively associated with favourable green organisational performance evaluations.

The **inconvenience of being green** refers to how inconvenient it is perceived for the individual to behave in an ecologically favourable fashion (Laroche, Bergeron & Barbaro-Forleo 2001). Laroche et al. found that this attitude showed the most discriminating power between the consumers willing to pay more for green products versus those who were

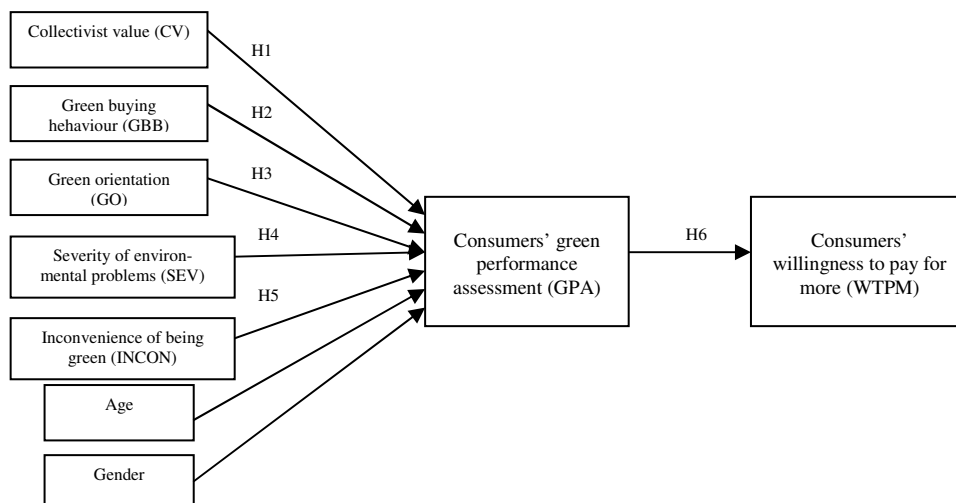
unwilling. We hypothesised that consumers' perceived inconvenience of being green is negatively associated with favourable green organisational performance evaluations (H5).

Most findings about the impact of consumer **demographic characteristics** on their environmentally conscious behaviour suggest that demographics are less important than values and/or attitude in explaining ecologically friendly behaviour (Banerjee & McKeage 1994; Laroche, Bergeron & Barbaro-Forleo 2001; Webster 1975), though results are unclear. With regards to gender, it has been found that females are more likely to be willing to pay more for environmentally friendly products due to their stronger environmental attitudes and behaviour (Anderson & Cunningham 1972; Stern & Dietz 1993; Zelezny & Chua 2000). Yet other studies have found that men are slightly more environmentally concerned (MacDonald & Hara 1994) or willing to pay more for environmental measures (Reizenstein, Hills & Philpot 1974) To explore this relationship further, two demographic variables – age and sex – were included as predictors of consumers' green performance assessment.

**Green performance** can be conceptualised in different ways. Some studies refer to green image, which is important for countries (Corrigan 1996) and for organisations (Chen 2008), as it provides differentiation advantages, which can lead to better performance. Firms can 'green' themselves in terms of processes, products or management systems (Prakash 2002). An effective green marketing strategy is required to ensure that green innovation performance has a positive effect on green image (Chen 2008). When consumers indicate a willingness-to-pay more and information about the green product is credible, using 'green' as a point of difference is more likely to lead to better economic performance (Ambec & Lanoie 2008). Conversely, many green products suffer an image problem with many consumers believing that green goods perform worse than conventional items (Bonini & Oppenheim 2008).

The previous five hypotheses relate to the factors driving consumers' green performance assessments. In our final hypothesis (H6) we seek to test whether more favourable green organisational performance evaluations are positively associated with a higher willingness to pay a premium for green products. This extends earlier work by associating consumer characteristics with the willingness to pay more for green products (Laroche, Bergeron & Barbaro-Forleo 2001) as well as with buying intent for green products (d'Souza, Taghian & Khosla 2007). The research framework, including the six hypotheses to be tested, is shown in Figure 1.

**Figure 1** Model of consumers' green performance assessment



## Methodology

Six of the seven factors in the model (GPA, CV, GBB, GO, INCONV and SEV) were measured using multiple-item scales adapted from Laroche et al's (2001) study. Respondents indicated their level of agreement with statements on an 11-point anchored interval (metric) attitude rating scale from 'not at all' (0) to 'extremely so' (10). Age, gender and willingness to pay more (WTPM) were measured as categorical (non-metric) variables.

The context for the research was a major Australian open air music festival – the Bluesfest. What was once an industry based on leisure activities with little need for strategic management, music festivals have developed into a new form of tourism with the potential to anchor economic prosperity (Tonge 2005; Yeoman & Robertson 2004). Growth in the industry has been attributed to rising disposable incomes and devotion to holidaying (Frey 1994). The Bluesfest is an annual, five-day event featuring a range of international and national contemporary multi-cultural music. Since its inception in 1990, the organisation has also sought to be a leader in sustainability, i.e. it pursues a deep green environmental philosophy. Of the six goals articulated in its six-part sustainability strategy, four concern ecological sustainability<sup>2</sup>. The Bluesfest can be considered a 'hallmark' event (Bowden & Allen 2006) within the context of eco-tourism<sup>3</sup> (Bell 2008).

The organisation faces the two-pronged marketing management challenge stated earlier. Firstly, to understand which consumer attitudes determine more favourable green performance evaluations. Secondly, to assess – from their target market's perspective – how well they are doing at the greening task. Specifically, the organisation has introduced a carbon offset (or green) ticket at a 5% premium and is seeking to assess patrons' willingness to pay more for the chance to reduce the event's environmental impact.

With its track record as a clean and green musical event, the Bluesfest attracts several thousand people of all ages, both genders (54% female, 46% male) and all locations (30% local and 70% other nationals and international people) (Bluesfest 2009). Although geodemographically diverse, the Bluesfest patrons shared the psychological need to experience genuine live music in natural setting as a multi-day event. Given the duration and intensity of exposure to the event, Bluesfest patrons would tend develop clear views regarding the organisation's green performance. This was necessary to provide realistic and meaningful answers (Laroche, Bergeron & Barbaro-Forleo 2001) and a suitable sampling frame for our study.

Empirical data was collected by survey method at the Bluesfest (central location). The questionnaire used contained questions contributed by three other interested parties<sup>4</sup>, who stipulated a sample size of around 1,600 respondents or approximately 2% of the expected patronage<sup>5</sup>. Following standard university ethics clearance, the questionnaire was administered in person by trained field workers in two five-hour shifts per day over the five festival period. The convenience sampling technique was used, as it is a cost-effective method

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<sup>2</sup> (1) building institutional capacity, i.e. genuine green corporate image while reducing the risk of 'green-washing', (2) being a zero-waste festival, i.e. supplying only 100% recyclable food and beverage containers and composting all organic waste, (3) undertaking carbon neutral initiatives, including annual carbon offset projects and (4) maintaining a festival site that is a functioning, healthy natural ecosystem (Bluesfest 2009).

<sup>3</sup> The meaningful travel to places to understand their culture and natural history while taking care not to impinge on the integrity of the ecosystem

<sup>4</sup> Sustbrands (Bluesfest's Sustainability Coordinator), Events NSW and Bluesfest.

<sup>5</sup> An estimated 80,000 individual patrons attended the 2009 Bluesfest.

for achieving an adequately representative and sufficient response rate at a central location (Malhotra et al. 2006). A total of 1515 useable, consenting responses were obtained from both genders (58% female, 42% male), ranging from 18 years to over 65 years old.

### Analysis and results

Two analytical techniques were used to test the theorised model – ANOVA (analysis of variance) through a General Linear Model (GLM) and logistic regression (Hair et al. 2010). GLM was used to assess the five metric predictor variables (CV, GBB, GO, SEV, INCON) and two categorical variables (age, sex) on the metric dependent variable (GPA). Logistic regression was used to assess the metric predictor variable (GPA) on the non-metric dependent variable (WTPM). Firstly, factor analysis was used to assess the reliability of variables for each of the six factors – predictor variables (CV, GBB, GO, SEV, INCON) and the dependent variable (GPA). The Cronbach's alpha values indicating reliability ranged from 0.646 to 0.805 with range of item-total correlations between 0.388 and 0.767. Reliability of over 0.7 is considered acceptable. The composites are reasonably coherent, especially since they comprise only three variables for each composite.

Although the sample distribution of the response variable was negatively skewed, the sample is large and normality of the sampling distribution is assured by the central limit theorem (Hair et al. 2010). In particular, the dependent (metric) variable (GPA) was normally distributed as is indicated in the histogram of standardised regression residuals<sup>6</sup>. Using fitted GLM the five metric covariates (CV, GBB, GO, SEV, INCON) and the two categorical factor variables (age, sex) with all interactions among the factors were assessed on the metric dependent variable (GPA). Model reduction was achieved through systematically removing all non-significant effects, starting with the highest non-significant order interaction. INCON was the only non-significant effect and was removed ( $F = 47.258$ ,  $df = 5$ , standard error = 0.027,  $p = 0.313$ ). The age-sex interaction was significant and was retained. The regression coefficients for the metric covariates, standard errors and 95% confidence intervals and tests of significance are reported in Table 2. Overall, the  $R^2$  for the model was 0.187, indicating that 18.7% of variance was accounted for by the set of predictor predictor variables.

Assessment of the *non-metric* (categorical) variables (age and gender) predicting GPA was conducted pairwise in two families: (1) Pairs of age categories (six groups) within sex (male, female); (2) Pairs of sex categories within age groups. This assessment was adjusted by the Bonferroni method (Hair et al. 2010) to correct for multiple testing. The only significant result found was the difference for GPA between male and females in the over 65 age category: female mean GPA = 8.1, Male mean GPA = 5.4,  $p = 0.37$ .

**Table 2 GLM - Regression coefficients for covariates, standard errors and 95% CIs**

Parameter	B	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Intercept	2.056	1.011	.071	4.040
SeverityComp	.091	.027	.037	.144
GOCComp	.322	.031	.262	.383
GBBComp	-.097	.023	-.143	-.051
CVComp	.163	.037	.089	.236

<sup>6</sup> It is normality of the sampling distribution of the residuals from the model rather than normality of the sample of population distributions that is required for reliable employment of the normal distribution for inference.

Using logistic regression, the binary (two-group) categorical variable, WTPM (for a carbon offset ticket) was predicted and explained in relation to the GPA predictor variable. Usage of this model would have correctly allocated 74% of cases to the two binary categories (willing to pay more, not willing to pay more). The relationship was found to be statistically significant (Chi square 36 (1 df),  $p = 0.000$ ). Coefficients, standard errors and significance levels are shown in Table 3. This confirms that the direction of the relationship is positive, as hypothesised. While GPA significantly predicted the probability of WTPM, the effect was weak as indicated by the surrogate  $r^2$  for the model (Cox and Snell  $r^2 = 0.029$  and Nagelkerke  $r^2 = 0.042$ ).

**Table 3 Logistic regression - Variables in the Equation**

	B	S.E.	Wald	df	Sig.
GPAComp	.189	.032	35.807	1	.000
Constant	-.339	.234	2.101	1	.147

### Conclusion and implications

The tested model of consumers' green performance assessment advanced in this research provides some new insights into green performance. Consumers' green orientation and collectivist values are key drivers of green performance assessment. Further, consumers' green performance assessments may be used to predict the probability of consumers' willingness to pay more for a carbon offset ticket, as was hypothesised. However, the age-sex interaction effect influencing green performance was unexpected.

As concern about the impacts of climate change grows, a range of products (e.g. carbon offsets) is emerging to help organisations, governments and communities offset their GHGs. Our study describes the take-up of the carbon offsets by consumers as well as the factors which will promote higher take-up rates. This information advances emerging research into green consumer behaviour. It also assists businesses with their own decision-making in becoming carbon neutral and in improving the communication of their environmental management actions to consumers and other stakeholders. In this way the responsibility for environmental protection can be better shared between organisations and consumers.



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