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The Association between Sustainability Performance Management Goals and Organisational Performance[1]

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Abstract

Purpose: This paper identifies the sustainability performance management goals that Australian Companies use and their association with organisational performance.

Design/methodology/approach: This study involved a questionnaire survey administered to Senior Level Managers of medium to large Australian companies. To identify their main sustainability performance management goals, a principal component factor analysis was conducted to reduce a total of 35 items related to sustainability performance management goals to 7 key sustainability performance management goal factors - environmental, new product innovation, customer acquisition and retention, information systems capability, employee welfare and community engagement, operational profitability, and organisational profitability. To determine which of these sustainability performance management goal factors were significantly associated with organisational performance, each of these factors was regressed against five single-item dependent variables of Customer Satisfaction Performance, Employee Satisfaction Performance, Sales from New Products Performance, Profit from Operations Performance and Environmental Budget Allocation Performance.

Findings/Results: Results reveal that environmental, new product innovation, customer acquisition and retention, and information systems capability goals were positively associated with new product sales. Environmental, information systems capability, and employee welfare and community engagement goals were found to be positively associated with environmental budget allocations. Also, customer acquisition and retention, employee welfare and community engagement, and organisational profitability goals were found to positively influence customer satisfaction. Finally, information systems capability and employee welfare and community engagement goals were found to be positively associated with employee satisfaction.

Keywords: Multidimensional Performance Management Systems, Organisational Goals, Organisational Performance.

JEL Classification: M40; M41
PsycINFO Classification: 3900

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Introduction

Considerable research has been devoted to multidimensional performance management systems (MPMS) [such as the balanced scorecard], which suggests that organisational performance parameters should include a balance of financial and non-financial performance indicators (Kaplan and Norton 1993; 1996, 2006; Forker and Vickery, 1996; Rangone, 1996). This means that financial outcomes and input/output ratios should be balanced against measures of business growth, and innovation and growth (Ford and Schellenberg, 1982; Kaplan and Norton, 1992; Mapes and New, 1997; Gopalakrishnan, 2000). Moreover, contemporary research in management accounting suggests that organisational sustainability is a critical success factor and accordingly it is in an organisation's best economic interest to have a strong relationship with its stakeholders. This suggestion is based on the premise that stakeholders are individuals (or groups), who can affect or be affected by successful attainment of an organisation's objectives (Freeman, 1984). Atkinson, Banker, Kaplan, and Young (1997, p. 503) conceptualised an organisation as "a nexus of interrelated contracts among its five stakeholder groups"; comprising "shareholders, customers, the community (society), employees and suppliers (including creditors)". For example, shareholders and suppliers will benefit from sound economic health achieved through performance outcomes such as from profitable operations and sales of new products; which will also provide customer satisfaction through their continued access to products and services and employee satisfaction arising from better job security. The community as a stakeholder group will benefit from triple bottom line initiatives such as budget allocations for environmental matters, social goals and sound financial planning resulting in the creation of employment, redistribution of wealth through company taxes, sponsorship, and community/social leadership.

The aim of this study is to provide empirical support for the ongoing debate that the multidimensional performance management approach (MPM) can improve the management of diverse stakeholders' interests in an organisation. This will be achieved through capturing information about the existence of specific stakeholder related goals and examining the association between theses specific goals and achievement of corporate sustainability outcomes. Therefore, the study will examine concurrently how multidimensional performance management systems that incorporate sustainability outcomes, can improve the management of diverse stakeholders' interests in an organisation, thereby, enhancing its corporate sustainability.

The remainder of this paper is organised in the following manner. The next section provides justification for and significance of the research. This is followed by a section that provides a review of the literature regarding performance management research in Australia. The subsequent sections present the research questions relevant for this study followed by the research method. Finally, the results are presented followed by the conclusions, limitations and suggestions for further research.

Justification for and significance of the research

Although stakeholder groups have different requirements/interests, Atkinson et al (1997) suggest that these groups need to co-exist within a set of reciprocal relationships to aid in the successful achievement of an organisation's objectives, which in turn aids its corporate sustainability. In exchange for each group's contribution to this corporate sustainability, each group expects (or requires) a return for its cooperation. These expectations require organisations to achieve their goals while honouring corporate social responsibilities and being accountable for their goal achieving activities. That is, each organisation's operations include being fair and just in their treatment of stakeholders, honouring their moral duty to have respect for human rights, and balancing economic growth with environmental protection and social equity to meet the needs of present and future generations (Wilson, 2003). The requirements of each stakeholder group represent the group's interests that need to be managed by organisations. Furthermore, there is a socially accepted modern trend towards more corporate social and environmentally responsible (CSR) goals, and organisations that implement these goals are most likely to be more highly regarded in today's society. However, there is a paucity of studies on managing key stakeholders' interests that may be achieved through the selection of

specific stakeholder related goals to drive sustainable corporate performance within the MPM philosophy. The proposed study focuses on this issue and examines the association between these specific goals and achievement of corporate sustainability outcomes.

This study seeks to make two significant contributions. First, it will provide empirical evidence for the promotion and implementation of specific stakeholder related goals within a sustainable management system for corporations using a multidimensional performance management (MPM) system. We consider that this extension of the MPM philosophy and processes achieved by the linking of sustainability management with specific stakeholder related goals through the management of stakeholders' interests will be a contribution to an understanding of its real world application in fostering corporate sustainability.

Second, the study seeks to develop a more extensive model of corporate sustainability by examining the link between the MPM approach to managing key stakeholders' interests through the selection of specific stakeholder related goals and corporate sustainability while controlling for a number of extraneous factors including operating environment, industry type, size, level of information system usage, strategic alliance and Porter's (1980) strategic orientation of cost leadership versus product differentiation.

Literature review

An organisation's sustainability depends on its ability to build and maintain sustainable relationships with all of its key stakeholders including the broader community (Perrini and Tencati, 2006). As a way of responding to this challenge, many organisations are now including additional dimensions relating to social and environment-related performance within their external financial reporting [e.g., Triple Bottom Line (TBL)] that may now be captured within a corporate social responsibility (CSR) perspective of a MPMS. This CSR perspective encompasses different stakeholder's facets, including economic sustainability, customer loyalty, supplier satisfaction, environmental sustainability, community acceptance, and employee morale.

Recognising the interest, rights and needs of different stakeholders of a business and adopting specific stakeholder related goals is an effective way of inculcating socially responsible behaviour among organisations (Dawkins and Lewis, 2003; Maignan and Ferrell, 2004; Ruf, Muralidhar, Brown, Janney, and Paul, 2001). It is necessary for organisations to identify and address the needs, social problems, demand and interest of their various stakeholder groups to receive their continued goodwill and support (Griffin, 2002; Maignan, 2001; Peterson, 2004). In fact, organisations committing themselves to CSR activities can achieve long-term benefits through brand enhancement, goodwill, differentiation, increased employees' motivation, higher profitability and quality workforce retention (CSR Europe, 2001; Lantos, 2002; Maignan and Ferrell, 2004).

Research examining socially responsible or irresponsible business goals remains scarce (Maignan and Ferrell, 2004). In particular, investigations have been limited in terms of the stakeholder categories considered (customers, managers, and employees) (Maignan, 2001; Maignan and Ferrell, 2004). Traditionally, customers form their opinion of an organisation based on product quality, financial performance and value for money (Dawkins and Lewis, 2003). More recently, factors most commonly mentioned as influencing customers' opinions of organisations relate to corporate social responsibility, such as fair treatment of employees, community involvement, and taking appropriate positive actions on environmental and ethical issues (Al-Khater and Naser, 2003; Dawkins and Lewis, 2003). Some studies found a positive relationship between an organisation's CSR actions and customer loyalty (Maignan, Tomas, and Hult, 1999). Other studies have also demonstrated that consumers are willing to patronise organisations committed to CSR related activities such as environmental friendly practices, philanthropic contributions, good ethical behaviours, and community commitment (Al-Khater and Naser, 2003; Creyer and Ross, 1997; Dawkins and Lewis, 2003; Dean, 2004; Maignan and Ferrell, 2004; Mason, 2000).

There is evidence that some customers not only prefer to purchase products from and invest in shares of those organisations caring for the environment and maintaining good citizenship behaviour but also are ready to sanction socially irresponsible organisations by boycotting their services and products (Classon and Dahlstrom, 2006; Maignan and Ferrell, 2004; Sen et al., 2001). For example, Maignan (2001) reported that customers in both France and Germany are more likely to incorporate society's well-being in their shopping decisions. That is, they are more willing to buy the products of socially responsible companies, at a higher price or at a less convenient location, than purchase from companies with a poor social responsibility reputation (Maignan, 2001).

The key moderators of consumers' responses to CSR are the company-specific factors, such as the CSR issues a company chooses to focus on and the quality of its products, and the individual-specific factors, such as consumers' personal support of the CSR issues and their general beliefs about CSR (Sen and Bhattachary 2001). Social identity theory maintains that the perceived identity of a group affects a member's self-esteem, which means that members may improve their self-esteem by identifying with a successful group (Smith et al., 2001). Similarly, many studies argue that employees will be proud to identify with work companies that have a good reputation, and consequently their attitudes will be positively influenced by their association with an esteemed work company (Maignan, 2001; Peterson, 2004).

A number of studies suggest that an organisation with socially responsible goals may attract a large number of high-calibre employees (Turban and Greening, 1997; Maignan et al. (1999); Greening and Turban, 2000; Maignan and Ferrell, 2001). In addition, it has been found that many managers generally have a willingness and positive attitude for implementing CSR goals (e.g., Ahmad and Rahim, 2002; Gupta and Saxena, 2006); which in turn helps to enhance corporate reputation and corporate brand positioning, and improve long-run profitability and community quality of life (e.g., Ahmad, 2006). Dawkins and Lewis (2003) found that employees demonstrated a considerable increased propensity to speak highly of their organisations to outside stakeholders when they were aware of their organisations' involvement in corporate responsibility activities. Moreover, ethical climate has been shown to have a positive influence on employees' work attitudes, particularly where employees perceive that they have been treated in a fair and ethical manner (Peterson, 2004).

Steiner and Steiner (2005) suggest that managers should consider some general principles of corporate social responsibility. However, as most companies are economic institutions run for profit purposes, it should not be surprising that many perceive their greatest responsibility as providing economic benefits; and that they therefore should be judged primarily on economic criteria rather than be expected to meet purely social goals without financial incentives. Nevertheless, managers must make decisions while continuously considering the needs of an ever increasing array of stakeholders even if this means incurring short-run costs to correct social problems that threaten long-term sustainability (Keijzers, 2005).

Managers should endeavour to meet the legitimate needs of all stakeholders, particularly the needs of key primary stakeholders: customers, shareholders, and employees; with communities and governments also recognised but given less emphasis (Steiner and Steiner, 2005). In meeting these needs of diverse stakeholder groups whose demands may sometimes conflict, it is important that each organisation adapt their strategic processes of resources and capabilities to set appropriate goals and priorities (Keijzers, 2005). This may involve internalising external costs, or costs of production borne by society, and recognising their duty to correct the negative social effects they cause (e.g., dumping toxic material into a stream may pose serious health risks to human and animals). Nevertheless, an organisation's ability to fulfil its corporate social responsibility will vary according to its characteristics (such as size, type of industry, marketing techniques, and locations) and will be influenced by stakeholders' demands and managers' values (Steiner and Steiner, 2005) [2].

[2] The stakeholder approach to CSR takes into account the multi-fiduciary obligations of corporations by recognising that their responsibilities go beyond the shareholder-management relationship (Goodpaster, 2001). Accordingly, the extent to which management recognise their responsibility for meeting and satisfying the needs and demands of their different stakeholders' interests will have direct effects on their overall corporate sustainability (Greenwood, 2001).

Research questions

As discussed earlier, this study aims to provide empirical evidence in support for the ongoing debate that the multidimensional performance management approach (MPM) of selecting goals related to the needs of a number of stakeholder groups can assist an organisation to improve its management of diverse stakeholders' interests, thereby, enhancing its corporate sustainability.

Although several studies have been undertaken in relation to performance management and organisational performance, the nature of multidimensional performance management systems and their relationship to organisational performance, particularly in the context of Australian companies is not well understood. One reason for this is that organisational performance has been defined mostly from a financial perspective which covers only one of the multiple aspects or dimensions of corporate performance. Following the stakeholder approach to CSR that takes into account the multi-dimensional corporate obligations to look after the interests of the different shareholder groups, we propose a broader definition of corporate or organisational performance which includes customer satisfaction, employee satisfaction, sales from new products, profit from operations and environmental budget allocation. In the light of this broader definition of organisational performance, this study investigates the following research questions:

1. What are the sustainability performance management goals (SPMGs) that are pursued by Australian companies?
2. Which of these sustainability performance management goals (SPMGs) are significantly associated with organisational performance?

Research Method

A mailed questionnaire was administered to Chief Financial Officers (CFOs), Chief Executive Officers (CEOs), and Senior Human Resource (HR) managers of medium to large Australian companies with 100 or more employees as per Business Who's Who of Australia[3]. These medium to large companies were chosen to ensure potential viability of an organisation to practice sustainable development and to possess a sophisticated management control system to facilitate the management of stakeholders' interests.

The sample organisations were selected from industries including manufacturing, retail, financial institutions, services and tourism. The questionnaire was mailed to 1500 companies. CFOs were selected because their role requires them to be involved actively in all operational aspects of organisation thus encompassing the perspectives of a MPMS. CEOs were chosen as their role involves higher level management across the organisation, quite often focusing on development of the long-term mission or vision of the organisation. Finally, senior HR managers were included as a means of including key middle level management personnel.

Two hundred and thirty-two responses were received from a total sample size of 1500, representing a response rate of about fifteen per cent. Sixty-six per cent of the questionnaires were completed by the organisation's top management, while the remaining thirty-four percent were completed by middle level managers. Early respondents were compared with late respondents to check the sample representativeness across some of the key attributes of corporate sustainability performance management goals and performance. There were no significant differences noted in these attributes between the early and late respondents. A Chi-square test was conducted to determine whether there was a difference in the proportion of early and late respondents in terms of organisation size and industry category. The analysis revealed no significant difference in these attributes between the early and late respondents.

The extent of use of organisational sustainability performance management goals (SPMGs) were assessed with 35 items related to sustainability performance management goals[4]. These

[3] Prior studies have limited the sample to companies with more than 100 employees (e.g., Lau & Eggleton, 2000, Iselin, Mia, & Sands, 2008). Business Who's Who of Australia is a Dunn and Bradstreet Web-based business directory.

[4] The first 174 (75%) questionnaires that were received without any follow-up were considered as early respondents and the remaining 58 (25%) as late respondents.

items were adapted from theoretical manuscripts and prior study (Kaplan and Norton, 1996; Hansen and Mowen, 2005; Iselin, Mia and Sands, 2008); and were chosen on the basis that these goals support an organisation focusing on the interests of its various stakeholder groups. The respondents were asked to indicate for each item the extent to which their organisations pursued the related performance management goal. A 7-point Likert scale ranging from 1 (negligible) to 7 (to a great extent) was provided to the participants for their response under each item. Similarly, to assess each of the five aspects of organisational performance, the participants were asked to indicate their organisation's performance compared to that of the industry average, using a 7-point Likert scale ranging from 1 (well below average) to 7 (well above average).

Results

Research Questions

It will be recalled that two main research questions were posed, to investigate organisational sustainability goals and their relationship to performance. The results related to these two research questions are provided below.

Research question 1: What are the sustainability performance management goals (SPMGs) that are pursued by Australian Companies?

To identify the sustainability performance management goals (SPMGs) that Australian Companies were pursuing at the time of this study and the elements or items comprising each of the specific goals, a principal component factor analysis was conducted for the 35 items related to sustainability performance management goals. The results of this principal components analysis, using varimax rotation, yielded the following seven factors as presented in Table 1:

1. Environmental goals (EG)—comprising the sustainability performance management goals of reducing greenhouse gas emission, carbon trading, investment in pollution-free technology, water conservation, use of quantified environmental targets, use of other environmental management systems, waste management, and disclosure of information (corporate social reporting/triple bottom line).
2. New product innovation goals (NPIG)—comprising the sustainability performance management goals of the introduction of new product or services, emphasis on sales from new products or services, allocation of time to market new products or services, reducing cycle time from order to delivery, and increasing market share.
3. Customer acquisition and retention goals (CARG)—comprising the sustainability performance management goals of customer retention (the rate at which an organisation retains or maintains ongoing relationships with its customers), customer acquisition (the rate at which an organisation attracts or wins new customers or business), sales growth, and customer profitability (measures the net profit from a customer, or a segment, after allowing for the unique expenses required to support that customer).
4. Information systems capability goals (ISCG)—comprising the sustainability performance management goals of information systems capabilities, on-line information flow systems, use of E-commerce, and improving employee productivity.
5. Employee welfare and community engagement goals (EWCG)—comprising the sustainability performance management goals of expenditure on employee development and training, emphasis on employee health and safety, employee retention, community engagement and sponsorship, attention to product quality, and donations to charitable and community organisations.
6. Operational profitability goals (OPPG)—comprising the sustainability performance management goals of emphasis on cash flow from operations, and focus on operating income or income before tax.
7. Organisational profitability goals (ORPG)—comprising the sustainability performance management goals of emphasis on return on investment (ROI), and focus on economic value added (rate of return minus cost of capital).

1. Each of these factors had an eigenvalue of greater than 1 and consisted of items that loaded at greater than 0.45 on the factor. Comrey and Lee (1992) suggest that all loadings in excess of 0.45 can be classified as acceptable. The factors collectively explained 65% of the total variance.

Table 1: SPM Goals - Rotated Component Matrix

Items	Factors						
	EG	NPIG	CARG	ISCG	EWCG	OPPG	ORPG
Reducing greenhouse emissions	.872						
Carbon trading	.809						
Investment in pollution control	.799						
Budget water conservation	.791						
Quantify environmental targets	.781						
Other env management systems	.747						
Budget for waste management	.667						
Disclose information	.466						
New products		.831					
Sales from new products		.811					
Time to market new products or services		.775					
Length of cycle time		.551					
Percent market share		.506					
Customer retention			.777				
Customer acquisition			.774				
Sales growth			.571				
Customer profitability			.560				
Information System capability				.781			
Online information				.706			
Use of IT				.629			
Employee productivity				.496			
Employee training					.672		
Health safety					.643		
Employee retention					.638		
Community engagement					.610		
Product quality					.547		
Donations to community					.493		
Cash flow from operations						.816	
Profit before tax from operations						.766	
ROI							.682
EVA							.516

Validation of Measures

To establish the validity and reliability of our constructs for SPMGs, we conducted a confirmatory factor analysis (CFA), where each item was restricted to load onto its hypothesised factor. The results of this analysis are shown in Table 2, which shows the standardised factor loadings (SFLs) for each item, together with the composite reliabilities (CRs) and average variance explained (AVEs) for each factor. As each of the standardised factor loadings exceeded 0.60, it can be concluded that there is reasonably high convergent validity (see Hair, Black, Babin, Anderson and Tatham, 2006). The composite reliability scores were all greater 0.80 (exceeding the commonly accepted threshold of 0.70); thus showing a reasonably high level of reliability. The average variance explained for the factors ranged between .52 and .77, indicating good evidence of discriminant validity (see Hair et al, 2006; Fornell, C. and D. Larcker, 1981). This is also confirmed by the correlation matrix, as shown in Table 3, which indicates that there is also no multicollinearity between the constructs.

To address the issue of common method bias inherent in survey studies, we also performed a Harman's one factor test, which would indicate the presence of bias if one dominant factor were to emerge that accounted for the majority of the variance in the items (Podsakoff & Organ, 1986; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The results of this test showed that the items used to measure our constructs for SPMGs loaded onto different factors; thus providing evidence that there was minimal chance of common method bias in this study[5].

Table 2: Confirmatory Factor Analysis - SPM Goals

Construct	CR	AVE	Item	SFL
Environmental goals	.931	.629	Reducing greenhouse emissions	.887
			Carbon trading	.839
			Investment in pollution control	.832
			Budget water conservation	.808
			Quantify environmental targets	.806
			Other environmental management systems	.781
			Budget for waste management	.757
			Disclose information	.605
New product innovation goals	.924	.633	New products	.865
			Sales from new products	.856
			Time to market new products or services	.840
			Length of cycle time	.722
			Percent market share	.677
Customer acquisition and retention goals	.886	.662	Customer retention	.906
			Customer acquisition	.885
			Sales growth	.754
			Customer profitability	.690
Information systems capability goals	.882	.652	Information System capability	.876
			Online information	.798
			Use of IT	.785
			Employee productivity	.767
Employee welfare and community engagement goals	.899	.518	Employee training	.805
			Health safety	.741
			Employee retention	.723
			Community engagement	.720
			Product quality	.672
			Donations to community	.646
Operational profitability goals	.867	.766	Cash flow from operations	.875
			Profit before tax from operations	.875
Organisational profitability goals	.841	.726	ROI	.852
			EVA	.852

CR = Composite reliability as determined by $(\Sigma \text{ SFL})^2 / (\Sigma \text{ SFL})^2 + \Sigma e$) (see Fornell & Larcker, 1981)
AVE= Average Variance Extracted
SFL = Standardised factor loading

[5] See Golden, 2006; McFadden, Stock, & Gowen, 2006.

Table 3: Correlations between Constructs

	EG	NPIG	CARG	ISCG	OPPG	ORPG	EWCG	CSP	ESP	SNPP	POP	EBAP
EG	1											
NPIG	.465**	1										
CARG	.334**	.558**	1									
ISCG	.434**	.495**	.604**	1								
OPPG	.204**	.234**	.323**	.255**	1							
ORPG	.479**	.466**	.431**	.362**	.237**	1						
EWCG	.479**	.496**	.496**	.519**	.375**	.322**	1					
CSP	.207**	.271**	.240**	.294**	.084	.205**	.333**	1				
ESP	.172**	.100	.156*	.341**	.130*	.120	.392**	.421**	1			
SNPP	.321**	.767**	.448**	.390**	.064	.336**	.286**	.182**	.104	1		
POP	.046	.201**	.210**	.088	.382**	.133*	.246**	.195**	.219**	.163*	1	
EBAP	.759**	.371**	.363**	.412**	.182**	.376**	.395**	.188**	.135*	.314**	.051	1

** p< 0.01 .
* p< 0.05 .

EG = Environmental goals, NPIG = New product innovation goals, CARG = Customer acquisition and retention goals, EWCG = Employee welfare and community engagement goals, OPPG = Operational profitability goals, ORPG = Organisational profitability goals.

CSP = Customer Satisfaction Performance, ESP = Employee Satisfaction Performance, SNPP = Sales from New Products Performance, POP = Profit from Operations Performance and EBAP = Environmental Budget Allocation Performance

Research question 2: Which of these sustainability performance management goals (SPMGs) are significantly associated with organisational performance?

To answer the above question, the sustainability performance management goal factors were regressed against five single-item dependent variables of Customer Satisfaction Performance (CSP), Employee Satisfaction Performance (ESP), Sales from New Products Performance (SNPP), Profit from Operations Performance (POP) and Environmental Budget Allocation Performance (EBAP). MANCOVA analysis[6] was then conducted after controlling for stakeholder stability, technological stability, company size, internet usage, strategic alliances, level of cost reduction strategy, level of product differentiation strategy, and type of industry. All of these control variables were not significantly related to the dependent variables.

The following results were obtained (see Table 4):

1. All dependent performance variables were significantly affected by at least one of the sustainability performance management goals.
2. Environmental goals were significantly associated with environmental budget allocations and sales from new products.
3. New product innovation goals were significantly associated with sales from new products.
4. Customer acquisition and retention goals were significantly associated with sales from new products and customer satisfaction.
5. Information systems capability goals were significantly associated with employee satisfaction, environmental budget allocations and sales from new products.
6. Employee welfare and community engagement goals were significantly associated with employee satisfaction, customer satisfaction and environmental budget allocations.
7. Operational profitability goals were significantly associated with profit before tax from operations.
8. Organisational profitability goals were significantly associated with customer satisfaction.

[6] The reason for using MANCOVA analysis is that as there were several dependent variables and a multivariate technique such as Multivariate Analysis of Variance controls for any possible correlation between the dependent variables (whereas separate ANOVA or regression analyses would not -See Hair et al 2006, p.400).

Table 4: MANCOVA tests of between-subjects effects

Source (Factor)	Dependent variable	Type III sum of squares	df	Mean square	F	Sig.
Corrected Model	Customer satisfaction	196.541	79	2.488	1.609	.008
	Employee satisfaction	250.995	79	3.177	1.640	.006
	Sales from new products	715.867	79	9.062	5.127	.000
	Profit from operations	234.960	79	2.974	1.550	.013
	Environmental budget allocation	722.242	79	9.142	5.246	.000
Environmental goals	Customer satisfaction	.249	1	.249	.161	.689
	Employee satisfaction	.151	1	.151	.078	.780
	Sales from new products	10.026	1	10.026	5.673	.019
	Profit from operations	2.326	1	2.326	1.212	.273
	Environmental budget allocation	263.999	1	263.999	151.496	.000
New product innovation goals	Customer satisfaction	1.245	1	1.245	.805	.371
	Employee satisfaction	2.471	1	2.471	1.276	.261
	Sales from new products	180.185	1	180.185	101.951	.000
	Profit from operations	.875	1	.875	.456	.501
	Environmental budget allocation	2.605	1	2.605	1.495	.224
Customer acquisition and retention goals	Customer satisfaction	8.218	1	8.218	5.316	.023
	Employee satisfaction	.276	1	.276	.143	.706
	Sales from new products	29.624	1	29.624	16.762	.000
	Profit from operations	2.582	1	2.582	1.345	.248
	Environmental budget allocation	2.400	1	2.400	1.377	.243
Information systems capability goals	Customer satisfaction	3.774	1	3.774	2.441	.121
	Employee satisfaction	24.051	1	24.051	12.418	.001
	Sales from new products	7.292	1	7.292	4.126	.044
	Profit from operations	1.164	1	1.164	.606	.438
	Environmental budget allocation	24.022	1	24.022	13.785	.000

Table 4: MANCOVA tests of between-subjects effects (continued)

Source (Factor)	Dependent variable	Type III sum of squares	df	Mean square	F	Sig.
Employee welfare and community engagement goals	Customer satisfaction	8.713	1	8.713	5.636	.019
	Employee satisfaction	29.920	1	29.920	15.448	.000
	Sales from new products	.237	1	.237	.134	.715
	Profit from operations	2.995	1	2.995	1.561	.214
	Environmental budget allocation	6.817	1	6.817	3.912	.050
Operational profitability goals	Customer satisfaction	.250	1	.250	.162	.688
	Employee satisfaction	5.894	1	5.894	3.043	.083
	Sales from new products	.033	1	.033	.018	.892
	Profit from operations	19.892	1	19.892	10.364	.002
	Environmental budget allocation	.034	1	.034	.020	.889
Organisational profitability goals	Customer satisfaction	7.011	1	7.011	4.535	.035
	Employee satisfaction	3.749	1	3.749	1.936	.166
	Sales from new products	.004	1	.004	.003	.960
	Profit from operations	4.401	1	4.401	2.293	.132
	Environmental budget allocation	.070	1	.070	.040	.842

Discussion

As discussed earlier, studies on the association between sustainability performance management goals and organisational performance have produced mixed results. Perhaps these varying outcomes may be attributable to the different types of sustainability performance management goals, and the different measures of organisational performance employed across the different studies. In this study, efforts were made to more clearly delineate the different types of sustainability performance management goals through factor analysis. This resulted in seven sustainability performance management goals - environmental, new product innovation, customer acquisition and retention, information systems capability, employee welfare and community engagement, operational profitability, and organisational profitability. Also, following prior research, five different aspects (dimensions) of organisational performance were identified and assessed. The assessment was done by regressing each of the seven separate SPMGs factors against each of the five separate aspects of organisational performance including customer satisfaction, employee satisfaction, sales from new products, profit from operations, and environmental budget allocation. A MANCOVA analysis was used to control for stakeholder stability, technological stability, company size, internet usage, strategic alliances, level of cost reduction strategy, level of product differentiation strategy, type of industry, and possible correlations among the dependent variables.

The results of this multivariate analysis presented in Table 4 suggest that improved overall performance appears to be favourably influenced by a combination of sustainability performance management goals (SPMGs). The combination of environmental, new product innovation, customer acquisition and retention, and information systems capability goals appeared to have positively influenced sales of new products. Environmental, information systems capability, and employee welfare and community engagement goals positively influenced environmental budget allocations. Furthermore, customer acquisition and retention, employee welfare and community engagement, and organisational profitability goals appear to be important in maintaining customer satisfaction. Finally, information systems capability together with employee welfare and community engagement goals appeared to be important in maintaining employee satisfaction.

These results make intuitive sense. In order to achieve an improvement in overall corporate sustainability performance, the results indicate that it is necessary to concentrate on all of the different aspects (goals) of performance management. These aspects include not only focusing on the internal or behavioural issues (such as information systems capability, employee welfare and community engagement) but also meeting the external stakeholder needs through the establishment and implementation of environmental, new product innovation and customer acquisition and retention goals. Furthermore, these results show that in order to achieve customer satisfaction it is important to concentrate on goals related to employee welfare as well as customer acquisition and retention, in addition to organisational profitability goals. This evidence would indicate that it is just as important to focus on employee retention, involvement and training, health and safety, and community engagement goals (albeit to a lesser extent), as it is to have a customer goals focus. The results also highlight the importance of employee recognition and reward systems to encourage greater employee participation.

In summary, the results reveal that to improve the different aspects (dimensions) of organisational performance, management ought to give due attention to each of the sustainable performance management goals (SPMGs) that positively influence the related dimension of the organisational performance. For example, the results reveal that to attain improved new product sales, it is not enough to just concentrate on the new product innovation goals, rather, it is important for the organisation to focus also on environmental performance management goals. A rationale for this view is that an organisation's environmentally friendly behaviour and activities improve the organisation's community image. Today's environmentally conscious customers and community are likely to be relatively happier with an organisation that is known to be operating in an environmentally friendly manner. With such a positive image the organisation can enjoy a competitive advantage in attracting both new and existing customers to

its new or differentiated products. In other words, an organisation, having a positive image of being environmentally friendly, can improve its brand image resulting in relatively high sales of both existing and new products (Ferreira et al., 2010; and Hansen and Mowen, 2005).

Conclusions, limitations and suggestions for further research

This study identified seven particular sustainability performance management goals that are implemented (pursued) by medium to large Australian companies. It also empirically investigated the associations between each of the identified sustainability performance management goals (SPMGs) and each of the five dimensions of organisational performance. The findings show that there are significant positive associations between the SPMGs — environmental, new product innovation, customer acquisition and retention, information systems capability, employee welfare and community engagement, operational profitability — and the different dimensions of the organisational performance. All of these seven sustainability performance management goals were found to be associated with improving overall performance. Furthermore, employee and customer involvement, employee retention and training, health and safety, and community engagement goals appear to also contribute to customer satisfaction; while environmental, new product innovation, customer acquisition and retention, and information systems capability goals were positively associated with sales from new products.

Our study makes two important contributions to the existing knowledge in management of organisational sustainability. First, it empirically identifies seven different sustainability performance management goals (SPMGs) that are pursued by medium to large Australian companies. We consider this finding significant; as there are very few studies that have identified such SPMGs. Therefore, we consider our findings significant as future research may use these SPMGs for further empirical investigations; thereby make further contributions to the knowledge in the area. The second important contribution is the provision of empirical evidence for the associations between each of the seven SPMGs and the different dimensions of organisational performance. Our results will hopefully lead to further research on refining the SPMGs and dimensions of corporate performance in different contexts. The significant contribution of our study to practice is the guidance that these results may provide to senior management in setting their organisation's SPMGs and in prioritising them within the constraints of resource availability.

However, it must be acknowledged that the sample businesses could only be regarded as representative of medium to large Australian companies in the manufacturing, retail, financial institutions, services and tourism industries. Moreover, the total sample size of 232 businesses may limit the generalisability of these results to a wider population of businesses. This is particularly important in that the response rate was only 15 per cent, from which it is difficult to make any general inferences about the population, as the sustainability performance management goals of other organisations are unknown. Therefore, further research is required to ascertain whether the same goals are evident across organisations of different sizes and industry groups within a broader sampling frame.

This study was also restricted to particular types of sustainability performance management goals. Future research may investigate the perceived importance of other types of sustainability performance management goals. An exploratory factor analysis was also undertaken to investigate whether any combinations of these goals were correlated with organisational performance. Future research may extend this study by considering the importance and effectiveness of total integrated systems of sustainability performance management goals to further investigate our preliminary proposition that holistic approach to performance management leads to improvements in organisational effectiveness. The matching of the organisation's business strategic priorities with its sustainability performance management goals may also be further investigated to identify the impact of strategic readiness on organisational performance.

Finally, in this study, organisational performance was operationalised by respondents' self-reported measures of customer satisfaction, employee satisfaction, sales from new products,

profit from operations, and environmental budget allocation. Further research may investigate alternative subjective measures of organisational performance such as different benchmarking standards of comparative performance, and different alternative measures such as profit margins and sales growth.

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