

## Creating sustainable benefits for stakeholders of organisations using the strategy mapping framework

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### Abstract

**Purpose:** This paper investigates the association between organisational commitment and sustainable financial performance where environmental and social issues are integrated into the traditional four perspectives of the strategy map framework.

**Design/methodology/approach:** This study involved a survey administered to executives of medium to large Australian companies. Varimax rotated factor analyses were conducted to reduce a total of 47 items related to components of the balanced scorecard's strategy map to 6 factors - affective commitment, continuance commitment, operations customer and innovation management value-creating processes, CSR value-creating process, customer valued attributes, and growth and productivity financial outcomes. Confirmatory factor analyses were conducted to test the goodness of fit for each measurement model. A structural equation model was used to test three hypotheses for different paths of association between organisational commitment and sustainable financial performance outcomes.

**Findings/Results:** Results reveal that there is an indirect association between affective commitment and financial performance mediated by (a) processes within the internal perspective, and (b) customer valued attributes within the customer perspective. An alternative mediating path through the processes within the internal perspective only was also supported by the results. However, the results indicate that when organisations make community investments, such as donations to the community or community involvement, there is no direct short term financial benefit gained by the organisation.

**Research limitations/implications:** As this study involved a survey and is therefore subject to the usual limitations as acknowledged in the paper. Future research could investigate the effect of a broader range of environmental and social activities within the CSR value-creating process.

**Practical implications:** This study provides an approach to testing the association between organisational commitment, sustainable financial performance, environmental and social issues within the traditional four perspectives of the strategy map framework.

**Originality/value:** This paper adds to the literature by providing evidence about the stakeholders' sustainable benefits related to the indirect association between organisational commitment elements, CSR value-creating process outcomes on growth and productivity financial performance.

**Key Words:** strategy map; balanced scorecard; regulatory and social process; value-creating processes; organisational commitment; sustainability.

**JEL Classification:** M14; M41

**PsycINFO Classification:** 3600

**FoR Code:** 1501

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## Introduction

The cited limitation of using the traditional balanced scorecard (BSC) as the basis for a sustainability framework has been its shareholder focus on financial performance (e.g., Van der Woerd & Van den Brink, 2004). There have been ‘two schools of thought’ about how to develop sustainability BSC. For example, one ‘school of thought’ includes an additional CSR perspective (Hubbard, 2009), or an additional Society and Planet perspective (Van der Woerd & Van den Brink, 2004), or Non-Market Perspective (Figge, Hahn, Schaltegger & Wagner 2002) to supplement the traditional BSC. The second ‘school of thought’ has developed a model that integrates the environmental and social issues into the traditional four perspectives of BSC (e.g., Buytendijk & O’Rourke, 2008; Lämsiluoto & Järvenpää, 2008).

The strategy map framework, following the second ‘school of thought’, was developed by Kaplan and Norton (2004a) to illustrate the relationships among the components of organisations’ strategies that create sustained value for their employees, communities, customers and shareholders. Kaplan and Norton (2004b), through the use of the strategy map, represent how organisations use the three components of the learning and growth perspective (human capital, information capital and organisation capital) as the basis for creating value through the other perspectives of BSC. Kaplan and Norton (2004a) included organisational commitment in the components of learning and growth.

There is empirical evidence to suggest that the greater the degree of organisational commitment, the more likely employees will engage in extra-role behaviours (Meyer, Allen & Smith, 1993; Pearce 1993). Meyer and Allen (1997) postulate an association between organisational commitment and employee performance. Several recent empirical studies have found a significant direct relationship between organisational affective commitment and employee performance (see Quirin et al. 2000, 2001; Donnelly, et al., 2000; Smeenk, Teelken, Eisinga & Doorewaard, 2009; Vallejo, 2009). However, Smith (2003) suggests that further work needs to be undertaken in this area as his findings indicate that the association between organisational commitment and employee performance on social responsibility issues is an indirect association. Kaplan and Norton (2004a) assert that when employees are committed to the organisation’s strategy, it is more likely that they will develop and document ways in which the critical internal value creation processes may be enhanced. This assertion by Kaplan and Norton (2004a) is compatible with their model that has illustrated their argument about the existence of a set of sequential direct relationships among an organisation’s four perspectives, culminating in financial performance (see Kaplan & Norton 1996; 2001, 2004a and Figure 1, below).

Wagner (2007, p. 613) identified that limited evidence on the empirical effect of integration of environmental or social aspects is available because there has been a lack of larger empirical surveys and single item variables used in prior analyses. Also, studies that have examined this integration approach have limitations. For example, Lämsiluoto and Jaarvenpää (2008) identify an obvious limitation to the use of case study methodology used in their study. They suggest that the foundations of future studies could be enlarged by gathering data utilising survey methods and that the data be tested statistically.

The purpose of the study is to identify whether there is an association between organisational commitment and sustainable financial performance outcomes. This study will investigate the direct association between organisational commitment and sustainable financial performance outcomes. Additional analysis will be included that examines the mediating effect that the sequential relationships between organisations’ internal and customer perspectives (that include an integration of environmental or social aspects into these perspectives within the strategy map) have on the association between organisational commitment and sustainable financial performance outcomes. That is, the study will use the strategy map framework to investigate empirically the integration of the environmental and social aspects<sup>1</sup> into the four traditional BSC perspectives. The study contributes to knowledge by investigating empirically the role of organisational commitment and the integration of the

<sup>1</sup> The items relating to social responsibility are: (1) Donations to community, (2) Community engagement, (3) Staff seconded to voluntary work, (4) Water conservation, (5) Educational scholarships given, and (6) Percentage of staff minorities.

environmental and social aspects into the four traditional BSC perspectives. The findings should allow organisations to determine whether their level of commitment needs to be enhanced, which may assist CSR outcomes and financial performance through better value-creating and CSR processes as well as customer valued attributes. Such achievements may be important for organisations' stakeholder groups.

In the next section, literature will be reviewed and hypotheses developed. The third section will discuss the research method employed while the fourth section explains how the variables selected to operationalise the BSC strategy map concepts and the measurement models tested for their goodness of fit. Results are reported in section five, with the conclusion and discussions contained in the sixth and seventh sections. The final section provides a discussion about the limitations and implications of the study.

## Literature Review and Hypotheses Development

Empirical research on the balanced scorecard and other multi-perspective performance measurement systems generally supports the premise that various non-financial dimensions are associated with (both financial and non-financial) performance outcomes (see Bedford, Brown, Malmi & Sivabalan, 2008; Malmi, 2001; Mooraj, Oyon & Hostettler, 1999; Ittner, Larcker & Randall, 2003; Hoque & James, 2000). The realisation of desirable CSR outcomes within the value-creating processes of Kaplan and Norton's strategy map is facilitated by considering all of the interests, rights and needs of different stakeholders of an organisation (Dawkins & Lewis, 2003; Maignan & Ferrell, 2004; Ruf, Muralidhar, Brown, Janney & Paul, 1998). Freeman (1984) identifies two types of stakeholders. First is the primary stakeholder-type (owners, shareholders, employees, customers and suppliers) who are represented within the original four perspectives of a balanced scorecard. The key secondary stakeholder-type consists of communities, governments and activists who raise issues associated with corporate behaviour and practices. Although this second group of stakeholders is not mentioned in the original four balanced scorecard perspectives, there are overlapping memberships in the two stakeholder-type groups. For example, governments may also be customers, while activists may also be customers or employees.

It has been suggested that, while organisations will be motivated to maximise profit, they will also seek to broaden their sustainability objectives to accommodate other stakeholders' goals. This motivation is critical for the organisation's survival, economic wellbeing, and competitive advantage (Mitchell, Agle, & Wood, 1997). Consequently, it is necessary for organisations to identify and address the needs, social problems, demands and interests of their various stakeholder groups to receive their continued goodwill and support (Griffin, 2002; Maignan, 2001; Peterson, 2004).

Attributes of the learning and growth perspective, such as organisational commitment may motivate employees to develop sustainable value-creating processes. These processes include organisations' regulatory and social process, which are preferred by customers who are motivated by an organisation's CSR agenda. However, no studies to date have examined the association between employees' organisational commitment and financial performance mediated through the value-creating processes and customer valued attributes described in the BSC strategy map. There has been an increased emphasis on CSR activities undertaken and recorded by organisations through measure processes such as the triple bottom line and the Global Reporting Initiative.<sup>2</sup> Therefore, due to this increased emphasis, it is important to examine not only this association between organisational commitment and financial performance but also the influence of mediating factors (comprising the value-creating internal processes and the customer valued perspective).

In summary, an extensive literature review has established that the integration of the environmental and social aspects into the four traditional BSC perspectives has rarely been investigated (e.g., Wagner, 2007; Lansiluoto & Jaarvenpaa, 2008). A reason suggested for

<sup>2</sup> The GRI is "a comprehensive sustainability reporting framework...(with) GRI's core goals including the mainstreaming of disclosure on environmental, social and governance performance...(and) is developed through a consensus-seeking, multi-stakeholder process. Participants are drawn from global business, civil society, labor, academic and professional institutions" [Viewed 8 November 2011 on GRI website <http://www.globalreporting.org/AboutGRI/WhatIsGRI/> (parentheses added)].

this limited evidence about the integration of environmental or social aspects into the BSC is the lack of larger empirical surveys (Wagner, 2007, p. 613) or the lack of generalisability of findings from studies either using a case study method or including only limited CSR issues in the study (Lansiluoto & Jaarvenpaa, 2008).

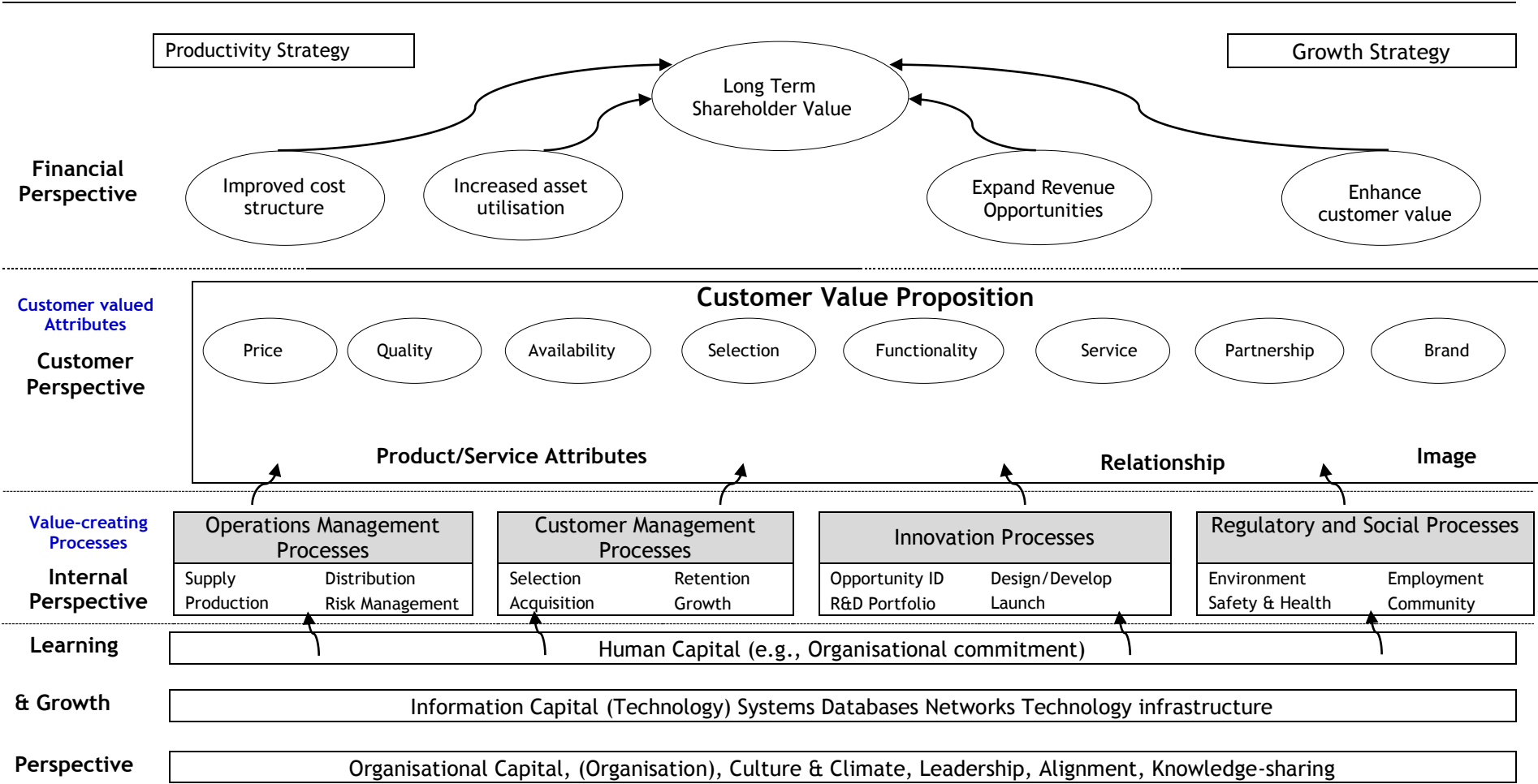
Kaplan and Norton (2004a) included organisational culture within *organisation capital*. An individual's commitment was found to be a significant measure of the person-organisation culture fit (O'Reilly, Chatham, & Caldwell, 1991). Additionally, behaviours such as a feeling of belonging and commitment were cited as the incipient sources within *human capital* which lead individuals' personal behaviours, willingness or attitudes towards organisations (Martinde Castro, Delgado-Verde, Lopez-Saez, & Navas-Lopez, 2011, p. 655-656). From this literature, organisation commitment appears to be a fundamental element of the learning and growth perspective within the strategy map framework.

Organisational commitment is the psychological identification that an individual feels toward his or her employing organisation (Mowday, Porter & Steers, 1982). Meyer and Allen (1991) assert that there are three key elements of organisational commitment: affective, normative and continuance commitment. Organisational affective commitment reflects an employee's feelings of emotional attachment and connection to an organisation and has implications for their decision of maintaining a long term membership with the organisation. According to Meyer and Allen (1991), continuance commitment refers to an employee's awareness of the costs associated with leaving the organisation. An employee remains with an organisation based on continuance commitment when the employee feels that they need to retain organisational membership because of the costs that are perceived to be associated with leaving their organisation. Normative commitment refers to an employee's feelings of obligation or duty toward their organisation. For this study, only affective and continuance commitment are examined because of findings of similarities found between affective and normative commitment by prior studies (e.g., Ko, Price, & Mueller, 1997; Meyer Stanley, Herscovitch, & Topolnytsky, 2002) and discussed in the variable measurement model section.<sup>3</sup>

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<sup>3</sup> It is also possible for normative commitment to be redundant because it may be highly correlated with affective commitment (Randall, 1990).

Figure 1: The Strategy Map



Source: Adapted from Kaplan and Norton. (2004a, Strategy Map, p 2, Strategy Maps - The Complete Summary

The following discussion is developed about the association between organisational commitment and employees being more likely to enhance the critical internal processes of organisations when the two elements of organisational commitment are considered in accordance with Kaplan and Norton's (2004a) assertions about strategic alignment. First, the efforts of employees who have organisational commitment should lead to enhancement of organisations' critical internal processes. Second, affective commitment has been found to have a stronger relationship with work outcomes than has continuance commitment (Randall, Fedor & Longenecker, 1990; Mathieu and Zajac, 1990). This stronger relationship may be attributable to the fact that affective (or internal) commitment reflects an attitude that focuses on employees' attachment to their organisation and their emotional acceptance of its values and goals (O'Driscoll & Randall, 1999); whereas continuance (or external) commitment corresponds to contractual compliance (Argyris, 1998). This different focus suggests there will be some difference in the level of association for affective commitment versus continuance commitment and value-creating processes with the internal perspective.

The role for regulatory and social processes within the strategy map, such as, enhancing the workplace environment and workplace relations, secondment of staff for voluntary work with community organisations, employee safety needs and the organisation's contribution to the community has been suggested by Kaplan and Norton (2004a). Luo and Bhattacharya (2006) cited prior studies that found an organisation's ability to generate new CSR products or services influences the customer's perspective of the organisation's product or services, which is expected to result in increased sales (e.g., Brown & Dacin, 1997). Pomeroy and Dolnicar (2008) suggested a segmented approach, similar to the actions undertaken in the customer management process contained within the internal perspective, to cater for differences in customer groups' interests.

Kaplan and Norton have consistently argued for the existence of a direct relationship between an organisation's internal process and the customer perspective<sup>4</sup> (see Kaplan & Norton, 1996; Kaplan & Norton, 2004a). They assert that the strategy map includes a positive direct relationship between an organisation's value-creating internal processes and its customer valued attributes (components with the internal process perspective and the customer perspective) because the processes in the internal value creation processes lead to value creation for the customer. The four value creation processes are the innovation, operations management, customer management and the regulatory and social processes. Empirical studies on the relationship between the value creation processes and customer valued attributes (previously called internal process and customer perspectives) have consistently found a positive and significant relationship (see Jun & Cai, 2010; Cohen, Thiraios, & Kandilorou, 2008; Maiga & Jacobs, 2003; Hoque & James, 2000).

In summary, Kaplan and Norton's strategy map, along with the previously cited research, illustrates that components within the learning and growth perspective are associated sequentially with processes within the value-creating internal processes, which, in turn, are associated with customer valued attributes, and finally, with financial performance. Using the strategy map as a framework for the relationships, organisational commitment, as a component of the learning and growth perspective, is expected to be indirectly associated with financial performance. Figure 1 provides an illustration of these associations between the four perspectives (and between value-creating processes or customer valued attributes within the perspectives) as have been argued by Kaplan and Norton (2004a) in their strategy map.

Therefore, using the traditional approach of investigating the null hypothesis as the basis for testing the hypotheses, the first null hypothesis of the study is as follows.

**H<sub>01</sub>: There is no direct association between organisational commitment and financial performance outcomes.**

<sup>4</sup> Both of these constructs become mediating variables in the overall model.

## Organisational commitment and voluntary social processes

There are very few studies that have examined the association between organisational commitment and CSR. Peterson (2004) suggests that a link can be expected (1) between organisational commitment and employees' contribution to their organisation's CSR performance and (2) between employee's work attitudes and organisational performance on social issues. Organisational commitment has been found to be indirectly related to philanthropy by Smith (2003), who suggests that further work needs to be undertaken to clarify these associations. Smith found that an indirect association exists between organisational commitment and employee performance within parts of the organisation's social responsibility agenda. Additionally, when organisations have a clear focus on achieving CSR process activities because of their well-articulated CSR strategy, greater efforts are made to develop and refine their value-creating internal processes to enhance the CSR process (Cramer, 2005). Sukeserm and Takehashi (2010) maintain that establishing policy should facilitate design of the value-creating internal processes to enhance CSR process outcomes.

Knowledge about the association between organisational commitment and regulatory and social process is important because committed employees are more likely to perform their CSR process activities better. In particular, as organisations are required to find ways to implement an increasing array of regulatory requirements to comply with social and environmental obligations, it is becoming more important to identify the extent to which organisational commitment motivates employees to develop organisational outcomes that enhance CSR activities. Consequently, organisations may benefit from identifying any factors that motivate employees, who have organisational commitment, to develop processes that improve the required CSR process outcomes. However, there is still little understanding about the process through which organisational commitment may influence employee contribution to CSR activities within an organisation's internal process

We therefore assert there is expected to be an indirect association between organisational commitment and voluntary CSR, mediated by the value-creating internal processes.

This assertion is tested by using the traditional approach of investigating the null hypothesis, as the basis for testing the hypotheses, that results in the following null hypothesis.

**H<sub>02</sub>: There is no direct association between organisational commitment and voluntary CSR process activities.**

## Value-creating internal processes and financial performance

Kaplan and Norton (2001) illustrated a direct association between the regulatory and social process and improved shareholder value that accompanies increased productivity and revenue growth. Kaplan and Norton (2004b) show an association between value-creating internal processes and financial performance benefits. Buytendijk and O'Rourke (2008) argue that there is a direct association between internal processes and financial performance.

Figge et al. (2002) suggest three methods through which a sustainable BSC may enhance financial performance, one of which involves embedding CSR into each of the perspectives. All three of Figge et al.'s methods culminate in improved financial performance, as a result of expected improvements through a reduction in a company's energy and water usage and increases in material efficiency to decrease production costs, which increases profits.<sup>5</sup> Kaplan and Norton's strategy map also suggests that the operations management processes (internal perspective) may involve reducing production costs by continuously improving process quality, reducing use of raw materials, reducing waste and re-work of products/services and reduction in packaging. Such enhancements would lead to an improved cost structure, which is part of the financial performance perspective of Kaplan and Norton's strategy map. Therefore, focus on all the value-creating internal processes, including the CSR value process, may lead to improvements in financial performance.

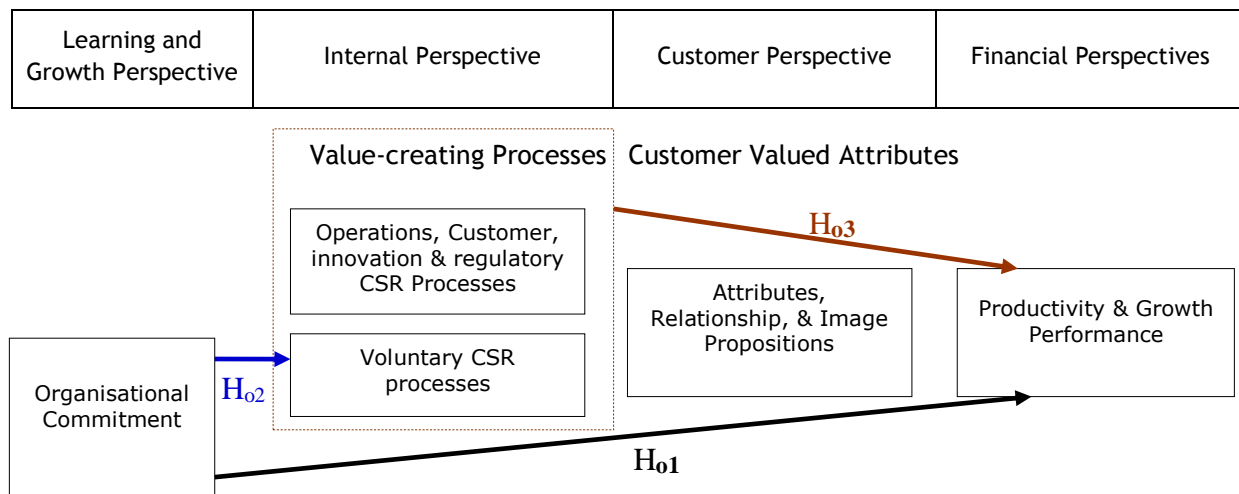
Thus, an organisational focus on regulatory and social as well as the innovation processes (such as workplace health and safety or product/service innovations within the value-creating internal processes) may result in enhanced revenue growth and productivity, leading to increased and sustainable profitability. However, there is no empirical evidence to support this direct association. This gives rise to the following null hypothesis.

<sup>5</sup> Figure 5 in Figge et al. (2002) shows SBSC as a strategy map for a sample company, p. 282).

**H<sub>03</sub>: There is no direct association between an organisation's value-creating internal processes and its financial performance.**

The BSC strategy map theoretical framework underpinning these three hypotheses, collectively, may be illustrated as shown in Figure 2.

**Figure 2: BSC strategy map theoretical framework**



### Research Method

A survey was developed for this study. After pilot testing the survey with 21 MBA students with business experience, the survey was subsequently distributed with an invitation to participate to CEOs, financial controllers and human resource managers of medium to large Australian firms employing 250 or more staff downloaded from the Business Who's Who of Australia database using the systematic random sampling method.<sup>6</sup> There were 300 useable responses<sup>7</sup> received, which amounted to a response rate of approximately 19%.

Demographic data was collected in the survey. Respondents were aged from 24 to 70 years; 76% were male and 24% female who, on average, had worked for their current employers for 8.25 years, and were employed in their position for an average of 4.64 years. Approximately 80% of these managers have tertiary qualifications and about 20% hold some other form of qualification or no formal qualifications.

A non-response bias test was undertaken using the early and late responses received from participants. The first 20% of surveys that were received within the first two weeks of the mail out were included in the group of 'Early' responses, while the last 20% of responses received were noted as 'Late' responses (Firth, 1978). T-tests were conducted for each of the independent variables of the study to compare whether there were differences between the early respondents and the late respondents. There were no significant differences for any of the independent variables.<sup>8</sup> Harman's one factor test (which comprised a confirmatory factor analysis) was conducted on this study's dataset of survey items to determine whether Common Method Bias was present. Eight factors emerged from the data, with the largest single factor accounting for 9.618 per cent of the variance.<sup>9</sup> It appears unlikely that Common Method Bias had a significant influence

<sup>6</sup> This selection process is consistent with many prior management accounting studies examining performance measurement have surveyed companies employing 200 or more employees (Hall, 2008; Lillis, 2002; Grafton et al, 2010).

<sup>7</sup> Participants were asked to identify goals actually used by their companies from a list of 16 CSR/environmental sustainability goals. On average, around 90% of the responses provided evidence that their companies have some form of SBSC. For the CSR sustainability goals, about 97% of responses indicating that their company adopted CSR goals.

<sup>8</sup> To assist in identifying non-response bias in the results, the first 20% and the last 20% of respondents who identified themselves as being CFOs were included in the study. Similarly, the first and last 20% of HRM and CEO respondents were included to test whether there was any non-response bias. The respondents comprised 60 Early respondents (20 from each of CFO, HRM and CEO) and 60 Late respondents. This method is consistent with Firth (1978), who compared the first and last 20 returned questionnaires (p 60). Sands and Huang (2002) used the top and bottom 20% of the mean days for return of the completed questionnaire for the early and late respondents.

<sup>9</sup> This compares favourably with Rutherford, et al., (2007) who reported that the largest single factor accounted for 32.7 per cent of variance in their study.



on the results because there were multiple factors extracted with the first factor not accounting for a majority of the variance. Therefore, common method bias is not a concern in this study.<sup>10</sup>

This study adopted the two-stage process recommended by Schumacher and Lomax (1996). Stage One involved conducting separate measurement models for each latent variable. Construct validity<sup>11</sup> of the latent variables in this study was assessed by confirmatory factor analysis (Stage One) in the next section, so that the structural equation model could be evaluated (Stage Two) and reported in the Results section.<sup>12</sup>

#### Variable Measurement Model

The following discussion describes the survey instruments that were developed to operationalise, and thus, measure the variables of the current study. Additionally, a correlation between the latent variables was used to test for possible multicollinearity and the results are provided in Table C (see Appendix). It is unlikely that multicollinearity was present between the latent variables in this study because all correlations were below 0.60, which is less than the commonly accepted threshold of 0.70 (see Hair et al, 2006). Finally, each of the composite reliabilities approximated or exceeded the level of 0.70, which Hair et al (2006) suggest supports good reliability of the constructs. Discriminant validity of the constructs was completed using a variance extraction test and reported in Tables A and B (see Appendix). The average variance explained for each factor ranged from 0.44 to 0.61, which points to good evidence of discriminant validity (Fornell & Larcker, 1981; Hair et al. 2006).

#### Organisational Commitment Measures

An organisational commitment model developed by Meyer and Allen (1991) has often been operationalised in business research (see Smith & Hall, 2008; Viator & Pasewark, 2005; Fogarty & Kalbers, 2006). The model developed by Meyer and Allen (1991) is a three-component model, comprising affective, normative and continuance commitment. Some investigators have questioned the value of retaining normative commitment as a separate scale, because prior research that has used the affective commitment scale and normative commitment scale has found the correlation between these two scales is often quite strong (e.g., Ko et al. 1997). Indeed, Meyer et al (2002, p. 28) found “the corrected correlation between affective and normative commitment was substantial ( $\rho = .63$ ), suggesting that there is considerable overlap in the two constructs”. Therefore, only affective and continuance commitment are examined in the present study.

Kaplan and Norton (2004a) conceptualise employee factors (such as commitment) in human capital as pertaining to capabilities and behaviour that actually exist in the organisation, rather than those that should exist (normative). Meyer and Allen’s two-component model for organisational commitment (affective and continuance commitment) was used as a component of organisational capital and human capital to ascertain its association with the variables of the study.<sup>13</sup> Each participant was asked to rate their individual Organisational Commitment using a 7-point Likert-type scale anchored at both ends with 1 = “Strongly Disagree” to 7 = “Strongly Agree”. The survey instrument contained fourteen items relating to organisational commitment and a Varimax rotated factor analysis was conducted for the responses, producing two factors: affective commitment and continuance commitment.<sup>14</sup> The first confirmatory factor analysis of the six affective commitment items produced goodness of fit indices (CMIN/DF = 1.698, SRMR = 0.0201, GFI = 0.993, AGFI = 0.962, NFI = 0.991, CFI = 0.996, RMSEA = 0.048) that support this measurement model while the confirmatory factor analysis of the six continuance commitment items produced goodness of fit indices (CMIN/DF = 1.367, SRMR = 0.0219, GFI = 0.991, AGFI = 0.969, NFI = 0.984, CFI = 0.995, RMSEA = 0.035) thus supporting this measurement model.<sup>15</sup> The Cronbach Alpha for

<sup>10</sup> See Golden (2006); McFadden, Stock, and Gowen (2006).

<sup>11</sup> Construct validity relates to “the ability of a measure to confirm a network of related hypotheses generated from a theory based on the concepts” (Zikmund, 2003, p. 302).

<sup>12</sup> See Schumacher and Lomax (1996).

<sup>13</sup> Meyer and Allen’s two-component model has been used in prior accounting research (e. g., Fogarty & Kalbers, 2006).

<sup>14</sup> Affective commitment contained 6 items, all of which loaded onto one dimension in a rotated component factor analysis. Continuance Commitment contained 8 items, 6 of which loaded onto the rotated component matrix.

<sup>15</sup> Prior studies have identified the goodness of fit indices that support a measurement model. These indices and the source of this authority are listed here and will be the basis for all measurement models and the structural model of this study; Non-significant probability cannot reject the goodness-of-fit of the hypothesised model (Byrne, 2001), Ratio of < 2 indicates a good-fitting model (Tabachnick & Fidell, 2001), SRMR < .05 represents a well-fitting model (Byrne, 2001), Required value of > .9 for each of these indices (Page & Meyer, 2000; Tabachnick & Fidell, 2001), Required value of between > .9 (Tabachnick & Fidell, 2001) and  $\geq .95$  (Hu & Bentler, 1999) for each of these indices, RMSEA is one of the most informative criteria with a desired value of  $\leq .08$  (Hu & Bentler, 1999; Tabachnick & Fidell, 2001).

Affective Commitment (0.818) and Continuance Commitment (0.797) are strong internal reliability measures for these factors.

### Value-creating Processes Measures within the Internal Perspective

Within the internal perspective of the strategy map in Figure 1, there are four value-creating processes. In each of these processes there are suggested ways or actions that are required to be undertaken within operations, customer management, and innovation processes. An additional process within the value-creating processes is the regulatory and social process. The regulatory requirements, such as employee health and safety as well as employment practices, were included in the internal process of the traditional BSC. Nine measures for these suggested ways or actions within operations, customer management, and innovation processes and the employee health and safety as well as employment practices for this current study were taken from prior literature (Kaplan & Norton, 1996; Hoque & James, 2000; Iselin, Mia, & Sands, 2008a&b; Iselin, Sands, & Mia, 2011; Gadenne, Mia, Sands, Wanita & Hooi, 2012).

Two new components are included within the regulatory and social process of the value creating process of the BSC strategy map. The first component of this process concerns environmental measures while the second component relates to voluntary social efforts, which are corporate social responsibility (CSR) items. Consequently, an additional nine CSR items were adapted from publically available prior survey instruments (Norman & MacDonald, 2004; Iselin et al, 2011; Gadenne, Sands, & Mia, 2012) to capture a broad set of indicators concerning corporate ethical and social responsibility outcomes. Overall, the measurement instrument included these 18 items to evaluate these constructs.<sup>16</sup>

In order to rate the ways or actions that are required to be undertaken within operations, customer management, and innovation processes as well as CSR practices and efforts, respondents were provided with a 7-point Likert-type scale anchored at both ends. The scale allowed respondents to rate the performance of their organisation against their industry's average on each item, where 1 = "Significantly Below Average" to 7 = "Significantly Above Average".

A Varimax rotated factor analysis was conducted for the responses to the 18 items and it produced two factors. Eight items loaded onto factor 1 reflect Operations Management, Innovation, Employment Practices, Safety and Health Performance (OMIEPSH) that are Value-creating Processes within the internal perspective (i.e., dimension 1 of the BSC's internal perspective). Factor 2 has five items related to Community investment (CI) of the Social process; another process within the Value-creating Process within the internal perspective (i.e., dimension 2 of the BSC's internal perspective). The first of two confirmatory factor analyses was for the eight items of the OMIEPSH factor and it produced goodness of fit indices (CMIN/DF = 0.748, SRMR = 0.0195, GFI = 0.992, AGFI = 0.978, NFI = 0.984, CFI = 1.000, RMSEA = 0.000) that support this measurement model. The second of two confirmatory factor analyses was for the five items of the CI factor produced goodness of fit indices (CMIN/DF = 2.080, SRMR = 0.0136, GFI = 0.995, AGFI = 0.950, NFI = 0.992, CFI = 0.996, RMSEA = 0.060) that support this measurement model. An internal reliability measure for each factor was also strong, with the Cronbach Alpha for OMIEPSH factor being 0.825, and for CI factor being 0.802.

### Customer Valued Attributes Measures with the Customer Perspective

There are eight customer valued attributes within the customer perspective of the strategy map in Figure 1. These customer valued attributes may be grouped under three headings: Image, Product/Services Attributes, and Relationship. Six items have been used from prior literature to operationalise these customer valued attributes included under the customer perspective in Norton's (2004a) strategy map (Kaplan & Norton, 1996; Hoque & James, 2000; Iselin et al, 2008a&b; Gadenne et al, 2012a). Three items were adapted from Hoque and James (2000) and Iselin et al. (2008a & b) while three items were adapted from Gadenne et al (2012a). The scale allowed respondents to rate the performance of their organisation against their industry's average on each item, where 1 = "Significantly Below Average" to 7 = "Significantly Above Average".

<sup>16</sup> The four value-creating processes within the internal perception may be viewed as the traditional internal process and the CSR process construct. These 9 items selected to operationalise these constructs included items assessing issues such as product quality, decreased waste, decreased error and returns, research and development, workplace relations, employee satisfaction, employee retention, and health and safety for the traditional BSC components. For the construct of the CSR component, 9 items have been selected that measure issues relating to the following areas: level of community engagement and donations to the community; secondment of staff to provide voluntary work in the community; the proportion of staff minorities within their firm; and finally, the commitment to water conservation within their organisation.

A Varimax rotated factor analysis was conducted for the responses to the six items and four of these items loaded onto a single factor. The confirmatory factor analysis of the four Image, Product/Services Attributes, Relationship (IPSAR) items produced goodness of fit indices (CMIN/DF = 0.740, SRMR = 0.0108, GFI = 0.999, AGFI = 0.988, NFI = 0.997, CFI = 1.000, RMSEA = 0.000) that support this measurement model. A Cronbach Alpha of 0.740 for Customer valued attributes IPSAR factor was also a strong internal reliability measure for this factor.

### Productivity and Growth Measures within the financial perspective

Figure 1 illustrates the four growth and productivity outcomes within the financial perspective of the strategy map. The five items were used to represent this financial performance latent variable for the current study and were adapted from prior literature (Kaplan and Norton, 1996; Hoque and James, 2000; Iselin, et al. 2008a&b; Gadenne et al. 2012 a). The scale allowed respondents to rate the performance of their organisation against their industry's average on each item, where 1 = "Significantly Below Average" to 7 = "Significantly Above Average".

A single factor containing four items resulted from a Varimax rotated factor analysis that was conducted for the responses to the five items. The confirmatory factor analysis of the four productivity strategy and growth strategy (PSGS) items produced goodness of fit indices (CMIN/DF = 0.121, SRMR = 0.0049, GFI = 1.000, AGFI = 0.998, NFI = 0.999, CFI = 1.000, RMSEA = 0.000) that support this measurement model. The internal reliability of the measure for both factors was also strong, with the Cronbach Alpha for productivity and growth (PSGS) factor being 0.777.

## Results

### Statistical Analyses

Structural equation modelling (SEM) was used to test the three null hypotheses of the study. Figure 2 was provided in the Literature Review and Hypotheses Development section to illustrate these three null hypotheses; H1, H2, and H3. For this study, SEM is the preferred method of analysis because it allows the analysis of multiple relationships simultaneously, provides measures of overall model fit, and explains the significance of relationships between variables (Kline, 1998; Baines and Langfield-Smith, 2003). These functions, as well as accounting for the effects of measurement error in multi-item variables, are considered to be advantages of SEM over path analysis (Viator, 2001).

### Results of Hypothesis Tests

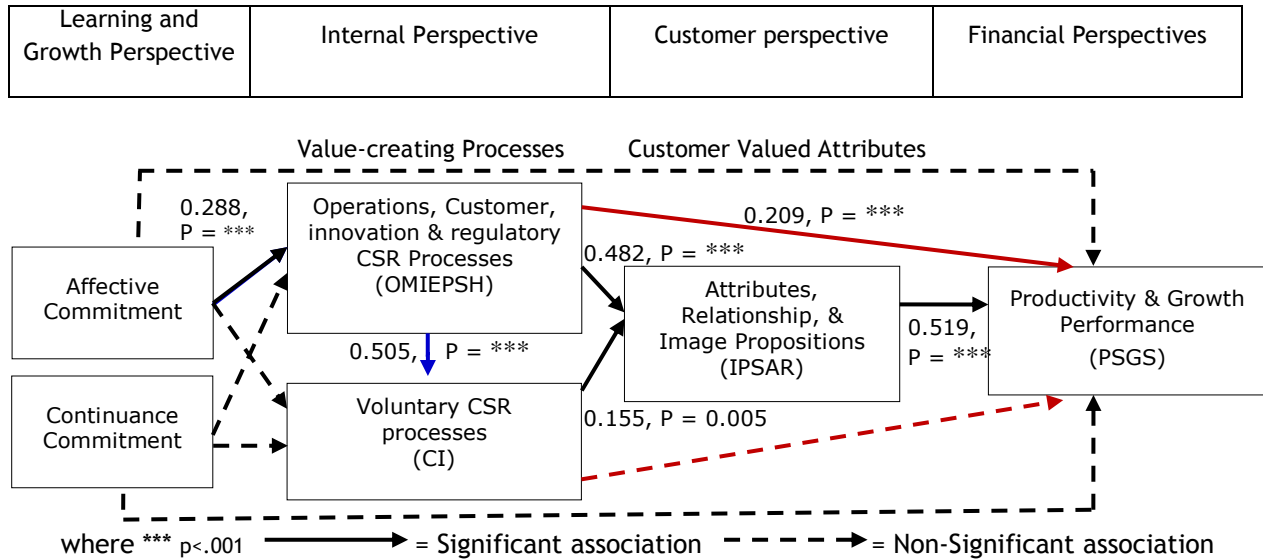
Figure 3 below shows the significant and the non-significant associations between the variables of the study. The estimates of the coefficients are displayed for each association between the latent variables. The results of the current study reveal that there are six significant SEM structural paths found within the twelve-path SEM model.

The overall model fit in Figure 3, has a RMSEA of 0.000 and Standardized RMR equal to 0.0077 with  $p$  at 0.810. In addition to the RMSEA, other goodness-of-fit indices are significant. Specifically, the GFI is estimated at 1.000, and the AGFI at 0.995. The NFI is estimated at 0.999, while the CFI is estimated at 1.000. The result for each goodness-of-fit index is significant at greater than 0.90 (Tabachnick & Fidell, 2001), indicating that the model fit is robust. Also, although the CMIN statistic is 0.422, it is acknowledged that the statistic does not provide reliable evidence of the goodness-of-fit for the model as the sample size for the current study is greater than 200 respondents (Smith & Langfield-Smith, 2004).

Hypothesis  $H_{01}$  cannot be rejected based in the SEM findings. The statistics show non-significant paths between both dimensions of commitment (affective commitment  $P = 0.060$  and continuance commitment  $P = 0.218$ ) and Productivity and Growth Strategies (PSGS) of the financial perspective. However, while there is no direct association the statistics show four significant indirect paths. First, the positive association path found is between affective commitment and the Operations, Customer, Innovation & Regulatory CSR Processes (OMIEPSH) within the internal perspective. The results indicate a significant critical ratio (CR) and significant coefficient (CR = 4.882; Coefficient Estimate = 0.288;  $P < .001$ ) for the path. Second path is between OMIEPSH and Customer Valued Attributes - Image, Product/Services Attributes, Relationship) (IPSAR). The results show a significant critical ratio (CR) and significant coefficient (CR = 8.680; Coefficient Estimate = 0.482;  $P < .001$ ) for the path. Third, there is a positive association for the path

between the Community Investment (CI) within the internal perspective and IPSAR within the customer perspective. The results provide a significant critical ratio (CR) and significant coefficient (CR = 2.793; Coefficient Estimate = 0.155; P < .01) for the path. The fourth significant path is between IPSAR and Productivity and Growth Strategies (PSGS). The statistics represent a significant critical ratio (CR) and significant coefficient (CR = 9.767; Coefficient Estimate = 0.519; P < .001) for the path.

**Figure 3: Significant and non-significant associations**



Hypothesis H<sub>02</sub> cannot be rejected because there are non-significant results between Affective Commitment (P = 0.107), and community investment (CI) as well as between Continuance Commitment (P = 0.892) and CI processes of the internal perspective. However, the significant statistics support an indirect relationship between organisational commitment and CI. This support for an indirect relationship occurs because there is a significant association between affective organisational commitment and CI, which is mediated by OMIEPSH within the internal perspective. That is, there are two significant positive paths supported by the result. The first path is between affective commitment and OMIEPSH (CR = 4.882; Coefficient Estimate = 0.288; P < .001). The second significant path observed is between OMIEPSH and CI (CR = 9.915; Coefficient Estimate = 0.505; P < .001). There is no significant association between the continuance commitment component and the OMIEPSH (P = 0.961). Therefore, the results do not support any indirect relationship between continuance commitment and CI mediated by OMIEPSH.

Finally, the results for testing Hypothesis H<sub>03</sub> are mixed. First, there were non-significant results (P = 0.995) for the association between organisations' CI value-creating internal processes and the Product or Service Growth Strategies (PSGS). Second, a significant positive result was found for the association between the organisations' OMIEPSH value-creating internal processes and PSGS within the financial perspective. The significance of these results are indicated by the critical ratio and significant coefficient (CR = 3.663; Coefficient Estimate = 0.209; P < .001). In summary, Hypothesis H<sub>03</sub> cannot be rejected because there is a non-significant result between CI and the PSGS but the significant direct association between the value processes (OMIEPSH) and PSGS supports the rejection of Hypothesis H<sub>03</sub>. Therefore, the level of significance of the direct association between the internal perspective processes and PSGS varies between the value adding processes. That is, the CI does not have a direct association (non-significant) but the OMIEPSH does have a direct association (significant).

The SEM results provide a set of significant paths from affective commitment to OMIEPSH that lead to IPSAR and then onto PSGS. Therefore, the results of the study provide support the existence of an indirect relationship between organisational commitment and PSGS. However, the results do not support three paths; affective commitment and CI, continuance commitment and OMIEPSH, as well as continuance commitment and CI.

## Discussion

The results of the structural equation model (SEM) reported in Figure 3 indicate the following associations. There is no direct association between either affective or continuance commitment

that organisational affective commitment and PSGS. However, affective commitment has an indirect association with organisations' PSGS within their financial perspective of the strategy map.

Figure 3 contains the significant paths that form the indirect association. These significant paths occur through the following series of sequential direct associations. First, there is a significant direct association between organisational affective commitment and operational processes (OMIEPSH)<sup>17</sup> value-creating processes within the internal perspective. The second significant path is between value-creating processes and customer valued attributes within the customer perspective, which is then followed by the third significant path between customer valued attributes and productivity and growth outcomes within the financial perspective. In summary, there is an indirect association between affective commitment and productivity and growth performance mediated by (a) processes within the internal perspective, and (b) customer valued attributes within the customer perspective. There is no support for any associations for continuance commitment, which is consistent with the prior findings (Randall et al. 1990; Mathieu & Zajac, 1990).

The result showing the direct association between affective commitment (but not continuance commitment) of employees and the value-creating processes suggest that when employees have affective commitment for their organisation, they will place a greater emphasis on adapting and enhancing organisational processes so that they improve the workplace environment.<sup>18</sup> These employee-initiated enhancements may result in enhanced workplace compliance, organisational innovation, processes, as well as efficiency and effectiveness through operational processes that flow through to productivity and growth performance. Such productivity and growth performance may result indirectly through customer satisfaction with product or service attributes, which is the indirect association.

In relation to the direct association between value-creating processes of the internal perspective and the attributes within the customer value proposition, Van der Woerd and Van den Brink (2004) show how socially responsible internal process practices may be utilised in meeting customer demands. For example, socially responsible organisations may purposefully consider customer demands by redesigning their value-creating processes to encompass human rights, social welfare and community stakeholders' needs. The design of these value-creating processes may include examples such as sourcing materials from ethical suppliers, implementing programs for responsible water consumption and reducing air pollution.

Further, the direct association found between the activities in the CSR value-creating process (CI) and customer satisfaction with product or service attributes (IPSAR) suggests that where an organisation efficiently pursues socially responsible markets, socially responsible products are developed for the customers in those new markets. Similar empirical findings show that responsible management practices towards customers have a positive impact on the firm and its performance, creating additional value for SMEs (small to medium enterprises) (Hammann, Habisch & Pechlaner, 2009) and large firms alike (Zhu, Geng, Fujita & Hashimoto, 2010). Furthermore, organisations that focus on customer CSR requirements are likely to meet justice needs of customers (increasing customer satisfaction with the organisation - see Galbreath, 2010), and subsequently adopt improved CSR standards (Christmann & Taylor, 2001, 2006; Corbett & Kirsch, 2001; Guler, Guillen & MacPherson, 2002; Potoski & Prakash, 2004).

In addition, the results for Hypothesis H<sub>02</sub> support an indirect association between affective commitment and community investment that is mediated by the operational value-creating processes within the internal perspective. Further, the significant path between community investment and customer satisfaction with product or service attributes within the customer perspective is followed by the significant path between customer satisfaction and the growth and productivity financial outcomes within the financial perspective. These results provide evidence of two sets of indirect paths between affective commitment and organisations' productivity and growth performance.

The first set relates to the indirect association between affective commitment and community investment that is mediated by the operational value-creating processes. This first indirect association is consistent with a number of studies that found a relationship between

<sup>17</sup> For the discussion and conclusions sections the term "operational processes" will refer to the acronym OMIEPSH for ease of reading.

<sup>18</sup> Recall that the value-creating processes (OMIEPSH) construct comprises items such as workplace health and safety, workplace relations and staff turnover, as well as research and development, decrease of wastage and error, decrease in returns, product quality and comparative costs.

organisational commitment and organisational citizenship behaviours (See Felfe & Yan, 2009; Erturk, Yilmaz & Ceyman, 2004; Chiaburu & Byrne, 2009; Parnell & Crandall, 2003). Evidence of organisational citizenship behaviours has implications for the current study because employee-initiated enhancements of their firm's operational processes are a basis of organisational citizenship behaviour, and as such, may provide some explanation as to how affective organisational commitment may affect the value-creating processes within the internal perspective. Finally, there is notional support from Hanke and Starke (2009) for the direct association between value-creating processes traditionally included in the internal perspective and community investment CSR process; which we have included in the internal perspective. Similar observations have been made by Van der Woerd and Van den Brink (2004) where a link between value-creating processes and the 'Society and Planet' CSR process within the internal perspective is present in their 'Responsive Business Scorecard'.

The second set of indirect paths relates to an indirect association between community investment and productivity and growth performance mediated by customer satisfaction with product or service attributes within the customer perspective. The responsive business scorecard enables organisations to assess their performance on profit, people and planet perspectives, while integrating stakeholder demands within their learning and growth, internal process and customer perspectives (Van der Woerd & Van den Brink, 2004). For example, enhanced value-creating processes may enhance the CSR value-creating process by, for instance, decreasing electricity consumption, which, reduces carbon emissions, and thus, improves air quality and may have health benefits for society. Similarly, organisational efforts to reduce water consumption in the internal process should result in more clean water being available for communities to access for private domestic use. In addition, improvements in CSR value-creating process outcomes may be achieved through reducing the amount of waste and rework in the manufacturing process as part of an organisation's quality improvement program; which, in turn, may result in a reduction in the level of toxins that are produced as a by-product of the production process. Similarly, CSR outcomes may be enhanced through reducing the amount of resources involved in the packaging needed to produce a good or service for the market. Thus, efficient and effective internal processes are one of the means by which improvements are made to an organisation's CSR value-creating process outcomes.

Finally, the significant path in the SEM model reported in Figure 3 between operational processes and productivity and growth performance represents a direct association between the internal perspective and the financial perspective; a finding that suggests the rejection of null hypothesis  $H_{03}$ . This direct path adds an alternate path to the indirect association between affective commitment and organisations' productivity and growth performance within their financial perspective that is mediated by operational processes within the internal perspective.

There is no significant association found by the study's SEM analysis between the community investment within the internal perspective and the growth and productivity financial outcomes within the financial perspective; a finding that suggests the null hypothesis  $H_{03}$  cannot be the rejected. This finding may indicate that when organisations make community investments, such as donations to the community or community involvement, there is no direct short term financial benefit gained by the organisation.

## Conclusion

In summary, the current study provides some evidence of how affective organisational commitment contributes to developing an organisation's value-creating processes that reflect an organisation's improvement in satisfying customer valued attributes and financial performance within a balanced scorecard strategy map framework. We also examined how organisational commitment is associated with internal value-creating processes and CSR value-creating process. We conclude that organisations with employees, who have higher levels of affective commitment, may develop value-creating processes which may promote CSR value-creating process outcomes and produce customer valued attributes and lead to financial performance.

An indirect association between affective commitment and an organisation's voluntary social (CSR) process, mediated by operational processes, may be of importance to business. Its importance may be paramount particularly for organisations that are required to find ways, perhaps within the operational processes, to implement new regulatory requirements to comply with social and environmental obligations. Accordingly, it is important for organisations to have the ability to identify how employees with affective commitment are motivated to develop organisational outcomes within value-creating processes that enhance CSR process performance. Such knowledge

may be a primary way for organisations to move forward in a socio-political and legal environment that requires organisations, and thus, their employees, to develop and enhance their CSR value-creating process performance. Consequently, the results of the study contribute to our understanding of how committed employees play a vital role in assisting organisations to achieve better outcomes. Examples of these outcomes include improved value-creating processes, including CSR process, as well as outcomes for their community, society as a whole, and shareholders. These outcomes are achieved through enhanced products and services for stakeholders and through growth and increased productivity for companies' shareholders. This understanding can help to identify the critical success factors that need to be included as part of the organisation's performance measures that are used to improve organisational sustainability.<sup>19</sup>

### Limitations and Implications for Further Research

As this study involved a survey, there are several limitations that should be acknowledged. These include issues relating to the sample, such as the use of cross-sectional data that does not account for any changes in circumstances of the organisation. That is, the results of the participant's responses may differ over a period of time, especially after a period of organisational change has occurred, which means that the results may not hold true if the data were collected at a future time. Furthermore, it must be acknowledged that the responses were based on the perceptions of the respondents. The current study uses subjective measures for assessing activities within value-creating processes and proposed customer valued attributes performance to overcome the following shortcomings. First, objective non-financial indicators may be inappropriate because actual CSR value-creating process measurement differences are likely to be unavailable because many measurement methods are neither mandated by law, nor consistently applied across organisations. Second, as the sample includes organisations from various industries, objective measures may not provide accurate information as different industries may use differing methods of measuring some aspects of CSR value-creating process performance.

Data were provided by senior and middle managers in relation to their perceptions regarding balanced scorecard perspectives and CSR performance. It is possible that each manager may not have full knowledge of some areas of CSR value-creating process performance compared to other managers. For example, the human resource manager may have a good working knowledge of the level of organisational commitment and regulatory CSR employment practices within the value-creating process of the firm, but may have a less developed knowledge of areas of voluntary CSR value-creating process performance. In addition, senior and middle managers may differ in their perceptions of how to complete the survey compared with base-level employees. Thus, the responses identified in the dataset may be different if they were provided by base-level employees. An examination of base-level employees' perceptions could be an area for future research that yields information for theory and practice.

Another limitation is that structural equation modelling requires the direction of the association between variables to be pre-determined by the researcher. Claims regarding the direction of the associations between variables in the model of the present study are based on the directions posited under the theoretical framework (that was developed from Hubbard's (2009) balanced scorecard model). The theoretical framework of the balanced scorecard strategy map formed the basis for the development of the structural equation model used in the present study. However it must be acknowledged that structural equation modelling itself, can neither "prove" causality (Smith & Langfield-Smith, 2004) nor can it be assumed that causal relationships exist between measures of the BSC activities, propositions, and outcomes between the perspectives in the strategy map. That is, it cannot be assumed that learning and growth measures are causally related to measures of value-creating processes which in turn are causally related to customer valued attributes measures which are causally related to financial outcome measures because these measures may simply be correlated or interdependent (Norreklit, 2000). Thus, because structural equation modelling was used for hypotheses testing, it is not possible to make causal statements about the research findings of this study. While this approach is consistent with much business and management research, the direction of the associations may only be inferred, in this instance, from theory related to the BSC strategy map (Smith & Langfield-Smith, 2004).

The model may be underspecified, as there may be more factors that affect an organisation's value-creating processes than the level of the organisational commitment alone. This identification of factors affecting the value-creating processes is an area that requires future research. Another

<sup>19</sup> Van Veen-Dirks and Wijn (2002) advocate identifying critical success factors as complementary to traditional balanced scorecard measures.



factor that may affect the development of the value-creating processes may be empowerment. The construct of psychological empowerment has been identified in research as being an antecedent of organisational commitment (Smith, 2003), and thus, is likely to indirectly affect internal process. Furthermore, there may be alternative factors that impact the development of internal processes. The level of formal or informal training of staff, as well as the selection and motivation of the organisation's human resources may be examples of such factors. Future research could investigate how the sustainability balanced scorecard may be used to examine a broader range of environmental and social activities within the CSR value-creating process.

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Appendix: Table A Confirmatory Factor Analysis for Affective and Continuance Commitment

Construct	CR	AVE	Item	SFL
Affective Commitment	0.78	0.54	I feel a strong sense of belonging to my organisation	.725
			I feel 'emotionally attached' to this organisation.	.826
			This organisation has a great deal of meaning to me.	.841
			I really feel as if this organisation's problems are my own.	.711
			I could not easily become as attached to another organisation as to this one.	.519
			I am willing to put a great deal of effort beyond that normally expected in order to help this organisation be successful.	.746
Continuance Commitment	0.90	0.51	One of the main reasons I continue to work for this organisation is that leaving would require considerable personal sacrifice.	.712
			I feel I have too few options to consider leaving this organisation.	.771
			An important negative consequence of leaving this organisation would be the difficulty in finding another acceptable job.	.783
			It would be hard for me to leave my organisation right now, even if I wanted to.	.720
			Too much in my life would be disrupted if I decided I wanted to leave my firm in the near future.	.734
			I am afraid of what might happen if I quit my job without having another one lined up.	.528

Appendix: Table B Confirmatory Factor Analysis for Value-creating Processes within the Internal Process, Customer valued Attributes and Financial Performance to create sustainable benefits for stakeholders of organisations using the strategy mapping framework

Construct	CR	AVE	Item	Strategic Map Components	SFL
Value-creating Processes (Operations management, Innovation, Employment practices, Safety and health performance) (OMIEPSH) (dimension 1 of Internal perspective)	0.86	0.44	Workplace relations	R of R & S	.737
			Employee health and safety	R of R & S	.719
			Employee retention rate	Ops	.680
			Research and development	Innovation	.672
			Decrease in percentage of waste and rework	Ops	.647
			Product (or service) quality	Ops	.628
			Decrease in percentage of sales returns	Ops	.628
			Comparative costs with similar unit of competitors	Ops	.589
Value-creating Process (Community investment) (CI) (dimension 2 of Internal perspective)	0.86	0.56	Donations to charitable/community organisations	S of R & S	.851
			Expenditure for community engagement/sponsorship	S of R & S	.822
			Secondment of staff to voluntary work with charitable/community organisations	S of R & S	.772
			Expenditure on educational scholarships	S of R & S	.645
			Percentage of staff who are members of visible minorities	S of R & S	.639
Customer Valued Attributes (Image, Product/Services Attributes, Relationship) (IPSAR) Customer Perspective	0.84	0.56	Percentage of sales from new products	Attributes	.849
			Time to market (make available to public) new products	Attributes	.798
			Development of markets for new or existing products	Image	.679
			Number of successful new products introduced	Relationship	.663
Financial Performance Perspective (Productivity Strategy and Growth Strategy) (PSGS)	0.86	0.61	Return on Investment	Growth	.699
			Profit before tax from operations	Productivity	.872
			Cash flow from operations	Productivity	.797
			Sales growth	Growth	.733

CR = Composite reliability as determined by  $(\sum SFL)^2 / (\sum SFL)^2 + \sum e$  (see Fornell & Larcker, 1981)

AVE= Average Variance Extracted

SFL = Standardised factor loading

**Appendix: Table C Correlations Analysis for Affective and Continuance Commitment, Value creating Processes within the Internal Process, Customer valued Attributes and Financial Performance to create sustainable benefits for stakeholders of organisations using the strategy mapping framework**

		Affective commitment	Continuance commitment	OMIEPSH	CI	IPSAR	PSGS
Affective commitment	Pearson Correlation	1	-.331**	.287**	.230	.203**	.238**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	300	300	300	300	300	300
Continuance commitment	Pearson Correlation	-.331**	1	-.098	-.071**	-.070	-.020
	Sig. (2-tailed)	.000		.091	.220	.226	.727
	N	300	300	300	300	300	300
Internal Value Creating Processes (OMIEPSH)	Pearson Correlation	.287**	-.098	1	.530**	.564	.497
	Sig. (2-tailed)	.000	.091		.000	.000	.000
	N	300	300	300	300	300	300
Internal Process perspective (CI)	Pearson Correlation	.230**	-.071	.530**	1	.411	.327**
	Sig. (2-tailed)	.000	.220	.000		.000	.000
	N	300	300	300	300	300	300
Customer Perspective (IPSAR)	Pearson Correlation	.203**	-.070	.564**	.411**	1	.548**
	Sig. (2-tailed)	.000	.226	.000	.000		.000
	N	300	300	300	300	300	300
Financial Performance Perspective (PSGS)	Pearson Correlation	.238**	-.020	.497**	.327**	.548	1
	Sig. (2-tailed)	.000	.727	.000	.000	.000	
	N	300	300	300	300	300	300