



Does the Balanced Scorecard make a difference to the strategy development process?

E Tapinos^{1*}, RG Dyson² and M Meadows³

¹Aston Business School, Birmingham, UK; ²Warwick University, Coventry, UK; and ³Open University, Milton Keynes, UK

A great number of strategy tools are being taught in strategic management modules. These tools are available to managers for use in facilitating strategic decision making and enhancing the strategy development process in their organisations. A number of studies have been published examining which are the most popular tools; however there is little empirical evidence on how their utilisation influences the strategy process. This paper is based on a large scale international survey on the strategy development process, and seeks to examine the impact of a particular strategy tool, the Balanced Scorecard (BSC), upon the strategy process. Recently, it has been suggested that as a strategy tool, the BSC can influence all elements of the strategy process. The results of this study indicate that although there are significant differences in some elements of the strategy process between the organisations that have implemented the BSC and those that have not, the impact is not comprehensive.

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Introduction

The field of strategy development has evolved significantly over the last three decades; however, there is still no consensus on how strategy should be developed and whether it is an adding value process for the organisation (Miller and Cardinal, 1994). Another ongoing discussion is whether strategy is planned or emergent (Mintzberg and Walters, 1985); Stiles (2001) makes a pragmatic observation: ‘though some companies lack an articulated corporate level strategy, it would be rare for any organization to have no rough strategic direction’. Therefore, independently of the level of formality and the effectiveness of the process, it can be safely assumed that every organisation undertakes a strategic development process (SDP). There is a growing number of scholars (see Chakravarthy and White, 2002 for a review) who emphasise the importance of the strategy development process. For this reason, in this research we examine strategy as a process that combines strategy formulation, evaluation and implementation.

A great number of strategy tools have been developed over the years to facilitate strategic decision making. Although the majority of these tools are taught in business schools and have been used for more than three decades, there have recently been some calls to examine their role

within strategising (Whittington, 2004). A limited number of surveys (Webster *et al*, 1989; Clark and Scott, 1995; Clark, 1997; Ghamdi, 2005; Hodgkinson *et al*, 2006) have been published recently showing the popularity of each tool; however, no study has attempted to examine how these tools impact on the strategy development process. This gap is addressed with the present paper. We seek to present the influence of a strategy tool, the Balanced Scorecard (BSC), within the strategy development process through a large scale international survey.

The BSC is widely known (Neely and Al Najjar, 2006) as a performance measurement framework, however the purpose of this article is not to present the influence of performance measurement on strategy development *per se* but to examine the impact of a strategy tool upon the strategy development process. For this reason we have selected a strategy tool that is considered as being comprehensive for the whole strategy process (Kaplan and Norton, 1996a, 2001b).

The strategy process, tools and the BSC

Strategy process

There are two distinct streams of literature that examine the strategy development process: descriptive models and processual (or activity based) models. The first stream is engaged with the development of models that describe the

*Correspondence: E Tapinos, Economics and Strategy Group, Aston Business School, Birmingham, B4 7ET, UK.

E-mail: e.tapinos@aston.ac.uk

character of strategy development, characteristic works within this field include Miles and Snow's (1978) typology and Hart and Banbury's (1994) five type process models (for a comprehensive review see Hutzschenreuter and Kleindienst, 2006). The second stream, processual models of the strategy development process, focuses on the activities taking place when strategising. This stream of literature was initiated by pioneering works of Ansoff (1965) and Ackoff (1970), but most of the later developments are models and frameworks that assume a linear relationship (Chafee, 1985) between a series of key activities (see, eg Slater *et al*, 2006).

Research published in the strategy literature has criticised the reductionistic approaches in strategy process (Pettigrew, 1992), and calls have been made (Van de Ven, 1992) to examine strategy development in a systemic and holistic approach. The gap in the literature is addressed by the contributions from strategic operational research (OR). Dyson (2000) identifies three streams of strategic OR: (i) the works based on Bell's (1998) 'competitive process engineering'; (ii) Rosenhead's (1992) public sector policy analysis; and (iii) introduced by the same author based on previous work (Dyson and Foster, 1980; Tomlinson and Dyson, 1983; Dyson, 2000), concerning the activities within the strategy development process. Recent studies (Clark and Scott, 1995; Eden and Ackermann, 1998; Pidd, 2004; Ormerod, 2006) show that strategic OR can contribute to strategic management and strategy development. Examples of OR tools supporting the strategy development process would include, for example, cognitive mapping (Eden, 1988; Eden and Ackermann, 2001), group decision (Eden and Ackermann, 1992) and system dynamics (Morecroft, 1988; Kunc and Morecroft, 2007).

The present paper seeks to contribute in the third field of strategic OR, as it examines the impact of a strategy tool, the BSC, on the activities undertaken within the development of strategy. For this reason, we have selected the SDP (Dyson, 2000) model, which is a comprehensive framework that describes how the activities within strategy development process are linked with feedback loops. The basic elements of this model (see Figure 1) are similar to most processual models (Slater *et al*, 2006); however, this model does not consider the development of strategy as a planning exercise as it clearly suggests the continuous evolution of the strategy through the interaction between the various elements of the process.¹ The SDP model considers (Dyson and O'Brien, 1998; Dyson, 2000) that the development of the strategy is guided by the long-term direction of the organisation, which is operationalised with setting up targets, identifying strategic options, evaluating them and selecting the ones that fit best to the internal and

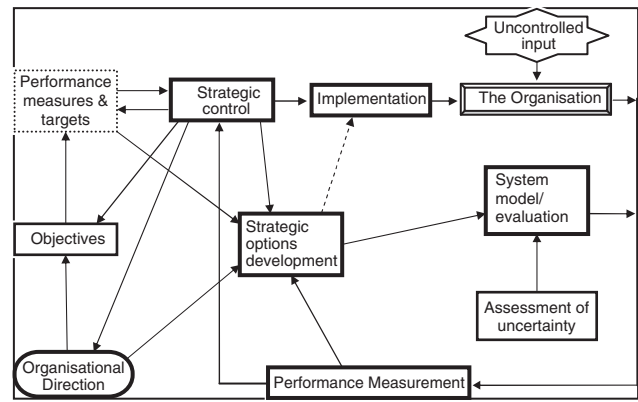


Figure 1 Strategic development process model.

Source: Dyson (2000).

external contingencies of the organisation. The novelty of this framework is that it states explicitly how elements of the process are linked and interrelated with feedback loops.

Strategy tools

An extensive review of the literature showed that there is no generally accepted definition or description of strategy tools. Reinforcing this argument, the surveys published on strategy tools do not consider the same list of tools. Jarzabkowski and Wilson (2006) consider strategy tools to be conceptual developments that are simplified into 'knowledge artifacts'. Mintzberg *et al* (1998) refer to the value of mental models in decision making and Morecroft (1984) links strategy support tools to the development of strategy suggesting that these have the role of developing mental models that help managers visualise strategy and its implications. A number of studies (Foil and Huff, 1992; Tan and Platts, 2003) have demonstrated that the visualisation of complicated analysis enhances decision making. In parallel, Dyson *et al* (2007) have suggested that strategy tools are used within the strategy development process to 'rehearse strategy'; they suggest that strategy tools enhance decision making by creating and testing strategic initiatives, instead of 'passively awaiting feedback signals that implementation is off course'. In the present paper, we consider that strategy tools are techniques, concepts, models or frameworks that provide different dimensions or parameters for structuring and presenting the analysis of strategy-related aspects of the organisation. Some of these tools such as SWOT analysis support specific parts of the strategy development process while others, for example the BSC or problem structuring methods give more comprehensive support (Dyson *et al*, 2007).

A number of recent surveys (Webster *et al*, 1989; Clark and Scott, 1995; Clark, 1997; Ghamdi, 2005; Gunn and Williams, 2007; Stenfors *et al*, 2007) show that tools are widely used within strategy development. The majority of

¹This model was further developed in Dyson *et al*, 2007, subsequent to this research.

these surveys show that organisations tend to engage mostly with strategy tools (eg SWOT and PEST analysis) which are not very demanding in terms of resource allocation. Interestingly enough, a number of authors (Abrahamson and Fairchild, 1999) have associated the popularity of strategy tools with management fashions.

Balanced scorecard

The BSC has been introduced as a strategy implementation tool (Kaplan and Norton, 1992, 1996a) after the Kaplan and Norton (1992) studies of 12 organisations. However, recent developments (Butler *et al*, 1997; Epstein and Marzoni, 1998; Kaplan and Norton, 2001a; Bourguignon *et al*, 2004) in the field have established it as a strategy development tool as well. The initial idea behind the BSC is that financial measures do not capture adequately the performance of the organisation, hence equal emphasis should be placed upon non-financial measures. The first version of the BSC (Kaplan and Norton, 1992) suggested that organisational direction should be implemented through measuring (see Figure 2): (i) financial performance, (ii) customer performance, (iii) internal performance and (iv) innovation performance.² The BSC has evolved since its introduction, Lawrie and Cobbold (2004) distinguish three generations of scorecards: the first generation was used to operationalise the organisational direction (vision/mission); the second generation explored, through mapping, the causality between the four perspectives, the strategic objectives and the performance management; and the third generation has incorporated elements of direction setting and sensemaking with the inclusion of 'destination statements'.

Asrilhant *et al* (2006) found that there is a noticeable difference, between theory and practice, on the usability of strategy tools. They have identified that the tools that managers utilise within the strategic decision making do not always match the theoretical suggestions of the literature. A significant contribution has been made by Dyson *et al* (2007), who make suggestions regarding which of the popular strategy tools to use in each of the stages of strategy development. The aim of this study is to explore whether the use of the BSC impacts on the strategy development process itself. Langfield-Smith (2005) observes that even if there is a growing number of publications on the BSC in professional journals, limited research has been published testing the 'claims and/or outcomes of the BSC and the processes involved'. Asrilhant *et al* (2006) have determined that the BSC is not always used for strategic activities which it is designed for. Ittner and Larcker (2003) found that even if companies adopt frameworks like the BSC, there is still little attempt to develop non-financial measures that link to their strategy. None of the existing

²Later became learning and growth.

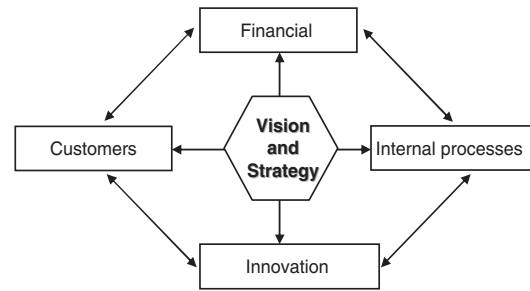


Figure 2 Balance Scorecard.
Source: Kaplan and Norton (1996a).

surveys on strategy tools have examined the impact of strategy tools on the strategy development process *per se*; to examine any possible impact our first research objective was to test whether organisations that have implemented the BSC exhibit any significant difference in their strategy development process when compared with those that have not implemented it.

Criticisms of the BSC have focused either on the theoretical underpinnings of the concept (Norreklit, 2000) or on the reasons why its implementation fails (Malina and Selto, 2001). There are a limited number of studies that have attempted to examine the impact of the BSC on performance, and their findings are contradictory. Studies like those of Hoque and James (2000), Malina and Selto (2001) and Davis and Albright (2004) have found a positive relationship between the use of the BSC and organisational performance, while Ittner *et al* (2003) found the BSC does not lead to superior performance. All these studies have considered the impact of the BSC on the performance of the organisation with emphasis on the financial performance. None of these studies have considered the contribution of the BSC on the performance of the strategy development process. Hence, our second research objective was to examine whether the performance of the strategy development process is significantly different in organisations that have implemented the BSC when compared to those without the BSC.

Methodology

To address these issues we used a survey consisting of a close-ended questionnaire with a seven-point Likert scale. In order to be able to generalise conclusions, we have used a large and diverse sample (Collier *et al*, 2004); for this reason, 4000 members of the alumni database of Warwick Business School (WBS) were contacted. All respondents received a covering e-mail explaining the scope of this research and were invited to answer either by completing the attached questionnaire or by filling in its online version. Using the alumni database from WBS,³ we acknowledge

³The alumni database includes students from many disciplines, such as engineering, computer science, natural sciences etc who undertook joint degrees with the Business School (Tapinos, 2005).

that the sample is biased towards highly educated respondents. Nevertheless, we do not consider that this limits the generalisability of the analysis and the conclusions; it is not untypical these days for people with degrees in higher education to be involved at higher levels of decision making in organisations. Moreover, the fact that there was a balance between the graduation years of the responders, having participants from the early 1980s to the recent graduates of 2003, provides additional reassurance that the responses are not biased by the recent curriculums of the Business School. The use of alumni databases in business management research is common (see, eg Bailey *et al.*, 2000). Furthermore, the fact that this survey was conducted in 2004 does not limit the validity of our results; it is evident (Rigby and Bilodeau, 2009) that there has been a reduction in the number of strategy tools used in the last 3 years due to recession, however, there are no indications that the aggregate usage of tools has altered.

Measures

In order to design the questionnaire we considered previous studies and surveys of the strategy process. Our interests focus on the processual models as we are interested in examining the impact of strategy tools on the activities constituting the strategy process. However we could not make direct use of the existing scales (see, eg Slater *et al.*, 2006) because, as explained in the literature review, none of them explore the interrelationship between the elements of the strategy development process. Hence, the strategy process was measured using the SDP model (Dyson, 2000). As explained in the literature review, this model has been developed based on the principles of systemic thinking. It does not consider strategy development as a linear process with a series of unconnected elements; instead it clearly addresses the relationships between the strategising activities.

The SDP model identifies six elements of the strategy process: (i) development of the organisational direction, (ii) development of strategic options, (iii) strategy evaluation/selection, (iv) implementation, (v) feedback and strategic control and (vi) performance measurement. The elements of the SDP model are similar to other process-oriented strategy development frameworks (eg, Reid, 1989; Hopkins and Hopkins, 1997; or Mintzberg *et al.*'s (1998) five general activities (Slater *et al.*, 2006)).

To investigate whether there is any difference in the strategy development process between those organisations that have implemented the BSC and those without, we hypothesise that 'there is no significant difference in the strategic development processes comparing organisations which have implemented

the Balanced Scorecard with those that have not' (Hypothesis 1). Using the SDP model, Hypothesis 1 is expressed in term of six sub-hypotheses:

Hypothesis 1a: *There is no significant difference in the process for developing organisational direction, when comparing organisations that implement the BSC with those that do not.*

Hypothesis 1b: *There is no significant difference in the process for developing strategic options, when comparing organisations that implement the BSC with those that do not.*

Hypothesis 1c: *There is no significant difference in the process for evaluating and selecting strategies, when comparing organisations that implement the BSC with those that do not.*

Hypothesis 1d: *There is no significant difference in the process for implementation of strategy, when comparing organisations that implement the BSC with those that do not.*

Hypothesis 1e: *There is no significant difference in the process for feedback and strategic control, when comparing organisations that implement the BSC with those that do not.*

Hypothesis 1f: *There is no significant difference in the process of performance measurement, when comparing organisations that implement the BSC with those that do not.*

To operationalise the SDP model for the survey, we developed the questionnaire using previous studies and a panel of experts from WBS; we tested its validity through a pilot survey with a hundred Executive MBA students who had recently undertaken a 'Strategic Development' course at WBS; further statistical tests of the reliability and validity are presented in the 'Research Profile' section.

Focussing on our second research objective, to examine whether there is any difference in the performance of the strategy process, we hypothesise that 'there is no significant difference in the performance of the strategy development process comparing organisations which have implemented the BSC with those that have not' (Hypothesis 2). As explained the most commonly used measures of the performance of the strategy process are financial outcomes (Boyd, 1991). However, we consider that it is not possible to control for all internal and external variables that might influence the overall performance of an organisation for such a large survey and therefore we have explored the impact of the SDP on the performance of the process.

To address Hypothesis 2 in the study, the perceived performance of the strategy process has been measured with two variables using an adapted scale from Homburg *et al* (1999): (i) the strategy process perceived as being efficient (Molloy and Schwenk, 1995; Amason, 1996; Baum and Wally, 2003) and (ii) the strategy process perceived as being effective⁴ (Dyson and Foster, 1980; Dean and Sharfman, 1996; Collier *et al*, 2004). The efficiency of the strategy process in this context can include the lean use of resources—the general definition—but can also refer to the quality and the relative speed of decisions being made within the strategy development process. Previous studies (Wooldridge and Floyd, 1990) have shown that the quality of the strategy process is an essential determinant for the success of the strategy process (Porac and Thomas, 2002). Similarly, a number of authors (Eisenhardt, 1989; Judge and Miller, 1991; Baum and Wally, 2003) have determined a positive relationship between the relative speed of decision making and organisational performance. We appreciate that absolute speed does not always translate to positive performance (Nadkarni and Narayanan, 2007); nevertheless efficiency is an important parameter for the performance of the process as organisations have to respond to environmental changes and capitalise on opportunities with the development of the right strategic options. The effectiveness of the strategy process refers to the extent to which it is perceived as supporting the organisational goals (Dean and Sharfman, 1996). In the absence of objective measures, the perceived performance of the strategy process is examined on these two perceptual self-reporting measures (Homburg *et al*, 1999). We consider that the use of this multidimensional scale enhances the reliability of our method and the validity of our arguments.

The measures of this survey are perceptual, and it is well known that there exists some scepticism on whether subjective or perceptual measures are reliable (Ketokivi and Schroeder, 2004). Collier *et al* (2004) provide an analysis on the necessity of using perceptual data in large scale surveys examining the development of strategy, highlighting that ‘although perceptions may not always equate with reality, they are important because they are likely to be the basis of behaviour’. To ensure reliability, careful consideration was given to Cronbach’s alpha (see Section ‘Research profile’), which has shown that the reliability of the data collected was ‘excellent’. Cronbach’s alpha is a test of the survey’s internal consistency, it is also called a ‘scale reliability coefficient’. This approach of examining Cronbach’s alpha when using perceptual data

⁴The questions in the questionnaire: ‘Please state the extent to which you feel that the following statements are true within your organisation for 1 meaning “strongly disagree” to 7 meaning “strongly agree”. In our organisation strategy development process: (i) is considered effective; (ii) is considered efficient’.

has been adopted by many researchers (see Tapinos *et al*, 2005 for a comprehensive review).

Research profile

The total number of responses received was 427. Allowing for the number of e-mails that ‘bounced back’ and for those respondents who wrote to explain that for various reasons they could not participate in the survey, the response rate was 11.5%. Considering that online surveys tend to have significantly lower response rates (Tse, 1998; Crawford *et al*, 2001), the response rate for this survey is comparable to other large-scale surveys (Draulans *et al*, 2003; Greenley *et al*, 2004). The responses were checked for non-response bias based on the widely acknowledged approach suggested by Armstrong and Overton (1977), which compares the early and late respondents; early respondents are presumed to have a greater interest in the topic of the research. No significant difference was found between early and late respondents for: number of employees ($t = -0.935$, $p = 0.351$), turnover ($t = -0.405$, $p = 0.685$), country of origin ($t = -1.285$, $p = 0.201$), level of experience ($t = -0.383$, $p = 0.702$) or level of involvement ($t = -0.766$, $p = 0.445$).

The responses cover a wide mix of countries, 42 in total; however most of the respondents (40%) work for UK-based organisations (this is reasonable as half of the WBS Alumni are from the UK). The results indicate that the survey is a cross-industry one, with responses from 23 different sectors; greatest participation is recorded from Banking/Financial services, Professional services and Government/Other public organisations. The majority of the respondents were directly involved in the strategy development process in their organisation, with 18% being the head of the strategy team, which is reasonable as 20% of the respondents stated that they were either CEOs or MDs. The reliability of the questionnaire was assessed (Hair *et al*, 2003) using Cronbach’s alpha for the whole questionnaire and for each concept, and it was found to be ‘very good’ (>0.8) and ‘excellent’ (>0.9).

Findings

The purpose of this paper is not to present the overall findings of this survey with regard to the current practices of strategy development process, as these findings are available in Tapinos *et al* (2005). The present paper seeks to investigate the impact of strategy tools on the strategy process, through the analysis of the strategy development practices of organisations focussing on one of the most popular strategy tools.

The results indicate that the use of strategy tools within the strategy development process is very popular. Only 8% of the respondents stated that they are not using any

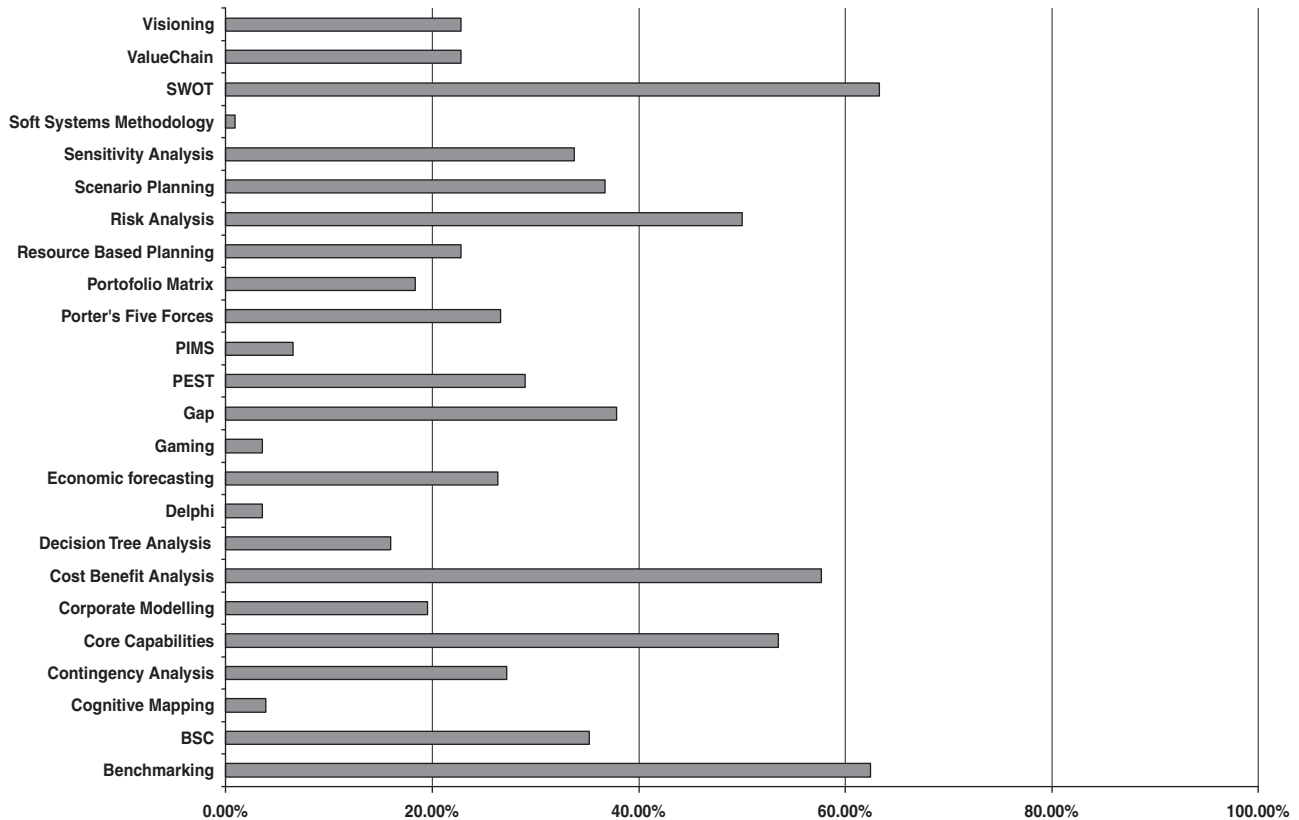


Figure 3 Strategy tools popularity.

strategy tool; the rest (92%) are using at least one. Interestingly enough, 80% of the respondents were combining at least six strategy tools in their strategising. SWOT analysis and benchmarking are the two most popular tools, used by more than 60% of the respondents. The BSC is one of the most popular tools, used by 35% of the respondents (similar figures were reported in other surveys, eg Arena and Azzone, 2005). It is the focus of this paper due to the claim that it has wide impact on strategy development. The results for the popularity of the strategy tools are depicted in Figure 3.

Among the BSC users, 22% were from small and medium enterprises (SMEs)⁵ and 78% were from large organisations. It appears that the BSC is most popular in the Automotive (60%) and the Telecoms (57%) sectors, while it has less popularity in the Professional services (24%) and Education sectors (27%). We did not identify any significant variations across different countries.

Using Pearson's coefficient we calculated the correlations between the variables. As can be seen in Table 1, all variables are correlated at the 1% significance level, however, most correlations are 'moderate' (according to Hair *et al.*'s (2003) classification). The correlation between

the elements of the strategy development process shows that these are interconnected and interdependent, reinforcing the argument that the strategy development process is not linear.

The use of interval scales allowed the use of *t*-tests (using SPSS) to test the hypotheses set (Hair *et al.*, 2003). The results are tabulated in Table 2.

In Table 2, the mean values represent the (perceived by the responder) emphasis placed by the organisations on each element of the SDP model. Comparing the elements of the strategy development process for organisations that have implemented the BSC against those that have not, Table 2 shows that BSC users place more emphasis on all elements of the strategy process. However, the difference is significant in only three (of the six) elements. It can be claimed therefore that the BSC only partially enhances the strategy development process. As it is also used in conjunction with other tools, the findings therefore do not support the claim that the BSC is a comprehensive management tool.

In an attempt to gain greater insight into the impact of the BSC on the strategy process, we have further examined the individual questions for the elements of the SDP model, which have a significant difference between BSC users and non-users. Firstly, in the element of the 'organisational direction', it was found that there is a significant difference,

⁵We defined SMEs according to EU's (EU, 2003) criterion for the number of employees.

Table 1 Correlation matrix

	<i>Organisational direction development</i>	<i>Strategic options development</i>	<i>Implementation</i>	<i>Strategy evaluation and selection</i>	<i>Feedback and strategic control</i>	<i>Performance measurement</i>
Organisational direction development	1	0.682**	0.675**	0.535**	0.544**	0.496**
Strategic options development		1	0.612**	0.746**	0.593**	0.528**
Implementation			1	0.579**	0.610**	0.493**
Strategy evaluation and selection				1	0.546**	0.457**
Feedback and strategic control					1	0.625**
Performance measurement						1

**Correlation is significant at the 0.01 level (two-tailed).

with higher levels of effort exhibited by BSC users, to make the organisational direction more specific, formally expressed, and clearly articulated. Regarding the 'implementation of the strategy', it was found that BSC users tend to make a greater effort to translate strategy into specific activities and to communicate it effectively within the organisation. Interestingly enough, it was also determined that there is no significant difference in the support provided for the implemented strategies by the BSC users ($t = 1.177$, $p = 0.78$). Concerning the activities for 'performance measurement', the analysis of the statistics for each parameter of this element shows that organisations with the BSC tend to use the appropriate scope for their measures, quantify more appropriately their targets and goals, and their performance measurement system monitors and control the implementation of their strategy. Nevertheless, there is no significant difference between users and non-users with regard to the appropriate level of detail used in their performance measurements ($t = 1.569$, $p = 0.118$), or with regard to the impact that performance measurement has upon all stages strategy development ($t = 0.913$, $p = 0.366$).

Discussion

All results of this study should be considered in conjunction with its limitations. The greatest limitation of this study is that it does not consider different levels of BSC implementation (Speckbacker *et al*, 2003). The aim of this paper is to examine the overall impact of the BSC as a strategy tool without considering the mediating role of the BSC sophistication; though it is acknowledged that different levels of implementation or sophistication in the BSC would have provided further insights into the strategising processes of BSC users. The purpose of this study is to examine the implications of the BSC as a strategy tool within the strategy development process. This means that the results of this project provide insight into

the current use of this strategy tool, and does not necessarily reveal its full potential. It should also be noted that the analysis compares processes with and without the BSC and different levels of implementation could also apply to the other tools in use.

The present study is unique, as it is the first survey to examine strategy process with a processual model and to consider the performance of the strategy process expressed in terms of effectiveness and efficiency, rather than the overall performance of organisation. This framing has allowed examining the impact of the BSC, one of the most popular strategy tools, on the elements of the strategy process and the performance of the process. It is claimed (Kaplan and Norton, 2001b, c) that BSC is a comprehensive strategy tool whose utilisation can influence the entire strategy process; the present study has examined whether the latter is a reality in a wide mix of organisations. The results indicate that not all elements of the strategy process are significantly influenced by the use of the BSC. Simultaneously, the results of this survey show that there is no significant difference in the performance of the strategy process, between organisations that implement the BSC and those that do not. The implications of this are that to improve the overall efficiency and effectiveness of the strategy development process it is not sufficient to use the BSC in isolation. Furthermore the use of combinations of tools excluding the BSC can be equally effective.

Turning to the profile of the BSC users, it is worth noting that this strategy tool is used primarily by large organisations. Similar observations have been made by the other surveys (Pineno, 2004). Hoque and James (2000) found that the use of the BSC is more beneficial in larger organisations while Kennerly and Neely (2003) found that it is used more extensively in more turbulent and dynamic environments. This indicates that the BSC is not suitable for all organisations; it is more relevant when there are greater levels of complexity in the decision making, due to the large volume of information and feedback collected on organisational operations and performance.

Table 2 Hypothesis testing results

Hypothesis	Mean	Standard deviation	Standard error mean	F	t	Sig (two-tailed)
Hypothesis 1a: There is no significant difference in the process for <i>developing organisational direction</i> , when comparing organisations that implement the BSC with those that do not	BSC	6.97	0.63	3.655	-3.994	0.00
	Others	8.14	0.55			
Hypothesis 1b: There is no significant difference in the process for <i>developing strategic options</i> , when comparing organisations that implement the BSC with those that do not	BSC	6.51	0.59	0.007	-2.375	0.18
	Others	6.40	0.43			
Hypothesis 1c: There is no significant difference in the process for <i>evaluating and selecting strategies</i> , when comparing organisations that implement the BSC with those that do not	BSC	4.73	0.43	1.804	-0.993	0.310
	Others	5.10	0.34			
Hypothesis 1d: There is no significant difference in the process for the <i>implementation of strategy</i> , when comparing organisations that implement the BSC with those that do not	BSC	4.66	0.42	3.993	-3.193	0.002
	Others	5.27	0.35			
Hypothesis 1e: There is no significant difference in the <i>feedback and strategic control</i> process, when comparing organisations that implement the BSC with those that do not	BSC	8.23	0.75	0.543	-1.165	0.113
	Others	7.64	0.51			
Hypothesis 1f: There is no significant difference in the process for <i>performance measurement</i> , when comparing organisations that implement the BSC with those that do not	BSC	9.31	0.85	0.75	-2.835	0.05
	Others	9.07	0.61			
Hypothesis 2: There is no significant difference in the perceived performance of the <i>strategy development process</i> when comparing organisations that have implemented the BSC with those that have not	BSC	1.4	0.12	3.877	-1.122	0.153
	Others	1.37	0.1			

The analysis for the first hypothesis has provided a mixed picture: three hypotheses were accepted and three were rejected. According to the statistical analysis, there is a significant difference in the emphasis placed upon 'development of the organisational direction', 'implementation of strategy' and 'performance measurement'. This is as expected given the nature of the design of the BSC (mission led) and its initial purpose to improve performance measurement.

There was no significant difference, however, in the emphasis placed upon the 'development of strategic options', the 'evaluation and selection the strategies' and the 'feedback and strategic control', between organisations implementing the BSC and those that do not. The three elements of the SDP that do not appear to differ significantly in their emphasis on the BSC could be considered to be part of strategy formulation, while the other three are more strongly related to implementation and envisioning of the future. This reinforces Kaplan and Norton's (1996b) claim that the BSC is 'primarily a mechanism for strategy implementation and not for strategy formulation'. Hence, these findings show that the BSC is used as a tool to operationalise vision and mission (Kaplan and Norton, 1992) and as a 'tool for managing strategy' (Kaplan and Norton, 2001a). However, the results do not support the idea that it is widely used throughout the whole strategy development process 'as a strategic management system' *per se* (Kaplan and Norton, 2001b, c).

The use of BSC within an organisation highlights the emphasis placed upon performance measurement and management. Performance measurement has been found to have a strong influence upon the enhancement of organisational learning (Neely and Al Najjar, 2006; Tapinos and Dyson, 2007); the use of the BSC can lead to double-loop learning (as per Argyris and Schon, 1978), which subsequently has an impact upon the setting of the organisational direction.

One particularly important finding is that the BSC users do not appear to be significantly different in terms of the long-term orientation in their organisational direction. Banker *et al* (2004) highlight that the BSC is a tool to guide the selection of multiple measures, which should supplement the 'traditional' financial measures. Martinsons *et al* (1999) emphasise that this tool provides a balance between short-term goals considered by the financial measures and long-term goals considered by the non-financial measures. The outcome of our study provides support for those (Ittner *et al*, 2003) who claim that not all BSCs are balanced, and in practice there is an element of 'subjectivity and weighting of performance measures'.

There is a distinct lack of literature on the implementation of strategy. Reed and Buckley (1988) identified a series of problems that tend to appear during strategy implementation; one of the most challenging activities involved

is the setting of goals and the control of their alignment with the organisational direction. BSC was originally (Kaplan and Norton, 1992) developed as a tool to support the implementation of strategy; this may explain why BSC users were found to be significantly different from non-users in terms of the activities for strategy implementation. Furthermore, one of the few studies (Othman, 2006) to report effects of the BSC found that it mostly contributes to the implementation and communication of strategy.

In addition, it is interesting to note that even though it was found that BSC users place a greater emphasis on performance measurement, this was not the case for feedback and strategic control. This means that even if the use of the BSC leads to more comprehensive measurements of the performance, BSC users do not necessarily make more effective use of the information collected in order for it to be fed back to the appropriate level of control or decision making. This reinforces the findings of Hudson *et al* (2001) who found that there is a lack of formal feedback systems in place that utilise the information collected by the performance measurement systems. This also highlights the need to link the use of strategy tools such as the BSC into the decision-making activities. In theory (Kaplan and Norton, 2001b, c) the BSC as a tool helps the organisations align their performance measurement system to their strategy; however, as this study shows BSC users do not take full advantage of the benefits that the implementation of this tool can provide.

Regarding the second hypothesis, the results indicate that the use of the BSC does not create significant differences in the performance of the strategy process, which is a rather surprising result considering the growing popularity of this tool. This should not be interpreted as a general failure of the BSC. The results do not indicate that the BSC creates inefficiency or ineffectiveness in the strategy development process; they show that there is no significant difference between the performance of the strategy process between the organisations that are BSC users and those that are not. Geema and Nijssen (2004) distinguish between 'strategy-focused-BSC use' and 'measurement-focused-BSC use', and have found that the first is positively associated with organisational performance while the second is not. This shows that the implementation of the BSC is not always successful, which is not attributed to shortcomings of the tools but to weaknesses of the people engaged (Neely and Bourne, 2000). Furthermore, Norreklit (2000) uses Olve *et al's* (1997) study to demonstrate that the success or failure of the BSC utilisation depends on its 'rooting to the management and players' of the organisation with reference to resource allocation and the close relationship of its implementation to the overall management of the organisation.

The finding that the BSC does not create significantly different performance for the strategy process of BSC

users may be explained by the fact that this tool is not appropriate for all types of organisations. Researchers such as Speckbacher *et al* (2003) have demonstrated that factors like the organisational size influence the effects of tools such as the BSC. Also, it is known that the implementation of the BSC requires considerable resource allocation which might not be feasible for all organisations.

In an attempt to synthesise the outcome from the analysis of Hypotheses 1 and 2, it can be observed that the use of the BSC has an impact on a number of processes related to the strategy development but at the same time it does not create significant differences in the output of process performance measures. The analysis conducted does not allow us to deduce whether this finding (Hypothesis 2) has resulted from the fact that three of the six elements of the strategy process do not show significant differences. Even if we consider all six elements of the SDP model to have equal value for the success of the strategy process, it is worth re-emphasising that our findings show that 'feedback and strategic control' is not significantly different for BSC users and this could be interpreted as diluting the benefits achieved by those activities that are significantly different for BSC users.⁶ There is a plethora of evidence from case studies that demonstrate the influential character of BSC as a strategy tool. This research shows that the use of BSC impacts on aspects of the strategy process but perhaps it needs to be carefully implemented and aligned with the requirements of the strategy process in order to improve its effectiveness.

Conclusions

This is the first study that attempts to examine the influence of a strategy tool on the strategy process and the performance of the strategy development process. Investigating the influence of a relatively new strategy tool, the BSC, it was found that organisations which use it exhibit some significant differences in their strategy processes from those that do not. Firstly, this study found that the organisations with greater levels of complexity, due to organisational size, in their decision making implement the BSC. Also, it was found that the current trends show that users of the BSC tend to place more emphasis on the operationalisation of organisational direction and on strategy implementation. However, it was determined that there is no significant difference in the emphasis placed upon several other elements of strategy formation. Overall this study showed that even though the BSC users tend to place more emphasis in all elements of the strategy development process, the difference is not always significant. As BSC users also typically use several other tools, the study does not support the view that the BSC is a comprehensive management tool. Finally this study has reinforced the

argument that the BSC is a strategy tool, which is utilised beyond strategic control and performance measurement as it enhances organisational learning through its support of the development of organisational direction. However, the strategy development processes of users of the BSC do not appear to be more efficient or effective than those of non-users.

Future research is required in the field of strategy, and particularly into the utilisation of tools within strategy development. Future studies should examine the sophistication of the strategy tools implemented in order to provide further insights into how strategy tools like the BSC influence the strategy process and its performance.

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