Strategic Performance Management and Creative Industry

Karima Kourtit* and Peter Nijkamp

Department of Spatial Economics, VU University, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands

Fax: +31 20 5986004

E-mail: kkourtit@feweb.vu.nl E-mail: pnijkamp@feweb.vu.nl *Corresponding author

André A. de Waal

Maastricht School of Management, PO Box 1203, 6201 BE Maastricht, The Netherlands

Fax: +31 35 6012492

E-mail: andredewaal@planet.nl

Abstract: The Creative Industry (CI), in recent years, has drawn much attention from the side of both scientists and policy-makers in the area of urban planning and industrial policy. The question is however, whether the assumed innovative and successful potential offered by firms in the CI is justified on economic and managerial grounds. The present article aims to provide a critical review of the current creativeness fashion by addressing, in particular, the Critical Success Factors and the high performance conditions of firms in this sector. On the basis of general principles from strategic performance measurement of business firms, a systematic analysis for assessing the performance of creative firms is proposed. Specific attention is paid to the lessons from the Strategic Performance Management literature for measuring the successes (and failures) of creative firms in modern innovative industries. This article aims to offer the basis for a systematic framework for evaluating the competitive performance of firms in the CI.

Keywords: Creative Industries; CI; Strategic Performance Management; SPM.

Reference to this paper should be made as follows: Kourtit, K., Nijkamp, P. and de Waal, A.A. (2009) 'Strategic Performance Management and Creative Industry', Int. J. Foresight and Innovation Policy, Vol. 5, Nos. 1/2/3, pp.65–82.

Biographical notes: Karima Kourtit is a Researcher at the VU University Amsterdam, Department of Regional Economics.

Peter Nijkamp is a Professor in regional and urban economics and in economic geography at the VU University, Amsterdam. He has a broad expertise in the area of public policy, services planning, infrastructure management and environmental protection. In 1996, he was awarded the most prestigious scientific prize in the Netherlands, the Spinoza award.

André A. de Waal is an Associate Professor of Strategic Management at the Maastricht School of Management and Academic Director of the Center for Organisational Performance. Website: www.hpocenter.com.

1 Creativity as a new departure for scientific research

The past decade has witnessed an avalanche of interest in research and policy on creativity, predominantly as a result of the work of Florida (2002, 2003, 2004) on Creative Industries (CI) and creative classes in creative cities. Creativity has become a strategic signpost for a new orientation regarding economic, technological and social innovation in a modern society. Research on creative behaviour is clearly on the rise. It has prompted new research and policy attention for the institutional, behavioural and attitudinal dimensions of innovation in a dynamic and competitive space-economy.

It is noteworthy however, that creativity research already has a long history grounded in behavioural research in social sciences. Already in 1950, Guilford (1950) focussed attention on the driving forces of creative productiveness in his presidential address to the American Psychological Association. In particular, he addressed the impact of education and training on creative routines of people. In subsequent decades, the focus of social science research has mainly been on the development of statistical measurement techniques for creative abilities, largely from the perspective of experimential psychology. Groundbreaking quantitative research was undertaken in particular by Torrance (1963, 1966, 1972, 1981), who has offered the foundation for the solid statistical research tradition on measuring creativity nowadays known as the Torrance Test of Creative Thinking method (see for a review inter alia Fasko, 2001). Modern creativity research is mainly inspired by two sources: innovation research and urban incubation (or urban seedbed) research. Innovation research has become a very topical research issue that is originating from global and local competitiveness challenges, urban industrial dynamics, economic-technological transformations and adaptive management capacity (see inter alia Porter, 1990; Groot, Nijkamp and Stough, 2004; Nijkamp, 2004; Poot, 2004). Incubation research refers to the spatial - often urban-conditions for economic growth and development, such as urban entrepreneurial climate, local ICT facilities, R&D infrastructure and Marshallian districts, etc. (see e.g. Markusen, 1996; Scott, 2000).

In general, creativity is a multidimensional composite concept that comprises three elements: technological creativity (innovation), economic creativity (entrepreneurship) and cultural (or artistic) creativity (see Florida, 2003). All these elements constitute important conditions for local development in global competitive economic system. Consequently, the locational behaviour of creative people and entrepreneurs is critical for the emergence of local wealth. Creativity research in the context of innovation and entrepreneurship issues has mainly focussed on two issues:

- 1 Which branches of the economy belong to the creative sector?
- 2 What is the economic significance of firms belonging to the CI?

The first issue has induced many studies on definitional questions. In general, there is a widely shared belief that the creative sector has two components:

- 1 Specific industrial branches such as the arts sector, the media and communication sector and the cultural sector.
- 2 Specific parts of all other economic sectors, with the common feature that they specialise in the creation of new ideas, concepts and inventions (e.g. dedicated consultancy services, think tanks of corporate organisations).

The second issue has led to many empirical and case studies in which for a given city or region the economic importance of the creative sector is assessed, often making use of *ad hoc* statistical data and methods. Far less attention has been given to the success conditions that shape a creative climate in a city or region. Research on creativity conditions has often uncritically resorted to general findings from the innovation literature, but in many cases specificity on local and entrepreneurial drivers was lacking.

This is regrettable, as recent changes in the business environment has dramatically changed the scene of entrepreneurship and local or regional development (Bagranoff, Eighme and Kahl, 2002). Factors such as increased competition, changes in the regulatory environment, the impact of technology, growing globalisation or the quality of the organisation became more important, while shifts in customer behaviour and expectations have created a turbulent business environment in which the ability to continuously adapt to change is critical for success (Hoopes and Hale, 1999). There is indeed a need for a profound analysis of the success conditions of creative firms.

In order to come to grips with such changing circumstances, innovative business activities and operational performance challenges as well as to develop systematic strategic tools and approaches that build and measure the CI-firm's capabilities to continuously compete and renew themselves, the need for an efficient Strategic Performance Management (SPM) and Performance Measurement System (PMS) has increased over the past decade. SPM may be defined as:

"The process where steering of the organisation takes place through the systematic definition of mission, strategy and objectives of the organisation, making these measurable through critical success factors and key performance indicators, in order to be able to take corrective actions to keep the organization on track" (Waal, 2001).

To assess in practice SPM, an operational PMS has to be designed. The most popular PMS in practice is the Balanced Scorecard (BSC) method, developed by Kaplan and Norton (1992; 1996a,b; 2001a,b). The BSC is a strategic management system that uses Critical Success Factors (CSFs) and Key Performance Indicators (KPIs) for translating an organisation's mission and strategy into a balanced and comprehensive set of integrated performance measures (Brignall, 2002; Ho and Chan, 2002). The performance measures should provide a complete picture of a CI-firm's progress towards the achievement of its mission and goals (Ho and McKay, 2002). The BSC contains a varied, multidimentional set of performance measures, which is essentially a combination of financial and non-financial measures organised according to four distinct perspectives, viz., financial performance, customer relations, internal business processes, and the organisation's learning and growth activities (Kaplan and Norton 1992; Lipe and Salterio, 2000). Basnett (2001) has argued that for each of these BSC perspectives the strategic objectives, measures, targets and initiatives need to be identified and agreed upon. The

SPM literature offers a wealth of operational concepts for investigating the performance conditions of CI-firms. The aim of the present article is to offer an overview of the current state on the measurement of SPM and to outline its implications for creativity research and policiy. First, Section 2 discusses the general strategic importance of SPM for business policy. On the basis of this general background, Section 3 describes recent development in SPM with particular attention for cause-effect chains. Next, in Section 4 we map out the advantages and disadvantages of SPM analysis for firm performance. And finally, we outline the opportunities of SPM analysis for urban creativity research and policy in Section 5.

2 Strategic Performance Management as a business signpost

Economic growth may manifest itself on different levels, e.g. at the individual, firm, local, regional, sectoral or national level. Clearly, these levels are interlinked (as is, for example, clear from the theory on Marshallian districts) and have various driving forces in common such as competition and productivity. Baum et al. (2001) distinguish five constituents of high-productivity business performance, which is resource of economic growth:

- Human capital: a collection of cognitive abilities acquired by means of education and experience.
- Social capital: a set of (real or virtual) resources that is accessible by individuals or organisations as a consequence of (formal or informal) network relations.
- Knowledge capital: a set of valorised assets stemming from knowledge and research applications (e.g. patents, licenses, industrial spillovers and local spinoffs).
- Financial capital: all financial means that are available for inducing innovation and entrepreneurship (including venture capital).
- Entrepreneurship capital: a collection of features (e.g. risk behaviour, innovativeness and creativity), which are essential for starting a new business or for coping with fierce competition.

Creative firms normally belong to the innovative part of the industrial system and tend to be rather competitive through their resilience and flexibility. In this context, Sak and Taymaz (2004) distinguish four sources of flexibility that may enhance the competitive power and economic performance of CI-firms: new technology, labour, adjustment, systematic (networking) connectivity and market dynamics (easy entry and exit strategies). In the same vein, Saxerian (1994), Sushil (2000) and Barney, Wright and Ketchen (2001) argue that adaptability and agility are decisive factors for effective price, quality, marketing and management strategies.

In general, a thriving business environment is based on an effective realisation and input usage of the above five factors. According to Youngblood (1997) and Clarke and Clegg (2000), in order for CI-firms to achieve sustainable success, they must continuously anticipate on changing circumstances and build a flexible capacity for

continuous adaptation of their organisations. They cannot always manage change, but they can manage actions to deal with that change. Therefore, they have to be able to execute the following general tasks (Neely, 1997; Brooks and Weatherston, 2000):

- analyse how economic and social changes affect their businesses now and in the future
- anticipate the rapidly changing circumstances within the industry or region and manage these changes
- build a capacity for continuous adaptation of their organisations in order to achieve sustained high performance
- translate strategy into action at each level within the organisation in order to bring the business strategy to successful life
- focus on 'doing the right things right' which implies that the link between information and successful management action in the business environment is essential
- maximise the organisational members' contribution and commitment of employees to implement the successful strategy
- be aware of the antecedents that are available to help them manage their businesses most effectively¹
- have the right information at the right time to make the best decisions and take the best actions
- see to it that strategic goals are met, by using as monitoring methods such as CSFs and KPIs.

SPM has become, in recent years, an important vehicle for business management that is used in numerous ways (Kaplan and Norton, 1996b; Chow et al., 1998; Zairi and Jarrar, 2000; Niven, 2002; Andersen, Henriksen and Aarseth, 2006). For instance, to perform health checks throughout organisations; to clarify and translate vision into operational strategy; to communicate and link strategic objectives and business measures; to set targets and align subsequent strategic initiatives; to enhance strategic feedback and learning; to monitor the overall performance of the organisation; to set strategic direction and use measurements to ensure adherence to this direction; to use performance levels to conduct detailed operational planning of activities and processes; to develop cost estimates for products and services based on past performance history; to base production planning on up-to-date performance data; to establish early warning through monitoring of key indicators; to influence and alter employee behaviour to promote desired changes; to establish incentives through focusing on specific performance indicators and using performance data as basis for bonuses and rewards; to improve project evaluations; to use performance data as a communication tool for providing feedback; and to check the effectiveness of past decisions and plans. Has this broad coverage of SPM been successful in practice?

Various literature sources, case studies and practical experience (Hronec, 1993; Lynch and Cross, 1995; Lingle and Schiemann, 1996, 1999; Kaplan and Norton, 1996b; Rheem 1996; Atkinson et al., 1997; Armstrong and Baron, 1998; Waal, 2001; Lawson, Stratton and Hatch, 2003) show that companies who have implemented SPM perform

better, financially as well as non-financially than companies that are less SPM-driven. The currently most popular SPM system in business practice in Section 1 mentioned BSC. Both the popular and scientific literature indicate that there is evidence that the BSC is now in use in approximately 70% of medium-to-large firms in the US and Europe, as well as in many governmental departments (Silk 1998; Marr and Neely 2001; Rigby 2001; Williams, 2001; Speckbacher, Bischof and Pfeiffer 2003; Neely, Kennerley and Martinez, 2004; Marr, Schiuma and Neely, 2004). However, many authors have reported that numerous organisations have implemented SPM systems with mixed results (Abernethy and Lillis, 1995; Ittner and Larcker, 1995; Chenhall, 1997; Perera, Harrison and Poole, 1997; Banker, Konstans and Mashruwala, 2000; Ittner, Larcker and Meyer, 2003; Kaynak, 2003; Said, HassabElnaby and Wier, 2003; Davis and Albright, 2004; Neely, Kennerley and Martinez, 2004). Therefore, it is important to ask whether the SPM concept is useful for analysing and insuring future financial performance – or other achievement indicators - in CI-firms (De Haas and Kleingeld, 1999; Norreklit, 2000). It is essential to know whether the implementation of SPM systems in CI-firms will yield the benefits as predicted by the literature. This is a relevant issue in the light of the great potential of CI-firms. A critical review whether the SPM concept, and specifically the BSC, is a valid model in CI-firms is certainly warranted. In recent years, many studies (Dumond, 1994; Groves and Valsamakis, 1998; Hoque and James, 2000; Kald and Nilsson, 2000; Malina and Selto 2001; Shulver and Antarkar 2001; Sim and Koh 2001; Lovell, Radnor and Henderson, 2002; Hoque, 2003; Braam and Nijssen, 2004; Davis and Albright, 2004; Neely, Kennerley and Martinez, 2004; Robinson, 2004; Scheipers, Ameels and Bruggeman, 2004; Papalexandris, Ioannou and Prastacos, 2004; Lawson, Stratton and Hatch, 2005; Tapinos, Dyson and Meadows, 2005) have highlighted the fact that further research is required to achieve a greater understanding of the variables, in particular the construct of the BSC, the linear causal chain of the BSC and the reasons behind the implementation of SPM. Clearly, in the research agenda the role that SPM, and specifically the BSC, can and should have in CI-firms deserves a prominent place.

3 Strategic importance of Strategic Performance Management

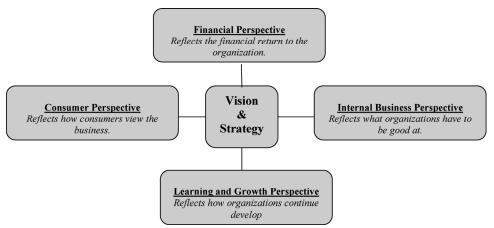
In past decades, there have been considerable changes in the traditional post-war methods of performance measurement (Kald and Nilsson, 2000). The traditional approach focused mainly on financial indicators, such as sales turnover, profit, debt and return on investment. It was based on standards set-up to measure worker performance, and looked mainly at individual performance and hardly at the core business performance (Kanji, 2005). In 1970s and 1980s, fundamental transformations in industrial systems created a challenging business environment, which prompted organisations to call for insight into their business activities and operational performance at all times. The growing importance of these changes further intensified the need for alternative control and performance measures (Davis and Albright, 2004) to allow businesses to stay competitive and profitable (Zeng and Zhao, 2005).

Many academics and practitioners have over the years criticised traditional management control in general and performance measurement in particular (Kaplan, 1983; Foster, Gupta and Sjoblom, 1996; Ittner and Larcker, 1998a; Behn and Riley, 1999; Banker, Konstans and Mashruwala, 2000; Kald and Nilsson, 2000) and the ways in which companies plan their operations and monitor performance (Johnson and Kaplan,

1987; Brimson, 1991; Foster, Gupta and Sjoblom, 1996; Ittner and Larcker, 1998a; Behn and Riley, 1999; Banker, Konstans and Mashruwala, 2000; Kald and Nilsson, 2000). Traditional SPM systems are increasingly seen as less satisfactory because these systems contain one-dimensional financial information, lack a match between the company's competences and its dynamic business environment, lack a strategic focus, have a retrospective orientation and short-term vision, and have a weak strategic content (Kald and Nilsson, 2000; Bourne, Franco and Wilkes, 2003; Kanji, 2005).

These shortcomings enticed organisations to search for measurement systems that supported them better in the challenging business environment (Waal and Counet, 2006). Therefore, there has been a growing interest in changing and improving management control systems. According to Frigo and Krumwiede (1999), 30-60% of organisations reengineered their SPM systems between 1995 and 2000. Organisations recognised the importance of non-financial measures of performance for both managing and evaluating their achievements (Foster, Gupta and Sjoblom, 1996; Ittner and Larcker, 1998a; Behn and Riley, 1999; Banker, Konstans and Mashruwala, 2000; Kald and Nilsson, 2000; Malina and Selto, 2001) as financial figures alone did not identify the elements that may lead to good or poor future financial results (Kanji, 2005). Thus, it is important to understand organisational excellence, which potentially leads to the success of a business in the future (Kanji, 2005). Kaplan and Norton made a significant contribution to overcoming some of the limitations of traditional SPM systems by introducing the BSC in 1992 (Kanji, 2005), by designing a SPM system that links the company's long-term strategy to the day-to-day operations (Kald and Nilsson, 2000). The BSC seems to be one of the first SPM methods that really succeed in translating mission and strategy into financial (lagging indicators) and non-financial indicators (leading indicators) that can lead to action (Waal and Counet, 2006). As mentioned, BSC adopts four main angles to get a balanced overview of the organisation's performance and to check whether the organisation's strategy execution is still on the right track (Zairi, 1992; Kaplan and Norton, 1996a; Sureshchandar and Leisten, 2005) as depicted by Figure 1.

Figure 1 The four perspectives of the Balanced Scorecard



Each perspective reflects an important dimension of the company's business (Kald and Nilsson, 2000). Since the four perspectives are equally important in the long run, they should be balanced against each other; that means that structurally no one perspective should be allowed to predominate over the others (Kald and Nilsson, 2000).

The primary focus of the BSC is on translating the organisation's vision and strategy into specific objectives and measurements organised around the four perspectives (Zairi, 1992; Letza, 1996). The model (see Figure 1) starts with translating vision and strategy into four perspectives (financial, consumer, internal business process and learning and growth perspectives; Basnett, 2001). The financial perspective deals with factors that can create sustainable growth in shareholder value (to succeed financially); the consumer perspective defines the value proposition for targeted consumer segments (to achieve vision); the internal business processes perspective aims to measure areas of internal excellence required to deliver customer satisfaction (to satisfy shareholders and customers) and the learning and growth perspective is intended to measure an organisation's capacity to innovate, continuously improve and learn (to achieve vision) (Basnett, 2001; Sureshchandar and Leisten, 2005). As mentioned before, for each of these perspectives the strategic objectives, measures, targets and initiatives need to be identified and agreed upon (Basnett, 2001). The BSC is not without criticism (Kanji, 2002). Though Kaplan and Norton made various efforts to demonstrate the impact of the BSC (Kaplan and Norton, 2000; Neely, Kennerley and Martinez, 2004), their approach has been to use largely anecdotal cases (Neely, Kennerley and Martinez, 2004). In general, it can be stated that much work has been carried out on the design and deployment of SPM, but relatively little on their impact (Bourne et al., 2000; Neely and Austin, 2000; Neely and Bourne, 2000; Neely, Bourne and Kennerley, 2000; Franco, Bourne and Wilkes, 2003; Neely, Kennerley and Martinez, 2004) and there is relatively little evidence on whether the SPM concept and the BSC actually work in CI-firms. Sureshchandar and Leisten (2005) and Hammer et al. (2007) noticed that the BSC has failed, through incorrect identification of non-financial drivers (CSFs) and poorly defined metrics (KPIs), to address the requirements of all stakeholders because it primarily focused on financial and consumer perspectives. The 'difficulty' of the BSC is linking together the measures of the four areas in a causal chain, which passes through all four perspectives (Brignall, 2002). The BSC follows essentially a linear one-way approach to SPM (Kaplan and Norton 1992): it starts with the learning and growth perspective and culminates in financial results outcomes (Brignall, 2002) as depicted in Figure 2. However, in several studies the linear causality relationship between the four perspectives has been questioned (Epstein, Kumar and Westbrook, 2000; Norreklit, 2000; Kanji and Moura, 2002; Salterio and Webb, 2003; Malina and Selto, 2004). Several authors have voiced additional criticism at the BSC approach (Atkinson et al., 1997; Butler, Letza and Neale, 1997; Epstein and Manzoni, 1998; Otley, 1999; Norreklit, 2000; Hoque and James, 2000; Hoque, 2003). One of these criticisms is the BSC's architecture with four components (Otley, 1999; Brignall and Modell, 2000; Norreklit, 2000; Bessire and Baker, 2005; Morard and Stancu, 2005). Some analysts question the balance among these four perspectives and the way to construct an 'effective' BSC in relation to the strategy (Hoque, 2003). According to Park and Huber (2007), the scorecard should not be just a collection of performance indicators. They state that without a clear understanding of the perspectives and principles of the scorecard, users of the scorecard might fail to link indicators of performance drivers to outcome measures by means of cause-and-effect relationships.

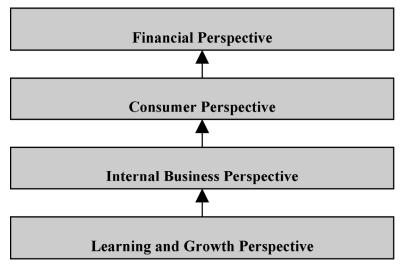


Figure 2 Balanced Scorecard: linear and one-way chain of cause and effects

Source: (Kaplan and Norton, 1996a).

Thus, empirical studies provide mixed evidence on the strategic benefits from the implementation of SPM and specifically the BSC. Much research offers no convincing support – or at the best mixed evidence – of the linear, one-way cause-effect relations among the four perspectives. This calls for further research into the actual benefits of SPM. A recent study by Kourtit (2007) has reviewed the broad literature on this issue and presented the advantages and disadvantages of SPM in summary form (based on 28 literature sources).

3.1 Financial advantages

In general, the changes and increases in scorecards outcomes and financial performance have encouraged organisations to continue using SPM. Various sources (Malina and Selto, 2001; Sim and Koh, 2001; Davis and Albright, 2002; Waal, 2002; Ittner and Larcker, 2003; Said, HassabElnaby and Wier, 2003; Braam and Nijssen, 2004; Davis and Albright, 2004; Epstein, Rejc and Slapnicar, 2004; Neely, Kennerley and Martinez, 2004; Robinson, 2004; Scheipers, Ameels and Bruggeman, 2004; Lawson, Stratton and Hatch, 2004) claim that organisations implementing SPM were able to achieve an increase in revenue (ten literature sources); an increase in profit (nine literature sources); and a higher gross profit (nine literature sources). These findings suggest that the introduction of SPM has had a positive impact in terms of revenue, sales and net profit. Interestingly, it was found that organisations who had higher net profit and sales, once they removed the SPM system for whatever reason, both sales and net profit dropped. Many organisations experienced a significant cost savings that can be attributed to the introduction of SPM. Other organisations reported a 4% increase in employee satisfaction and customer satisfaction, leading to a rise in revenues. Some organisations also experienced a reduction in overhead costs of 25% in three years.

3.2 Non-financial advantages

The literature review also suggested improvements in non-financial performance for organisations that implemented SPM. Various studies (Dumond, 1994; Mooraj, Oyon and Hostettler, 1999; Kald and Nilsson, 2000; Malina and Selto, 2001; Shulver and Antarkar, 2001; Sim and Koh, 2001; Lovell, Radnor and Henderson, 2002; Waal, 2002; Baraldi and Monolo, 2004; Bititci et al., 2004; Brown, 2004; Heras, 2004; Lawrie, Cobbold and Issa, 2004; Neely, Kennerley and Martinez, 2004; Papalexandris, Ioannou and Prastacos, 2004; Robinson, 2004; Scheipers, Ameels and Bruggeman, 2004; Self, 2004; IOMA. Business Intelligence at Work, 2005; Lawson, Stratton and Hatch, 2005; Tapinos, Dyson and Meadows, 2005) claim that organisations that implemented SPM experienced an improvement in internal communication of the strategy (seven literature sources); closer collaboration and better knowledge sharing and information exchange between organisational units (six literature sources); better understanding of how the business works and becoming an effective strategy-focused organisation (five literature sources); better focus on the achievement of results (five literature sources); better quality performance information (five literature sources); better strategic alignment of organisational units (five literature sources); higher operational efficiency (four literature sources); improvement in management (three literature sources); better understanding of people of the strategy (three literature sources); improvement in the decision-making process (three literature sources); improvement in the involvement of personnel into the organisation (three literature sources); more clarity of people of their contribution towards achievement of the strategy and goals (three literature sources); more innovativeness (three literature sources); better achievement of organisational goals (three literature sources) and higher pro-activity (three literature sources).

In general, SPM appears to be a powerful tool; it provides concise, predictive and actionable information about how a company is performing and may perform in the future. Our literature findings suggest that the introduction of SPM has had a positive impact in terms of a better communication and alignment of the strategy. Through a better communication of the strategy, managers across the functional areas of businesses also shared a common understanding of the strategy of the organisation and how each area contributed to the achievement of desired objectives. Findings, based on the experience of organisations, also reported a better knowledge sharing and information exchange between organisational units. Furthermore, organisations also experienced a better focus on what is important for the organisation and the achievement of results. SPM appears to motivate and influence people to conform their actions to the organisation's strategy. Organisations also experienced SPM as very helpful in establishing a creative culture of process-orientation and stressing the importance of integrated activity chains as pillars of an innovative style of managing. The introduction of SPM and a creative style of management that came with it resulted not only into enhanced strategic awareness among top and middle management, but also into a significant shift in 'governance policy' at board level. The anticipative creative thinking to understand the need for change sharpened the vision for the future of the organisation and the way it intended to fulfil its mission.

3.3 Disadvantages

Our findings from the 28 literature sources also showed that organisations have experienced disadvantages of the implemention of SPM, but only in non-financial terms. We will offer here a concise overview. Various studies (Dumond, 1994; Kald and Nilsson, 2000; Malina and Selto, 2001; Sim and Koh, 2001; Braam and Nijssen, 2004; Neely, Kennerley and Martinez, 2004; Papalexandris, Ioannou and Prastacos, 2004; Robinson, 2004; Self, 2004; IOMA, Business Intelligence at Work, 2005; Lawson, Stratton and Hatch, 2005) have shown that organisations often have too many performance indicators (four literature sources); while there were several questions as to the strategic content of the information, rise in bureaucratic reporting, less transparant data, too general data, too many retrospective data and so forth. We may conclude that the preferred approach is likely to be to coordinate the information by developing the performance indicators at each organisational level from the overall organisation's objectives and strategies.

4 Relevance and opportunities of Strategic Performance Management for creative firms

SPM is an important vehicle for enhancing productivity and competitiveness in an open economy. Accurate performance management helps to obtain a more focussed strategy and a stronger business accountability through effective improvements in operational management, in motivating employees, in more appropriate technological foresights, in effective organisational adjustments, in marketing and communications outreach and so forth (see e.g. Bryant, Jones and Widener, 2004; Lawson, Stratton and Hatch, 2004; Robinson, 2004; Scheipers, Ameels and Bruggeman, 2004; Tapinos, Dyson and Meadows, 2005). Which lessons can now be drawn for CI-firms? Organisations in the creative sector start often as informal or less structured SMEs. They mirror the economic dynamics of localities and incorporate the 'animal spirit' of starting entrepreneurs. Their birth rate is often high, but their survival chances are not always solid, as their creative and spontaneous nature makes them vulnerable, especially if their activities are not supported by professional management and expertise. Their innovative character induces a high degree of new business initiatives, but this advantage should be supported by a solid strategic management of innovation in business life in a competitive environment. Creative firms are of course business firms that have to obey the basic laws of economics. And therefore, a test on the viability and vitality of CI – as signposts of new localeconomic dynamism - should be based on the question whether such firms meet the criteria of SPM, and hence are able to deliver an economic performance that is comparable to their peers in other branches of the economy. Normally, CI-firms have a high degree of volatility and flexibility and are less driven by structured management concepts. Does SPM have anything to offer to such firms? To answer this question, one ought to recognise that a PMS has two functions: it supports management as an internal thermometer and it offers strategic comperative information by means of benchmarking. SPM, if developed and used in an informal and tailor-made way, can act as a singpost for complex business decisions in a competitive environment. At the end, CI-firms will also be forced to be pro-active and competitive in order to survive in a regular market economy. To enhance productivity in a competitive CI-environment calls for effective information that may be provided by a creative SPM system. In conclusion, SPM may offer a strategic mechanism and decision support system for exploiting the economic potential of CI-firms.

References

- Abernethy, M.A. and Lillis, A. (1995) 'The impact of manufacturing flexibility on management control system design', *Accounting, Organizations and Society*, Vol. 20, pp.241–258.
- Andersen, B., Henriksen, B. and Aarseth, W. (2006) 'Holistic performance management: an integrated framework', *Int. J. Productivity and Performance Management*, Vol. 55, pp.61–78.
- Armstrong, M. and Baron, A. (1998) *Performance Management, the New Realities*. London, UK: Institute of Personnel and Development.
- Atkinson, A.A., Balakrishnan, R., Booth, P., Cote, J.M., Groot, T., Malmi, T., Roberts, H., Uliana, E. and Wu, A. (1997) 'New directions in management accounting research', *Journal of Management Accounting Research*, Vol. 9, pp.70–108.
- Bagranoff, N.A., Eighme, J.E. and Kahl, H. (2002) 'Who moved my ledger?', *The CPA Journal*, Vol. 72, pp.22–26.
- Banker, R.D., Konstans, C. and Mashruwala, R. (2000) A Contextual Study of Links Between Employee Satisfaction, Employee Turnover, Customer Satisfaction and Financial Performance, Working Paper, University of Texas – Dallas.
- Baraldi, S. and Monolo, G. (2004) 'Performance measurement in Italian hospitals: the role of the balanced scorecard', in A. Neely, M. Kennerly and A. Waters (Eds), *Performance Measurement and Management: Public and Private* (pp.75–82). Cranfield, UK: Centre for Business Performance, Cranfield University.
- Barney, J., Wright, M. and Ketchen, D. (2001) 'The resource-based view of the firm', *Journal of Management*, Vol. 27, pp.625–641.
- Basnett, H. (2001) 'Creating the strategy focused organisation with the balanced scorecard: a conference report', *Management Services*, Vol. 45, pp.18–20.
- Baum, S., Stimson, R., Mullins, P. and O'Connor, K. (2001) 'A typology of community opportunity and vulnerability in metropolitan Australia', *Papers in Regional Science*, Vol. 80, pp.45–66.
- Behn, B.K. and Riley, R.A., Jr. (1999) 'Using non-financial measures to predict financial performance: the case of the US airline industry', *Journal of Accounting, Auditing and Finance*, Vol. 14, pp.29–57.
- Bessire, D. and Baker, C.R. (2005) 'The French tableau de bord and the American balance scorecard: a critical analysis', *Critical Perspectives on Accounting*, Vol. 16, pp.645–664.
- Bititci, U., Mendibil, K., Nudurupati, S., Turner, T. and Garengo, P. (2004) 'The interplay between performance measurement, organisational culture and management styles', in A. Neely, M. Kennerly and A. Waters (Eds), *Performance Measurement and Management: Public and Private* (pp.107–114). Cranfield, UK: Centre for Business Performance, Cranfield University.
- Bourne, M., Franco, M. and Wilkes, J. (2003) 'Corporate performance management', *Measuring Business Excellence*, Vol. 7, pp.15–21.
- Bourne, M., Mills, J., Wilcox, M., Neely, A. and Platts, K. (2000) 'Designing, implementing and updating performance measurement systems', *Int. J. Operations and Production Management*, Vol. 20, pp.754–771.
- Braam, G.J. and Nijssen, E.J. (2004) 'Performance effects of using the balanced scorecard: a note on the Dutch experience', *Long Range Planning*, Vol. 37, pp.335–349.
- Brignall, S. (2002) 'The unbalanced scorecard: a social and environmental critique', in A. Neely, A. Walters, R. Austin (Eds), *Performance Measurement and Management: Research and Action*. Cranfield, UK: Cranfield School of Management.

- Brignall, T.J. and Modell, S. (2000) 'An institutional perspective on performance measurement and management in the new public sector', *Management Accounting Research*, Vol. 11, pp.281–306 (September).
- Brimson, J.A. (1991) Activity Accounting: An Activity-Based Costing Approach. New York, NY: Wiley.
- Brooks, I. and Weatherston, J. (2000) 'The business environment: challenges and changes', (2nd ed.) *Financial Times Management*. London, UK: Prentice Hall.
- Brown, A. (2004) 'Implementing a system of performance management in England's primary school', in A. Neely, M. Kennerly and A. Waters (Eds), *Performance Measurement and Management: Public and Private* (pp.155–162). Cranfield, UK: Centre for Business Performance, Cranfield University.
- Bryant, L., Jones, D.A. and Widener, S.K. (2004) 'Managing value creation within the firm: an examination of multiple performance measurement', *Journal of Management Accounting Research*, Vol. 16, pp.107–131.
- Butler, A., Letza, S.R. and Neale, B. (1997) 'Linking the balanced scorecard to strategy', *Long Range Planning*, Vol. 30, pp.242–253.
- Chenhall, R.H. (1997) 'Reliance on manufacturing performance measures, total quality management and organisational performance', *Management Accounting Research*, Vol. 8, pp.187–206.
- Chow, C.W., Ganulin, D., Haddad, K. and Williamson, J. (1998) 'The balanced scorecard: a potent tool for energizing and focusing healthcare organization management', *Journal of Healthcare Management*, Vol. 43, pp.263–280.
- Clarke, T. and Clegg, S. (2000) 'Management paradigms for the new millennium', *Int. J. Management Reviews*, Vol. 2, pp.45–65.
- Daniels, A.C. (1999) Bringing Out the Best in People. New York, NY: McGraw-Hill.
- Davis, S. and Albright, T. (2002) 'Relationship between high quality implementation procedures and improved financial performance for new performance measurement systems', FSR Forum, Vol. 4, pp.22–31.
- Davis, S. and Albright, T. (2004) 'An investigation of the effect of balanced scorecard implementation on financial performance', *Management Accounting Research*, Vol. 15, pp.135–153.
- Dumond, E.J. (1994) 'Making best use of performance-measures and information', *Int. J. Operations and Production Management*, Vol. 14, pp.16–32.
- Epstein, M. and Manzoni, J.F. (1998) 'Implementing corporate strategy: from Tableaux de bord to balanced scorecards', *European Management Journal*, Vol. 16, pp.190–203.
- Epstein, M., Kumar, P. and Westbrook, R. (2000) 'The drivers of customer and corporate profitability: modeling, measuring, and managing the causal relationships', *Advances in Management Accounting*, Vol. 9, pp.43–72.
- Epstein, M.J., Rejc, A. and Slapnicar, S. (2004) 'The impact of performance measurement on corporate financial performance', in A. Neely, N. Kennerly and A. Waters (Eds), *Performance Measurement and Management: Public and Private* (pp.339–346). Cranfield, UK: Centre for Business Performance, Cranfield University.
- Fasko, D. (2001) 'Education and creativity', Creativity Research Journal, Vol. 13, pp.317–327.
- Florida, R. (2002) The Rise of the Creative Class. New York, NY: Basic Books.
- Florida, R. (2003) 'Entrepreneurship, creativity and regional economic growth', in D.M. Hart (Ed.), *The Emergency of Entrepreneurship Policy*. Cambridge, UK: Cambridge University Press.
- Florida, R. (2004) The Flight of the Creative Class. New York, NY: Basic Books.
- Foster, G., Gupta, M. and Sjoblom, L. (1996) 'Customer profitability analysis: challenges and new directions', *Journal of Cost Management*, Vol. 10, pp.5–17.
- Franco, M. and Bourne, M. and Wilkes, J. (2003) 'Corporate performance management', *Measuring Business Excellence*, Vol. 7, pp.15–21.

- Frigo, M.L. and Krumwiede, K.R. (1999) 'Balanced scorecards: a rising trend in strategic performance measurement', *Journal of Strategic Performance Measurement*, Vol. 3, pp.42–48.
- Groot, H., de, Nijkamp, P. and Stough, R. (Eds) (2004) *Entrepreneurship and Regional Economic Development*, Cheltenham, UK: Edward Elgar.
- Groves, G. and Valsamakis, V. (1998) 'Supplier-customer relationships and company performance', *Int. J. Logistics Management*, Vol. 9, pp.51–64.
- Guilford, J.P. (1950) 'Creativity', American Psychologist, Vol. 5, pp.444-454.
- Haas, M.D. and Kleingeld, A. (1999) 'Multilevel design of performance measurement systems: enhancing strategic dialogue throughout the organization', *Management Accounting Research*, Vol. 10, pp.233–261.
- Hammer, M., Haney, C.J., Wester, A., Ciccone, R. and Gaffney, P. (2007) 'The 7 deadly sins of performance measurement and how to avoid them', *MIT Sloan Management Review*, Vol. 48, p.19.
- Heras, M.A. (2004) 'Performance measurement and quality systems: results of qualitative research carried out in companies that had won the Catalan quality award', in A. Neely, M. Kennerly and A. Waters (Eds), *Performance Measurement and Management: Public and Private* (pp.459–466). Cranfield, UK: Centre for Business Performance, Cranfield University.
- Ho, S.J.K. and McKay, R.B. (2002) 'Balanced scorecard: two perspectives', *The CPA Journal*, Vol. 72, pp.22–25.
- Ho, S.J.K. and Chan, Y.C.L. (2002) 'Performance measurement and the implementation of balanced scorecards in municipal governments', *Journal of Government Financial Management*, Vol. 51, pp.8–19.
- Hoopes, L.L. and Hale, S.L. (1999) 'Society of chartered property and casualty underwriters', *CPCU Journal*, Vol. 52, pp.90–105.
- Hoque, Z. (2003) 'Total quality management and the balanced scorecard approach: a critical analysis of their potential relationships and directions for research', Critical Perspectives on Accounting, Vol. 14, pp.553–566.
- Hoque, Z. and James, W. (2000) 'Linking balanced scorecard measures to size and market factors: impact on organizational performance', *Journal of Management Accounting Research*, Vol. 12, pp.1–18.
- Hronec, S.M. (1993) Vital Signs: Using Quality, Time, and Cost Performance Measurements to Chart Your Company's Future. New York, NY: AMACOM, American Management Association.
- IOMA. Business Intelligence at Work (2005) 'IOMA's financial analysis, planning and reporting yearbook', Two studies reveal how firms are improving their budgeting and planning. performance reporting: majority of companies need to fix their balanced scorecards, 4–5.
- Ittner, C.D. and Larcker, D.F. (2003) 'Coming up short on nonfinancial performance measurement', *Harvard Business Review*, Vol. 81, pp.88–95.
- Ittner, C.D. and Larcker, D.F. (1995) 'Total quality management and the choice of information and reward systems', *Journal of Accounting Research*, Vol. 33, pp.1–34.
- Ittner, C.D. and Larcker, D.F. (1998a) 'Are non-financial measures leading indicators of financial performance? An analysis of customer satisfaction', *Journal of Accounting Research*, Vol. 36, pp.1–35.
- Ittner, C.D., Larcker, D.F. and Meyer, M.W. (2003) 'Subjectivity and the weighting of performance measures: evidence from a balanced scorecard', *The Accounting Review*, Vol. 78, pp.725–758.
- Ittner, C.D., Larcker, D.F. and Randall, T. (2003) 'Performance implications of strategic performance measurement in financial services firms', *Accounting, Organisations and Society*, Vol. 28, pp.715–741.
- Johnson H.T. and Kaplan R.S. (1987) 'Rise and fall of management accounting', *Management Accounting* (p.22–41). Boston, MA: Harvard Business School Press.

- Kald, M. and Nilsson, F. (2000) 'Performance measurement at Nordic companies', European Management Journal, Vol. 14, pp.113–127.
- Kanji, G.K. and Moura, S.P. (2002) 'Kanji's business scorecard', *Total Quality Management*, Vol. 13, pp.13–27.
- Kanji, G.K. (2002) 'Business excellence: make it happen', *Journal for Total Quality Management*, Vol. 13, pp.1115–1124.
- Kanji, G.K. (2005) 'Sustainable growth and business excellence', *Total Quality Management and Business Excellence*, Vol. 16, pp.1069–1078.
- Kaplan, R. and Norton, D. (1996a) *The Balanced Scorecard Translating Strategy into Action*. Boston, MA: Harvard Business School Press.
- Kaplan, R.S. (1983) 'Measuring manufacturing performance: a new challenge for managerial accounting research', *The Accounting Review*, Vol. 58, pp.686–705 (October).
- Kaplan, R.S. and Norton, D.P. (1992) 'The balanced scorecard: measures that drive performance', *Harvard Business Review*, Vol. 70, pp.71–79.
- Kaplan, R.S. and Norton, D.P. (1996b) 'Using the BSC as a strategic management system', *Harvard Business Review*, Vol. 74, pp.75–85.
- Kaplan, R.S. and Norton, D.P. (2000) 'Having trouble with your strategy? Then map it', *Harvard Business Review*, Vol. 78, pp.167–176.
- Kaplan, R.S. and Norton, D.P. (2001a) 'Transforming the balanced scorecard from performance measurement to strategic management: part I', *Accounting Horizons*, Vol. 15, pp.87–104.
- Kaplan, R.S. and Norton, D.P. (2001b) 'Transforming the balanced scorecard from performance measurement to strategic management: part II', *Accounting Horizons*, Vol. 15, pp.147–160.
- Kaynak, H. (2003) 'The relationship between total quality management practices and their effect on firms performance', *Journal of Operations Management*, Vol. 21, pp.405–435.
- Kourtit, K. (2007) 'Strategic Performance Management: Reasons for Implementation, and Advantages, Disadvantages and Experiences in Practice', *Master thesis*, Vrije Universiteit Amsterdam.
- Lawrie, G., Cobbold, I. and Issa, K. (2004) 'The design of a strategic management system in an industrial private sector organisation', in A. Neely, M. Kennerly and A. Waters (Eds), Performance Measurement and Management: Public and Private, Centre For Business Performance (pp.579–586). Cranfield, UK: Cranfield University.
- Lawson, R., Stratton, W. and Hatch, T. (2003) "The benefits of a scorecard system', CMA Management, Hamilton. June/July, Vol. 77, pp.24–27.
- Lawson, R., Stratton, W. and Hatch, T. (2004) 'Automating the balanced scorecard', CMA Management, Vol. 77, pp.39–43.
- Lawson, R., Stratton, W. and Hatch, T. (2005) 'Achieving strategy with scorecarding', *Journal of Corporate Accounting and Finance*, Vol. 16, pp.63–68.
- Letza, S.R. (1996) 'The design and implementation of the balanced business scorecard: an analysis of three companies in practice', *Business Process Management Journal*, Vol. 2, pp.54–76.
- Lingle, J.H. and Schiemann, W.A. (1996) 'From balanced scorecard to strategic gauges: is measurement worth it?', *Management Review*, Vol. 5, pp.56–61.
- Lingle, J.H. and Schiemann, W.A. (1999) *Bullseye! Hitting Your Strategic Target through High Impact Measurement*. New York, NY: Free Press.
- Lipe, M.G. and Salterio, S.E. (2000) 'The balanced scorecard: judgmental effects of common and unique performance measures', *The Accounting Review*, Vol. 75, pp.283–298.
- Lovell, B., Radnor, Z. and Henderson, J. (2002) 'A pragmatic assessment of the balanced scorecard: an evaluation of a new performance system for use in a NHS multi agency setting in the UK', *Working Paper Series*, Vol. 2, pp.339–346.
- Lynch, R.L. and Cross, K.F. (1995) *Measure up! Yardsticks for Continuous Improvement*. Cambridge, MA: Basil Blackwell.

- Malina, M.A. and Selto, F.H. (2001) 'Communicating and controlling strategy: an empirical study of the effectiveness of the balanced scorecard', *Journal of Management Accounting Research*, Vol. 13, pp.47–90.
- Malina, M.A. and Selto, F.H. (2004) 'Choice and change of measures in performance measurement models', *Management Accounting Research*, Vol. 15, pp.441–469.
- Markusen, A. (1996) 'Sticky places in slippery space', *Economic Geography*, Vol. 72, pp.293–313.
- Marr, B. and Neely, A. (2001) *Balanced Scorecard Software Report*, Gartner, Inc. and Cranfield School of Management, Stamford, CT.
- Marr, B., Schiuma, G. and Neely, A. (2004) 'The dynamics of value creation: mapping your intellectual performance drivers', *Journal of Intellectual Capital*, Vol. 5, pp.312–325.
- Mooraj, S., Oyon, D. and Hostettler, D. (1999) 'The balanced scorecard: a necessary good or an unnecessary evil?', *European Management Journal*, Vol. 17, pp.481–491.
- Morard, B. and Stancu, A. (2005) Structural Equation Modeling in a Rationalization Tentative of Balanced Scorecard, Working paper, University of Geneva.
- Neely, A. and Austin, R. (2000) 'Measuring operations performance: past, present and future', in A. Neely (Ed.), *Performance Measurement: Past, Present and Future, Centre for Business Performance*. Bedfordshire, UK: Cranfield School of Management, Cranfield University.
- Neely, A. and Bourne, M. (2000) 'Why measurement initiatives fail', *Measuring Business Excellence*, Vol. 4, pp.3–6.
- Neely, A., Bourne, M. and Kennerley, M. (2000) 'Performance measurement system design: developing and testing a process based approach', *Int. J. Operations and Production Management*, Vol. 20, pp.1119–1145.
- Neely, A., Kennerley, M. and Martinez, V. (2004) 'Does the balanced scorecard work: an empirical investigation', in A. Neely, M. Kennerly and A. Waters (Eds), *Performance Measurement and Management: Public and Private* (pp.763–770). Cranfield, UK: Centre for Business Performance, Cranfield University.
- Neely, M.M. (1997) '3 strategies for successful business partners', *HRMagazine*, Vol. 42, pp.1–4.
- Nijkamp, P. (2004) Innovation, Space and Economic Development. Cheltenham, UK: Edward Elgar.
- Niven, P.R. (2002) Balanced Scorecard: Step-by-step Maximizing Performance and Maintaining Results. New York, NY: Wiley.
- Norreklit, H. (2000) 'The balanced on the balanced scorecard: a critical analysis of some of the assumptions', *Management Accounting Research*, Vol. 11, pp.65–88.
- Otley, D. (1999) 'Performance management: a framework for management control systems research', *Management Accounting Research*, Vol. 10, pp.363–382.
- Papalexandris, A., Ioannou, G. and Prastacos, G.P. (2004) 'Implementing the balanced scorecard in Greece: a software firm's experience', *Long Range Planning*, Vol. 37, pp.347–362.
- Park, E.J. and Huber, D. (2007) 'Balanced Scorecards for performance management', *Journal of Nursing Administration*, Vol. 37, pp.14–20.
- Perera, S., Harrison, G. and Poole, M. (1997) 'Customer-focused manufacturing strategy and the use of operations-based non-financial performance measures: a research note', *Accounting, Organizations and Society*, Vol. 22, pp.557–572.
- Poot, J. (Ed.) (2004) On the Edge of the Global Economy. Cheltenham, UK: Edward Elgar.
- Porter, M. (1990) The Competitive Advantage of Nations. New York, NY: Free Press.
- Rheem, H. (1996) 'Performance management programs', *Harvard Business Review*, Vol. 74, pp.8–10.
- Rigby, D. (2001) 'Management tools and techniques: a survey', *California Management Review*, Vol. 43, pp.139–160.

- Robinson, S.P. (2004) 'The adoption of the balanced scorecard: performance measurement motives, measures and impact', *Performance Measurement and Management: Public and Private* (883–890). Cranfield, UK: Cranfield School of Management, Performance Measurement Association, IV.
- Said, A.A., HassabElnaby, H.R. and Wier, B. (2003) 'An empirical investigation of the performance consequences of nonfinancial measures', *Journal of Management Accounting Research*, Vol. 15, pp.193–223.
- Sak, G. and Taymaz, E. (2004) 'How flexible are small firms?', *Paper presented at the Eleventh Annual Conference*, Beirut, December.
- Salterio, S. and Webb, A. (2003) 'The balanced scorecard', CA Magazine, Vol. 136, pp.39–42.
- Saxerian, A. (1994) Regional Advantage, Culture and Competition in Silicon Valley and Route 128. Cambridge, MA: Harvard University Press.
- Scheipers G., Ameels A. and Bruggeman W. (2004) 'The cascading process for multi-level balanced scorecard design: the case of a Belgian wastewater management company', in A. Neely, M. Kennerly and A. Walters. Paper presented in the Proceedings of the *Fouth International Conference Performance Measurement and Management: Public and Private Edinburgh International Conference Centre*, (EICC), Edinburgh, UK (27-30 July 2004). (pp.1209–1216).
- Scott, A. (2000) The Cultural Economy of Cities. London, UK: Sage.
- Self, J. (2004) 'Metrics and management: applying the results of the balanced scorecard', Performance Measurement and Metrics, Vol. 5, pp.101–105.
- Shulver, M. and Antarkar, N. (2001) 'The balanced scorecard as a communication protocol for managing across intra-organizational borders', Paper presented in the Proceedings of the 12th Annual Conference of the Production and Operations Management Society, Orlando, FL.
- Silk, S. (1998) 'Automating the balanced scorecard', Management Accounting, Vol. 79, pp.38–44.
- Sim, K.L. and Koh, H.C. (2001) 'Balanced scorecard: a rising trend in strategic performance measurement', *Measuring Business Excellence*, Vol. 5, pp.18–28.
- Speckbacher, G., Bischof, J. and Pfeiffer, T. (2003) 'A descriptive analysis on the implementation of balanced scorecards in German speaking countries', *Management Accounting Research*, Vol. 14, pp.361–387.
- Sureshchandar, G.S. and Leisten, R. (2005) 'Holistic scorecard: strategic performance measurement and management in the software industry', *Measuring Business Excellence*, Vol. 9, pp.12–29.
- Sushil, S. (2000) Flexibility in Management. New Delhi: Vikas.
- Tapinos, E., Dyson, R.G. and Meadows, M. (2005) 'The impact of performance measurement in strategic planning', *Int. J. Productivity and Performance Management*, Vol. 54, pp.370–384.
- Torrance, E.P. (1963) *Education and the Creative Potential*. Minneapolis, MN: University of Minnesota Press.
- Torrance, E.P. (1972) 'Can we teach children to think creatively?', *Journal of Creative Behavior*, Vol. 6, pp.114–143.
- Torrance, E.P. (1981) 'Creative teaching makes a difference', in J.C. Gowan, J. Khatena and E.P. Torrance (Eds), *Creativity*. Dubuque, IA: Kendall.
- Torrance, E.P. (1966) The Torrance Test of Creative Thinking. Lexington, MA: Personal Press.
- Waal, A.A. de. (2001) Power of Performance Management: How Leading Companies Create Sustained Value. New York, NY: John Wiley & Sons.
- Waal, A.A. de. (2002) 'The role of behavioural factors in the successful implementation and use of performance management systems', *PhD thesis*, Vrije Universiteit Amsterdam.

- Waal, A.A. de. and Counet, H. (2006) 'Lessons learned from the balanced scorecard, research into problems encountered and lessons learned from implementation and use of performance management systems', in A. Neely, M. Kennerley and A. Walters (Eds), *Performance Measurement and Management: Public and Private*. Cranfield, UK: Cranfield School of Management.
- Williams, M.S. (2001) 'Is intellectual capital performance and disclosure practices related?', Journal of Intellectual Capital, Vol. 2, pp.192–203.
- Youngblood, M.D. (1997) 'Leadership at the edge of chaos: from control to creativity', *Strategy and Leadership*, Vol. 25, pp.9–14.
- Zairi, M. (1992) 'Benchmarking: the best tool for measuring competitiveness', *Unilever Lecturer in TQM* (December). Bradford, UK: Bradford University Management Centre.
- Zairi, M. and Jarrar, Y. (2000) 'Becoming world class through a culture of measurement', in A. Neely (Ed.), *Performance Measurement Past, Present, and Future* (pp.688–694). Cranfield, UK: Centre for Business Performance, Cranfield University.
- Zeng, D.D. and Zhao, J.L. (2005) 'Effective role resolution in workflow management', *Informs Journal on Computing*, Vol. 17, p.374.

Note

¹Daniels (1999) describes an antecedent to be "a person, place, thing or event coming before behaviour, which encourages organisations to perform or behave the way they do. Examples of antecedents are such things as goals, objectives, packaging incentives, job descriptions, policies, procedures, standards, rules, regulations, meetings, tools, raw materials, and conditions of work, directions and instructions.