

STRATEGIC PERFORMANCE MANAGEMENT IN PRACTICE: ADVANTAGES, DISADVANTAGES AND REASONS FOR USE

Karima Kourtit & André de Waal
*Vrije Universiteit Amsterdam & Maastricht School of Management,
The Netherlands*

Abstract

Despite the fact that in recent years strategic performance management (SPM) has attracted much research interest, the question remains whether it has brought added value to organizations. This paper tries to identify the advantages, disadvantages and reasons for use of SPM which organizations have experienced in practice. Based on literature research and interviews at seventeen prominent Dutch organizations, four main advantages, two main disadvantages and two main reasons for use were discovered. With the research results, management can convince organizational members that SPM is indeed beneficial for the organization.

Keywords: *advantages, disadvantages, reasons for use, practice*

Introduction

Strategic performance management (SPM) has in the past decades attracted much research interest from both the academic and business communities. In this respect, SPM is defined as ‘the process where steering of the organization takes place through the systematic definition of mission, strategy and objectives of the organization, 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, 2007). The effectiveness of the process is defined as the achievement of financial as well as non-financial targets, the development of skills and competencies, and the improvement of customer care and process quality (Waal, 2007). There is evidence that SPM is now implemented in approximately 70 percent 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 et al., 2003; Neely et al., 2004; Marr et al., 2004). The question however is: has SPM been successful in practice? Various authors (Hronec, 1993; Lynch and Cross, 1995; Lingle and Schiemann, 1996, 1999; Kaplan and Norton, 1996; Rheem 1996; Atkinson et al., 1997; Armstrong and Baron, 1998; Lawson et al., 2003) content that companies who have implemented SPM perform better than companies that do not use SPM. But many of these studies are anecdotal and of a case study nature, and are not grounded in rigorous research (Bourne et al., 2000; Neely and Bourne, 2000; Neely and Austin, 2000; Bourne et al., 2003; Neely et al., 2004). In addition, Robinson (2004) mentions that little is actually known about the specific reasons that organizations have to implement SPM. This paper describes empirical research that was undertaken to provide answers to the following questions: *What are reasons for implementing SPM? What are advantages and disadvantages of SPM in practice? What relations are there between these advantages, disadvantages and reasons for implementation?*

This paper is organized as follows. The advantages, disadvantages and reasons for SPM use, as found in the literature, are described in the next section. The literature findings are then tested at 17 Dutch organizations and the results are discussed in the third section of the paper.

Additional testing by using factor and multiple regression analyses is described and the results are discussed in the fourth section. Finally, the last section provides a summary and limitations of the research. The research described in this paper should help management to better manage expectations of a SPM implementation as the organization is more prepared for the advantages and disadvantages to expect when SPM is implemented for a specific reason. The research results also help management to evaluate the SPM system and to evaluate whether the organization obtains the most value from it.

SPM advantages, disadvantages and reasons for use

The main source to identify SPM advantages, disadvantages and reasons for use was academic and management literature describing the experience of organizations with SPM in practice. A search of academic management databases initially yielded 5625 matches. After narrowing the search criteria to exclusively empirical research, 28 sources remained. In order to heighten the chance on generalization, it was decided to incorporate only advantages, disadvantages and reasons for use which were mentioned in at least two sources.¹ All in all, 3 quantitative and 22 qualitative advantages, 8 qualitative disadvantages, and 41 reasons for SPM use were identified (see Table 1).

Quantitative advantage	Literature source
Increase in revenue	Malina and Selto, 2001; Sim and Koh, 2001; Davis and Albright, 2002; Waal, 2002; Said et al., 2003; Braam and Nijssen, 2004; Davis and Albright, 2004; Neely et al., 2004; Robinson, 2004.
Increase in profit	Epstein et al., 2000; Davis and Albright, 2002; Waal, 2002; Said et al., 2003; Said et al., 2003; Braam and Nijssen, 2004; Davis and Albright, 2004; Neely et al., 2004; Robinson, 2004.
Reduction in costs	Sim and Koh, 2001; Neely et al., 2004.
Qualitative advantage	Literature source
Improvement in communication in the organization on the strategy	Lovell et al., 2002; Baraldi and Monolo, 2004; Heras, 2004; Neely et al., 2004; Papalexandris et al., 2004; Robinson, 2004; Lawson et al., 2004.
Closer collaboration and better knowledge sharing and information exchange between organisational units	Mooraj, et al., 1999; Kald and Nilsson, 2000; Neely et al., 2004; Lawrie et al., 2004; Papalexandris et al., 2004; Robinson, 2004.
Strengthened focus on what is important for the organization	Mooraj et al., 1999; Kald and Nilsson, 2000; Baraldi and Monolo, 2004; Neely et al., 2004; Self, 2004;
More focus on the achievement of results	Dumond, 1994; Bititci et al., 2004; Lawrie et al., 2004; Neely et al., 2004; Self, 2004.
Higher quality of performance information	Lawson et al., 2004; Neely et al., 2004; Robinson, 2004; IOMA. Business Intelligence at Work, 2005; Tapinos et al., 2005.
Better strategic alignment of organisational units	Malina and Selto, 2001; Shulver and Antarkar, 2001; Lovell et al., 2002; Neely et al., 2004; Lawson et al., 2005.
Higher operational efficiency	Waal, 2002; Neely et al., 2004; Robinson, 2004.
Improvement of management quality	Malina and Selto, 2001; Waal, 2002; Neely et al., 2004.

¹ For the 'reasons for using SPM' no selection was made because only four empirical literature sources were found that listed these reasons.

Qualitative advantage	Literature source
Better understanding of organizational members of the strategy	Lovell et al., 2002; Heras, 2004; Neely et al., 2004.
Improvement in the decision-making process	Dumond, 1994; Mooraj et al., 1999; Kald and Nilsson, 2000.
Higher commitment of organizational members to the organization	Malina and Selto, 2001; Neely et al., 2004; Bititci et al., 2004.
More clarity of people about their contribution towards achievement of the strategy and organizational goals	Lawson et al., 2004; Neely et al., 2004; Papalexandris et al., 2004.
Higher innovativeness	Sim and Koh, 2001; Waal, 2002; Self, 2004.
Better achievement of organisational goals	Waal, 2002; Hatch, 2005; Tapinos et al., 2005.
More pro-activity of organizational members	Neely et al., 2004; Hatch, 2005; Tapinos et al., 2005.
More clarity for organizational members about their roles and goals to be achieved	Lawson et al., 2004; Neely et al., 2004.
Higher quality of products and services	Waal, 2002; Brown, 2004.
More effective management control	Malina and Selto, 2001; Neely et al., 2004.
Higher employee satisfaction	Sim and Koh, 2001; Papalexandris et al., 2004.
Stronger process orientation	Shulver and Antarkar, 2001; Neely et al., 2004.
Strengthened reputation of the organisation as a quality firm	Waal, 2002; Self, 2004.
Better strategic planning process	Lovell et al., 2002; Tapinos et al., 2005.
Qualitative disadvantage	Literature source
It causes too much internal competition	Kald and Nilsson, 2000; Papalexandris et al., 2004
There is too much financial information	Kald and Nilsson, 2000; IOMA, Business Intelligence at Work, 2005
It is too expensive and too bureaucratic	Braam and Nijssen, 2004; IOMA, Business Intelligence at Work, 2005
There are too many performance indicators	Dumond, 1994; Kald and Nilsson, 2000; Self, 2004; IOMA, Business Intelligence at Work, 2005
The performance information is too aggregated	Kald and Nilsson. 2000; Neely et al., 2004
There is not enough strategic information in the system	Kald and Nilsson, 2000; Sim and Koh, 2001
The performance indicators are too subjective and therefore unreliable	Kald and Nilsson, 2000; Malina and Selto, 2001
There is too much historical information	Kald and Nilsson, 2000; IOMA, Business Intelligence at Work, 2005

Reason for use	Literature source
More accurate measurement of performance	Robinson, 2004.
More focus on the strategy	Robinson, 2004.
Stronger accountability	Robinson, 2004.
Need for a broader set of measures of performance	Robinson, 2004.
Better facilitation of cross-functional understanding	Robinson, 2004.
Better goal setting	Robinson, 2004.
Formalization of the strategic planning process	Robinson (2004).
Stronger individual accountability of employees	Robinson, 2004.
Stronger commitment of top management	Robinson, 2004.
Higher commitment to the strategy	Neely et al., 2004.
Handling the increase in complexity of the organization	Tapinos et al., 2005.
Better description of mission, strategy and goals	Neely et al., 2004.

Reason for use	Literature source
Improve the performance of the organization	Lawson et al., 2004
Obtain a better understandings in knowledge and skills of people	Lawson et al., 2004
Better control and with that a better 'obedience' of people	Lawson et al., 2004
Tracking progress towards achievement of organizational goals	Lawson et al., 2004.
Aligning employee behaviour with strategic objectives	Lawson et al., 2004.
Better communicating of strategy to everyone in the organization	Lawson et al., 2004.
Aligning the organization to the strategy	Lawson et al., 2004.
Being able to measure people, projects and strategy	Lawson et al., 2004.
Being able to measure performance at various organizational levels	Lawson et al., 2004.
Translating the strategy into operational terms	Lawson et al., 2004.
Need to make strategy everyone's job	Lawson et al., 2004.
Need to correlate measures and actions better	Lawson et al., 2004.
Linking rewards to performance	Lawson et al., 2004.
Enforcing and monitoring regulatory compliance	Lawson et al., 2004.
Requirement of a business opportunity	Lawson et al., 2004.
Expectation of the stock market	Lawson et al., 2004.
Requirement of governmental regulations	Lawson et al., 2004.
Decision support at top management level	Lawson et al., 2004.
Decision support at operational level	Lawson et al., 2004.
Providing a better picture of customer and product profitability	Lawson et al., 2004.
Making responsibility accounting possible	Lawson et al., 2004.
Identity possible needs for changes in strategy	Lawson et al., 2004.
Facilitate implementation of business strategy	Lawson et al., 2004.
Provide information for external reporting	Lawson et al., 2004.
Facilitate comparison with other, similar business units	Lawson et al., 2004.
Enhance quality of the organization	Lawson et al., 2004.
Determination of the bonus of management and/or staff	Lawson et al., 2004.
Monitor whether the business is creating value for shareholders	Lawson et al., 2004.
Facilitate a process orientation	Lawson et al., 2004.

Table 1: Listing of SPM advantages, disadvantages and reasons for use, as identified from the literature

Research approach and results

To verify which SPM advantages, disadvantages and reasons for use organizations actually experienced in practice, organizational members of prominent Dutch organizations were interviewed. As the literature search did not yield a structured, validated questionnaire, a self-constructed interview question list was used. The advantages, disadvantages and reasons for use identified from the literature were put in the form of statements and presented to the interviewees. To determine the degree in which interviewees experienced advantages, disadvantages and reasons for use, the statements were set-up in such a manner that the interviewees could give a rating on a Lickert 5-point scale, varying from '1= not at all' to '5 = very strong' (advantages and disadvantages) and '1 = very important' to 5 = 'not important at all' (reasons for use; here a reversed scale was used to keep interviewees 'sharp'). The interviewees were also asked if they could give examples from practice, to illustrate their ratings. The participating organizations were selected on the basis of one criterion, namely whether they had experience in using a SPM for at least one year. The assumption was that after a period of at least one year, the situation surrounding the SPM should have settled down enough for users to give answers in a fairly objective way (Waal, 2002). A letter was sent to

each organization outlining the research and inviting them to participate. In total 52 people of 17 organizations from a broad selection of industries participated in the research (see Table 2). No selection of industries was made in order to heighten the chance on generalization of the research results. The interview question list was not send before the interview in order to increase the likelihood of spontaneity in the answers of the interviewees. This is because the research was more about what interviewees really experienced with SPM in practice than about looking for a correct (theoretical) answer. The researchers were very careful not to influence the interviewees' responses in any way during the interview, and also mutually double-checked each grading at the end of the interview. The adopted procedure minimized response bias, although the researchers acknowledge experimenter bias was possible.

Organization	Industry	Size	Type	No. of interviews
Abrona	Care	Medium	National	5
De Lage Landen	Financial services	Large	Multinational	4
Eneco	Energy	Large	National	3
Heemskerk	Food	Medium	Multinational	4
ING	Financial services	Large	Multinational	2
KLM	Transportation	Large	Multinational	2
KLM Cargo	Transportation	Large	Multinational	2
Philips Research	Electronics	Large	Multinational	4
PQ Europe	Manufacturing	Medium	Multinational	3
Rabobank	Financial services	Large	Multinational	4
Sara-Lee/DE	Food	Large	Multinational	2
Schiphol Group	Professional	Large	Multinational	1
Stork	Manufacturing	Large	Multinational	2
Tempo-Team	Professional	Large	National	4
Trespa	Manufacturing	Medium	Multinational	4
Wessanen	Food	Large	Multinational	5
Car manufacturer	Manufacturing	Large	Multinational	1

Table 2: Overview of the participating organizations

Matching literature with practice

Based on the interview results, it can be evaluated which of the advantages and disadvantages of SPM as noted in the literature indeed occur in practice. For this, in Table 3 a ranking has been made of the advantages and disadvantages, both for the number of times an advantage or disadvantage was identified during the interviews (more ratings of 4 and 5 on the Lickert 5-point scale means a higher practice ranking) or from the literature (mentioned in more sources means a higher literature ranking). As can be seen from Table 3, both rankings do not match fully. For the quantitative advantages, one advantage seen in the literature as being very important, 'increase in revenue', hardly occurs in practice. The emphasis of the SPM system in the participating organisations seems to be on using the system for internal purposes, i.e. achieving cost reductions and thereby increasing profitability. Using SPM in improving external processes, like sales & marketing, has not been done as much or the results of this have not been fully noticed yet. Table 3 also shows that the participating organisations have used their SPM system to increase the goal and result orientation of the people in the organisation, and to strengthen the control on this result achievement. Advantages like closer collaboration and alignment between organisational units seemed to be of lesser importance.

Finally, Table 3 reveals that the disadvantages are maybe not negligible but do not occur too often at the participating organisations.

Quantitative advantage	Practice ranking	Literature ranking
Increase in profit	1 (65%)	1
Reduction in costs	2 (60%)	2
Increase in revenue	3 (31%)	1
Qualitative advantage	Practice ranking	Literature ranking
Strengthened focus on what is important for the organization	1 (87%)	3
More focus on the achievement of results	1 (87%)	3
Improvement in communication in the organization on the strategy	2 (85%)	1
More effective management control	2 (85%)	5
Higher quality of performance information	3 (81%)	3
Better achievement of organisational goals	4 (71%)	4
More clarity for organizational members about their roles and goals to be achieved	5 (69%)	5
Stronger process orientation	5 (69%)	5
Higher operational efficiency	6 (63%)	4
More clarity of people about their contribution towards achievement of the strategy and organizational goals	6 (63%)	4
Better strategic planning process	7 (62%)	5
Better understanding of organizational members of the strategy	8 (58%)	4
Improvement in the decision-making process	8 (58%)	4
Closer collaboration and better knowledge sharing and information exchange between organisational units	9 (54%)	2
Improvement of management quality	9 (54%)	4
Better strategic alignment of organisational units	10 (52%)	3
Higher commitment of organizational members to the organization	10 (52%)	4
Higher quality of products and services	11 (48%)	5
More pro-activity of organizational members	12 (44%)	4
Strengthened reputation of the organisation as a quality firm	13 (42%)	5
Higher innovativeness	14 (29%)	4
Higher employee satisfaction	15 (19%)	5
Qualitative disadvantage	Practice ranking	Literature ranking
There are too many performance indicators	1 (35%)	1
There is not enough strategic information in the system	2 (31%)	2
It is too expensive and too bureaucratic	3 (19%)	2
There is too much historical information	3 (19%)	2
There is too much financial information	4 (17%)	2
The performance information is too aggregated	5 (15%)	2
It causes too much internal competition	6 (10%)	2
The performance indicators are too subjective and therefore unreliable	7 (2%)	2

Table 3: Matching the advantages and disadvantages occurring in practice with those mentioned in the literature (the percentage means the number of times 4 and 5 rankings were given by respondents, divided by the total number of respondents)*

Results of the advantages factor analysis

This research used the ‘common factor analysis’ (CFA) based on the Maximum Likelihood-method (n=52; $p < 0,05$), because the intention was to identify the main advantages, disadvantages and reasons for use, and to avoid a large amount of data. First, normality was verified through a Kolmogorov-Smirnov test, as was the quality of the factor analysis through a Bartlett’s test and Kaiser-Meyer-Olkin. These tests all yielded satisfactory results. A Varimax rotation was applied, to secure less ambiguous condition between factors and variables (Hair et al. 1998). Communalities reproduced the declared variance in the variable through the number of factors in the factor solution. Several variables with a communality lower than 0.3 were removed from the dataset. The factor analysis of the SPM advantages yielded four factors, as depicted in Table 4.

SPM advantages	Factor 1 (HRO)	Factor 2 (BSC)	Factor 3 (HPQ)	Factor 4 (HOQ)
Increase in profit	0,825			-0,295
Higher operational efficiency	0,747	-0,174		0,182
Improvement in the decision-making process	0,705	0,191	0,269	-0,127
Improvement of management quality	0,613			0,246
Reduction in costs	0,610		0,126	
More effective management control	0,453	0,281	-0,123	0,275
Increase in revenue	0,353	0,207	0,200	
Better achievement of organizational goals	0,468	0,574		
Strengthened focus on what is important for the organization	0,477	0,390	-0,608	0,231
More clarity of people about their contribution towards achievement of the strategy and organizational goals	-0,127	0,884	0,189	-0,171
More focus on the achievement of results	-0,108	0,659	-0,226	0,134
Better understanding of organizational members of the strategy	-0,104	0,642	0,376	
More clarity for organizational members about their roles and goals to be achieved		0,560	-0,140	0,181
More pro-activity of organizational members			0,637	0,239
Higher commitment of organizational members to the organization	0,273	0,128	0,613	0,161
Stronger process orientation			0,533	
Better strategic alignment of organizational units	0,324	0,216	0,527	
Improvement in communication in the organization on the strategy	-0,122			0,713
Higher employee satisfaction	-0,162	0,211		0,667
Strengthened reputation of the organization as a quality firm	0,115		0,327	0,657
Higher quality of products and services	0,363	-0,126	0,157	0,530
Better strategic planning process			0,208	0,492
Higher quality of performance information	0,336		-0,105	0,351

Table 4: Common Factor Analysis of the SPM advantages components

Factor 1, higher result orientation (HRO), consists of variables which all have to do with a higher orientation of organizational members on achieving organizational results, by using SPM. The organization experiences an increase in revenue and a decrease in cost, resulting in an increase in profit. The decrease in costs is specifically caused by higher operational efficiency, better management of the organization, and more effective management control. The strengthened focus on what is important for the organization, coupled with the improvement in the decision-making, considerably facilitates the achievement of organizational goals. Factor 2, better strategic clarity (BSC), consists of variables depicting advantages which are caused by SPM increasing clarity throughout the organization on the strategic goals to be achieved. SPM increases the understanding of organizational members of the strategy, by translating this strategy in tangible performance indicators on all organizational levels. This creates more insight for organizational members on the goals to be achieved and their role in this. Factor 3, higher people quality (HPQ), consists of variables depicting the increased quality of organizational members. Through SPM, people in the organization become more pro-active, are more committed to the organization, and are more oriented on processes which help achieve organizational results. In addition, SPM aligns everybody in all the organizational units towards achieving the strategy. Factor 4, higher organizational quality (HOQ), consists of variables which have to do with strengthening the organization's quality. SPM improves internal processes as the communication process on the organization's strategy, the performance information supply process, and the strategic planning process. As a result, employees are more satisfied, the quality of the products and services provided by the organization increase, contributing to a strengthened reputation of the firm as a quality organization.

Results of the disadvantages factor analysis

The factor analysis of the SPM disadvantages yielded two factors, as depicted in Table 5.

SPM disadvantages	Factor 1 (BAS)	Factor 2 (LIQ)
It causes too much internal competition	0,736	-0,215
There is too much financial information	0,735	0,143
It is too expensive and too bureaucratic	0,700	
There are too many performance indicators		0,709
The performance information is too aggregated		0,640
There is not enough strategic information in the system		0,623
The performance indicators are too subjective and therefore unreliable	0,435	0,541

Table 5: Common Factor Analysis of the Disadvantages

Factor 1, badly aligned system (BAS), consists of variables showing that the implemented SPM system does not have the right fit with the organization. It contains too much financial information so it does not give a balanced view of the organization's performance. It is also too voluminous, making it too expensive and bureaucratic. In addition, the system causes the wrong behaviour in people as peer pressure escalates in internal competition and mutual strive. Factor 2, low information quality (LIQ), consists of variables which depict the bad quality of the performance information generated by SPM system. The system contains too many performance indicators, which are of too high a level and do not give strategic information. In addition, the performance information cannot be trusted as it is unreliable. This basically renders the performance information meaningless.

Results of the reasons for use factor analysis

The factor analysis of the SPM reasons for use yielded two factors, as depicted in Table 6.

Reasons for use	Factor 1 (FoC)	Factor 2 (FoS)
Higher commitment to the strategy	0,575	
Better control and with that a better 'obedience' of people	0,181	
Being able to measure performance at various organizational levels	0,362	0,197
Handling the increase in complexity of the organization	0,622	0,156
Enhance quality of the organization	0,517	
Stronger accountability	0,757	
Being able to measure performance at various organizational levels	0,153	
Better description of mission, strategy and goals		0,522
Improve the performance of the organization	0,161	0,447
Aligning employee behaviour with strategic objectives		0,586
Better communicating of strategy to everyone in the organization		0,656
Translating the strategy into operational terms	0,112	0,766
Linking rewards to performance		0,461
More focus on the strategy		0,673
Obtain a better understanding in knowledge and skills of people	0,195	0,288

Table 6: Common Factor Analysis of the reasons for use

Factor 1, focus on control (FoC), consists of reasons for use that have to do with a better control of the organization. SPM is used to deploy accountabilities and responsibilities on all levels in the organization and subsequently measure and control the performance of these levels. In addition, SPM is used to strengthen the commitment to the strategy in an increasingly complex organization. Factor 2, focus on strategy (FoS), consists of reasons for use that have to do with creating a focus on formulating, deploying, communicating, implementing and understanding the strategy throughout the organization. In addition, SPM his used to translate the organization's strategy in operational terms, align the complete organization to the strategy, better understand the capacities of the people who have to execute the strategy, and link their subsequent performance to rewards. In the end, all this is used to improve the organization's performance.

Results of the correlation analysis

It is necessary, before the multiple regression analysis can take place, to test relations between the reasons for use, advantages and disadvantages, to check whether the identified factors are not subjected to the principle of multicollinearity, nor have a strong correlation, because strongly correlated factors would explain the same phenomenon. Although there is no clear limit in the literature for the strength of a correlation, an informal rule says it has to be around 0.6. Table 7 gives the correlation matrix.

Table 7 show significant correlations between the factors that are not stronger than 0.6, except for the one between FoS and HPQ ($r = .659$). This is understandable because both factors have to do with the effect that SPM has on people: making them more connected to the strategy and motivating them to deliver better performance. From this point of view, it can be derived that FoS and HPQ are well connected but are really different. In general, the results indicate that the factors are mainly autonomous features and that there is no multicollinearity. Thus, the self-constructed questionnaire as a basis for measuring SPM advantages, disadvantages and reasons for use is justified. Table 7 also shows that the scores on the

advantages factors do not differ much from each other, μ is between 3.3 and 3.5. This suggests there is no particular advantage that plays a dominant role when using SPM. The disadvantages turn out to be hardly experienced by the interviewees, μ is 1.7 and 2.0. This suggests that the use of SPM brings clear advantages which are dominant over the disadvantages. Further, the interviewees indicate that all the reasons for use of SPM are virtually equally important (μ is 2.4 and 2.3). This suggests there is no particular reason that plays a dominant role in the decision to implement and use SPM.

Factors	Mean (μ)	Standard deviation	HRO	BSC	HPQ	HOQ	BAS	LIQ	FoC	FoS
Achieved organizational results (HRO)	3,5	0,7	1							
Better strategic clarity (BSC)	3,5	0,9	.489	1						
High people quality (HPQ)	3,3	0,9	.543	.430	1					
High organizational quality (HOQ)	3,4	0,8	.516	.380	.516	1				
Badly aligned system (BAS)	1,7	0,9	-.092	-.197	.047	-.110	1			
Low information quality (LIQ)	2,0	0,8	-.180	-.330	-.208	-.328	.176	1		
Focus on control (FoC)	2,4	0,7	.121	.371	.212	.179	-.123	.242	1	
Focus on strategy (FoS)	2,3	0,7	.388	.124	.659	.399	-.247	-.136	.150	1

Table 7: Component correlation matrix of factors

Results of the multiple regression analysis

Using a multiple regression analysis, a relation model can be created from the SPM advantages, disadvantages and reasons for use factors (Figure 1). This model is constructed to identify the various relations between the factors. In this respect, several hypotheses can be made, such as: (1) specific reasons for using SPM will yield specific advantages (positive relationship) and disadvantages (negative relationship); (2) specific SPM advantages will create specific disadvantages (negative relationship); and (3) specific SPM advantages will cause specific other SPM advantages (positive relationship). Figure 1 depicts the results of the multiple regression analysis.

Figure 1 shows that the reasons for use factors have significant positive relations with three of the advantages factors and no significant relations with the disadvantages factors. As can be seen from Figure 1, the reasons for use do not have a direct relation with the advantage higher result orientation (HRO). This can be explained by considering this advantage as a logical consequence of the other advantages: a better strategic clarity, a higher quality of people and a higher quality of organization will result in a higher orientation on results (and subsequently achieving higher organizational results). The reason for use focus on control (FoC) has significant relations with three of the advantages. This seems logical as better control,

emerging in a.o. better measurement of results, stronger accountability of people, higher commitment to the strategy, and more focus on enhancing the quality of the organization, results in better understanding of the strategy and how people's role fit in with achieving this strategy (BSC), a stronger process orientation and more pro-activity in achieving results (HPQ), and a higher quality of the organization (HOQ). The reason for use focus on strategy (FoS) yields one advantage, higher organizational quality (HOQ). This can be explained by the fact that FoS is aimed at obtaining a better understanding of the knowledge and skills of people, subsequently aligning them better with the strategy (f.i. translating the strategy in operational terms) and then rewarding them on achieving strategic goals. This results in higher employee satisfaction and a higher quality of processes, products and services, as stipulated in the strategy.

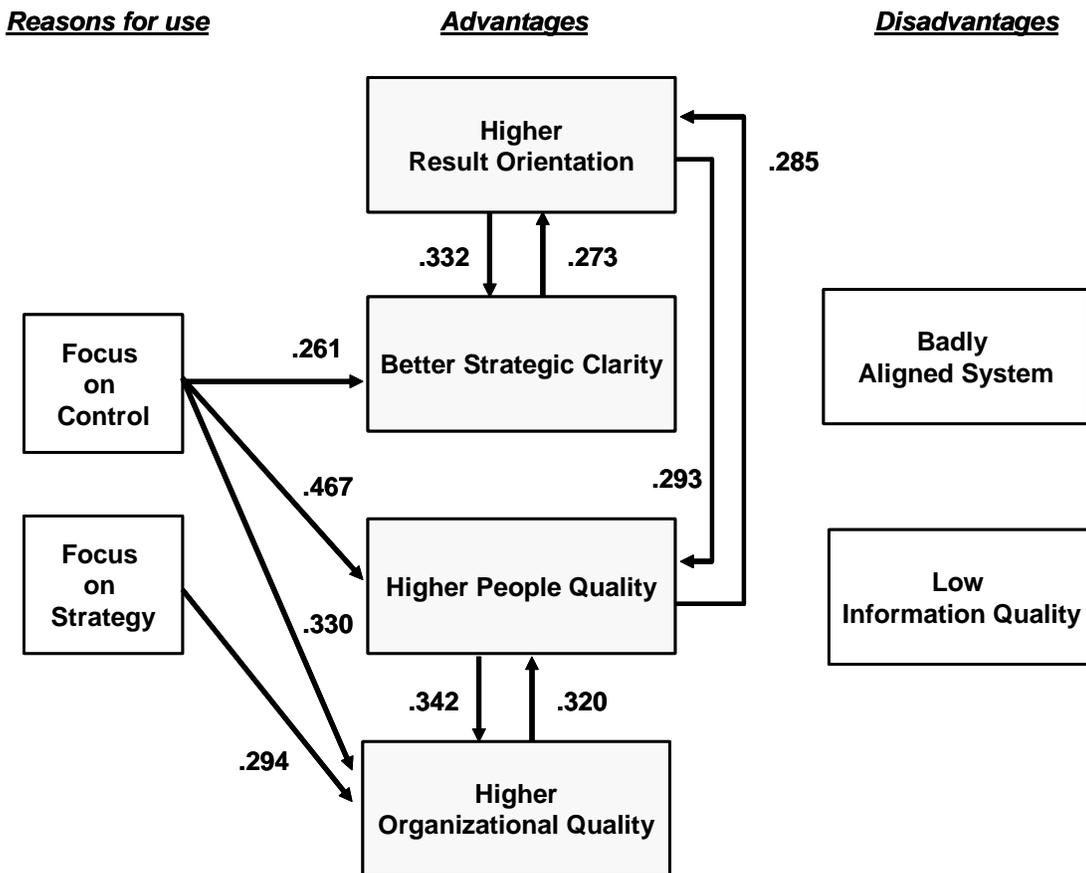


Figure 1: Relation model

There are no significant relationship between the reasons for use and the disadvantages, nor between the advantages and the disadvantages. From this result it can be inferred that the disadvantages, which did not occur very often anyway (see Table 7), do not 'automatically' stem from specific reasons for use or are inescapably linked to specific advantages. If disadvantages are experienced, they occur stand-alone. There are several significant relations between the SPM advantages, specifically between higher result orientation (HRO) and better strategic clarity (BSC), higher result orientation (HRO) and higher people quality (HPQ), and higher people quality (HPQ) and higher organizational quality (HOQ). These factors can be interpreted as mutually reinforcing pairs. A strong focus on the strategic issues that are

important to the organization which is conveyed to all organizational levels (HRO) creates more clarity for organizational members about the strategic issues (BSC), their role in dealing with and working on these issues (BSC), resulting in a strong focus on the achievement of results on all organizational levels (BSC). In turn, this strong focus (BSC) will increase the capability of the organization to achieve its financial results (HRO) and organizational goals (HRO). More effective management control (HRO) translates into stronger process orientation (HPQ) because there is better control of the progress in the processes. This in turn results in higher operational efficiency (HRO). When effective management control is coupled with the strengthened focus on the strategic issues (HRO), organizational units are better able their goals and processes to the strategy (HPQ). Subsequently, organizational members are then more committed to the goals of the organization (HPQ) and are pro-active to achieve these (HPQ). This will also increase capability of the organization to achieve its financial results (HRO) and organizational goals (HRO). Higher commitment (HPQ) translates into higher employee satisfaction (HOQ) and in general in higher quality products, services and processes (HOQ) as organizational members are more motivated to excel. This then yields a strengthened reputation of the organization as a quality firm (HOQ). Better performance information (HOQ) better supports the process orientation (HPQ) and makes it possible for organizational members to become more pro-active (HPQ). Improved communication on the strategy (HOQ) increases the commitment of organizational members to the organization (HPQ) as they better understand what is important. It has to be noted that no linear one-way relations among SPM advantages were to be found. This is in line with Norreklit's (2000) notion that the contention of Lynch and Cross (1990) and Kaplan and Norton (1996) about linear relations is false. As such Norreklit's (2000) statement that there is no single, unique sequence of events, and each advantage may contain both drivers and outcome measures that may be related to more than one other advantage has to be taken serious. This means that each advantage, as an independent variable, has a multiple positive effect.

Summary and limitations

The research described in this paper focussed on answering the questions: *What are the advantages, disadvantages and reasons behind the implementation of SPM in business practice?* and *What are the relations between the reasons behind the implementation of SPM, advantages and disadvantages?* Based on a literature study and practical research at 17 prominent Dutch organizations, it became clear there are two main reasons for implementing SPM and four advantages and two disadvantages which are to be expected from using SPM. The practical implication of this research is that implementing and using SPM yields specific benefits for an organization. Management now knows which advantages are to be expected and can use the research results to convince organizational members that SPM is indeed beneficial for the organization and only has minor drawback in the shape of a limited number of disadvantages which do not occur frequently. Management also can now check whether full benefit has been achieved by using SPM. If one or more of the SPM advantages are not noticed, management has to investigate whether SPM is used in the right manner. Overall, this research suggests, like Bryant et al. (2004), that management needs to make the advantages of SPM explicit before the SPM implementation starts and keep stressing these advantages during and after implementation. This will heighten commitment of organizational members for SPM and increase a successful use of SPM.

There are several limitations to the research. The sample size of the research was relatively small. Although 17 organizations participated in the research, only 52 people were

interviewed so generalization of the results for all organizations cannot be made. Also, the selection of the 17 organizations can have created a bias. It is logical to assume that organizations which have successfully implemented and used SPM are more willing to participate in the research than organizations which did not have these positive experiences. As a result, the SPM advantages might be overstated in the research results while the SPM disadvantages were underexposed. Another limitation is that this research is not longitudinal. Longitudinal studies would better examine the developments and shifts in the relations between SPM advantages, disadvantages and reasons for use.

References

- Armstrong, M. and A. Baron (1998). "Performance Management, the New Realities", Institute of Personnel and Development, London.
- Atkinson, A.A., R. Balakrishnan, P. Booth, J.M Cote, T. Groot, T. Malmi, H. Roberts, E. Uliana and A. Wu (1997). "New directions in management accounting research", Journal of Management Accounting Research, 9: 70-108.
- Baraldi, S. and G. Monolo (2004). "Performance measurement in Italian hospitals: the role of the Balanced Scorecard". In: A. Neely, M. Kennerly and A. Waters (ed.), Performance measurement and management: public and private, 75-82, Centre for Business Performance, Cranfield University, Cranfield.
- Bititci, U., K. Mendibil, S. Nudurupati, T. Turner and P. Garengo (2004). "The interplay between performance measurement, organizational culture and management styles". In: A. Neely, M. Kennerly and A. Waters (ed.), Performance measurement and management: public and private, 107-114, Centre for Business Performance, Cranfield University, Cranfield.
- Bourne, M., J. Mills, M. Wilcox, A. Neely and K. Platts (2000). "Designing, implementing and updating performance measurement systems", International Journal of Operations & Production Management, 20 (7): 754-71.
- Bourne, M., M. Franco and J. Wilkes (2003). "Corporate Performance Management", Measuring Business Excellence 7: 15-21.
- Braam, G.J. and E.J. Nijssen (2004). "Performance effects of using the balanced scorecard: a note on the Dutch experience", Long Range Planning, 37 (4): 335-349.
- Brown, A. 2004. Implementing a system of performance management in England's primary school. In: A. Neely, M. Kennerly and A. Waters (ed.), Performance measurement and management: public and private, 155-162, Centre for Business Performance, Cranfield University, Cranfield.
- Bryant, L., D.A. Jones and S.K. Widener (2004). "Managing value creation within the firm: an examination of multiple performance measurement", Journal of Management Accounting Research, (16): 107-131.
- Davis, S. and T. Albright (2002). "Relationship between high quality implementation procedures and improved financial performance for new performance measurement systems", FSR Forum, 4 (September): 22-31.
- Davis, S. and T. Albright (2004). "An Investigation of the Effect of Balanced Scorecard Implementation on Financial Performance", Management Accounting Research, 15 (2): 135-153.
- Dumond, E. J. (1994). "Making best use of performance-measures and information", International Journal of Operations & Production Management, 14 (9): 16-32.
- Epstein, M., P. Kumar and R. Westbrook (2000). "The drivers of customer and corporate profitability: modelling, measuring, and managing the causal relationships", Advances in Management Accounting, 9 (1), 43-72.

- Hair, J.F., R.E. Anderson, R.L. Tatham and W.C. Black (1998). "Multivariate Data Analysis", Prentice-Hall International: Upper Saddle River, NJ.
- 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 (ed.), Performance measurement and management: public and private, 459-466, Centre for Business Performance, Cranfield University, Cranfield.
- Hronec, S. M. (1993). "Vital Signs: using quality, time, and cost performance measurements to chart your company's future", New York: AMACOM.
- IOMA Business Intelligence at Work (2005). "Two studies reveal how firms are improving their budgeting and planning. performance reporting: majority of companies need to fix their balanced scorecards", IOMA's Financial Analysis, Planning & Reporting 2005 Yearbook, IOMA: Newark: 4-5.
- Kald, M. and F. Nilsson (2000). "Performance measurement at Nordic companies", European Management Journal, 14 (1): 113-27.
- Kaplan, R.S. and D. P. Norton (1996). "The Balanced Scorecard – Translating Strategy into Action", Harvard Business School Press, Boston.
- Lawrie, G., I. Cobbold and K. Issa (2004). "The design of a strategic management system in an industrial private sector organisation". In: A. Neely, M. Kennerly and A. Waters (ed.), Performance measurement and management: public and private, 579-586, Centre for Business Performance, Cranfield University, Cranfield.
- Lawson, R., W. Stratton and T. Hatch (2003). "The benefits of a scorecard system", CMA Management, 77 (4): 24-26.
- Lawson, R., W. Stratton and T. Hatch (2004). "Automating the Balanced Scorecard", CMA Management, 77 (9): 39-43.
- Lawson, R., W. Stratton and T. Hatch (2005). "Achieving strategy with scorecarding", Journal of Corporate Accounting & Finance, 16 (3): 63-68.
- Lingle, J.H. and W.A. Schiemann (1996). "From balanced scorecard to strategic gauges: is measurement worth it?", Management Review, 5 (3): 56-61.
- Lingle, J.H. and W.A. Schiemann, W.A. (1999). "Bullseye! Hitting Your Strategic Target through High Impact Measurement", Free Press, New York, NY.
- Lynch, R. and K. Cross (1990). "Tailoring performance measures to suit your business", Journal of Accounting and EDP, 6 (1): 17-25.
- Lynch, R. and K. Cross (1995). "Measure up! Yardsticks for continuous improvement", Basil Blackwell: Cambridge.
- Lovell, B., Radnor, Z. and J. Henderson (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", University of Bradford Working Paper Series 2 (13): 339-346.
- Malina, M.A. and F.H. Selto (2001). "Communicating and controlling strategy: an empirical study of the effectiveness of the balanced scorecard", Journal of Management Accounting Research, 13: 47-90.
- Marr, B. and A. Neely (2003), "Balanced Scorecard Software Report", Gartner, Inc. and Cranfield School of Management, Stamford, CT.
- Marr, B., Schiuma, G. and A. Neely (2004). "The dynamics of value creation: mapping your intellectual performance drivers", Journal of Intellectual Capital, 5 (2): 312-325.
- Mooraj, S., Oyon, D. and D. Hostettler (1999). "The balanced scorecard: a necessary good or an unnecessary evil?", European Management Journal, 17: 481-91.
- Neely, A. and R. Austin (2000). "Measuring operations performance: past, present and future". In: A. Neely (ed.), Performance Measurement: Past, Present and Future, 419-426, Centre for Business Performance, Cranfield School of Management, Cranfield University.
- Neely, A. and M. Bourne (2000). "Why measurement initiatives fail", Measuring Business

- Excellence, 4 (4): 3-6.
- Neely, A., Kennerly, M. and V. Martinez (2004). "Does the balanced scorecard work: an empirical investigation". In: A. Neely, M. Kennerly and A. Waters (ed.), Performance measurement and management: public and private, 763-770, Centre for Business Performance, Cranfield University, Cranfield.
- Norreklit, H. (2000). "The balanced on the balanced scorecard: a critical analysis of some of the assumptions", Management Accounting Research, 11 (1): 65-88.
- Papalexandris, A., Ioannou, G. and G.P. Prastacos (2004). "Implementing the balanced scorecard in Greece: a software firm's experience", Long Range Planning, 37 (4): 347-362.
- Rheem, H. (1996). "Performance management programs", Harvard Business Review, 74 (5): 8-10.
- Rigby, D. (2001). "Management tools and techniques: a survey", California Management Review, 43 (2): 139-160.
- Robinson, S.P. (2004). "The Adoption of the Balanced Scorecard: Performance measurement motives, measures and impact". In: A. Neely, M. Kennerly and A. Waters (ed.), Performance measurement and management: public and private, 883-890, Centre for Business Performance, Cranfield University, Cranfield.
- Said, A.A., HassabElnaby H.R. and B. Wier (2003). "An empirical investigation of the performance consequences of nonfinancial measures", Journal of Management Accounting Research, 15: 193-223.
- Self, J. (2004). "Metrics and management: applying the results of the balanced scorecard", Performance Measurement and Metrics, 5 (3): 101-105.
- Silk, S. (1998). "Automating the balanced scorecard", Management Accounting, 79 (11): 38-44.
- Sim, K. L. and H.C. Koh (2001). "Balanced Scorecard: a rising trend in strategic performance measurement", Measuring Business Excellence, 5 (2): 18-28.
- Shulver, M. and N. Antarkar (2001). "The balanced scorecard as a communication protocol for managing across intra-organizational borders", Proceedings of the 12th Annual Conference of the Production and Operations Management Society, Orlando, FL.
- Speckbacher, G., Bischof, J. and T. Pfeiffer (2003). "A descriptive analysis on the implementation of balanced scorecards in German speaking countries", Management Accounting Research, 14: 361-387.
- Tapinos, E., Dyson, R.G. and M. Meadows (2005). "The impact of performance measurement in strategic planning", International Journal of Productivity and Performance Management, 54 (5/6): 370-384.
- Waal, A.A. de (2002). "The role of behavioural factors in the successful implementation and use of performance management systems", PhD, Vrije Universiteit Amsterdam.
- Waal, A. A. de (2007). "Strategic Performance Management, A Managerial and Behavioural Approach", Palgrave MacMillan, London.
- Williams, M. S. (2001). "Is intellectual capital performance and disclosure practices related?", Journal of Intellectual Capital, 2 (3): 192-203.