

# Exploring the Use of Balanced Scorecards in Swedish Health Care Organizations

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## Abstract

Many Swedish health care organizations have during the last decade started implementing the Balanced Scorecard (BSC) as a systematic way of following-up and analyzing their activities. However, the knowledge of its use and contribution in a health care context is insufficient. Based on a multiple case study the authors explore the use of the BSC in the Swedish health care services. The authors conclude that the concept in a health care context is used as a quality management tool that make new demands on management. In addition, the authors bring out important factors for a long-term use of the BSC.

**Key Words:** Performance Measurements, Balanced Scorecard, Visualization, Case Study

## 1. Introduction

The Balanced Scorecard (BSC) has received widespread attention in contemporary Swedish organizations. Not only is it established as a central management methodology in private organizations, but also it has won great interest in the public sector. According to its advocates, the methodology, in which business strategy, goals, and action plans are linked together through a wide arrangement of performance measurement, provides a foundation for a new modern leadership. The economic measures are balanced with non-financial measures, which provide management with a wider range of information than before.

Until today research on performance measurement systems has mainly investigated the design of different types of performance measurement systems such as the BSC (see e.g.

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Neely *et al.*, 1995; Kaplan and Norton, 1996b; Bititci *et al.*, 1997; Neely *et al.*, 1997; Olve *et al.*, 1997). During the last years there has been a growing number of publications on the implementation of such systems (Kaplan and Norton, 1996b; Bourne *et al.*, 2000; Radnor and Lovell, 2003). More recently a critical attitude towards the use of the measures in managerial work has been applied and led to in-depth research in how organizations' deal with measurements and use the data collected (Elg, 2001; Bititci *et al.*, 2002; Kollberg, 2003). The attention has moved from verifying *that* measurements are used in management teams to analyze *how* measurements are in fact being used in the organization. Research questions in this latter research area include: What do managers actually do when they use performance measurement? What kind of effects has performance measurement on the organization?

The Swedish health care has during the last decade experienced an extensive reorganization involving cost reduction, downsizing and decentralization initiatives. In order to improve the follow-up process from the units and to focus the organization on other values than the economic assets several County Councils have started implementing the BSC. As the interest in the concept has steadily increased in health care organizations people have started questioning its usefulness and effects on managerial work. This article aims to increase the understanding of how the BSC is used in three Swedish health care organizations. The research questions derived from the purpose are: What is characterizing the use of the BSC in Swedish health care? What is needed to make use of the BSC in this context? The research is conducted on the commission of the Federation of Swedish County Councils.

## 2. Theoretical Framework

In 1992 Robert S. Kaplan and David P. Norton introduced the Balanced Scorecard (BSC) in order to provide organizations with the opportunity to expand their financial measurements with non-financial measurements (Kaplan and Norton, 1992). In addition, the BSC is intended to provide executives with a comprehensive framework that translates the company's vision and strategy into a coherent set of performance measurements (Kaplan and Norton, 1993; Kaplan and Norton, 1996b). Thus, the objectives and measures on a BSC should be derived from the organization's vision and strategy to become a new tool for managing strategy (Kaplan and Norton, 2001).

### 2.1 Implications of using the Balanced Scorecard

Although the empirical findings of practical implications of the BSC are few (Otley 1999; Liukkonen, 2000; Johanson *et al.*, 2001), there are researchers that in recent years have tried to elucidate the concept in work practices. Malmi (2001), who investigates scorecards in 27

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Finnish organizations, shows that the reasons for implementing scorecards vary between organizations. In addition, he argues that the BSC is primarily used in two ways, namely as a new information system that helps managers to focus and as a strategic management system based on the criteria presented by Kaplan and Norton (1996a; 1996b).

Findings from a survey conducted by Kald and Nilsson (2000) in 236 business units of Nordic corporations indicate that performance measurement systems, such as the BSC, are primarily used in decision-making at top-management level. The study further shows that the foremost benefit of performance measurement is its contribution to a better understanding of how the business works. The foremost shortcoming is that the measurements often are overly focused on the past.

Kennerley and Neely (2002) present a framework of factors affecting the evolution of performance measurement systems. The question they aim to explore is what shapes the evolution of an organization's measurement system. Firstly, the absence of an effective process of reviewing measurements is a commonly encountered barrier to the evolution. Secondly, the study identifies the lack of necessary skills and human resources as a barrier to the evolution. A third barrier was identified as inflexible systems for collecting and reporting data. Fourthly, the acceptance of measurements throughout the organization was identified as an important condition to the evolution of performance measurements.

## 2.2 Investigating the use of Balanced Scorecard

In the present research we consider several important aspects derived from literature and prior research in order to analyze the use of the BSC. First and foremost it is relevant to understand the *purpose* of the use. Beer and Nohria (2000) present two approaches to organizational change called Theory E and Theory O, which can be used to analyze the purpose. Theory E is based on the assumption that the purpose of change is the achievement of economic value. Whereas the change is planned and programmatic in the Theory E, the emergence of changes is focused on in Theory O. The purpose is the development of organizations' human capability and to learn from actions taken about the effectiveness of the changes.

Another important aspect is to investigate the *visualization* of the BSC in the organization. Today many organizations use different IT solutions to present the measures in the BSC. The selection of an IT-support is not a simple question and some authors argue that the IT-support can lead to severe drawbacks in the use of BSC since technical implications takes the attention from the strategic discussions (see Olve *et al.*, 2003). However, there are organizations not using IT-support that find other ways of presenting and disseminating measures in the BSC. These ways of visualizing measures from the BSC-either it includes an advanced IT application or not--have an impact on how people make use of the in-

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formation (see e.g. Elg, 2001) and is an important aspect to consider in the investigation.

The *implementation* of the BSC is another important aspect in this study. In this area we are interested in identifying central factors that have made people use the BSC. Results from the study of Porras and Robertson (1992) show that there are mainly four factors influencing the effectiveness of change initiatives: degree of participation and involvement of individuals, recognition of a need for change, the organization's change capability, and the role of change agents. These factors can be applied to the analysis of the implementation of a BSC since the implementation may be compared to an organizational change process (Kaplan and Norton, 2001).

Finally, we are interested in analyzing the *actions taken* based on the information from the BSC. We focus on two parts: who is taking actions and the type of actions (such as strategy reformulation, improvement initiatives, discussions or information dissemination). In this respect we are also investigating peoples' perception of the *contribution* of the BSC. If people using the BSC think it is valuable for their work it may indicate that the organization has come far in the application of the BSC. Table 1 summarizes the elements of interest.

**Table 1.** Important elements for analyzing the use of the BSC

Element	Questions
Purpose	Is the purpose to improve economic value or to support organizational development?
Visualization	What is the role of visualization of measures on the use of the BSC?
Implementation	What factors in the implementation process are important in order to make use of the BSC?
Actions taken	What actions are taken upon the information from the BSC? What people perform these actions?
Experienced contribution	What contributions do people experience from using the BSC?

### 3. Methodology

This research project started in autumn 2001 when the Federation of the County Council requested the division of Quality Technology and Management to do research on the use of BSC in Swedish health care services. The aim of the commission was to increase the knowledge of how the BSC was used in those organizations that have come far in the implementation. Thereby, health care organizations that are planning to implement the BSC can use the knowledge as support in their decisions. Since the BSC was a relatively new concept in the health care services at the time for this research, the case study strategy was selected as a research strategy (Yin, 1994).

The selection of suitable cases was primarily based on what can be learnt in compliance with the purpose (see Stake, 1994). In addition, other criteria were considered in the se-

lection process:

1. The design of the BSC includes financial and non-financial measures that are derived from a vision and strategy and are categorized into perspectives originating from the framework by Kaplan and Norton (1992).
2. According to people familiar with the health care context, the BSC is implemented and used in the organizations.
3. The organizations belong to different County Councils in Sweden

Since the BSC is assumed to align different business units to a common and shared vision, it is interesting to study the BSC in a hierarchical organization expecting to strive towards one vision. Hence, after selecting suitable organizations we decided to focus on a hierarchical "branch" within each organization. The use of the BSC was studied with respect to the management levels in each organization.

Case 1 was conducted in Spring 2002, Case 2 in Autumn 2003, and Case 3 in Spring 2004. The same investigator conducted the first and third case while two other researchers dealt with the second case. The fact that the cases were conducted in different periods in time and partly by the same investigator may affect the confirmability of the research (Bryman, 2001). However, we have tried to put aside our personal values during the investigation and primarily focus on the interviewees' perceptions on the phenomenon. In addition, we have let other researchers outside the research group comment and give an outsiders' perspective on the findings. 32 interviews were conducted and every interview lasted 1-1.5 hours. In addition to the interviews the study is based on document reviews of BSC related documents in the organizations.

#### **4. The Use of BSC in three Health Care Organizations**

The following section shortly describes how three health care organizations in Sweden have implemented and made use of the BSC. The three organizations are focused on similar medical diseases and belong to different County Councils in Sweden.

##### **4.1 Case 1**

The following case concerns a hierarchical organization at a university and research hospital in Sweden (also presented in Kollberg, 2003). The department is organized into five out-patient sections and one in-patient section. The use of the BSC is studied on three management levels:

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- Production unit management level
- Department management level
- Section level

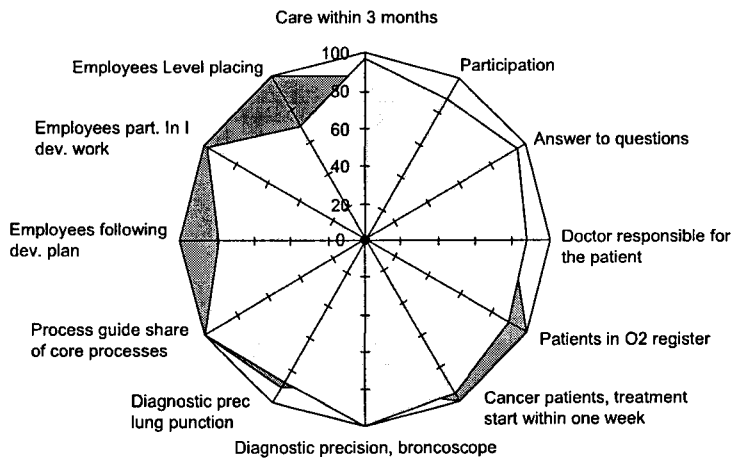
The interviews show that the BSC is mainly used to plan future events, discussions in management groups and to disseminate information both outside and inside the organization. At the unit, planning occurs once a year in the Quality Steering Group. The BSC is then approved and discussed in the management group. At the department level on the other hand, the content of the BSC is discussed frequently during management meetings and the discussions mainly revolve around the construction of measurements, their validity and reliability. In the beginning of each year, the management team at the department reviews the action plans in the BSC at the section level. The BSC at the department level is also used during department meetings to present the department's result and future direction. It is used as a tool to communicate the reported measures from the units in order to update how the present situation corresponds to the over-all goal. The department's scorecard is also used during forums and seminars aimed at presenting the department's status to external stakeholders.

Employees express that the BSC is used to organize and describe existing tools, methods and procedures in the department. They claim that the scorecard contributes to an increased understanding of the work. The scorecard is regarded as a tool, not only for management, but also for the employees to understand how they work and how they should plan their work during the year. The interviews show that the BSC is perceived rather as a way of thinking in the day-to-day work than a paper including different elements, which is reviewed each week.

At the department the Quality Coordinator compiles the departments' results once a year in a so-called cobweb or spider diagram, which is presented during an annual meeting with the steering group of the hospital (see Figure 1). The Quality Coordinator has the major responsibility for updating the measures. In addition to the annual report, all the sections are obliged to report their results every fourth-month. The measurements in the BSC are then updated for the present period. In order to make people review their scorecards on a more continuous basis, all sections have one hour per week during section meetings to spend on upgrading their scorecards.

The BSC at the unit and department level are divided into five perspectives: (1) the Patient/customer perspective, (2) the Process perspective, (3) the Development/Future perspective, (4) the Employee perspective and (5) the Production/Economic perspective. The department's BSC is deployed to eight sections. Each section is expected to develop its own scorecard, which includes a yearly action plan, measures and goals. In addition, the employees are obliged to fill in project plans for each action in the scorecard. All the units report their results in three perspectives, namely the customer perspective, process perspective and employee perspective.

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**Figure 1.** A visual display of the measures in the BSC at the department level in Case 1 (free translation)

In 1998 the management of the department was introduced to the BSC during network meetings organized by the Federation of County Councils. At the time of the BSC introduction, the department had recently experienced a turbulent situation partly due to economic cutbacks and restructuring in the County Council. The new Head of Department started to establish a new management structure including new role descriptions and a new organizational structure and the implementation of the BSC was a part of this restructuring. In 2001 the County Council's Assembly gave all production units instructions to report their budget according a BSC including five perspectives - the economic perspective, the employee perspective, the customer perspective, the process perspective and the research and development perspective. As the production unit in this study received the directive the Quality Coordinator together with the Quality Coordinators from the nine departments started designing a scorecard for the unit. At the same time, the Head of Production Unit gave the departments instructions to report the budget for 2001 according to the five perspectives.

The implementation of the BSC is characterized by a high involvement of employees in an early stage (Kollberg, 2003). The employees at the department were introduced and engaged in the vision formulation from the very beginning and the units were free to design their own scorecards. In addition, having people driving the change and making people participate plays an essential role in making the change sustain in the organization. Another important factor in the implementation has been the adaptations made in the scorecards. For instance, employees had difficulties understanding the terminology in the scorecard and therefore the terms were adapted to the existing vocabulary. The fact that the department has a positive experience with quality management through the use of the Swedish Quality Award make the measurement more easy and thereby facilitate the acceptance of the BSC among employees.

## 4.2 Case 2

This case (also presented in Elg and Persson, 2003) takes as its starting point an organizational hierarchy, which has implemented and used BSC for six years. The BSC is used in four different management levels:

- County Council level
- Hospital management level
- Department management level, and
- Section level

The scorecards link various levels in several ways: meetings in the hierarchy in which common performance measures are discussed. A top-down approach with goal deployment, emphasized by proponents of BSC, is found in some of the perspectives and related to some performance measures. But in all, the usage of BSC is more viewed as a communication tool rather than for goal deployment.

The purpose of using the BSC is not, as described by the interviewees, clear and unambiguous. Rather, many different aspects are discussed and elaborated on by the respondents. Concerning the question of economical value or organizational development we conclude that it is more of a tool for organizational development. The BSC seems to “shift focus *from* economical values to other important areas to manage and develop”. Other aspects presented is feedback on performance, widening view of what it means to manage an health care organization, personal development and career (people working with BSC can go to conferences, participate in activities outside the own unit), better coordination of organizational units.

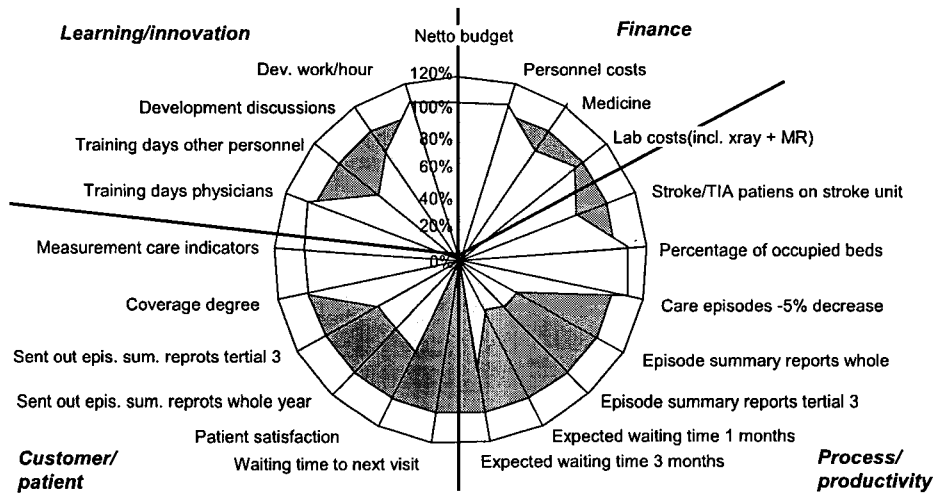
The visualization of the information contained in the scorecard may be found in one graph. In some ways this graph represents what Balanced Scorecard is at this organization. See Figure 2.

This graph shows the annual report of 2001 for the department. Four perspectives: Finance, Process/productivity, Customer/Patient and Learning span the scorecard. In each perspective several performance measures are presented.

Elg and Persson (2003) conclude that the structure of this visual display have an important impact on how discussions, analyses and decision making actually takes place. For example, the spider diagram does not only function as a tool for assessments of organizational functioning but also as a tool for structuring meetings: “the agenda is in the diagram”. The diagram also serves as a reporting instrument in which comments regarding various measurements are written directly on the diagram. Quantified information is here combined with verbal explanations. In general, respondents at all levels of organization put trust in such a method for reporting information.

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**Figure 2.** A visual display of the measures in the BSC at the department in Case 2 (free translation)

The department manager initiated the whole project of implementing BSC within the hierarchy. During the implementation - this took many years of learning, testing and refinements - social networks between different organizations were important. Central actors (i.e. change agents) had access to management forums at different organizational levels. For example, the department manager had the key to arenas in which the county council worked with BSC. All levels of organization were involved in both development of how BSC should be designed and how it should be used in the various organizations. Several organizations within the county council tested different versions of the scorecard and even though there was a command to implement the method, some gave up and some found ways to use it effectively. Keywords during this implementation, as described by Elg and Persson (2003) are: endurance, exploration, flexibility, curiosity, access to important development arenas and learning. The last keyword is nicely captured by one of the change agents at the department level: "we did not have any other organizations to learn from because there was none...so we had to teach ourselves and others..."

### 4.3 Case 3

This case study was conducted in a health care organization belonging to a university hospital in Sweden (also presented in Kollberg, 2004). The hospital comprises eight centers and the BSC is studied on three management levels:

- Center management level
- Department management level
- Unit level

The interviews show that the BSC is used for different purposes in the organization. Management uses the system to receive information about the activities and to spread information to employees. BSC is also used as a source of information in discussions between people, i.e. during staff meetings and introduction to new employees. The management on the three organizational levels does not review the BSC on a regular basis, but whenever they experience a need to increase their knowledge. For instance, the Head of Unit uses the BSC to receive concrete measures on what employees feel and experience at the unit.

The BSC at the center management level includes five perspectives: Financial, Process, Employees, Innovation and development, and Customer. Within each perspective the management has developed strategic objectives taking the vision as a starting point. The overall scorecard for the center is deployed on departments and units. At the time of this study five departments have designed their own scorecards.

The center management uses an IT-support application to visualize its scorecards. The center, department and unit present their scorecards and measures in this application in compliance to the five perspectives. The IT-support automatically compiles the measures registered in the system and provides the users with different forms of visual designs. The management of the center has access to all units' and departments' scorecards, while employees can apply for access to their own unit's scorecard. All employees can apply for access in the

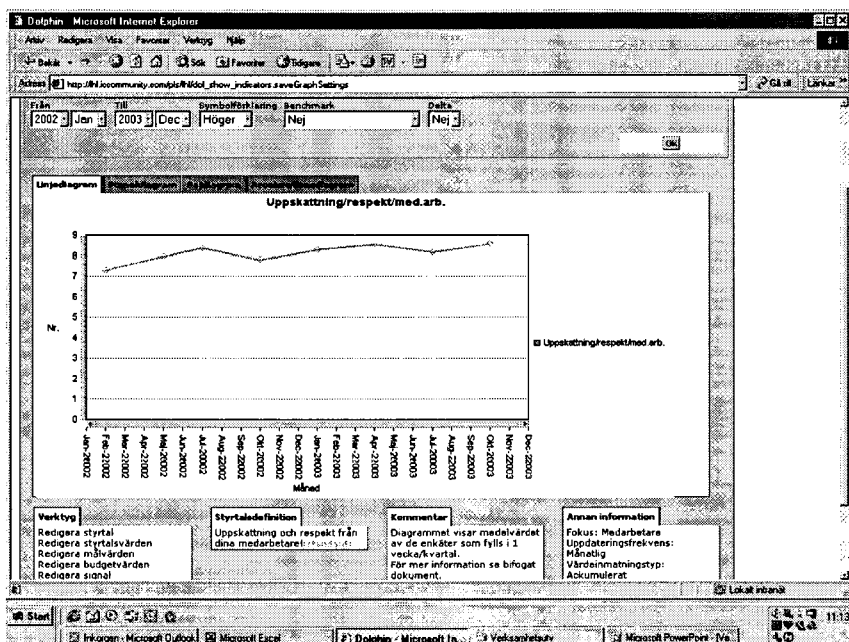


Figure 3. Experienced appreciation and respect from employees at the unit from January 2002 to December 2003 in Case 3 (In Swedish)

IT-system. In Spring 2004 425 of 700 employees are registered as users of the system. In addition to the BSC measures other information related to the measures are presented in the system, i.e. annual reports, meeting protocols, newsletters. Figure 3 illustrates an example of a graph at the unit level. The graph shows how employees experience the appreciation and respect from their colleagues on a scale from 0 to 9 from January 2002 to December 2003. This graph was discussed during a meeting with the scorecard working group at the unit.

The center was founded in 2000 by a merge of one clinical department and different units at the university hospital. The newly employed Head of Center was commissioned to build a decentralised process organization. The reorganization lasted in six months and resulted in a matrix organization presented on the 15 of April 2000. During the reorganization a temporary working team was put together with managers from the units and clinics from the old organization and informal leaders. The team proposed five processes becoming the five departments in the new center. In order to align all departments to common goals and make people understand the direction of the center, the BSC was introduced. One of the members in the center management group emphasizes the different perspectives and the logic design of the BSC as important features in the selection of management system. In addition, there was a need for an instrument considering the value of the employees and their working situation. In order to make people understand the use of the new management structure several seminars were organised at the center. Thereafter, managers of the new departments were appointed and together with the Head of Center they formed the new management group.

Kollberg (2004) identifies several factors that have been important in the implementation of the BSC at the center. One central aspect related to the initial acceptance of the BSC is peoples' experience of a need to change. The BSC was introduced as a part of a large organizational change, which makes people accept and understand the need of the implementation. Another important factor in the implementation is the large investment on engaging and involving both managers and employees. The acceptance of the BSC was enabled by involving managers and leaders in the temporary working group and arranging seminars with the entire staff. Something that is emphasized in change literature is the importance of change agents that drive the change forward and make people engage and involve in the change initiative. Change agents also seem to play a prominent role in this case. In addition, all interviewees emphasize the importance of the IT-support in implementing the BSC. The accesses to other information such as meeting protocols and newsletters, the ability to compare results of different units, and the overview of results in graphs over time are some advantages mentioned in the interviews.

#### **4.4 Summary of Case Study**

In this research we focus on five elements in order to receive a comprehended understanding of the use of the BSC. Of course, these elements cannot give a complete picture to

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the use of the BSC. However, they can enrich the already existing picture of the use of the BSC and thus increase the understanding of the system implications. The elements for the case study are synthesized in Table 2 (Extended case descriptions are found in Kollberg, 2001; Elg and Persson, 2003; Kollberg, 2004).

**Table 2.** Summary of the use of BSC in three health care organizations

Elements	Case 1	Case 2	Case 3
Purpose	To enable follow-up and reporting of results. To create a clear structure for the strategic direction	To improve communication within organizational hierarchy To enable organizational improvement and development To create a structure of management meetings	To create a clear structure and direction for a new organization To consider the values of the employees and their working situation
Visualization	Measurements in five and three perspectives Use of well-known graph for representation of measures in Excel	Measurements in four perspectives Use of well-known graph for representation of measures in Excel	Measurements in five perspectives Use of IT-support to create comprehensive graphs from data
Implementation	High involvement of employees in an early stage Change agents involve and support employees in using the BSC Adaptation of terminology in the BSC Prior experience from quality management	Relations with different levels in the organization and with actors outside the organization Perseverance Change agents support employees Prior knowledge from quality management	Identification of a need to change Change agents involve and support employees in using the BSC High involvement of employees IT-support providing people with reliable and fast data
Actions taken	Managers use the BSC: ⇒ to report results to superiors ⇒ follow-up yearly results ⇒ yearly planning ⇒ to disseminate information Employees use the BSC: ⇒ in discussions between professionals and in teams ⇒ yearly planning	Managers use the BSC: ⇒ to report results to superiors ⇒ discussions of improvement efforts ⇒ to disseminate information Employees use the BSC: ⇒ in discussions between professionals and in teams ⇒ yearly planning	Managers use the BSC: ⇒ to receive information about the organization when needed ⇒ to disseminate information ⇒ in discussions with employees Employees use the BSC: ⇒ to receive information and knowledge about the organization
Experienced contribution	Improved orderliness and structure in managerial work Increased understanding of the work among employees Increased participation	Increased coordination between units Widening view of what it means to lead an organization Personal development	Increased interest for employees' working situation Increased employee participation in development activities Improved structure in managerial work

## 5. Discussion

Above we have presented how three contemporary health care organizations make use of the BSC in different ways. As Table 2 depicts, there are several similarities in the use of the BSC. The following discussion focus on these similarities taking the five themes as a starting point, namely purpose, visualization, implementation, actions taken, and experienced contribution.

Beginning with the *purpose* of the use supports economic value or organizational development, there is much evidence showing that the BSC is used to support organizational development in the cases studied. However, there is nothing in the material indicating the BSC is *not* used for financial purposes. Without excluding the financial aspect of the purpose we can hence conclude based on our findings that the purpose of the use is focused on developing and improving organizational capabilities. In all three cases the use of the BSC aims to create a structure for different occasions. Case 1 uses the structure to make the strategic direction clearer, Case 2 to structure management meetings, and Case 3 uses the structure to make the strategies of the new organization more comprehensive. In addition to the structure contribution, the BSC is aimed to enable follow-up procedures, improve communication within the organization and to consider the employee perspective. Thus, the purpose of the use of the BSC is focused on the internal capabilities and developing organizational members and procedures.

Regarding the *visualization* of the BSC the findings show that all three cases have used versions of the original framework of Kaplan and Norton in designing their scorecards. Four or several perspectives are used in the cases and the interviewees bring out the perspectives as the foundation in their scorecards. Thus it seems as the way of organizing measures into perspectives is experienced as a useful framework for organizational representation. Although the frameworks are similar in the three cases the techniques for presenting measures differ. While Case 1 and 2 present their measures in a cob-web diagram designed manually in Excel, Case 3 uses an IT-support to design and display visual diagrams. In Case 3 the IT-support has enabled the implementation of the BSC by fastening and increasing the information exchange, facilitating the overview of activities and creating an openness in the organization. In addition to the IT-support, Case 1 and 2 show that there are several benefits by applying well-known techniques when visualizing and spreading measures to staff and top-management. The cobweb diagram is a familiar illustration in the hospitals and by using such technique in the BSC might facilitate the understanding of the measures among people in the organization (see also Elg, 2001).

Focusing on the *implementation* of the BSC the results elucidate several important factors. One prominent factor in all cases is the importance of change agents in involving and engaging people in the BSC initiative. The change agents identified in these cases have a

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management position and have a professional background in the clinical activity. They also have a genuine interest and knowledge in the techniques of the BSC, which is either received through education, self-studies or relations with other clinical organizations. Another important factor, which is prominent in Case 1 and 3, is the high involvement of employees in the implementation. Case 1 informed employees in an early stage of the implementation and let all sections design their own scorecards. In Case 3 the top management arranged seminars with all employees and the department management made people come up with improvement suggestions and encouraged feedback loops. The adaptation and adjustment of the BSC to the current conditions also seems to be important in the implementation. In Case 1 the adaptation of terminology to the concepts used in the organization made people accept the BSC easier. The adaptation in Case 2 concerns the management's perseverance in the implementation and let the acceptance take time. The BSC in Case 3 was introduced after having identified a need to change which also can be viewed as a way of adaptation since the management takes the current situation and its needs as a starting point. Another major factor identified in the material is the organizations' prior experience from quality management. Two of the three cases have experience from using the Swedish Quality Award, and the use have enabled the adaptation and acceptance of the BSC terminology, the thinking in terms of goals and measurements. However, the fact that the organization in Case 3 lacks in quality experience indicates that quality management experience is not a pre-requisite for using the BSC.

Next theme deals with the *actions taken* based on the information in the BSC. The most prominent application area of the BSC for managers is to disseminate information to people both outside and inside the organization. This may be an additional indication of the scorecard's importance of understanding the organization. The structure divided into perspectives is easy to understand and recognize, and provides people with a unified picture of the organization. The BSC is also used as a foundation in discussions between management and employees, between professions and within teams in the three organizations. It provides the foundation for a dialogue about improvement efforts and this finding is confirmed in most literature about the BSC (see e.g. Kaplan and Norton, 1996b; Olve *et al.*, 2003). The main difference in the use of the BSC in the three cases concerns the use of the BSC as a follow-up and reporting system. Whereas in Case 1 and 2 the BSC supports in reporting results to superiors and following up the activities on a regular basis, the third organization uses the BSC to receive knowledge and information when it is needed for internal affairs. An explanation to this difference may be found in the implementation of the BSC. In both Case 1 and 2 the BSC has been implemented as a reporting tool for the entire hospital and the organizations were issued to frequently follow-up and report their results to the hospital management. In Case 3 on the other hand, the BSC was introduced as a way of improving internal effectiveness and enabling the organizational change. Thus this shows that how peo-

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ple make use of the BSC largely depend on the initial purpose of the introduction.

Finally, we have been interested in the experienced contribution of the BSC. The findings indicate that the BSC mainly contribute to improved structure in managerial work. In Case 1 and 3 people experience an enhanced structure in how to manage the organization and in Case 3 the BSC has led to an increased understanding of what is meant by managing and leading an organization. In addition, the interviews show that people experience a contribution in the employees' working conditions and engagement in improvements. People experience an increased understanding and engagement into improvement work as the BSC was being implemented. Thus the BSC may be viewed as a way of moving the power of knowledge of the improvement initiatives from top management to the employees, which may increase employees' influence on management decisions.

## 6. Conclusions

This research was conducted with the aim to increase the understanding of how the BSC is used in Swedish health care organizations. Three health care organizations that have come far in the implementation and are using the BSC in their daily management were investigated. The following discussion deals with the two research questions derived from the purpose: What is the use of the BSC in Swedish health care? What is needed to make employees and management use the BSC in their day-to-day work?

We have investigated the use of the BSC from different angles. We focus on the purpose of the use, the actions taken on the information from the BSC, visualization and the experienced contribution of the use + implementation. Considering all these aspects, we come to the conclusion that the BSC is used as a tool for improving internal capabilities and supporting organizational development. More specific the BSC is used as a tool by both management and employees in discussions, information dissemination, knowledge creation, follow-up and reporting processes. It provides the organization with a structure that increases the understanding and meaning of improvements in the organization. Due to the fact that the BSC helps to focus the organization on improvements we suggest that the BSC can be viewed as quality management tool when used in Swedish health care. It is not a tool delimited to the management group, which is emphasized in literature (Kaplan and Norton, 1996b), but also a tool for improvements and knowledge creation on an operational level. This leads to increased openness since knowledge of the activities is disseminated throughout the organization (and also outside its walls). Consequently, this openness may imply increased demands on the management to make good, viable and well-established decisions based on measurable facts. Thus instead of using the BSC as a tool to implement and communicate strategy formulated by management as suggested by Kaplan and Norton, the BSC

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in this study is used as a tool for opening up the organization and providing a foundation for an improvement dialogue, which consequently increases the demands on management.

Regarding what is needed to make use of the BSC, we would like to emphasize the importance of having people committed and full-time involved in the implementation. Change agents have shown to play a significant role in other kinds of implementations as well (Porras and Robertson, 1992) and their trust, motivation and knowledge of the BSC and the clinical activities are valuable features in making people accept the new concept. In addition, we suggest a high involvement of employees in an early stage of the implementation. Without engaging employees in using the BSC the quality in the measures reported can be questioned since people don't know why the system is implemented. If the measurements are not correctly registered and performed the main point of the BSC is lost, either the aim is to implement strategy or to improve quality. This view somewhat contradicts the view advocated by Kaplan and Norton, who argue that the BSC should be implemented "top-down" by management. Finally, we would like to bring out the role of visualization techniques in using the BSC. This study shows that the visual designs have an effect on how the BSC is perceived and used in organizations. Using techniques, which people recognize and can deal with facilitates the implementation and thus the use of the BSC. The visualization aspect has only been investigated in few research studies and we advocate further research in order to enhance the knowledge in what role the visual design actually plays.

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