The relation between the Balanced Scorecard and financial performance

A theoretical and empirical investigation of the Balanced scorecard

Bachelor's thesis within Management Accounting

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Jönköping May 2005
Abstract

This thesis starts out with formulating a problem where the authors think that there is a lack of a coherent selection of the empirical and theoretical material being done so far of the relation between the Balanced scorecard (BSC) and financial performance. This leads on to the theoretical part where the theory behind the linkage between the BSC and financial performance. Here it is evident that there are a number of factors that are questionable regarding the claimed linkage, especially strong critique is launched from Hanne Nörreklit who claims that the BSC could be seen as nothing else that a rhetorical tool based on a lack of causal and theoretical linkages.

The empirical part, though, shows that the majority of the research being presented so far is indicating that there is a positive connection between the BSC and financial performance.

To sum up the results the analysis shows that when looking at the phenomena of BSC and its relation to financial performance both from a theoretical and empirical, earlier presented empirical studies together with the case study on Kinnarps AB, point of view it is evident that there is some kind of connection between the use of a BSC system and financial performance.
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# Introduction

Management accounting provides information for people having interest in the company and who are committed to it by being owners, managers or having some other functions within the company, and to some extent also external people having interests in the company. In contrast to external auditing the management accounting does not have to take into account laws and regulations when being made (Ax, Johansson, & Kullvén, 2002). There are several systems to choose from when working with management accounting (Mia & Clarke, 1999). One of those management accounting systems (MAS) is the Balanced Scorecard (BSC). Like other MAS, BSC provides the company with information of how it is doing, how its situation looks like. But in contrast to many other MAS this system is somewhat revolutionary in the sense that it not only provides information of how the company has done, as most key ratios and cost calculations do, but also gives the company information of where it is heading. Also, BSC contains more than financial data, but for example also customer satisfaction and measurements of the degree of employees’ learning and development. The system is furthermore closely linked to the company’s strategy. The basic model of BSC consists of four perspectives which together should give a clear picture of how the company has done, are doing, and will do in the future. These are the learning and growth perspective, the internal business process perspective, the customer perspective, and the financial perspective (Kaplan & Norton, 1996).

BSC was developed in mid 1990s (Kaplan & Norton, 1996) and has been used by Swedish companies for about five years by those who were first to implement it (Olve et al, 2003).

## 1.1 Problem discussion

It is now more than ten years since the Balanced Scorecard (BSC) was developed by Kaplan and Norton (1996). Until today, over 1000 articles have been written in the subject (Olve et al, 2003) and after its introduction in the early 1990s, BSC has attracted considerable interest among companies in recent years. This is also evident by the large number of seminars and workshops devoted to this issue (Malmi, 2001). A survey conducted in the USA estimates that 60 per cent of the fortune 1000 companies have experimented with BSC (Silk, 1998). A Finish survey suggests that balanced measurement systems, both BSCs and others, are already widely used in large companies and their business units located in Finland. Of the respondents, 31 per cent indicated they have such a system and 30 per cent were implementing one (Pere, 1999).

This information makes us think that a BSC implementation should bring some advantages for the businesses that ultimately can be measured in financial terms, or why else has it become so popular? Even though empirical research has been done that confirm a link between BSC and improved financial performance such as the one by Davis and Albright (2003) and Hoque and James (2000) contradicting results has been found by Ittner, Larcker and Randall (2003) that gives the direct opposite results. Olve et al (2003; Kaplan & Norton, 2001) have found in their research that the number of failures regarding work with BSC are high. They claim that the use of BSC can not be considered as a guarantee for success. “It’s a good piece of rhetoric, saying ‘balance’. Who can argue against something that is ‘balanced’?”, asks a Australian manager at a company that has implemented the BSC system (Andon, Baxter, Chua, 2003). This quotation illustrates that not everybody is convinced by the supremacy of the BSC and also shows the fact that some argue that the
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BSC might be a product of persuasive rhetoric more than compelling theory (Norreklit, 2003).

When looking at the theoretical approach, the strategic map developed by Kaplan and Norton (2001) illustrates the cause and effects between the perspectives within BSC. In this theoretical model it is shown how the different perspectives affect each other and in the end lead to improved financial returns. This means that BSC has a direct impact on performance from a theoretical point of view. Something that further strengthens this claim is that in the theory behind the BSC the linkage between financial performance and the methods of BSC are more precisely presented where outcome measurements tells if the goals such as improved profitability has been reached and the performance drivers are the measurements that affects factors such as the profitability which are the ones that the business should work with, in order to improve the outcome measurements (Kaplan and Norton, 1999).

It is logical to assume that many businesses are interested in increasing their financial performance and if summing up and combining the theories behind the BSC with the most relevant empirical studies that has been made within this field we believe that this thesis will be able to illustrate a picture that companies with the purpose of implementing this kind of management accounting system, or companies that just want to seize an opportunity of increasing their financial performance, should benefit from.

1.2 Problem

Many firms adopt the principles of the Balanced scorecard even though the linkage to financial performance, both from a theoretical and empirical point of view, seems to be questionable.

1.3 Purpose

The theory behind the Balanced scorecard have been a cause for criticism and not all empirical material point in one direction regarding the linkage between the BSC and increased financial performance. This is why we intend to present and critically review the existent material, theoretical and empirical, related to the linkage between the BSC and increased financial performance in an attempt to make a conclusion whether there is a connection between the BSC and increased financial performance.

1.4 Structure/purpose fulfillment

We will try to fulfill the purpose of this thesis by presenting the theoretical framework that speaks for the connection between the use of BSC and increased financial performance, together with several empirical studies within this field of research. Finally we will combine this with a minor case study where Kinnarps AB will be involved in order to add up to the other empirical researches presented.
2 Frame of references

2.1 The BSC and its relation to improved financial performance (theory)

2.1.1 The cause and effect relationship between the four perspectives

According to Kaplan and Norton (1996) all of the four perspectives of the BSC are significantly important in order to improve the goals set in the financial perspective for a business. This is described in the cause and relation chain where an example given is that 1. in the learning and growth perspective the skills of the employees are improved, 2. this leads to the Internal/business process perspective where cycle times and process quality is enhanced. When this has accrued it will lead to 3. improvements in the customer perspective where it now is possible to offer deliveries on time which will provide the business with loyal customers which finally 4. leads to the financial perspective where the business will yield an increase in return on capital employed since the deliveries on time might expand the sales from existing customers (Kaplan and Atkinson, 1998) (Kaplan and Norton, 1996). The same pattern is apparent in the strategic maps presented by Kaplan and Norton (2001) where the financial perspective serves as the final goal in a cause and effect chain derived from the other three perspectives.

In order to make the causal network function correctly the connection between the measurements in the cause and effect chain must be discovered in a way that allows for a business to sort out which measurements the business need to use and improve in order to improve the final, or next, step in the cause and effect chain. In the example given above it should be established through customer preference analysis that on-time delivery will increase the customer loyalty. If this is not the case there is no point in including the on-time delivery since it will have no effect on the customer loyalty measurement and will therefore not serve as an accurate performance driver in this particular case (Kaplan and Atkinson, 1998).

2.1.2 The financial perspective serves as the final goal for the other perspectives

As is evident of the cause and effect example provided by Kaplan and Norton (1996) together with the fact that it is explicitly mentioned by Kaplan and Norton when describing the financial perspective, (1996) the financial objectives and measures serves as the final target to be reached through the use of the other three perspectives. The fact that the financial perspective is an end target aimed to be improved is also clear in the cause and effect relationships presented by Kaplan and Norton (1996, 2001) and Kaplan and Atkinson (1998) where the financial perspective, in the examples, almost exclusively lies in the end of the causal chain consisting of measurements such as return on capital employed, market share or net profit. This underlines the fact that, for most businesses, improving financial performance is ultimately what it all comes down to.
2.1.3 Kaplan and Norton (1996) outcome measurements and performance drivers and their linkage to the financial measurements.

All BSC’s consists of a certain number of outcome measurements. Outcome measurements, also called lag indicators, is measurements that are supposed to reflect goals that are uncommon for many strategies and are suitable for all branches. The more general performance measurements is usually outcome measurements such as profitability or customer satisfaction measurements. The performance drivers, also called lead indicators, is in the vast majority of cases unique for a certain business unit, for example it can be the factors that affect the profitability of the company.

It is suggested that a BSC should consist of a mix of outcome measurements and performance drivers, this is because output measurements does not tell how the results are supposed to be reached while the performance drivers without outcome measurements does not tell if the improvements has lead to an increase in for example sales and ultimately to an increased profit (Kaplan and Norton 1996).

Kaplan and Norton (1996) stresses the importance of not making the improvement programs such as increasing quality etc to an end in itself but rather connect it to a financial goal such as improving the profitability of the business, since this is what counts ultimately. This statement derives from the fact that many managers has put too much effort into working with things like empowerment without actually link it to to results that increases the future revenues (Kaplan and Norton 1996).

2.1.4 Scorecard measures linked to a specific strategy

According to Kaplan and Atkinson (1998) each perspective within the BSC consists of between four to seven individual measures, combining the four perspectives this ends up to about 25 measures. All of these measures should be built in a way that allows them to serve as a linkage, causal chain, in order to fulfill objectives and in the end function as a tool for successfully execute one strategy. When the 25 measures serves as a fulfillment of one single strategy the number of measures are of no interest and will not be too complicated for a business to deal with (Kaplan and Atikinson, 1998).

2.1.5 Critique against the BSC (theory)

One of the critiques of BSC is Hanne Nørreklit (2000) that questions some parts of the BSC. One of the areas that Nørreklit analyses is the cause and effect chain which is a central part of the BSC, one of the problems with this as it is presented by Kaplan and Norton (1996) is that there is no time dimension presented and therefore it seems like there is no time lag between the stages in the causal chain.

Another thing that Nørreklit questions is that Kaplan and Norton takes for granted that there is a relation between different measures. This is evident from the arguing that increased customer satisfaction leads to increased customer loyalty which automatically leads to improved financial performance (Kaplan and Norton, 1996). When examining the sources this argument is based upon it is evident that it is not as easy as just saying increased customer loyalty will lead to increased financial performance, partly since the main source used to back this statement up is Reicheld and Sasser (1999) who has a definition of customer loyalty which means that loyal customers are the ones that “involve low costs and give high prices” (Nørreklit, 2000, p.73). If the arguments made by Kaplan
and Norton (1996) would prove to be wrong, that the causal chain does not in fact work as it is presented in theory, it could result in businesses working with measurements that will not improve their financial performance and hence create sub-optimized organizational performance (Nørreklit, 2000).

In another paper, Nørreklit (2003), Nørreklit argues that the BSC might belong to a genre called management guru texts that are characterized by talking to the emotions of the audience/readers, being persuasive and not consist of healthy argumentation. Another key feature of management guru texts are that the authors/Creators often lean back on their own authority in order to back up their statements instead of putting forward more convincing evidence. With this in mind Nørreklit claims that Kaplan and Norton (1996) are not able to back up the results they claim an implementation of a BSC system has got and therefore the phenomena of BSC might be more built upon rhetoric than convincing theories, therefore it might be right to categorize the BSC as a management guru phenomena Nørreklit (2003).

Another factor of the BSC that has been a cause of criticism is the fact the BSC involves too many measurements to be interpreted which leads to cognitive problems. According to Lipe & Salterio (2002 Kaplan and Norton (1992) list a diverse set of performance measures grouped in four categories in their BSC. They (1996) encourage the inclusion of 4-7 measures in each category. Thus, firms adopting the BSC usually increase the number of performance measures they use and identify a much broader group of measures than those they have traditionally used. The stated purpose in developing a large number and broad group of performance measures is to improve managerial decision making. However, prior judgemental and decision making research provides evidence of human information processing limitations and decision strategies. Research in cognitive psychology shows that people are generally unable to process more than 7-9 items of information simultaneously (Baddeley, 1994; Miller, 1956). The BSC contains many more measures than this limit, suggesting that managers will find it difficult to utilize the information in the scorecard. However, the four category organization of the BSC may assist managers’ use of this large volume of measures by suggesting a way to combine and use data. Specifically, decision makers may use a ‘divide and conquer’ strategy (Shanteau, 1988) where measures within each category are used to make an assessment of the category and these four assessments are then combined. In assessing each category, decision makers are primed to see relations among the measures within each group (Hopkins, 1996). This mentally organizing of large numbers of performance measures may mitigate the cognitive difficulty.
3 Method

Regarding the work with answering this thesis’ research question, a quantitative method will be used when collecting data. These data will be collected from empirical reports that have been presented matching our purpose and problem in this paper and from Kinnarps AB through annual reports and computer files. However, some complementing qualitative data will be collected through interviews with Per-Arne Andersson and Anette Käck from Kinnarps AB. Both the quantitative and qualitative data can be interpreted as secondary data as they do not contain any new information.

Kinnarps AB has only used BSC for four years, which could be a problem concerning credibility when investigating its influence on performance. However, this is not a unique case in that manner, but a regular one as Swedish companies have not used this system for more than about five years (Olve et al, 2003). Also the part representing the case study of Kinnarps AB is only existent in this paper to add up to the other more thorough researches which means that not to much attention should be given to this specific part in the empirical section and instead it is utilized in an attempt to give a complement to the empirical researches presented.

3.1 Research approach

Our research approach is based upon collecting the most relevant researches available in order to use them together with the theoretical framework and through this make a conclusion whether the facts talk for a connection between increased financial performance and the use of BSC or the opposite.

Some of the work with this thesis can be interpreted as a search to explain a causal relationship between the two variables the of use of information provided by the customer perspective and financial performance, however this is only true for a small part of the empirical part of this paper since the majority of the empirical section is based upon already published material focusing solely on fulfilling the purpose of this thesis and not a focus on the customer perspective. This kind of research approach is called a deductive approach (Robson, 1993). More characteristics of this approach that can be derived from the work with this thesis is that hypothesis will be developed and tested in operational terms in order to be quantitatively measured. This research approach also consists of developing and testing a theory (Hussey & Hussey, 1997). In this thesis several parts from different theories from the frame of references are combined in the analysis which will result in a new model that also will be empirically tested.

3.1.1 Research strategy

The research strategy chosen in the work with this thesis is, to some extent, defined case study. However we want to point out that the research material we have presented is not considered case in this thesis instead we want this material to function together with the results we have found through the case study of Kinnarps AB. Doing research by using case study as strategy involves, according to Robson (2002), an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence. The data collection methods employed may be various. As mentioned in the beginning of this chapter, data will be collected through annual reports, computer files and interviews. In this thesis an empirical investigation will be made in purpose to find answers
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to the research question and to test the hypothesis of whether the phenomenon BSC, or more explicit the customer perspective, can be linked to competitiveness. All data will be collected from Kinnarps AB which is working with BSC (Rheborg et al, 2003). Therefore Kinnarps AB can be defined as the case in this study.

3.1.2 Time horizons
The time perspective that will be used in this thesis is defined as longitudinal. The main strength of this perspective is the capacity it has to study change and development. According to Adams and Schvaneveldt (1991) the use of longitudinal research by observing over time enables the researcher to exercise a measure of control over variables being studied, provided that they are not affected by the research process itself. In this particular case, the variables of customer satisfaction and financial data are examined from the time Kinnarps AB introduced BSC and until present.

3.1.3 Reliability
Several threats to the reliability of the research can occur (Robson, 2002). The following three questions can be possessed in order to test the reliability of a research work (Easterby-Smith, Thorpe, & Lowe, 2002):

1. Will the measures yield the same results on other occasions?
2. Will similar observations be reached by other observes?
3. Is there transparency in how sense was made from the raw data?

When trying to analyze the reliability of the data gathered for this thesis it is most likely the case that the same results will occur if someone else would have written the thesis. The reason for drawing this conclusion is that all data available from Kinnarps AB that can be linked to the subject are being used. If another thesis would result in a different analysis and conclusions than this one, it would be because of one or more of the following reasons:

1. The frame of references are interpreted differently.
2. The frame of references does not fully cover the subject.
3. Not all the data available are collected.
4. The data are interpreted differently in the analysis.
5. Another time perspective is investigated.

So, the reliability is high in this thesis as a different result would only occur if someone else did the research work differently in terms of less amount of references and/or data collected. A third and more important reason for others to come up with different conclusions is a matter of interpretation of earlier research and/or the data collected. This is a possible threat, especially consider the fact that one of the authors of this thesis, Henrik J Rheborg, earlier has made host company projects together with Kinnarps AB for two years. As he has a positive opinion about the company and the use of BSC it is possible to think of some biased interpretation concerning the analysis and conclusions in this thesis. However, the other author, Per Johan Ericson, has a more skeptical opinion which would balance and make the interpretation more objective. It is also the goal of this thesis, to do an objective investigation of the frame of references and the empirical findings.
3.1.4 Validity
According to Saunders, Lewis and Thornhill (2003) validity is concerned about if the findings are about what they appear to be, is the relationship between two variables a causal one?

The main threat to validity in this thesis is that the connection, or lack of connection, between customer satisfaction might very well be affected by a number of factors that has nothing to do with customer satisfaction, for example fluctuations in the industry. This might lead to a situation where the results of the research may lack in validity and the relationship between the customer satisfaction and increased competitiveness, if found, might not necessarily be a causal one.

3.1.5 Generalisability
Since we will present the most well known, and most frequently mentioned in BSC literature, empirical investigations we believe that we will be able to generalize to some extent. However we are not unaware of the fact that even more large scale studies would have made such an endeavor more reliable in terms of generalization, though we are limited by the fact that the BSC has only been around for less than 15 years.

3.2 Negotiation access and research ethics
There are many problems and difficulties that can arise when trying to collect empirical data to one’s research study (Saunders et al, 2003). According to many management and organizational researchers it is more likely that one will gain access where one is able to use existing contacts (Buchanan, Boddy, & McCalman, 1988; Easterby-Smith et al, 2002; Johnson, 1975). This is also the case in this thesis.

It will help that the case company is familiar with the working group from earlier host company projects through which a kind of trust between the parties have been built. The information needed for this thesis can only be handed out by a limited number of people, whose often are hard to reach; it may cause some problems concerning the collection of data. Furthermore, it is not for sure that the company is willing to give away that information. However, if that would be the case perhaps a negotiation can result in some kind of agreement where the data can be handed out, but not explicitly illustrated in the thesis. Also, it is not for sure that the data needed for making an analysis as reliable and suitable as possible actually exists. Perhaps some key ratios would make the analysis and conclusions more exact and correct, but are, in fact, not possible to collect if the company (Kinnarps AB) does not use those. Fore example a measurement of customer satisfaction and profit margin measured on an individual and quarterly basis would be suitable to use, but perhaps those are not measured by Kinnarps AB and hence can not be collected.

There are many types of strategies to choose from when trying to gain access to sources of information. In this case the relationship from the host company projects continues, the contact person at the company is the same (Per-Arne Andersson), and also develops it as more persons probably will be involved regarding the need of information from different perspectives. A positive aspect of our contact with this company is that the contact person has a high position within the organization. This could be positive in the sense that it probably is easier for him to get other people in the company involved as they most likely are subordinates to him.
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What concerns the ethical point of view when collecting empirical data there are numerous codes and checklists to use. This study does not follow any specific code or checklist concerning this issue. Instead it is the use of common sense that plays the mediating role. The company has had a long relationship with Jönköping International Business School (JIBS). The intent of this thesis is to show what an honor it is to cooperate with such a company by doing a good job and respect their willingness of giving out information and the secrecy of it. By doing so it will hopefully mean that the relationship between the company and JIBS will continue even after the end of this study.

3.3 Selecting samples

The majority of the empirical part of this thesis consists of a collection of empirical reports that has already been published at some point and they represent all of the most suitable reports we have been able to find through our literature search. Although much of the empirical material is characterized as earlier empirical research material some samples has been selected when making the case study Kinnarps AB and these samples has been selected in a way that we think can make this study justice.

3.4 Secondary data

Secondary data are data that has already been collected for some purpose. They include both raw data and published summaries. There are many types of secondary data and the data that will be used in this thesis is called documentary data (Bryman, 1988). More specifically it is written materials as the data will be collected from financial reports and calculations provided by the case company. There are many advantages of this type of data. The main one for this thesis is that they give opportunity for doing feasible longitudinal studies (Dale, Arber, & Procter, 1998). Possible disadvantages in this case may be difficulties in getting access (Saunders et al, 2003) or difficulties in using the data as their initial purpose may affect how they are presented (Denscombe, 1998).

A lot of secondary data is also implemented in this paper since we will be presenting/reviewing material and reports that has been composed by other authors than our self.

3.5 Interviewing

We will conduct several interviews, semi structured since a number of themes and questions will be covered, with our host company in order to collect data for this thesis. The interviews will be made with Per-Arne Andersson and Anette Käck from Kinnarps AB through visiting the company, e-mails, and phone calls. The use of semi conducted interviews are also appropriate since the intention of this thesis is to do an explanatory study and understand the relation between two different variables within the BSC (Saunders et al 2003). The main function of the data is to provide information within the background of the financial history and also describing the customer perspective in the case company.

3.6 Quantitative data

Quantitative data constitutes data that are numerical and/or can be quantified in order to answer the research question (Saunders et al 2003).
Method

Regarding the work with answering this thesis’ research question quantitative data, such as financial figures and customer satisfaction-indexes will be collected from annual reports and computer files which means that the majority, an also the most valuable information of the collected data in the thesis is quantitative.

Many of the empirical investigations presented in the empirical section of this paper is based upon quantitative financial measures, however these measures have already been interpreted by the composers of those studies which means that we will not spend a lot of time doing that again even though we might take a look on the reports in order to find out if the results/conclusion of the given report are accurate, making sure that a different interpretation is not valid.

3.7 Qualitative data

Data that are hard to quantify because of there ambiguous nature and elastic concepts are characterized as qualitative data (Robson 2002).

When conducting our interviews together with analyzing some explanations in the annual reports we will be dealing with qualitative data, since this data can be seen as meanings expressed through words and are more ambiguous and elastic than quantitative data. This however will most likely be to a much lesser extent than the use of quantitative data.

3.8 Literature search

Because this thesis is based upon literature composed by several different authors, both in the empirical and theoretical sections, a great deal of time has been spent in order to find appropriate data suitable for this paper. A starting point in the search for literature has been the website http://www.bibl.hj.se/ from where we have been able to find databases, like ABI/inform Global containing the kind of information needed for this paper. Key words frequently used in our search have been “Balanced scorecard financial performance” and “Balanced scorecard”. The search for empirical data appeared to be especially successful when using the search phrase “Balanced scorecard financial performance” since this allowed us to find empirical investigations that were applicable for our empirical part of the thesis. When searching for Theoretical material the phrase “Balanced scorecard” seemed to be the only way of finding appropriate information even though we were especially searching for the connection between the use of the balanced scorecard and improved financial performance. Together with the search being done through the use of databases on the Internet literature has also been collected from the library. In order to find the actual linkage between BSC and performance, explained through a theoretical perspective, we had to read through the papers and books published by mainly the inventors of the phenomena of BSC, Kaplan and Norton, and through that process critically review the literature, which is important to do according to Saunders et al, 2003,, in order to find the suitable parts of the literature contributing to the fulfillment of the thesis purpose.

3.9 Why have we chosen this method?

The reason for making a thesis consisting of already published empirical research instead of pursuing an approach where we are making our own empirical investigation, however a small case study made with Kinnarps AB are included in the empirical section, is in fact
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rather simple. The reason is that this is arguably a good way, according to us, of fulfilling
the purpose of the thesis since we will use the most reliable and suitable information we
can find and present it in a way that will make for a good analysis and something that will
provide the reader with an answer on the question whether the BSC increases the financial
performance for businesses using such a system. The approach where the most relevant
empirical papers are put forward together should make for a trustworthy outcome of this
thesis.
4 Empirical findings

4.1 Literature part

Since the Balanced Scorecard system started to be adopted by companies, in the late 1990s and into the early 21st century, many researchers have made empirical studies in purpose of trying to find out the effects of such an implementation, testing the validity of Kaplan and Norton’s (2001) claim that this implementation should lead to performance and financial improvements. This creates a wide framework of secondary data which in this thesis will serve as the main frame of empirical findings, complemented by this thesis’ authors’ own investigation of the case about Kinnarps AB.

Below is presented a selected amount of research results that, according to the thesis’ authors, represent the overall research made in the field during the recent years. First are some results with positive outcomes examined followed by empirical findings that are less positive towards a possible link between the use of BSC and improved performance and financial outcomes. It is clear that the majority of research articles written in the subject have a rather positive view towards the connection between the use of BSC and improved performance and improved financial outcomes. In the end the empirical findings from the case of Kinnarps AB are presented.

4.1.1 Positive

Hoque and James (2000) surveyed Australian manufacturing firms on their usage of nonfinancial measures typically found in discussions of BSC development. In this survey, organizational performance was a self-reported measure relative to peers within the same industry. Their results indicate a significantly positive relationship between the usage of superior performance and typical BSC measures. The authors noted, however, that while their study relates the use of non financial measurements (NFM$s$) to performance, their survey fails to capture actual reliance on the BSC or the strength of the causal relationships that are so important to BSC implementation. However, earlier Daly (1996) had found that those investment analysis which consider both financial and non-financial performance indicators resulted in more accurate earnings estimates than those who just focused on financial indicators.

In an extensive field study of a large manufacturing organization, Malina and Selto (2001) investigate the effectiveness of the BSC in communicating strategic objectives and serving as a management control device. They find evidence of an indirect relationship between BSC’s management control function and improved performance on BSC measures. Further, managers in their study perceived that improved performance on the BSC would lead to improved efficiency and profitability.

Another study by Davis & Albright (2004), which has used a longitudinal timeframe of 24 months, provides evidence supporting the proposition that the BSC can be used to improve financial performance; the findings indicate that branches in the BSC group outperformed non-BSC branches on a common composite financial measure. More clearly, this research provides support for the proposition that the BSC method can promote improved financial performance when compared to a traditional performance measurement system focusing solely on financial measures.
Empirical findings

A limitation of this study is, except the short timeframe, its generalizability. The authors believe field study method is an appropriate tool for studying the effectiveness of the BSC on financial measures, but because each organization’s BSC is unique, care must be taken in generalizing the findings. They do not suggest that every BSC implementation will result in improved financial performance, or that every BSC must be identical to the one implemented by the organization in this study. Rather, they believe their findings indicate that the BSC method can be effectively used to improve financial performance compared to a performance measurement system focusing solely on financial measures, and that the findings generalize to the phenomenon being studied (the BSC).

The result of Braam & Nijssen’s (2004) research speaks for a positively influence on performance by BSC use when it is aligned to company strategy, but the performance effect of measurement-focused-BSC use is negative.

In conclusion, their results support managers’ scepticism regarding the BSC. They warn against performance measurements orientation and call for focus on performance management. The BSC can enhance organizational performance, but managers should be careful of the requirements for its implementation and use. These suggestions should assist managers in reaping fullbenefit from this interesting and potentially powerful management tool, they say.

Olve et al (1997), can be said to be the ones introducing the BSC concept into Swedish academic research. However, when following up their first book, they chose to describe successful work with BSC in terms of purpose fulfillment (2003). They also only describe cases that in one way or another have successfully been implemented, but still it is hard to find out from this research whether such an implementenent leads to increased financial returns. As an increase in performance is a clear outcome of a successful implementation of BSC, one would expect that financial outcomes should be improved as well.

Olson & Slater (2002) investigated more than 200 firms. They found evidence that firms do not- and should not- necessarily place equal weight on all the four perspectives. This is not what Kaplan and Norton (1996a) suggest with their bsc, who emphasizes equal weight on all the perspectives. All the different kind of firms indicated high emphasis on the customer perspective. However, in this study, Olson and Slater came up with findings that propose bsc to be the best management tool to use together with the strategy in order to make it competitive.

When investigating the the best practice frontier relationship between a financial performance metric (return on assets: ROA) and tree non-financial performance metrics (in the telecommunication industry), Banker, Chang, Janakiraman, Konstans (2003) found that two of the three non-financial performance metrics (internal process perspective and innovation and learning perspective) did not require any tradeoff with the financial metric (ROA), but the third one (customer perspective) required tradeoffs with the financial perspective.

4.1.2 Negative

140 financial businesses were used in Ittner, Larcker and Randall’s (2003) empirical study in order to assess wether a BSC increases the financial/organizational performance, among
other things, of businesses in comparison to those businesses that relies on other measurement systems.

A negative connection was found in the relation between organizational performance, in this ROA and the use of BSC, nonetheless there was a linkage between increased satisfaction and the use of a BSC. The negative connection between ROA and use of a BSC system were found in companies that many had recently implemented the system. However when analyzing businesses that used mature systems there were still no significantly positive connection with ROA and also here the relation to satisfaction had diminished which should mean that the linkage to satisfaction is only a short time effect.

The major implication with the result of this study is that many firms that claimed to have implemented a BSC system had not fully adopted the principles and prescriptions advised by Kaplan and Norton (2001; 1996a) and this means that when businesses claim to have adopted a BSC system it is not entirely clear what this means.

Ittner et al (2003) found that while 20% of the respondents reporting using the BSC, over 75% of these firms reported not relying on business models that causally link performance drivers to performance outcomes. Critically, the reason for coming up with this negative relationship may be explained by the fact that this research contained an investigation of firms which did not relied on business modeling. Furthermore, Ittner et al actually did report a positive relationship between ROA and firms that rely on business models. Given that developing and understanding causal assumptions between selected measures is an integral component of a properly designed BSC, the lack of an association between BSC usage and financial performance is not necessarily unexpected.

4.2 Case part

Kinnarps AB is a company which produces office furniture solutions. The company was founded in 1942 by Jarl and Evy Andersson. It is a family owned and managed company (P-A Andersson, personal communication, 2005-03-23). Today the company is a big corporation with subsidiaries all over the world. In this thesis it is the parent company that will be investigated.

Kinnarps AB and the rest of the office furniture market had their sales peak during the IT boom. The number of IT companies and other service producing companies were increasing rapidly. That gave Kinnarps AB the ability to lease products to such companies. But when the bubble burst and most of the companies were bankrupt the suppliers of furniture lost a lot of customers. This negative development of the market, and economies in general, has been the general characteristic for most companies (Rheborg et al, 2003). However, the Chief executive officer and the board of directors see a trend on the market that is positive. The demand for Kinnarps AB’s products is increasing and most likely will the coming year be better than the current one (Kinnarps AB, 2005).

The reason for using the measurements in the customer satisfaction-index and profit marginal ratio, operating profit and turnover is because we want to take on the analysis of the finances from three different perspectives. First from the profit margin ratio that enables us to see if kinnarps has increased their profitability in relation to the total sales. The operating profit tells us how much money the core business Kinnarps generates, ignoring earnings from interest on capital and financial costs as taxis. The turnover tells us if Kinnarps has increased their total sales. These measurements will then be compared with
Empirical findings

the customer satisfaction index in order to possibly find a relation between the financial measurements and the customer satisfaction index.

4.3 Relation between BSC and increased competitiveness

According to P-A Andersson (personal communication, 2005-03-23) Kinnarps AB has increased their competitiveness through the implementation of the BSC system. This, however, is a subjective proclamation that Andersson could not back up with any explicit evidence. The reason for the fact that no measures has been made in an attempt to show the financial impact the BSC system has had on Kinnarps AB is according to Andersson that it is practically impossible to make such an endeavor because of the complexity of the task.

4.4 The customer perspective

In Kinnarps AB the customer perspective of the BSC is considered to be the relation with the end customer. Two main areas are emphasized, first that products are supposed to be delivered in time and second that they supply a high service quality (P-A Andersson & A. Käck, personal communication, 2005-03-23).

Kinnarps AB has been more customer focus since the BSC was implemented, especially after starting to work with the customer satisfaction-index. However, it is the strategy that has contributed to the largest extent to this focus. As BSC is used as an analytical tool which evaluates the customer satisfaction-index and is used in the development of the strategy, it is possible to derive the increased customer focus to the use of information provided by the customer perspective in BSC (A. Käck, personal communication, 2005-05-02; 2005-05-19).

4.4.1 The customer satisfaction-index

The customer satisfaction-index that Kinnarps AB uses contains a general overview, which can be broken down into more specific blocks. The information provided by these blocks is ready to be shown through BSC for the responsible for certain issues so that they can see what the customers think and follow up these data and improve their work. The different areas Kinnarps AB evaluate customer satisfaction are customer repurchase and recommendation, the customers contacts with the retailer, delivery, products and information material. The customer grades these fields by giving them a number between 0.0 and 5.0, where 0.0 is worst possible and 5.0 is the top grade. In, for example, marketing, distribution and R&D (A. Käck, personal communication, 2005-05-02).

These measurements are presented in a quarterly fashion. These quarterly figures are then benchmarked with each other, this allows the viewer to see the recent trends of the customer satisfaction. This frequent measuring of the customer satisfaction makes sure that if there is a negative trend it can be corrected at an early stage, also since the concept of customer satisfaction is broken down to several sub fields it is possible to find the weak spots and correct them. The search for low performing parts in the customer satisfaction area would obviously be more difficult if one only measured the customer satisfaction and not the different parts and sub levels of it (P-A Andersson & A Käck, personal communication, 2005-03-23). Since the index was implemented in 2001 its overall value has never been below 4.0, which was the starting point (exact score was 4.01).
Empirical findings

The evaluation of customers’ satisfaction is outsourced and the customers that are being measured are randomly chosen from time to time (A. Käck, personal communication, 2005-05-19). A reason for not follow up the same customers in every evaluation is due to the fact that Kinnarps AB manufacture office furniture solutions, which are being purchased rarely. For some customers it can be a matter ten to fifteen years before next purchase of office furnitures is being made. Measure their satisfaction when they will not do any new purchases for such a long time makes no sense (P-A. Andersson, personal communication, 2005-05-19).

4.5 Financial development-history from 2000-2004

During the years since the customer satisfaction-index was implemented Kinnarps AB has mostly faced a declining market (Rheborg, et al, 2004). For Kinnarps AB itself the development has less negative in financial terms.

4.5.1 2000-2001

<table>
<thead>
<tr>
<th>Annual year</th>
<th>Operating profit/loss</th>
<th>Profit margin</th>
<th>Turnover</th>
<th>Customer satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>46527</td>
<td>3%</td>
<td>1825</td>
<td>4.01</td>
</tr>
</tbody>
</table>

During this time Kinnarps AB started to increase their focus on the larger international customers which resulted in new large deals with businesses like ABB and Nokia. The expansion of the export market was strong even though the economy began to stagnate in the end of the year (Kinnarps AB, 2002).

The total sales in Sweden increased with 6 percent despite the economic stagnation caused by the plunging IT businesses, known as the IT crash. The success are mainly caused by a good sales organization together with effective marketing but also because of a new product range tailor made for suiting the different demands of the European markets. During the year about 40 MSEK has been invested in new operational equipment. The turnover increased from 1685 to 1825 MSEK. The operating profit went from 68713 to 46527 and the profit margin from 4.1 per cent to 2.55 per cent (Kinnarps AB, 2002).

4.5.2 2001-2002.

<table>
<thead>
<tr>
<th>Annual year</th>
<th>Operating profit/loss</th>
<th>Profit margin</th>
<th>Turnover</th>
<th>Customer satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>-65178</td>
<td>-4%</td>
<td>1621</td>
<td>4.23</td>
</tr>
</tbody>
</table>

The annual year of 2001 and 2002 were characterized by the recession in sales of all Kinnarps AB’s markets, this lead to a negative financial result for the year. Despite the recession in the economy Kinnarps AB tried to continuously peruse their offensive strategy and continued to invest in new domains. Although trying to be offensive in investments, in product development and research and development (R&D), in order to be ready for a possible recovery of the economy, Kinnarps AB needed to go through with various rationalization programs in order to follow the economic situation. The adoptions to the
Empirical findings

new economic situation lead to downsizing of employees both in manufacturing facilities and in the sales department (Kinnarps AB, 2003).

The focus on larger international customers continued and deals were made with Hewlett Packard, Transcom and Volvo Car Cooperation. The successful completions of these deals were mainly due to the focus on larger international customers together with efficient (electronic business) solutions provided by Kinnarps AB. Also this year the product range was expanded and the focus was on trying to reach out to a broader target market (Kinnarps AB, 2003).

The turnover decreased from 1825 to 1621 MSEK. The operating profit went from 46527 to -65178 and the profit margin from about 2,55 per cent to -4 per cent. During this time period the whole corporation of Kinnarps AB was ranked as the 4th largest furniture manufacturer in Europe. (Kinnarps AB, 2003).

4.5.3 2002-2003

<table>
<thead>
<tr>
<th>Annual year</th>
<th>Operating profit/loss</th>
<th>Profit margin</th>
<th>Turnover</th>
<th>Customer satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>90477</td>
<td>6%</td>
<td>1575</td>
<td>4,3</td>
</tr>
</tbody>
</table>

During the year 2002-2003 the industry declines with in average 30 percent. Kinnarps AB showed a reduction of 10 per cent in turn over which means that Kinnarps AB managed to limit the losses and also increase their market share. The result of this is showed by the fact that the Kinnarps AB Corporation had climbed in ranking and now was the 3rd largest furniture manufacturer in the European market. Kinnarps AB continued to work with getting deals with larger international businesses and as a result Kinnarps AB could also this year reach agreements with a number of new businesses. The fact that Kinnarps AB could reach these deals made it possible to limit the losses, to 10 percent, in the way that was done (Kinnarps AB, 2004).

Several steps were taken in order to enhance the IT department, both organizationally and technically. This was expected to take some time but when finished would provide better cost efficiency and a standardized IT environment. Efficiency in all areas was improved, claimed as a direct cause of the BSC system Kinnarps AB used (referred to as management by targets). Investments were made in a new transport-planning system that was supposed to increase the delivery punctuality, which is one of the key aspects in the customer perspective for Kinnarps AB, (Kinnarps AB, 2004).

During this period of time the turnover marginally decreased from 1621 to 1575 MSEK. The operating profit went from -65178 to 90477 and the profit margin from about -4 per cent to 5,7 per cent (Kinnarps AB, 2004).

4.5.4 2003-2004

<table>
<thead>
<tr>
<th>Annual year</th>
<th>Operating profit/loss</th>
<th>Profit margin</th>
<th>Turnover</th>
<th>Customer satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>69214</td>
<td>5%</td>
<td>1545</td>
<td>4,15</td>
</tr>
</tbody>
</table>
Empirical findings

For the third year in a row Kinnarps AB faced a decrease in its turnover with 1.9 per cent to 1545 MSEK. However, the export increased with 11.7 per cent. The operating profit went down from 90 477 KSEK in 2003 to 69 214 KSEK. The profit margin was 4.29 per cent. During the year a new work desk system, Serie [T]\(^\text{®}\) has been released into the market. This product, containing of different kind of flexible work desks models and accessories, has been a great success and is already the most sold desk system for Kinnarps AB so far. The company continues to invest in R&D regarding innovative solutions with focus on customer needs and competitiveness (Kinnarps AB, 2005).
Overall, the majority of the empirical research made in purpose of testing the BSC shows a rather positive outcome regarding the causal relationship between the use of BSC and performance and financial returns. Empirical findings collected from different industries in different countries (Hoque & James, 2000; Malina & Selto, 2001; Davis & Albright, 2004; Braam & Nijssen, 2004; Olve et al, 2003, Olson & Slater, 2002, Banker et al, 2003) show a linkage between the use of BSC and improvement in performance and/or financial outcomes. These data strengthen the claim of Kaplan and Norton (1996) that usage of their BSC would lead to improvements regarding a company’s performance and financial result.

When analyzing the data collected from the case of Kinnarps AB it results in the charts below.

![Profit Margin vs Customer Satisfaction for Kinnarps AB, 2000-2004](chart)

Figure 1 Profit Margin vs Customer Satisfaction

In the above table we can see that the trend between customer satisfaction and profit margin does not follow each other between the year of 2001 and 2002. During this period the markets faced a recession which also Kinnarps AB was affected by. This is the main reason why the profit margin decreased while the customer satisfaction, which has nothing to do with economic fluctuations, in fact increased. However they follow the same trend between 2002 and 2004.
In figure 2 we can see that operating profit trend correlates with the one of the customer satisfaction between 2002 and 2004 while the situation are the opposite between 2001 and 2002.

The data presented in the two diagrams above provide no explicit evidence that there is a relation between increased customer satisfaction, which should be derived from the use of information provided by BSC’s customer perspective. However, if not consider the recession in 2001-2002 there is actually some kind of relationship illustrated in the figures. As profit margin and operating profit increases or decreases, the customer satisfaction follows this trend. The question is whether one should include the annual year of 2001-2002 in the analysis or consider it as an outlier.

The evaluation of customer satisfaction is based upon customers’ opinions about Kinnarps AB and its products and services and should not be affected by economic fluctuations. Therefore, as the decrease in profit margin and operating profits in 2001-2002 could to some extent be explained by economic recession.
In figure 3 trend of turnover development between 2003 and 2004 and between 2001 and 2003 the trends are the opposite. When comparing the three different financial measurements we made with the customer satisfaction index, we make the assumption that there is some kind of relation between increased customer satisfaction and financial success, but this only goes for the two measurements used in. However, we reserve ourselves by not making a statement that totally confirm the assumption that there could be a connection between increased customer satisfaction and financial success, both in general as well as in this specific case, since there could be a number of factors that “hide” the effects the increased customer satisfaction gives.

Another factor that we think have affected our results, and that seems logical, could be that the customer satisfaction during the measured time period never went below 4.0 on the scale between 0.0 and 5.0. This indicates that the customers are very satisfied with the current level of service from Kinnarps (Kinnarps AB, 2001-2005). This leads us to assume that when the customer satisfaction increases from the point of already being very satisfactory, no positive measurable outcomes can be measured in terms of financial development, at least the connection is not clear. It is our firm belief that we could have seen an even more obvious connection between an increase in financial outcomes if the customer satisfaction had developed from a lower level, for instance from 2.0 to 4.47 instead of the current 4.01 to 4.47.

We want to point out here that it is not primarily the amount of change in the customer satisfaction that we want to promote but rather the level from which it started out from, meaning that if the customer satisfaction starts out in the lower range of the scale the marginal utility of the increase are higher than if starting out from a higher level of the scale, which was the case in this particular research.

Both in theory and empirically there is some scepticism against Kaplan and Norton’s (1996) BSC. Hanne Norreklit (2000) questions the time dimension of BSC as it does not seem to be a time lag between the stages in the causal chain between the perspectives. Furthermore, she is sceptical to the fact that Kaplan and Norton (1996) take for granted that there is a relation between different measures in BSC.
According to Kaplan and Atkinson (1998) each perspective within the BSC consists of between four to seven individual measures, combining the four perspectives this ends up to about 25 measures. When the 25 measures serves as a fulfillment of one single strategy the number of measures are of no interest and will not be too complicated for a business to deal with, they say. In contrast, researchers within psychology (Baddeley, 1994; Miller, 1956) argue that people cannot process more that seven to nine items of information simultaneously.

Shanteau (1988) and Hopkins (1996) support Kaplan and Atkinson (1998) by saying that measures that are category used and mentally organized may mitigate cognitive difficulties when working with large volumes of information.

5.1 Concluding Discussion

When analyzing the results of the empirical testing of the BSC usage it is tempting to draw the conclusion that Kaplan and Norton’s (1996) Balanced Scorecard will increase performance and profits for companies that choose to use the system. However, both theoretically and empirically it exist skepticisms against this claim, even though they are outnumbered by the positive findings.

The reason for not taking Kaplan and Norton’s (1996) positive claim for granted is that it takes a long time to implement BSC and the outcomes will not be shown until after some time of successful use, which Kaplan and Norton point out, and therefore it is hard to say what BSC usage will result in for companies deciding to adopt it.

The majority of the theory and empirical research, including our own case study, illustrates a positive picture of BSC usage and its linkage to improved performance and financial outcomes. So, even though we consider the time frame of the research made so far to be rather short, but this is because companies have not been able to use BSC for long as it was introduced in late 1990s (Kaplan & Norton, 1996), the trend speaks for it self. Because the positive opinions is so much greater than the negative, we cannot come up with any reason for not believe this trend will last as companies have worked with BSC for many years in the future.

Our opinion is that companies should adapt to BSC if they searching for new system solutions for their management accounting since it seems like it can improve the financial performance. However, we have not made any deeper research regarding other management accounting systems so we cannot say if BSC is the best alternative for everyone, but as one Australian manager asked: “who can argue against something that is ‘balanced’?” (Andon, Baxter, Chua, 2003).
6 Thank you

This thesis would never have been possible to do without the information provided by the case company. Throughout the work the contact has been good. We have made one visit at Kinnarps AB and made a lot of phone calls and sent quite a few e-mails. The information we have needed has been, to the extent that is possible for Kinnarps AB, given to us. We really appreciate that we have had the possibility to make a phone call or send an email for all kind of questions. Even though the persons we cooperate with have demanding positions in the company they have always tried to help us, and it has been a pleasure and an honor to do this thesis in cooperation with this company!

For its sacrifice we would like to thank Kinnarps AB. We would especially like to express gratitude to the following persons:

- Per-Arne Andersson, Market Director
- Anette Käck, Corporate Controller

We would also like to thank:

- Anna Lindman, Accounting Manager
- Monica Johansson, Assistant Sweden
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