

# The use of target costing in Swedish manufacturing firms

Business School Department D-Thesis in Management Accounting Autumn term 2003

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# **Abstract**

The purpose of this paper was to investigate the extent to which Swedish manufacturing companies use target costing. Through random sampling, 250 companies were selected and contacted by telephone, at which point they were asked if they would participate in a survey located on a web site. The number of answers received was 91, which gives a response rate of 36.4 %.

Target costing was introduced in the 1960's and originates from Japanese cost management. Since then, target costing has grown and its use has become much more widespread. Simply explained, target costing is setting the target price and target profit for future products, the difference between these is the target cost. In cases where the target cost cannot be achieved, value engineering is used to reduce costs.

No similar survey has ever been conducted in Sweden, which makes the results very interesting. However, surveys on the use of target costing have been carried out in several other countries, which will be used for the purpose of comparison.

The results from this survey showed that 16.5 % of Swedish manufacturing firms are using target costing – a figure that was expected to be higher prior to the survey. A lack of knowledge about target costing was the main reason why some companies chose not to adopt the practice. The result showed that companies using target costing can be characterised as larger companies which have a differentiation strategy and which operate in highly competitive environments.





# Acknowledgements

The authors of this paper would like to thank each of the 91 respondents (companies) for their help in completing the survey. Without their responses, this paper could not have been completed. The *Teknikföretagen* also deserves some recognition for providing lists of members in their association.

Secondly, much appreciation is extended to the tutor of this paper, Christian Ax of the School of Economics and Commercial Law at Göteborg University. Christian has provided much help and support, and his knowledge and expertise has significantly improved this paper.

Finally, the authors of this paper would like to give each other due credit for cooperation and effort, which in the authors' opinion, has been of great benefit to this paper.

Gothenburg, January 19, 2004

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# **Contents page**

Chapter 1: Introduction	4
1.1 Background	4
1.2 Problem definition	5
1.3 Purpose	5
1.4 Structure	6
Chapter 2: Method	7
2.1 Research method	7
2.2 Literature	7
2.3 Empirical study	7
2.3.1 Total population	8
2.3.2 Selection of survey participants	8
2.3.3 Sample size	9
2.3.3.1 Frame problems	10
2.3.3.2 Fall-off	10
2.3.4 Selection of survey questions	11
2.3.5 Method of analysis	11
2.3.6 Reliability and validity	11
Chapter 3: Theoretical framework	12
3.1 What is target costing?	12
3.2 The process of target costing and elements included	13
3.2.1 Target price	13
3.2.2 Target profit	14
3.2.3 Involvements of suppliers	15
3.2.4 Cost analysis and value engineering	15
Chapter 4: Survey results	17
4.1 The use of target costing	17
4.1.1 Industry	18
4.1.2 Company size	19
4.1.3 Strategy	19
4.1.4 Competition	20
4.2 Part II – Target costing users	23
4.2.1 Price	24
4.2.2 Profit	24
4.2.3 Cost	25
4.2.3.1 Involvement in target costing process	25
4.2.3.2 Targets	25
4.2.3.3 Costs	27
4.2.4 Benefits of target costing	28
4.2.5 Suppliers and customers	28
4.2.6 Value engineering	29





Chapter 5: Analysis	31
	2.1
5.1 The use of target costing	31
5.1.1 Industry 5.1.2 Company size	31 32
5.1.2 Company size 5.1.3 Strategy	32
5.1.4 Competition	32
5.1.4 Competition 5.2 Part II – Target costing users	33
5.2.1 Price	33
5.2.2 Profit	33
5.2.3 Cost	33
5.2.3.1 Involvement in target costing process	33
5.2.3.2 Targets	34
5.2.3.3 Costs	34
5.2.4 Benefits of target costing	34
5.2.5 Suppliers and customers	34
5.2.6 Value engineering	35
Chapter 6: Conclusion	36
6.1 Discussion	36
6.2 Recommendations for future research	37
0.2 Recommendations for rather research	37
List of references	38
List of appendices:	40
Appendix 1: The email	40
Appendix 2: Calculation of sample size	41
Appendix 3: Survey questions	42
List of tables:	
Table 2.1: Positions of survey participants	9
Table 4.1: Do you use target costing?	17
Table 4.2: The use of target costing	17
Table 4.3: Reasons for not using target costing	18
Table 4.4: Part of industry and the use of target costing	19
Table 4.5: Number of employees and the use of target costing	19
Table 4.6: Strategy and the use of target costing	20
Table 4.7: Competition and the use of target costing	20
Table 4.8: Average competition and the use of target costing	21
Table 4.9: Intensity of following aspects	21
Table 4.10: How many new products	21
Table 4.11: Dynamics of external environment	22
Table 4.12: Competitors activities	22
Table 4.13: Customers taste	22
Table 4.14: Legal, political and economic restrictions	23
Table 4.15: Scientific breakthroughs	23
Table 4.16: Perceived environmental uncertainty	23
Table 4.17: Pricing methods	24
Table 4.18: Formal profit targets before production	24



The use of target	aastina	in	Cryodich	manufac	turina	firmo
The use of target	cosung	Ш	5 wearsh	manurac	luling	HHIIIS



Table 4.19: Formal profit targets before production 2	25
Table 4.20: Involvement in target costing process	25
Table 4.21: Targets for suppliers to achieve	26
Table 4.22: Suppliers set their own targets	26
Table 4.23: Targets only to suppliers in the same group	26
Table 4.24: Targets only to important suppliers	26
Table 4.25: Cost targets for product groups	27
Table 4.26: Cost targets for products	27
Table 4.27: Cost targets for product functions	27
Table 4.28: Cost targets for departments / functions	27
Table 4.29: Cost targets for articles / components	27
Table 4.30: Cost elements part of target costing process	28
Table 4.31: Benefits of target costing	28
Table 4.32: Relationship with suppliers and customers	29
Table 4.33: Methods and techniques during product development	30
List of figures:	
Figure 2.1: Formula for sample size	9
Figure 3.1: Target costing formula	13





# **Chapter 1: Introduction**

This chapter will introduce the subject of this paper. The purpose of this chapter is to provide the reader with relevant background to the topic of the paper. This chapter will also provide a definition of the problem under investigation and will state the purpose of the paper and the structure that it will take.

# 1.1 Background

Traditional management accounting has received a lot of criticism over the past decades. Some of the criticism is that it provides managers with misleading information, which encourages short-term thinking and sub optimisation. Furthermore, it does not take the surroundings into account to a satisfactory level (Olve, Roy & Wetter, 1999). Johnson and Kaplan (1987) argue in an article about the rise and fall of management accounting, that when information is needed for effective controlling and managing it is often too late and simply not good enough. By this, they also meant that reports used in management accounting do not help managers to reduce costs and increase productivity.

Thus, over the past decades, managers, authors and experts have all tried to find new ways of controlling costs and management accounting. This relatively new problem area has received a lot of attention in management literature. However, one method that emerged to counteract this problem is target costing or "Genkakaizen", which originates from Japan where over 80 % of all assembly-type industries use it (Hibbets & Albright, 2003).

When managers in the automobile industry faced severe environmental changes (for example, high appreciation of the Japanese currency Yen), they needed new ways of managing costs. They were forced to seek new opportunities to enable them to keep costs and environmental forces under control. Today target costing is used worldwide, however, many companies especially US companies have been slow to adopt this technique. Due to cultural and organisational barriers in developing the broad team-orientated strategy that it requires, the process has not been implemented to the same extent worldwide.

Target costing is also a part of total cost management, which involves the constant search for cost reduction opportunities in the development and design phases of a product. A target costing system provides a means for managing a company's future profits by integrating strategic variables in order to simultaneously plan how to satisfy customers, capture market share, generate profit plans, and plan and control costs (Ansari & Bell, 1997). Moreover, target costing and Kaizen costing (which is cost reduction during the entire production process), together constitute total cost management, which means cost management during the entire product life (Monden, 2000).

To briefly describe target costing (see chapter 3 for more details); it is fundamentally a product development process that turns the equations around and develops costs based on prices, and then works backwards to design the product and, finally, the production





process. The flow of components included in the process begins with setting target sales price followed by target profit. The difference between these two elements is target cost. On realising that actual cost is higher than target cost, companies may be forced to use some kind of value engineering method to lower the costs in order to achieve the target (Ansari & Bell, 1997).

By employing similar research methods as are used in this report, Dekker and Smidt (2003) investigated the extent to which target costing was used in Dutch firms listed on the Amsterdam stock exchange. Their survey was designed to investigate the level of usage through a rather broad description of the general idea of target costing. One reason behind this design was to prevent misguided analysis and misleading results, due to the fact that many firms use similar concepts under different names.

The result from the survey showed that 19 out of the 32 (which accounts for 59 % of the participating manufacturing companies) used target costing, albeit under different names and developed independently of the Japanese practice. Furthermore, the implementation of target costing was highest amongst assembling firms located in an environment characterised by uncertainty and strong competition. The study implied that the main objective of adopting target costing is cost reduction, and to ensure that sudden environmental factors will not have any significant effects on their businesses. Since no similar investigation has been carried out in Sweden, it would be very interesting to see the result of such a survey.

#### 1.2 Problem definition

Japanese cost management, especially target costing, is spreading around the world. This paper deals with the issues surrounding the implementation of these practices in Swedish industries. In Holland, 59 % of the total number of manufacturing companies in such different industry segments as textiles, food and electronics had adopted target costing (Dekker & Smidt, 2003). This paper will ask questions as: To what extent is target costing used in Swedish industries? How does the level of target costing in use in Swedish industries compare to other countries? And, why is this so?

To answer these questions, a survey has been developed to investigate the number manufacturing companies with 50 or more employees in Sweden that use target costing. The total number of companies included in this category was calculated as 664. Some problems that will be discussed will focus on whether the sample size calculated is viable and if problems such as fall-off and frame problems are misleading when drawing conclusions on the entire industry.

# 1.3 Purpose

➤ The main purpose of this paper is to discover how widely used target costing is among companies with 50 or more employees in the Swedish manufacturing industry.

Apart from the main purpose, the following sub-aims can be identified:

To determine the reasons surrounding a company's decision for not using target costing.





- To identify the characteristics of both companies who use, and those who do not use target costing.
- ➤ To examine the benefits experienced by companies who use target costing.

## 1.4 Structure

This paper will have a structure as follows:

- **Chapter 1** This chapter will introduce the subject of this paper. The chapter will provide the reader with background, problem definition, purpose and structure.
- Chapter 2 This chapter will explain the methods employed in this paper. It will concern the research method, literature used, and how the empirical study was performed.
- Chapter 3 This is the theoretical framework and here the reader will find the theory surrounding target costing and all of its components.
- **Chapter 4** In this chapter the survey results will be presented. The results will be shown in tables and explained where needed.
- **Chapter 5** This is the analysis chapter. Here, the survey result will be discussed and analysed, both against the theory in chapter 3 and against earlier studies in the area.
- **Chapter 6** In this chapter, conclusions will be drawn. There will be both discussion and recommendations for future research.





# **Chapter 2: Method**

In this chapter the methods employed in this paper will be explained. The chapter will begin by outlining the research method; including the literature that was used and how the empirical study was carried out.

### 2.1 Research method

After reviewing the purposes of this paper, it was decided that an explorative research method would be the most relevant. Exploratory research is used when the researcher has little or no knowledge on the topic. There may exist some problems in finding reasonable hypotheses and in such cases one method is to carry out a more general survey in the area in order to learn as much as possible about it (Lekvall & Wahlbin, 2001). Since no similar survey has ever been done in Sweden before, no comparisons can be made and thus there are no expectations concerning the survey result. The authors of this paper argue that for this reason, an explorative research is the most suitable.

On deciding to use an explorative research, the authors of this paper chose to use a quantitative method, which is characterised by the use of measurement through mathematics and statistics. This method is appropriate when observing numerical data and examples include experiments, tests, and surveys (Backman, 1998). Scientists using the quantitative method compare different data, which they have gathered, and attempt to draw conclusions about it (Bell, 2000). The authors of this paper intend to put together a survey and distribute it to a random sample of companies in Sweden. The answers that will be received will – to a large extent – exist in numerical form, thus making a quantitative method the most appropriate (Lekvall & Wahlbin, 2001).

#### 2.2 Literature

In this paper both primary and secondary data have been used. The primary data is described below under the heading "empirical study". The secondary data will consist of literature such as books, articles and other surveys and reports in the subject-area. The collection of secondary data was carried out in several ways. Firstly, libraries and databases were used – which is where most of the literature was found. Databases used included GUNDA (Gothenburg University) and LIBRIS. Most of the books were found with the input of search words such as, "target costing", "value engineering" and "management accounting".

The Internet was also used in the search for books and articles. Most of the articles were found in this way using databases such as ABI / Information Global and Business Source Premier. The same search words as above were used.

# 2.3 Empirical study

The primary data in this paper consists of the results from a survey distributed to a sample of companies in Sweden. The companies were selected through random





sampling, which will be further explained below, and the first contact was made with a phone call. If the companies agreed to take part in the survey, the authors of this paper obtained the email address to a contact person. These persons then received an email with an Internet hyperlink that led them to a web site where the survey was published.

The reason for publishing the survey on a web site was primarily to reduce the time for collecting the data. The authors of this paper believe, that because of the electronic survey located on the web site, all stages in the process (distribution, answering time, collection and analysis) progressed much faster and more efficiently. Furthermore, Cobanoglu, Warde and Moreo (2001) argued, based on conclusions from their article comparing mail, fax and web surveys, that web surveys was by far the most efficient method. The result showed that the response time for web surveys was 6 days compared to mail surveys, which had a response time of 16 days. They also found that the response rate for web surveys was 44 % compared to 26 % for mail surveys.

The survey comprised of 27 questions, most of which were multiple-choice answers so that time for completing the survey was reduced to a minimum. Many Likert scales between 1 and 7 (and a few between 1 and 5) were used, as well as a few text boxes, which allowed the respondents to elaborate on data (Bell, 1999).

In the following sections, total population, survey participants, sample size, survey questions, method of analysis and, finally, reliability and validity will be presented to the reader.

# 2.3.1 Total population

In this paper, the total population consists of companies with 50 or more employees in the manufacturing industry in Sweden. The reason for this sample is that it may be argued that target costing is more widely used in the manufacturing industry and, also, in somewhat larger companies.

To find these companies, some lists of members of the *Teknikföretagen* were retrieved. The *Teknikföretagen* is an association in which most of the manufacturing companies in Sweden are members. The *Teknikföretagen* supplied the authors of this paper with these lists mainly because they were interested in the results of the survey.

After removing companies with less than 50 employees, the total population was set at 664 companies.

# 2.3.2 Selection of survey participants

As mentioned above, the first contact was made through a phone call. At this initial stage, the authors of this paper wanted to get in contact with someone who knew a lot about target costing, product development and / or management accounting.

In cases where such persons did not exist, a controller or some other form of manager was requested instead. In table 2.1, the different persons responding to the survey can be seen.





#### Positions of survey participants

	n	Percent
Chief Financial Officer	23	25.3
Construction Manager	11	12.1
Chief Executive Officer	10	11.0
Production Manager	9	9.9
Development Manager	7	7.7
Product Manager	7	7.7
Technical Manager	6	6.6
Market Manager	6	6.6
Controller	4	4.4
Project Leader	3	3.3
Product Developer	3	3.3
Administrative Manager	1	1.1
N/A	1	1.1
Total	91	100.0

Table 2.1: Positions of survey participants

When contact was made, the purposes of this paper were described to all participants prior to the survey. In those cases where the contacted person agreed to participate in the survey, an email address was obtained so that the email with the Internet hyperlink could be sent to them.

The email containing the description of this paper and the survey, along with the Internet hyperlink, can be seen in Appendix 1. One week after the email was sent, a second email was distributed to those who had not responded to the survey. In the second week, a final email was sent to the remaining persons. The two follow-up emails were similar to the initial one, but with the headings *Reminder 1 and 2*.

### 2.3.3 Sample size

As mentioned above, the total population was set at 664 companies. It would not be possible to use all these companies, so a random sample was done. In this way, the selection is performed just like a lottery where all the tickets have an equal probability of winning. The idea being, that if chance decides which companies to choose, then the sample should be very representative of the entire population. With such a sample, one could then draw conclusions about the total population (Körner & Wahlgren, 2000).

Formula for calculation of sample size:

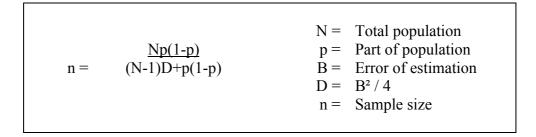


Figure 2.1: Formula for sample size

Source: Scheaffer, Mendenhall & Ott (1990, pp.68-71)





As can been seen in Appendix 2, the sample size has been calculated as 250 companies. When the total population and the sample size were known, the random sample was performed. This was done by using Microsoft Excel, to generate 250 random numbers from 1 to 664.

### 2.3.3.1 Frame problems

Because all the individuals in a population should have the same probability of being in the sample, a frame is needed containing all the individuals. An over-cover is when the frame consists of individuals who are not part of the population, but this problem is fairly easy to correct by simply removing the individuals who are not part of the population. When individuals in the population are not part of the frame, this results in an under-cover, which is a more serious problem. The results of the survey may be misleading if the absent individuals are vital for the survey (Körner & Wahlgren, 2000).

In this survey, lists with all members in the *Teknikföretagen* were used. These lists were assured as being up-to-date, thus it can be assumed that most companies in the manufacturing industry were present in this survey's total population. Since these lists contained information about each company's number of employees, there were no problems in eliminating those companies with less than 50 employees.

#### 2.3.3.2 Fall-off

A fall-off is when no answer has been given on one or more questions. The reason for this can be that the person answering the survey was unavailable, or simply refused to answer. If a person refused to answer, the reason could be that he or she could not, or did not want to answer due to sensitive questions or misunderstandings arising from language and grammar. Since it is important that all participants in a sample respond to the survey, the fall-off could be very detrimental to the survey. This is a problem that is difficult to solve. One cannot simply take a larger sample — a smaller sample with no fall-off is often more reliable than a larger sample with many fall-offs (Körner & Wahlgren, 2000).

In this paper, the fall-off was reduced as much as possible for a number of reasons: Firstly, since the first contact was made by a phone call, the authors of this paper made sure that the persons receiving the email with the Internet hyperlink had agreed to answer the survey. Then, one week after the email was distributed, the first reminder was sent to those that had not answered. The second and last reminder was sent another week later and, after this no more answers were regarded. The authors of this paper claim that because of the phone call and the two reminders, the fall-off was reduced as much as possible.

When the first contact was made through the phone call, 39 of the 250 companies did not wish to take part in the survey. The reasons for this were mainly due to a lack of time or interest. So, even before the first email was sent, a 15.6 % fall-off had already taken place. In the first week, 52 persons answered the survey and following the first reminder 76 answers had been received. One week after the second reminder, 91 persons had answered the survey. Together, this counts as 36.4 % of the sample. Thus, the total fall-off in this survey was 159 companies, or 63.6 %.





# 2.3.4 Selection of survey questions

The survey consisted of 27 questions (Appendix 3) divided into two parts. The first part covered different areas such as; company information, strategy, competition, suppliers and costing methods. The second part of the survey dealt with questions about target costing and how this was used. At the end of the first part, those companies that did not use target costing could press a send-button and thus finish the survey.

Most of the questions in the survey were formulated by the authors of this paper in cooperation with the tutor, and several were taken from a similar survey in Holland (Dekker & Smidt, 2003).

Almost all questions in the survey used Likert scales for quick responses. This means that the respondent makes one choice between 1 and 5 (or 7) to reflect his or hers opinion towards the question. At each end of the scale are often two opposing sentiments; for example,  $1 = strongly \ agree$  and  $7 = strongly \ disagree$ . One of the main reasons for using Likert scales is that it is very easy to analyse the answers since they are in numerical form (Bell, 1999).

## 2.3.5 Method of analysis

After all the answers were received, the software package SPSS for Windows was used to analyse the responses. SPSS is statistical software that can perform a huge number of different calculations. Most of the analyses carried out were frequencies, means and cross-tabulations.

The results of the analyses are presented in a table. These tables are useful, as they display the results in a clear and concise way. For this reason, most of the figures in this paper have been copied directly from SPSS.

# 2.3.6 Reliability and validity

Regardless to the method used to gather data, it is always necessary to assess and revise the chosen method in order to determine the reliability and validity of the information. The reliability is a measurement which suggests that the method would give the same result if it was repeated. One of the best ways of controlling this is to test the reliability of the questions when formulating them (Bell, 1999).

The authors of this paper tested the reliability of the questions by repeatedly reading them through, and also by letting some other people read them. Since no one misunderstood the questions or felt them to be difficult or unnecessarily complicated, they were thus acceptable for use in the survey.

The validity refers to whether a question measures what it intends to measure, thus it is a bit more difficult to test. One way of ensuring the validity would be to use another measuring method that produced "true" answers, but in that case one could use that method instead (Lekvall & Wahlbin, 2001). Since the validity is very difficult to test, it is common practice to avoid it on shorter projects (Bell, 1999).





# **Chapter 3: Theoretical framework**

This chapter will provide the reader with a theoretical framework. Important aspects of this paper, namely, target costing, involvement of suppliers and value engineering will be thoroughly described in order to provide a basis for the empirical study and the analysis.

# 3.1 What is target costing?

"The target costing process is a system of profit planning and cost management that is price led, customer focused, design centered, and cross functional. Target costing initiates cost management at the earliest stages of product development and applies it throughout the product life cycle by actively involving the entire value chain" (Ansari & Bell, 1997, p.11)

Prior to the appearance of target costing, the majority of companies firstly began by determining costs, then adding a markup (i.e., the amount by which price exceeds cost) to reach to an accurate price level when launching a new product or service. Due to increasing competition and shorter product life cycles, managers began to realise and take interest in the benefits that target costing brought with it. Many managers have since convinced their colleagues that target costing is a very useful management tool, and today it is included in the competitive strategies of many companies (Monden, 2000).

Ansari and Bell (1997) argue that the link between strategy and the use of target costing exists primarily due to one factor; target costing provides the means for achieving the company's goals of satisfying market-demand at an acceptable level of profitability. Moreover, other benefits that have been identified and advocate the use of target costing point to the importance of development activities for company profitability due to product and service development becoming increasingly more expensive. Also, target costing is a time-saving procedure and thus a valuable aspect in today's companies where time is precious.

The characteristics of a company which uses target costing is one that operates in a highly competitive environment with short product life-cycles and complex manufacturing processes. Target costing can be used in most types of companies, but it is more suitable for use in companies that have a multi-product and small production rather than in one with few products and large productions (Horngren, Foster & Datar, 2000). Target costing is mainly a product development process that turns the equations around and develops costs based on prices, it then works backwards to design the product and, finally, the production process. Unlike the standard cost systems which are often applied in the production stage, target costing is applied in the development and the design stages.

Moreover, it requires a good cost estimation system that provides increasing levels of accuracy as a product progresses from a concept to a design ready for manufacturing. In the value chain it is located in the development step which follows an identified





consumer need, and subsequently followed by process and aftermarket before customer satisfaction can be achieved (Horngren, Sundem & Stratton, 1993).

One can argue that a basic goal for the process is to identify the costs before they occur, therefore there cannot be a sudden increase in costs during later stages of design. Target costing requires the cooperation of several units within the company (for example, product design and marketing) for its successful execution. One other critical aspect that must be completed in order for this process to work is that company managers must first investigate and establish how many future customers are willing to pay for the product. They will need to conduct investigations, and this is often carried out by market research (Monden, 2000).

# 3.2 The process of target costing and elements included

The different features and formulae for determining the process can be calculated as follows:

Figure 3.1: Target costing formula Source: Monden (2000, p.106)

This formula can be roughly narrowed down to two processes. The first process involves planning a product that satisfies customer needs and establishes the target cost from the targeted profit minus targeted sales price of the new product. The second, is the process of realising the target cost by using value engineering, this feature makes a comparison between target cost and achieved cost. If the actual costs exceed the target cost, there are several methods that can be used to regain control of the costs.

## 3.2.1 Target price

The goal of target pricing and costing is to determine, then realise, the technical performance level for each attribute that maximises the difference between value and cost (Ansari & Bell, 1997). The goal is not to maximise performance because it costs too much, but rather to optimise it at target cost. There exists several methods of establishing target price, which makes it one of the cornerstones of target costing. Japanese companies use four key determinants when setting a product's target price, namely, customer needs, which are related to the physical features of the product, the acceptable price level, product features as compared to competitors, and finally, setting a price that will capture the desired market share, or even more.

By setting a target price that is based on a cost plus, managers estimate the highest price that future customers would be willing to pay for the product, and then simply deduct a margin from the price of the product. The result of this process determines the maximum allowable cost for the product. This estimation is based on an understanding



of the perceived value that customer place on the product, and also the response from competitors.

Today, new product development is often driven by the innovations of engineers and by technological advances, rather than by what the market demands, yet this is very risky. The best, and probably the only real way of surviving in today's competitive environment is to introduce products that meet customer demands and extract as much profit as possible from the market (Butscher & Laker, 2000).

When the estimations are set, they are often based on one of the following methods:

**Pricing by function:** By using this method, the target price that is set is based on the different features and functions that the product processes. Value will then be added to or subtracted from the product. By using the products of competitors as a benchmark this will give an indication of whether or not the set price is accurate as a representation of market conditions. This method is often used in the automotive industry, where last-year's car model provides a basis for the new upcoming model (Ansari & Bell, 1997).

Existing price + value of new attributes: When new features are added to the product, price is set based on the value of these attributes. This pricing method can be used in situations in which functionality is slow to change and physical attributes comprise the customer's main requirements. Moreover, if the product-feature is completely new on the market, a "first mover" (Normann, 2001) advantage on price setting can be obtained.

Competition-based pricing: By executing market research, managers can set prices according to the amount that competitors charge for similar or identical products. This method is often used and most suited in situations where the product only have one dominant characteristic to explain the difference in price (Ansari & Bell, 1997).

**Skimming or premium pricing:** This is a very risky method that is difficult to maintain for a long period of time. A large cost-plus will be obtained for a short period of time due to the fact that this method takes advantage of temporary monopolistic market conditions. However, skimming pricing is, at the same time, a very risky method due to the occurrence of destructive competition (Ansari & Bell, 1997).

#### 3.2.2 Target profit

To accurately determine the level of the target profit margin requires a good knowledge of the product, since every product has its own profit plan and life cycle. This involves a rather complex process of bringing together business level (macro) plans and product level (micro) plans. At the business level target profit is set by estimating required profit generated from the product mix that the company intends to produce. Following this, the amount of profit that is required for the business as a whole to achieve break-even (or in some cases plus), is determined. This is done by taking the multiyear product and profit plans (i.e., that shows all planned products that are going to be developed and introduced) from the product mix that the firm intends to produce and multiplying this with a financial return to reach the required profit level (Ansari & Bell, 1997).

The micro requirements and plans are normally planned according to a project managers expectation, this is a very difficult task to fulfil and requires a lot of





experience. Aspects such as market share and size, together with market price, must be included in the process of planning sales volume. Moreover, the target profit then becomes the result of a combination of both macro and micro requirements (Ansari & Bell, 1997).

Financial returns as Return on sales (ROS) and Return on assets (ROA) are often used to estimate profit in the macro plans (Butscher & Laker, 2000). Moreover, Return on equity (ROE) is frequently used for this purpose. The ROS ratio is often expressed as the profit that a product must yield in order to reach the required target of profitability. Furthermore, ROS is also a critical input for ROA, which is the product of asset turnover and profit margin. ROS must take into account the long-term profit plans and the financial returns on assets that companies must earn in its industry.

The benefits of using ROS are many; it is a highly reliable method, it is easy to calculate and understand, and is simple to communicate. Profit is arrived at by applying a percentage of target return on sales to the sales revenue from the product mix. One aspect to take into consideration is that required profit and planned profit are based on estimates of lifetime sales from the products included in the product mix. However, it should be mentioned that the actual profit target often changes as the product goes through the development cycle because of changing market conditions (Ansari & Bell, 1997).

# 3.2.3 Involvement of suppliers

There are three factors influencing the structure of a target costing system and these include, type of product, customer and degree of influence over suppliers. The involvement of suppliers is one of the most important factors; if suppliers are involved at an early stage of the production process they can provide project managers with valuable inputs. Moreover, early involvement from suppliers may result in simultaneous engineering of teams and reduction of the time to market. To involve suppliers in the value chain will result in all partners taking part in the production process receiving information at the same time. This will prevent misunderstandings and all teams will work towards a common goal of doing the correct thing from the beginning. Many manufacturing companies do not have direct contact with end customers, due to the fact that it would be very time consuming and expensive to set up an entire organisation just for this cause. Suppliers can provide first-hand contact and services with customers, it is therefore beneficial for both parties to involve each other in their businesses (Ansari & Bell, 1997).

Also, without supplier involvement problems may occur, for example the designed products not being suitable for standard shipment containers. This will result in a rather substantial increase in costs. It would be very expensive to discover distribution, service problems and recycling problems after a product has been designed (Cooper, 1995).

### 3.2.4 Cost analysis and value engineering

The second part of the target costing method can be described in the following way: It is the process of turning allowable costs into an achievable target cost. There are three core methods or tools that can be used to close the gap between allowable costs and





achievable costs. These methods include; value engineering, "Kaizen costing" (continuous improvement) and cost analysis and estimations (Ansari & Bell, 1997).

Value engineering is a cost reduction tool that can be used in the design phase of a new product. It analyses the functions of the product while trying to achieve the lowest possible cost without jeopardising any the product's features as, for example, safety, performance and quality. Value engineering is often conducted in four stages, namely, feature to function analysis, creative thinking, problem solving and idea development (Ansari & Bell, 1997).

The first step of value engineering is to conduct a functional analysis, which in turn will determine what function an item performs, what it costs, and how much customer value it creates. Value is often expressed as having a high degree of importance to the customer, and is determined by the contribution of a function to a product's feature. Cost is expressed a little differently; it is a percentage of the total costs devoted to each function. Many companies use a ratio called value index, by which they can measure the degree of importance to a percentage of cost. Any function or component that turns out to have a value index of less than or equal to 1 is a typical subject for value engineering (Ansari & Bell, 1997).

The second and third steps are creative thinking and problem solving, where brainstorming constitutes the largest cornerstone. Discussions and critical evaluations take place in these stages, and functions or components with a low index can be reduced or even eliminated. Analysis of these processes leads to the fourth phase, where concrete changes in the product design phase are conducted. The fourth and final step in idea development is Quality function deployment (QFD) is – as mentioned above – a core tool that systematically conveys information about important objectives in any business decision (Ansari & Bell, 1997).

QFD is used in the product concept stage of target costing where competitive relationships, customer requirements and design parameters are brought together. QFD maximises customer value, and transforms customer requirements to technical requirements. Furthermore, the above-mentioned variables are later put into a matrix where information is gathered from them. One benefit of the matrix it is that it can relate part and component characteristics and process requirements to the design. This information can then be used to plan the actual production system (Ansari & Bell, 1997).

Furthermore, there is one other cost reduction tool that can be used in the third step, namely Design for manufacture and assembly (DFMA). DFMA refers to engineering processes designed to optimise the relationship between materials, parts and the manufacturing process. The main purpose of DFMA is to increase quality and reduce the time it takes to market. This is achieved by making it easier to manufacture and assemble parts, or possibly eliminate them. However, due to the lack of customer focus, DFMA is not as valuable a tool as QFD (Ansari & Bell, 1997).





# **Chapter 4: Survey results**

This chapter will provide the reader with the results of the survey. It will begin with the use of target costing and the reasons why companies do not use it. Following this, price, profit, suppliers, customers and finally, value engineering will be considered.

# 4.1 The use of target costing

This section will begin by presenting the number of companies that use target costing, followed by describing the use of target costing when investigating, the industry, company size, strategy and competition.

The table below shows how the companies answered the question on whether they used target costing. As can be seen, most companies (42.9 %) had never considered the use of target costing.

Question 13 - Do you use TC?

	Percent
Don't know	16.5
TC is unfamiliar	16.5
Never considered the use of TC	42.9
Considered TC but rejected the process	1.1
Currently considering the use of TC	4.4
Tried TC but rejected the process	1.1
Will begin to use TC in a near future	1.1
Recently begun to use TC but not fully implemented	3.3
TC is well established in our company	13.2

Table 4.1: Do you use target costing? n=91

In order to provide the reader with a better view of the companies which actually use target costing (those who answered yes on one of the last two alternatives above), the table below was created. The result gave a rather clear indication of present company conditions; 15 companies, or 16.5 % out of the total 91 are using target costing, while the other 76 companies or 83.5 % do not use it.

Question 13 - The use of TC

	Percent
No	83.5
Yes	16.5

Table 4.2: The use of target costing n=91

Those companies who answered that they did not use target costing, also stated the reasons for this. The answers to this question are shown in the table below. As can be





seen, the main reasons for not using target costing is lack of knowledge, old habits and a lack of education and experience. Reasons for not using target costing that received the lowest mean are "obtained no result by the use of target costing" and "target costing puts many people under strong pressure".

Question 14 - Why do you not use TC?

	n	Mean
Lack of knowledge about TC	69	4.35
Old habits	65	4.25
Not enough IT support	63	2.68
Fashion thing that soon will disapear	59	2.25
TC is too complex	59	2.81
More important aspects to do in the company	59	3.24
Lack of management support	60	2.30
TC is not suitable in our company	59	3.49
Cooperation between functions can not be achieved	60	2.65
Co-workers is unwilling to change	58	2.67
Its use does not exceed its costs	59	2.86
Gathering of information takes too much resources	58	3.19
Obtained no result by the use of TC	57	2.07
TC puts many in company under strong pressure	57	2.23
Lack of education and experience	59	4.02
Lack of information that TC requires	58	3.31
Lack of resources to start the use of TC	59	3.56

*Table 4.3: Reasons for not using target costing (1=not at all, 7=to a very large extent)* 

# 4.1.1 Industry

When investigating the various industries using target costing, the table below shows which segments have the highest level of target costing usage. The machine industry, together with the metal industry accounts for the largest percentage of target costing usage (if those who chose "other" are disregarded).





Question 1b - Part of industry and the use of TC

			Use targe	et costing
			No	Yes
Part of	Electronics	Count	7	1
manufacturing industry		% within Use target costing	9.2%	6.7%
	Metal	Count	38	3
		% within Use target costing	50.0%	20.0%
	Machine	Count	14	4
		% within Use target costing	18.4%	26.7%
	Transport	Count	1	
		% within Use target costing	1.3%	
	Instrument	Count	3	
		% within Use target costing	3.9%	
	Communications	Count	1	2
		% within Use target costing	1.3%	13.3%
	Other	Count	12	5
		% within Use target costing	15.8%	33.3%
Total		Count	76	15
		% within Use target costing	100.0%	100.0%

Table 4.4: Part of industry and the use of target costing n=91

# 4.1.2 Company size

In the table below, the average number of employees in companies that use and do not use target costing can be seen. The average number of employees in all companies is 150, compared with the companies that use target costing which had an average of 198. Also, it should be noted that two companies did not provide any information on how many employees they had.

Question 2 - Number of employees and the use of TC

Average number of employees

Use target costing	Mean	Std. Deviation
No	141.24	127.81
Yes	198.18	151.08

Table 4.5: Number of employees and the use of target costing n=89

#### 4.1.3 Strategy

In order to determine the strategies of companies that use and do not use target costing, the table below was produced. The result shows that the use of target costing varies





amongst the different strategies, where most target costing users (53.3 %) have a differentiation strategy, while the low cost strategy is the least used (13.3 %).

Question 8 - Strategy and the use of TC

			Use targe	et costing
			No	Yes
Strategy	Low cost	Count	11	2
		% within Use target costing	14.5%	13.3%
	Differentiation	Count	39	8
		% within Use target costing	51.3%	53.3%
	Focus	Count	26	5
		% within Use target costing	34.2%	33.3%
Total		Count	76	15
		% within Use target costing	100.0%	100.0%

Table 4.6: Strategy and the use of target costing n=91

# 4.1.4 Competition

When looking at the level of competition faced by the companies using and not using target costing, one can see that most of the companies that use target costing are situated in environments where competition is very high. In the table below it is evident that most target costing users gave a high ranking on this question.

Question 9 - Level of competition and the use of TC

			Use target costing	
			No Yes	
Competition	2	Count	2	
		% within Use target costing	2.6%	
	3	Count	5	1
		% within Use target costing	6.6%	6.7%
	4	Count	10	1
		% within Use target costing	13.2%	6.7%
	5	Count	23	4
		% within Use target costing	30.3%	26.7%
	6	Count	29	6
		% within Use target costing	38.2%	40.0%
	7	Count	7	3
		% within Use target costing	9.2%	20.0%
Total		Count	76	15
		% within Use target costing	100.0%	100.0%



Table 4.7: Competition and the use of target costing (1=very low competition, 7=very high competition) n=91

In order to view the average competition for companies using and not using target costing, the table below was produced. This table clearly shows that the level of competition is very high, but slightly higher for those companies which do use target costing.

Question 9 - Average competition and the use of TC

#### Competition

Use target costing	Mean
No	5.22
Yes	5.60

Table 4.8: Average competition and the use of target costing (1=very low competition, 7=very high competition) n=91

The next question also dealt with competition. In the tables below the answers given to the questions are compared with the use of target costing. Moreover, one can see that companies are competing mostly on price and that there is no great difference between those using and those not using target costing.

Question 10a - Intensity of following aspects

	Use target costing	
	No	Yes
	Mean	Mean
Negotiation when buying material	3.79	4.43
Competition on staff	3.08	3.43
Competition on price	5.51	5.80

Table 4.9: Intensity of following aspects (1=not intensive, 7=very intensive) n=90

When investigating product introduction or product launching, the table below displays that those companies that are using target costing introduce more new products compared to those that do not use target costing.

Question 10b - How many new products

Product intro on market last 5 years

Use target costing	Mean
No	4.75
Yes	5.60

Table 4.10: How many new products (1=none, 7=many) n=90



The task of the next questions was to investigate whether external environment concerning economy and technology was stable or dynamic. As can be seen, in terms of both economy and technology, companies using target costing are situated in a rather dynamic external environment.

Question 10c - Dynamics of external environment

	Use target costing	
	No	Yes
	Mean	Mean
Dynamics of ext envir - Economy	4.25	5.47
Dynamics of ext envir - Technology	3.97	4.33

Table 4.11: Dynamics of external environment (1=very stable, 7=very dynamic) n=91

When comparing the activities of various competitors (see table below), the result shows that there is no significant difference between companies using or not using target costing. Both categories experienced similar activities from their competitors.

**Question 10d - Competitors activities** 

Competion activities

Use target costing	Mean
No	4.07
Yes	3.73

Table 4.12: Competitors activities (1=getting more predictable, 7=getting less predictable) n=90

The question investigating how these two categories experienced changes in customer's tastes, the result shows that (similar to the question above) there were no significant differences between target costing users and the others.

Question 10e - Customers taste last 5 years

Customer's taste last 5 years

Use target costing	Mean
No	4.47
Yes	4.33

Table 4.13: Customers taste (1=easier to predict, 7=more difficult to predict) n=91

When investigating if legal, political or economical restrictions had an influence on the use of target costing, the table below shows that there has not been an increase in target costing users or those who do not use it.





#### Question 10f - Legal, political and economic restrictions

Legal, political, economic restrictions last 5 years

Use target costing	Mean
No	3.20
Yes	3.27

Table 4.14: Legal, political and economic restrictions (1=been roughly the same, 7=been growing) n=91

When considering how often scientific breakthroughs occur, both target costing users and non-users claim, as can be seen below, that scientific breakthroughs do not occur often.

Question 10g - Scientific breakthroughs

How often scientific breakthroughs

Use target costing	Mean
No	2.20
Yes	2.93

Table 4.15: Scientific breakthroughs (1=never, 7=all the time) n=90

If calculating the mean for the entire question 10 (all the above tables), one can see the "perceived environmental uncertainty" (Gordon & Naranyan, 1984). This is a measure used to investigate the predictability and stability of environments and competition. As can be seen below, the figures are rather average, but slightly higher for target costing users.

Question 10 - Perceived environmental uncertainty

Use target costing	Mean
No	3.93
Yes	4.33

Table 4.16: Perceived environmental uncertainty (1=low, 7=high) n=90

# 4.2 Part II - Target costing users

This section will only concern those companies that do use target costing. The main objective is to find out how target costing is used and how things such as price, profit, costs, suppliers and customers, and finally, value engineering are chosen and employed.





#### **4.2.1 Price**

This first section will look at how the companies set their target price, which is one of the most important aspects in the target costing process. In the table below, the survey result is presented and gives a clear indication that market-based pricing (what the market can handle) and cost-based pricing are those most frequently used. The method that is least used is "last year's price adjusted for inflation".

**Question 23 - Pricing methods** 

	n	Mean
Cost-based pricing	14	4.86
Competition-based with same price as competitors	14	3.79
Competition-based pricing beating competitors	12	3.00
Customer value-based pricing	13	4.54
Market-based pricing (desired market share)	14	3.21
Market-based pricing (what market can handle)	14	5.29
Customer-based pricing (customer requirements)	13	3.85
Last years price adjusted for inflation	13	2.69

*Table 4.17: Pricing methods (1=not at all, 7=to a very large extent)* 

#### 4.2.2 Profit

In the table below, it can be seen that 92.3 % of the target costing users are setting formal profit targets on future products before production. Unfortunately, not all companies using target costing answered this question, but there is nonetheless a clear indication that most companies do set formal profit targets.

Question 25a - Formal profit targets

	Percent
No	7.7
Yes	92.3

Table 4.18: Formal profit targets before production n=13

The majority of those companies answering "yes" on the above question took the opportunity to state which method they used to set the profit targets. The result from this question shows that the companies use different methods in determining profit targets, with EBIT (earnings before interest and taxation) being the most popular.



Question 25b - Formal profit targets

	Percent
EBIT	30.0
NPV	20.0
Net margin	20.0
ROI	20.0
Operating profit	10.0

Table 4.19: Formal profit targets before production 2 n=10

#### 4.2.3 Cost

This section will display the answers from the questions dealing with involvement in the target costing process, targets and costs.

### 4.2.3.1 Involvement in target costing process

The table below shows the different departments that are involved in the target costing process. As can be seen from the results, product development, product design and purchasing are the departments most frequently involved in the process. Those options receiving the lowest ranking are accounting, personnel and finance.

**Question 19 - Involvement in TC process** 

	n	Mean
Management accountant / controller	13	4.77
Finance	12	3.17
Management	14	5.64
Board of executives	13	3.00
Accounting	13	2.31
Product development	13	6.85
Product design	11	6.45
Purchasing	14	6.21
Product planning	14	4.79
Product production	14	5.29
Quality insurance	14	4.93
Personnel	13	3.00
Marketing	14	5.07
Sales	14	5.21
After market service	14	4.00
Distribution and logistics	13	4.38

Table 4.20: Involvement in target costing process (1=not at all, 7=to a very large extent)

### **4.2.3.2 Targets**

This section deals with a very important aspect namely, methods for setting targets. The first four tables concern the ways in which targets are set for suppliers. As can be seen, all companies set targets for their suppliers and almost half (46.2 %) of the companies



allow their suppliers to set their own targets. None of the companies just set targets for those suppliers in similar groups and as little as 7.7 % only set targets for important suppliers.

Question 20 - Targets for suppliers to achieve

	Percent	
Yes	100.0	

Table 4.21: Targets for suppliers to achieve n=14

Question 20 - Suppliers set own targets

	Percent
No	53.8
Yes	46.2

Table 4.22: Suppliers set their own targets n=13

Question 20 - Targets for suppliers in the same group

	Percent
No	100.0

Table 4.23: Targets only to suppliers in the same group n=13

Question 20 - Targets for important suppliers

	Percent
No	92.3
Yes	7.7

Table 4.24: Targets only to important suppliers n=13

In the following five tables, the answers on what they set their targets for are presented. A majority of companies set cost target for products (92.9 %), and articles / components (78.6 %), while a few set targets for departments / functions (16.7 %). On the questions concerning product groups and product functions, around half of the companies answered yes.



Question 21 - Cost targets for product groups

	Percent
No	61.5
Yes	38.5

Table 4.25: Cost targets for product groups n=13

Question 21 - Cost targets for products

	Percent
No	7.1
Yes	92.9

Table 4.26: Cost targets for products n=14

**Question 21 - Cost targets for product functions** 

	Percent
No	50.0
Yes	50.0

Table 4.27: Cost targets for product functions n=14

Question 21 - Cost targets for departments / functions

	Percent
No	83.3
Yes	16.7

Table 4.28: Cost targets for departments / functions n=12

Question 21 - Cost targets for articles / components

	Percent
No	21.4
Yes	78.6

Table 4.29: Cost targets for articles / components n=14

#### 4.2.3.3 Costs

In order to see which costs are included in the process, the table below was produced. Direct material costs, along with component / article purchases and manufacturing costs





got the highest percentage. It can also be mentioned that costs such as trial production costs and disposable / recycling costs received the lowest percentage.

Question 22 - Cost elements part of TC process

	n	Percent
Direct material costs	14	92.9
Direct labour costs	13	69.2
Direct cost of machine use	13	61.5
Component / article purchases	14	85.7
Cost of bought services	14	78.6
Manufacturing costs	14	85.7
Cost of material purchases	13	53.8
Depreciation costs of new inventories	13	53.8
Interest costs of new equipment	13	38.5
Distribution and logistics costs	13	53.8
Trial production	13	15.4
Marketing and sales costs	13	30.8
Administration costs	13	30.8
Service and support costs	13	61.5
Disposable / recycling costs	13	23.1
Customer costs (eg. repairs)	13	30.8
Product development costs	14	64.3

Table 4.30: Cost elements part of target costing process

# 4.2.4 Benefits of target costing

In order to assess the benefits that companies using target costing experience with the method, the table below was produced. As can be seen, most companies (36.3 %) regarded cost awareness as the best benefit.

Question 18a - Benefits of target costing

	Percent
Cost awareness	36.3
Focus on profitability	27.3
Cost reduction	18.2
Total view of project	9.1
Accuracy of development	9.1

Table 4.31: Benefits of target costing n=11

## 4.2.5 Suppliers and customers

The table below presents the answers concerning the relationships with suppliers and customers. The question that received the highest average is "the use of inputs from customers for product design", which, along with "feedback from customers after using products" got the highest average. The question that got the lowest average is "when suppliers reduce costs, the profit made by this reduction is shared with the supplier".





Question 26 - Relationship with suppliers and customers

	n	Mean
Coordination of product / process design with suppliers	15	4.53
Involvment of suppliers in product design	15	4.53
Supplier cooperation in making products customer focused	15	3.73
Main supppliers are dependent on us for survival	15	3.53
Training and support of most valuable suppliers	15	3.27
When supplier reduce our cost, we share profit made by the reduction	15	3.20
Use of inputs from customers for product design	15	5.80
Information gathering from customers about products (eg. surveys)	15	4.60
Gathering and distribution of feedback from customers after using products	15	5.20

Table 4.32: Relationship with suppliers and customers (1=not at all, 7=to a very large extent)

## 4.2.6 Value engineering

The question concerning the methods and techniques used during product development, the answers received can be seen in the table below. The authors of this paper chose to name this section "value engineering" simply because it can be argued that the methods showed in the table below are part of value engineering.

As can be seen, "computer-aided design" (CAD), got the highest average (6.47) followed by "work units solving problems in product development" (5.71) and "product planning" (5.71). The option that got the lowest average (3.29) is "quality function deployment" (QFD), followed by "cost tables" (3.54).





Question 24 - Methods and techniques at product development

	n	Mean
Design to cost	14	4.86
Design for manufacture and assembly	15	4.67
Value engineering	15	4.27
Benchmarking	15	4.27
Tear-down analysis / reverse engineering	15	3.73
Trial planning / production	15	4.00
Network planning (CPM & PERT)	15	3.87
ISO-program (eg. ISO 9000)	15	5.27
Error-effect analysis / FMEA - Construction	15	4.20
Error-efefct analysis / FMEA - Process	15	4.00
FTA (FMTA)	15	4.27
Outsourcing	15	4.80
Competitor cost analysis	15	4.07
Quality policy	15	4.87
Quality targets	15	5.00
Quality systems	15	5.00
Supplier valuation	15	5.33
Re-engineering	14	5.00
Computer-aided design (CAD)	15	6.47
Computer-aided manufacturing (CAM)	15	3.87
Computer-aided engineering (CAE)	14	4.79
Quality function deployment (QFD)	14	3.29
Cost tables	13	3.54
Activity based costing (ABC)	14	3.93
Work units solving problems in product development	14	5.71
Product planning (eg. product mix for several years)	14	5.71
Profit planning for several years	12	5.08

Table 4.33: Methods and techniques during product development (1=not at all, 7=to a very large extent)





# **Chapter 5: Analysis**

In this chapter the survey results will be analysed – both in view of the theory and also earlier studies on the topic. It will follow the same structure as the previous chapter in order to make it easy for the reader to understand.

# 5.1 The use of target costing

As discovered in the previous chapter, 16.5 % of the Swedish manufacturing companies used target costing. It may be argued that this is a rather low percentage, taking into consideration that the survey included 91 answering companies. In other countries, the number of target costing users is significantly higher: Dekker and Smidt (2003) discovered that 59 % of Dutch manufacturing firms used target costing. Tani et al. (1994) found in 1991 that 61 % of 180 Japanese manufacturing companies used some form of target costing. Also, a study by Chenhall and Langfield-Smith (1998) discovered that 38 % of large Australian companies used target costing (which they argued was a low number). What then, are the reasons behind the low percentage of target costing users in Sweden?

The authors of this paper believe that the main reason is that Swedish companies have little or no knowledge about target costing. This can be seen through comparisons of the reasons given for not using target costing in the various countries: In Dutch companies, the main reason for not using target costing was due to the nature of the company not being well applicable for the use of target costing (Dekker & Smidt, 2003), while in Sweden, the main reason was a lack of knowledge about target costing. Would it be fair to say then, that the low number of target costing users in Sweden is due to the fact that the method, or information about the method, has not been sufficiently spread? Perhaps Swedish managers have a lack of knowledge in this area? If this is the case, then it is fair to assume that target costing would be more widely used if companies received more information about it?

# 5.1.1 Industry

When making a comparison between Swedish and Dutch firms, differences between industries were discovered. In the surveys by Dekker and Smidt (2003) and Tani et al. (1994), one could see that in Holland and Japan, most companies which use target costing are in the electronics, textile and precision-equipment industries. The result of this survey showed that most target costing users in Sweden are located in the machine industry (26.7 %) as well as the metal industry (20.0 %).

The question is why target costing users in Holland and Japan are so different from Sweden? It was clear to see that electronics and instruments are very common in Holland, but not as much so in Sweden. The reason for this may be that the total number of companies in some industries was very low – if the number of companies in each industry was the same, it would be easier to analyse the number of target costing users in each category.





# 5.1.2 Company size

The authors of this paper believed prior to the survey that the use of target costing would be significantly greater amongst larger companies. This was one of the reasons for removing companies with less than 50 employees from the population, and this proved to be correct. The average number of employees for companies which use target costing is 198, and for companies not using it, 141.

Chenhall and Langfield-Smith (1998) write that there is a clear connection between company size and the adoption of management accounting methods. They argue that the adoption rate of complex systems is higher in larger companies.

# 5.1.3 Strategy

The question concerning strategy is very interesting. The answers gave a rather unexpected result, when there turned out to be an overrepresentation of companies choosing the differentiation strategy (53.3 %). Target costing, as mentioned before (Monden, 2000), is part of total cost management which means a constant search for cost reduction opportunities. If this is the case, then why do companies which operate with a low cost strategy not use target costing?

It is also worth mentioning, that one conclusion drawn by Dekker and Smidt's (2003) was that firms with a strong cost focus will be more inclined to adopt target costing. Is it that Swedish companies do not see target costing as a cost reduction method? This question will be answered later, under the heading "benefits of target costing".

## 5.1.4 Competition

The results from the questions about competition showed that target costing users operate in environments characterised by strong competition. The average competition amongst participants in this survey was high -5.6 for target costing users (on a scale from one to seven). Thus, target costing is a very useful tool in markets with strong competition; something that Dekker and Smidt also found out in their survey (2003).

Furthermore, the result presented a fairly high level of competition amongst non-users of target costing. An explanation for this may well be that the level of competition in the entire manufacturing industry has increased. Therefore, if the competition continues to increase, there may be incentives for companies to adopt target costing in the near future.

Tani et al. (1994) argues that Japanese firms have adopted target costing as a result of increasing environmental uncertainty. Could this be the case in Sweden? As one could see in the previous chapter, the perceived environmental uncertainty was significantly higher for companies using target costing. Perhaps the increasing competition, coupled with a dynamic environment is one of the main reasons for companies adopting this method?





# 5.2 Part II - Target costing users

This section will, like the previous chapter, concern price, profit, cost, benefits of target costing, suppliers and customers, and value engineering.

#### **5.2.1 Price**

As presented in chapter 3, Ansari and Bell (1997) listed some of the different pricing methods available such as, pricing by function and competition-based pricing. The result of this survey showed that the most used pricing methods were market-based pricing and cost-based pricing.

It can also be mentioned that customer value-based pricing is frequently used. It can therefore be said that the methods from the literature are employed in real life and are not something that only works in theory.

#### 5.2.2 Profit

In the question on whether the companies set formal profit targets on future products, a majority (92.3 %) answered "yes". When asked which methods they used, EBIT (Earnings before interest and taxation), NPV (Net present value), net margin, ROI (Return on investment) and operating profit were given.

From chapter 3, one can see that the theory suggested methods such as ROS (Return on sales) and ROE (Return on equity) (Butscher & Laker, 2000). It was also shown that there are several benefits from using financial returns, which accounts for their wide usage (Ansari & Bell, 1997).

#### 5.2.3 Cost

This section will analyse the answers from the questions dealing with costs. It will begin with the level of involvement in the target costing process, then targets, and finally, costs.

### 5.2.3.1 Involvement in target costing process

In the survey by Dekker and Smidt (2003), product development was the department most involved in the target costing process and this was followed by product design and purchasing. This result is exactly the same as in this survey, where product development (6.85 on a scale from 1 to 7), product design (6.45) and purchasing (6.21) were also the top 3 users of target costing.

The survey carried out in Japan by Tani et al. (1994) also indicated a very similar result to this one, but it is notable that in a survey performed in Germany, the management accountants, or controllers, had an important role in the target costing process (Dekker & Smidt, 2003).





#### **5.2.3.2 Targets**

When looking at targets for suppliers, it could be seen that all companies answering this question set targets for their suppliers to achieve, and around half of the companies allow their suppliers to set their own targets. The authors of this paper expected the suppliers to be involved in the process, something that will be analysed in more detail later, under the heading "suppliers and customers".

When analysing what the companies in this survey set their targets on, the result showed, not surprisingly, that almost all companies set targets for products (92.9 %). One could also anticipate that the number of companies setting targets for departments / functions would be very low (16.7 %).

#### 5.2.3.3 Costs

On the question of which costs are included in the target costing process, one could see that direct material costs (92.9 %) is by far the most used. Other costs that were often included were component / article purchase (85.7 %) and manufacturing costs (85.7 %). The answers to these questions were in no way surprising and were just as the authors of this paper expected prior to the survey.

### 5.2.4 Benefits of target costing

When Dekker and Smidt (2003) conducted their survey, one could see that the benefits of target costing experienced by Dutch firms, was cost reduction, timely product introduction, customer satisfaction and quality control.

The result of this survey showed that the main benefits experienced by companies in Sweden, include cost awareness (36.3 %) and focus on profitability (27.3%). Cost reduction, which was the main benefit among Dutch companies, and also the main objective in the literature (Monden, 2000), was ranked third (18.2 %) by Swedish companies. However, one may argue that the answers, cost awareness and cost reduction, are very similar and could in fact be grouped together.

So, this answered the question the authors of this paper asked above, under the heading "strategy", where one could see that the low cost strategy was the least used one. Cost reduction is, no matter what strategy, the main benefit of target costing.

#### 5.2.5 Suppliers and customers

The result of the survey indicated that the involvement of suppliers in the target costing process was significantly important (4.53 on a scale from 1 to 7). This was not surprising, due to the fact that if suppliers are involved early, they can provide the target costing process with valuable inputs (Ansari & Bell, 1997).

Inputs from customers during product design was also ranked very high (5.80). This again was not surprising; in the survey by Dekker and Smidt (2003), one of the benefits that Dutch firms experienced with target costing was customer satisfaction. In order to achieve this, a close cooperation with the customers is desired.





### 5.2.6 Value engineering

On the question about the methods and techniques used during product development, one could see that computer-aided design (6.47 on a scale from 1 to 7) and work units (5.71) were the most used. Work units, or teams, are also mentioned by Dekker and Smidt (2003) as being the most used method when working with target costing. Hence, there are similarities between Sweden and Holland.

Another important observation is the common use of Quality function deployment (QFD) in the literature. QFD is said to maximise customer value and transform customer requirements to technical requirements (Ansari & Bell, 1997). However, QFD was the least used method in this survey and this must be regarded as unexpected. It may be argued that QFD is the method in question 24, which is the most associated with target costing, and therefore the low use can be explained – along with the use of target costing – as a result of lack of knowledge.





## **Chapter 6: Conclusion**

This is the final chapter of this paper and will provide the reader with a discussion and conclusions. It will begin by discussing the findings followed by recommendations for future research.

#### 6.1 Discussion

This part will attempt to summarise and evaluate the paper, providing both conclusions from the survey and also some opinions of the authors.

The purpose of this paper was to investigate the extent to which target costing is used in Sweden. The survey gave a rather unexpected result, in that it was found that 16.5 % of the Swedish manufacturing companies used target costing. In both Holland and Japan, this figure has been significantly higher – around 60 %, thus, this raises questions on why the method is not used more in Sweden. Prior to the survey, the authors of this paper expected the use of target costing in Sweden to be much higher.

The main reason for not implementing target costing is believed to be from a lack of knowledge about it. The authors of this paper believe that the use of target costing has the potential to increase in the future, since universities and other institutions are constantly spreading information about it. Because companies are becoming more and more global, and competing with companies all over the world, one may argue that the use of target costing in Sweden could increase due to companies benchmarking competitors. Another possibility that may increase the number of target costing users in Sweden could be the increasingly dynamic environment and high competition. As the literature has suggested, target costing is mostly used in dynamic markets with high competition.

Another reason for Swedish companies not adopting target costing was "old habits". It is possible that the fear of changing well-established procedures is a huge barrier to the adoption of new management accounting techniques.

The second thing that surprised the authors of this paper (apart from the low target costing usage) was the question about strategy. The results showed that most companies using target costing have a differentiation strategy. As discussed earlier in this paper, target costing is part of total cost management, which means a constant search for cost reductions. The authors of this paper believed, prior to the survey, that the majority of target costing users would have a low cost strategy, but this was simply not the case. This was something that was also mentioned in the literature – that a company with a strong cost focus will be more inclined to adopt target costing. However, the literature is not always right; amongst Swedish companies that use target costing, a low cost strategy is the least used.

One outcome that was rather expected was the result from the question about industry. The result showed that the majority of target costing users in Sweden are located in the machine industry, whereas in Holland and Japan, the majority were located in





electronics, textile and precision-equipment industries. Sweden has a history of globally renowned companies, such as Volvo and SKF, so this result was not surprising.

The third, and final, sub-aim of this paper was to evaluate the benefits experienced by companies using target costing. The results showed that the main benefits were cost awareness, focus on profitability and cost reduction. These results were very similar to those of the Dutch and Japanese surveys – and also to the literature where the main objective of target costing was cost reduction.

#### 6.2 Recommendations for future research

The obvious and most interesting thing, would be to see the results of a similar survey conducted in 5, 10 and 15 years, in order to see whether or not the use of target costing in Sweden increases. Target costing, which originates from Japanese cost management, was first introduced in the 1960's and from then has grown progressively to become more and more well-known. Initially, many US companies tried to develop similar concepts but with little or no success, before realising that target costing was a very useful concept.

Recognition of the target costing concept has continued to grow and (bearing in mind the development on the labour market during the past decade, with people loosing their jobs due to outsourcing and other factors), it would be very interesting to observe whether the growth continues in the same direction.

The authors of this paper are therefore hoping that someone in the future will find this topic interesting and conduct a similar survey that will show the development of target costing. Perhaps a survey in 10 years time will show that target costing is a vanishing method, and that a new revolutionary management accounting method is spreading around the world?





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## **Appendix 1**

#### The Email





### HANDELSHÖGSKOLAN VID GÖTEBORGS UNIVERSITET

## **Target Costing Survey**

Med hänvisning till vårt telefonsamtal 2003-11-24/25

Inom ramen för vår magisteruppsats i ekonomistyrning genomförs en enkätundersökning om target costing (målkostnadskalkylering). Ert företag har tillsammans med 249 andra valts ut genom ett slumpmässigt urval, och detta skall ligga till grund för studien. Vi är intresserade av att ta reda på hur stor andel av Sveriges teknikföretag som använder target costing eller en liknande metod, samt undersöka de karaktärsdrag bland företag som använder och inte använder target costing.

Vi ber Dig vänligen avsätta 15 minuter för att besvara enkäten. För att underlätta ifyllandet har vi utformat svarsalternativen så att det i stor utsträckning räcker att ange ett eller flera alternativ för att besvara frågorna.

Alla svar i undersökningen kommer att behandlas konfidentiellt, och det finns således ingen risk att information från, eller om, något enskilt företag kommer att publiceras. Kravet på att fylla i företagsnamnet och befattning är endast till för att underlätta sammanställningen av svaren, samt att kunna se vilka företag som svarat.

Vi tackar på förhand för Er medverkan och sänder en kopia av färdigt resultat till er som tack för ert deltagande!

Med vänlig hälsning Gustav Fridh och Henrik Borgernäs

Klicka på länken nedan för att komma till enkäten.

http://xx.xxx.xxxx.com/xxxxxxxxxxx/





# **Appendix 2**

## Calculation of sample size

Source: Scheaffer, Mendenhall & Ott (1990, pp.68-71)





# **Appendix 3**

## **Survey questions**

# TARGET COSTING SURVEY

En jämförande studie mellan teknikföretag verksamma i Sverige

Företag:	Befattning:
Namn:	
1a. Det svar ni lämnar, för vilken enhet avser det (hela etc):	företaget, division,
1b. Inom vilken gren av verkstadsindustrin verkar ni:	
2. Hur många anställda finns i den enhet för vilken ni s	varar?
3. Hur många produkter med eget ID-nummer eller likt ert produktprogram?	nande ingår i
4. Hur lång är livscykeln för era huvudsakliga produkte	er?
5a. Hur ofta marknadsintroducerar ni i regel nya produ	kter?
5b. Hur ofta marknadsintroducerar ni i regel redan exis produkter som genomgått större förändringar, t.ex. avs egenskaper, material eller design?	
6a. Vilken är er huvudsakliga produktionsinriktning enligt följande kategoriseringar?	<ul> <li>□ Produktion mot lager</li> <li>□ Produktion mot order</li> <li>□ Sammansättning mot order (endast)</li> <li>□ Produktion mot lager och sammansättnig mot order</li> <li>□ Annan</li> </ul>
6b. Gör en bedömning av er grad av kundanpassad produktion/produkter	Standardiserad Kundinriktad produktion produktion
produktion produktor	1 . 2 . 3 . 4 . 5 . 6 . 7 .
7. Hur skulle ni vilja klassificera era huvudsakliga produkter?	<ul> <li>□ Producentvaror, produkter som gör input i andra företags produkter</li> <li>□ Konsumentvaror, produkter som köps/förbrukas av privatpersoner</li> <li>□ Prosumentvaror, produkter som köps/förbrukas av andra företag</li> </ul>
8. Vilken av nedanstående beskrivningar av strategi stä	mmer bäst in på er strategi i förhållande till

andra företag i er bransch?







□ Lågkostnadsstrategi	relativ (storde kostna forske reklan Utmär priser, skalfö	rt konl riftsfö adskor ing och n. kande fokus rdelar		er. Ko i prod och kos ckling ör före g mark riftsför	stnadsl luktion stnadsr , inköp etag me knadsar rdelar)	edarsk, inlärn minime , servided ed lågk ndel, st och hå	ap kar ningset ering in ce, för costnac andar	n nås vi fekter, nom on säljnin dsstrate diserad	ia skal hård nråden gs elle egi är l e prod	r åga lukter,		
□ Differentiering	Målet i denna strategi är att differentiera de produkter som erbjuds, skapa något som av kunderna uppfattas som unikt. Differentiering kan åstadkommas via bl a varumärkeslojalitet, överlägsen kundservice, överlägsen produktkvalitet, bra försäljnings-/handlarnätverk, särskild produktdesign, produktegenskaper eller produktteknologi. Utmärkande drag för företag med differentieringsstrategi är unika produktegenskaper, skapa märkeslojalitet och fokus på marknadsföring och forskning/utveckling.											
□ Fokusstrategi	produl lågkos uppnå fokuss markn Utmär väldef	ktlinje stnads sina i strateg adsse kande iniera	egi fok esegme strateg mål på gin tonv gment. e drag f ide (avg markn	nt elle i och d bred fi vikt på ör före gränsad	r geogr lifferen ront (in att upp etag me de) kur	rafiska tiering nom he onå sin ed foku ndgrup	markr sstrate la brar a mål isstrate per, pr	nader. Megi stränschen) inom e	Medan var eft ), så lä tt begr okus p	er att gger änsat		
9. Intensiteten i den konkurrens et Exempel på sådana faktorer är 1) a branschen, 3) frekvensen i nyintro paketöverenskommelser med kund förändringar i statlig reglering elle Med beaktande av samtliga dessa intensiteten i den konkurrens Ni m	antalet led duktion der, 6) ter policy faktorer	konku ier av illgån y, såso r som	rrenter produk g/acces om taxe är relev	, 2) fre ter, 4) ss till n -/skatt	kvense föreko narkna teändrii	en i tek omsten dsförin ngar.	nologi av pri igskan	skifter smanip aler oc	n/-byte oulatio h 7)	n i ner, 5)		
Mycket låg konkurrens								ket hög kurren:				
1 🗆	2 🗆 🗆	3 □	4 🗆	5 🗆	6 □	7 🗆						
10a. Hur intensiva är följande asp	ekter i b	oransc	hen:	Obet inten	ydligt sivt					xtremt ensivt		
Budgivning vid inköp av material	/kompo	nentei	r	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆		
Konkurrens om personal				1 🗆	2 □	3 □	4 □	5 □	6 □	7 □		
Priskonkurrens				1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆		





10b. Hur många nya produkter och/eller tjänster har introducerats på marknaden i Er bransch under de senaste 5 åren?	<i>Inga</i> 1 □	2 □	3 □	4 🗆	5 □		<b>1</b> ånga 7 □										
10c. Hur stabil/dynamisk (föränderlig) är den externa miljö (avseende ekonomi och teknologi) Ni möter?	Myck stabil					ycket amisk											
Ekonomi	1 □	$2 \square$	3 □	4 □	5 □	6 □	7 □										
Teknologi	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆										
10d. Hur vill Ni klassificera Era konkurrenters aktiviteter på marknaden under de sista 5 åren?	föruts 1 □	sägbar 2 □	<i>ra</i> 3 □	4 □		förutsa 6 □											
10e. Under de senaste 5 åren har Era kunders smak och preferenser blivit:	1 🗆 2 🗆		1 🗆 2 🗆		Mycket enkla att förutsäga 1 □ 2 □		1 🗆 2 🗆		1 🗆 2 🗆		1 🗆 2 🗆		3 □	4 □	5 □	6 □	7 □
10f. Under de senaste 5 åren har de legala, politiska och ekonomiska restriktioner som kringgärdar Er verksamhet:	Varit desar 1 □	ungef nma 2 🗆	<sup>c</sup> är 3 □	4 □		Blivit i ner på 6 □	mycket tagliga 7 □										
10g. Hur ofta sker det vetenskapliga genombrott i Er bransch?	Sälla	n			5 □	Fi	ekvent										
11. I vilken utsträckning har ni implementerat/ satsat på följande:																	
11. I vilken utsträckning har ni implementerat/ satsat p	oå följa	nde:		et liten ickning			et stor ickning										
11. I vilken utsträckning har ni implementerat/ satsat p Program för att förbättra kvaliteten och reliabiliteten a leveranser av material och komponenter från våra leve	ıv		utsträ	ickning		utsträ	ickning										
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Program för att förbättra kvaliteten och reliabiliteten a leveranser av material och komponenter från våra leve Program för att reducera spill/kassationer och icke-vär aktiviteter i produktionsprocessen Program för att reducera tidsmässiga förseningar i pro	erantör deskap duktion cykelti	er pande nen den)	<i>utstrċ</i> 1 □ 1 □	ickning 2 □ 2 □	3 □ 3 □	<i>utstra</i> 4 □ 4 □	sickning 5 □ 5 □										
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## The use of target costing in Swedish manufacturing firms



Single cycle automatic and self-feeding machines			1 🗆	2 □	3 □	4 □	5 □
Automatic: Repeats cycle			1 🗆	2 □	3 □	4 □	5 □
Self-measuring and adjusting: Feedback			1 🗆	2 □	3 □	4 □	5 □
Computer control: Automatic cognition			1 🗆	2 □	3 □	4 □	5 □
13. Använder ni Target Costing (Målkostnadskalkyler beakta följande definition av Target Costing:	ing)?	Då Ni	besvar	ar den	na fråg	ga vänl	igen
Target Costing är en är en process/metodik som använ större ändringar av existerande produkter, och som hat kostnadsstyrning. Target Costing är en process/metodi givna marknads- och/eller vinstmål undersöker samtlig hos produkter som befinner sig under utveckling. Det t ex funktionalitet, kvalitet eller reliabilitet tummas på Planerat marknadspris ("Target Price") - Planerat vinst När Target Cost (Målkostnaden) är fastställd, inriktas hjälp av t ex värdeanalys, "Design for Manufacture an ("Quality Function Deployment", QFD) (för ytterligar	r insla k som ga tän ska sk . Ett s tkrav arbete d Ass	g av pi inneb kbara i te utan ätt att a ("Targo et mot a embly'	rissättr är att i möjligl att på ange de et Prof att mar	ning, van meter ti förhan etta i fö it") = ' n ska n	instpla ed utga ill kost id prec ormell Target å den entrera	nering ångspu nadsre iserade a terme Cost Det gö d plane	och nkt från ducering e krav på er är: ors med ering
Vet ej							
Vi känner inte till Target Costing							
Vi har aldrig seriöst övervägt Target Costing							
Vi har övervägt Target Costing men har förkastat proc	essen	/metod	iken				
Vi har överväger för närvarande att börja använda Tar	get Co	osting					
Vi har prövat Target Costing men har förkastat proces	sen/m	etodik	en				
Vi ska börja använda Target Costing inom en nära fran	mtid						
Vi har nyligen börjat använda Target Costing men har implementerat fullt ut	ännu	inte					
Target Costing är en väletablerad process/metodik i vå	irt för	etag					
Vi använder Target Costing eller något som liknar Tar ett annat namn. Vi använder följande namn:	get C	osting	men u	nder			
Om Ni använder något som liknar Target Costing, vänligen ange kortfattat vilka skillnaderna är gentemot Target Costing enligt ovan definition.	t						
14. Om ni för närvarande inte använder Target Costing eller något liknande i vilken utsträckning har följande faktorer påverkat Ert beslut att inte använda Target Costing?	Inte d	alls				-	ket stor ickning
Brist på kunskaper/kännedom om Target Costing	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Gammal vana	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Det saknas tillräckliga IT-stöd	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Det är en modefluga som snart försvinner	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Target Costing är för komplicerat/komplext	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Vi har mer angelägna saker att ta oss an i företaget	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Vi saknar ledningens stöd	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □





Target Costing passar inte vår verksamhet	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Det typ av samarbete över funktionsgränser som Target Costing förutsätter kan vi inte nå	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Människor är ovilliga att förändra arbetssätt/sig	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Dess nytta överstiger inte dess kostnader	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Insamling av nödvändig information/data tar för stora resurser i anspråk	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Vi har inte erhållit några resultat i och med dess användande	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Target Costing utsätter många i företaget för alltför stor press, t ex på kostnadsreducering	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Vi saknar utbildning i/erfarenheter av TC	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Vi saknar mycket av den information som Target Costing kräver, t ex om kundkrav	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Vi saknar resurser för att börja arbeta med TC	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Annan 1	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Annan 2	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Annan 3	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □

### Stanna här om ni inte använder Target Costing. Klicka på Skicka-knappen i så fall. Tack för din medverkan!

Du som använder Target Costing går vidare till fråga 15 utan att klicka på Skicka-knappen.

Resterande del av denna enkät behandlar hur Target Costing används i er organisation. Var vänlig och slutför enkäten endast om ni använder Target Costing eller en mycket liknande process under ett annat namn.

## DEL II - PROFILERING AV TARGET COSTING ANVÄNDARE

15. Sedan hur lång tid tillbaka använder Ni Target Costing?
16. Beskriv kortfattat Er "formel" för Target Costing så som processen/metodiken används för Era huvudsakliga produkter, t.ex: Planerat marknadspris ("Target Price") - Planerat vinstkrav ("Target Profit") = Target Cost

17. I det fall Ni inte når Target Cost (uppsatta kostnadsmål) innan produktionsstart, i vilken utsträckning vidtar Ni då följande åtgärder?

Aldrig

Höja försäljningspriset

1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 □







Reducera vinst-/lönsamhetskravet	1 □	$2 \square$	3 □	4 □	5 □	6 □	7 □
Reducera produktens t ex egenskaper eller funktionalitet	1 🗆	2 🗆	3 □	4 🗆	5 □	6 □	7 🗆
Lägger ned produktutvecklingsprojektet	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Ingenting, vi fortsätter med kostnadsreducerings- arbetet när produktionen påbörjats	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Annan	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆

18a. Vilka är de huvudsakliga positiva effekterna Ni erhåller från att använda Target Costing?

b. Vilka är de huvudsakliga negativa effekterna Ni erhåller från att använda Target Costing?

19. I vilken utsträckning är följande medlemmar från följande funktioner/avdelningar involverade i arbetet med Target Costing?	Inte	alls				Myck utsträd	et stor ckning
Ekonomistyrning/Controller	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Finans	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Företagsledning	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Styrelse	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Ekonomi (bokföring, kund- och leveranstörsreskontra)	1 🗆	2 □	3 □	4 🗆	5 □	6 □	7 🗆
Produktutveckling	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Produktdesign	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Inköp	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Produktionsplanering	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Produktion	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Kvalitetssäkring	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Personal	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Marknadsföring	1 □	2 □	3 □	4 □	5 □	6 □	7 🗆
Försäljning	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Eftermarknadsservice	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Distribution/Logistik	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Annan 1	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Annan 2	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Annan 3	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆

### 20. I vårt arbete med Target Costing:

Ställer vi upp mål ("targets") för t ex kostnadsmål våra leverantörer ska nå Ja □ Nej □ Låter vi våra leverantörer komma upp med egna mål ("targets"), t ex kostnadsmål  $\;\;$  Ja  $\;$ Nej □ Tilldelar vi endast mål ("targets"), t ex kostnadsmål, till leverantörer om de ingår i Ja □ Nej □







samma foretagsgrupp/koncern som vi							
Tilldelar vi endast mål ("targets"), t ex kostnadsmål, t är en stor kund (stor köpare)	ill levei	rantöre	r hos v	ilka V	i Ja	<b>=</b> .	Nej □
Annat slag av tilldelning av mål ("targets") gentemot	Våra le	verant	örer				
21. För vilka objekt/nivåer fastställer ni kostnadsmål	("cost ta	argets"	)?				
Produktgrupper					Ja 🛚	<b>.</b>	Nej □
Produkter					Ja 🛭	<b>.</b>	Nej □
Produktfunktioner					Ja	<b>.</b>	Nej □
Avdelningar/funktioner eller liknande					Ja 🛭		Nej □
Artiklar/komponenter					Ja 1	<b>=</b> .	Nej □
22. Vilka kostnadselement ingår i Ert arbete med Targ kostnadsslag fastställer ni kostnadsmål ("cost targets"		ting?/F	ör vill	ca			
Direkta materialkostnader					Ja 🛚	<b>.</b>	Nej □
Direkta arbetslönekostnader					Ja		Nej □
Direkta maskinbearbetningskostnader, t ex kostnad pe	er mask	intimn	na		Ja 🛭	<b>.</b>	Nej □
Inköpta komponenter/artiklar					Ja 🛭		Nej □
Kostnader för köpta tjänster, t ex legoarbeten					Ja		Nej □
Tillverkningskostnader					Ja		Nej □
Materialomkostnader, t ex kostnader för inköp och lag	ger				Ja 🛭		Nej □
Avskrivningskostnader på ny utrustning/inventarier					Ja 🛭		Nej □
Räntekostnader på ny utrustning/inventarier					Ja 🛭		Nej □
Distributions-/logistikkostnader					Ja		Nej □
Försöksproduktion					Ja 🛭		Nej □
Marknadsförings-/försäljningskostnader					Ja		Nej □
Administrationskostnader					Ja 🛭		Nej □
Service-/Supportkostnader					Ja 🛚		Nej □
Utrangerings-/Avfalls-/Återvinningskostnader					Ja 🛭		Nej □
Kostnader som Era kunder har, t ex kostnader för drif	t och re	paratio	oner		Ja		Nej □
Produktutvecklingskostnader					Ja 1		Nej □
23. I vilken utsträckning använder Ni er av följande prissättningsmetoder?	Inte d	alls				-	ket stor äckning
Kostnadsbaserad prissättning (Kostnader + Vinstpålägg/-marginal)	1 🗆	2 □	3 □	4 🗆	5 □	6 □	7 🗆
Konkurrensbaserad prissättning genom samma prisnivå som konkurrenter	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆







Konkurrensbaserad prissättning genom att slå konkurrenternas priser	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Kundvärdebaserat pris (pris baserat på en uppskattning av det värde produkter tillför kunder)	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Marknadsbaserat pris som kommer att ge en önskad marknadsandel	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Pris som marknaden klarar av att bära	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Kundavstämd prissättning (Kundspecifika produkter där priset förhandlas)	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Förra årets pris justerat för inflation	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 □
Annan	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
24. I vilken utsträckning arbetar Ni med nedanstående							
metoder/tekniker/processer vid produktutveckling i Ert företag?							et hög
	Inte d				_	utsträd	
"Design to Cost"	1 🗆	2 🗆	3 □	4 🗆	5 □ -	6 □	7 <sub>□</sub>
"Design for Manufacture and Assembly"	l 🗆	2 🗆	3 □	4 🗆	5 <sub>□</sub>	6 □	7 <sub>□</sub>
Värdeanalys ("Value Engineering")	1 🗆	2 🗆	3 🗆	4 🗆	5 <sub>□</sub>	6 □	7 <sub>□</sub>
Benchmarking	l 🗆	2 🗆	3 □	4 🗆	5 🗆	6 □	7 <sub>□</sub>
"Tear down analysis/Reverse engineering"	1 🗆	2 🗆	3 □	4 🗆	5 □	6 □	7 <sub>□</sub>
Försöksplanering/-produktion	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Nätverksplanering, t ex Gantt-diagram, CPM ("Critical Path Method") och PERT ("Program Evaluation and Review Technique")	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
ISO-program, t ex ISO 9000	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Feleffektsanalys/ FMEA - Konstruktion	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Feleffektsanalys/ FMEA - Process	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Felträdsanalys FTA (FMTA), Konstruktionsgenomgång	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆
Outsourcing (Köpa in/producera själv-analys)	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Konkurrensanalys ur kostnadssynpunkt ("Competitor Cost Analysis")	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Kvalitetspolicy	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Kvalitetsmål	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Kvalitetssystem	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Leverantörsvärdering	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
Processförbättring ("Re-engineering")	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □
CAD ("Computer-Aided Design")	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆





CAM ("Computer-Aided Manufacturing")	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆			
CAE ("Computer-Aided Engineering")	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □			
Kundcentrerad planering ("Quality Function Deployment", QFD)	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆			
Kostnadstabeller	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □			
Aktivitetsbaserad kalkylering, ABC ("Activity Based Costing")	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆			
Arbetsteam med medlemmar från olika funktioner/avdelningar som arbetar med problemlösning i produktutvecklingsarbetet	1 🗆	2 🗆	3 □	4 🗆	5 □	6 □	7 🗆			
Produktplanering, t ex avseende produktmix, som sträcker sig fler år framåt i tiden	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆			
Vinst-/lönsamhetsplanering som sträcker sig flera år framåt i tiden	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆			
Annan 1	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆			
Annan 2	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □			
Annan 3	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □			
Annan 4	1 🗆	2 □	3 □	4 □	5 □	6 □	7 □			
Annan 5	1 🗆	2 □	3 □	4 □	5 □	6 □	7 🗆			
25a. Ställer Ni formella vinst/-lönsamhetskrav på framtida produkter, d.v.s. produkter som eventuellt ska gå i produktion?  b. Om ja, vilket/vilka mått på vinst/avkastning använder Ni?										
produkter som eventuellt ska gå i produktion?		rodukte	er, d.v.	S.	Ja □	Nej				
produkter som eventuellt ska gå i produktion?			er, d.v.	S.	Ja □	Мус	□ ket hög ckning			
produkter som eventuellt ska gå i produktion?  b. Om ja, vilket/vilka mått på vinst/avkastning använd  26. Ange i vilken utsträckning följande påståenden stämmer in på Er relation med Era leverantörer och	er Ni?		er, d.v.	s. 4 $\Box$		Myc. utsträ	ket hög			
produkter som eventuellt ska gå i produktion?  b. Om ja, vilket/vilka mått på vinst/avkastning använd  26. Ange i vilken utsträckning följande påståenden stämmer in på Er relation med Era leverantörer och kunder:  Vi samordnar vår produkt- och processdesign med	er Ni?	ulls	3 □		5 □	Myci utsträ 6 □	ket hög ckning			
produkter som eventuellt ska gå i produktion?  b. Om ja, vilket/vilka mått på vinst/avkastning använd  26. Ange i vilken utsträckning följande påståenden stämmer in på Er relation med Era leverantörer och kunder:  Vi samordnar vår produkt- och processdesign med våra leverantörer  Vi involverar rutinmässigt våra huvudsakliga	er Ni?  Inte a 1 □	ulls 2 □	3 🗆	4 🗆	5 <sub>□</sub>	Mycautsträi 6 □ 6 □	ket hög ckning 7 □			
produkter som eventuellt ska gå i produktion?  b. Om ja, vilket/vilka mått på vinst/avkastning använd  26. Ange i vilken utsträckning följande påståenden stämmer in på Er relation med Era leverantörer och kunder:  Vi samordnar vår produkt- och processdesign med våra leverantörer  Vi involverar rutinmässigt våra huvudsakliga leverantörer vid produktdesign  Vi tar hjälp av våra leverantörer för att göra våra	er Ni?  Inte o	ulls 2   2   2	3 🗆	4	5 <sub>□</sub>	Mycautsträi 6 □ 6 □	ket hög ckning 7 🗆 7 🗅			
b. Om ja, vilket/vilka mått på vinst/avkastning använd  26. Ange i vilken utsträckning följande påståenden stämmer in på Er relation med Era leverantörer och kunder:  Vi samordnar vår produkt- och processdesign med våra leverantörer  Vi involverar rutinmässigt våra huvudsakliga leverantörer vid produktdesign  Vi tar hjälp av våra leverantörer för att göra våra produkter mer kundorienterade  Våra huvudsakliga leverantörer är starkt beroende av	er Ni?  Inte a 1 □ 1 □	alls 2 □ 2 □	3 □ 3 □	4	5 □ 5 □ 5 □	<i>Mycutsträ</i> 6 □ 6 □ 6 □	ket hög ckning 7 = 7 =			
b. Om ja, vilket/vilka mått på vinst/avkastning använd  26. Ange i vilken utsträckning följande påståenden stämmer in på Er relation med Era leverantörer och kunder:  Vi samordnar vår produkt- och processdesign med våra leverantörer  Vi involverar rutinmässigt våra huvudsakliga leverantörer vid produktdesign  Vi tar hjälp av våra leverantörer för att göra våra produkter mer kundorienterade  Våra huvudsakliga leverantörer är starkt beroende av oss för sin lönsamhet/överlevnad  Vi utbildar och stödjer våra huvudsakliga/viktigaste	er Ni?  Inte a 1 □ 1 □ 1 □	ulls 2   2   2   2   2   2   2   2   2   3   4   4   5   6   7   7   8   7   8   8   8   8   8   8	3 □ 3 □ 3 □	4	5	<i>Mycutsträ</i> 6 □ 6 □ 6 □	ket hög ckning 7 = 7 = 7 =			







Vi samlar in information från våra kunder om produkter med hjälp av formella metoder, t ex enkäter, fokusgrupper	1 🗆	2 🗆	3 □	4 □	5 □	6 □	7 🗆
Vi samlar in, bearbetar och distribuerar feedback från våra kunder efter att de har använt våra produkter	1 🗆	2 🗆	3 □	4 🗆	5 □	6 □	7 🗆
27. Med Kaizen Costing avses ständiga förbätt-ringar med särskilt fokus på kostnadsreducering.							
I vilken utsträckning använder ni Er av följande två			Mycket hög utsträckning				
slag av Kaizen Costing?	Inte	alls				utsträc	kning
slag av Kaizen Costing? Nå målkostnaden när den ej uppnåtts i produktutvecklingen. Arbetet inriktas mot en specifik produkt och redan fastställt kostnadsmål			3 □	4 🗆	5 □		O

Tack för din medverkan! Klicka på Skicka-knappen nedan.