

# DEPARTEMENT BEDRIJFSECONOMIE

## PLANNING AND CONTROL : NECESSARY TOOLS FOR SUCCESS IN SMALL AND MEDIUM-SIZED ENTERPRISES ? - EMPIRICAL RESULTS OF SURVEY AND CASE RESEARCH ON SMES IN BELGIUM

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## Planning and Control: necessary tools for success in small and medium-sized enterprises? - Empirical results of survey and case research on SMEs in Belgium

### *Abstract*

*In the literature planning and control methods are often discussed in a normative way and authors assume that these methods play an important role in successful firms. In this paper the results of survey and case research on planning and control practices in SMEs in Belgium are presented. Through this research we first of all wanted to obtain information on the use by SMEs of those methods. By choosing SMEs from different dimensions, different industries and different 'success' categories we have focused this empirical research on the question whether planning and control practices differed according to the dimension of the SMEs, according to the industry in which the SME is active and whether the use of planning and control methods in successful firms is different from the use of these methods in non-successful firms.*

*The results on planning practices show us that planning is more formal and more elaborated in SMEs of a larger scale and that practices vary according to the industry. With regard to the variable successfulness it was found that formal planning methods are more used in non-successful SMEs than in successful SME. For SMEs budgeting is first of all a control instrument instead of a planning tool. Long term planning is often absent and the majority of SMEs are focused on short-term goals. In relation to control we could not find an overall significant difference with regard to dimension, industry and successfulness, as in the case of planning practices. Differences arose at the level of individual performance indicators. In addition to the survey results the company studies revealed the importance of understanding the cost behaviour of the most important costs of the firm and the translation of long-term objectives into short-term planning.*

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## 1. Research question

In the literature and especially in textbooks planning and control methods are developed in a normative way. When authors describe these methods they usually have in mind large or at least medium-sized enterprises. Further authors assume automatically that the use of these planning and control methods are of help in running the business in a successful way.

Empirical evidence on the use of those planning and control methods is often limited to large enterprises. The aim of the research discussed in this paper is to obtain information on the use of those planning and control methods, discussed in the literature, in small and medium-sized enterprises (SMEs). This paper only reports the findings of this empirical research. The literature on planning and control which served as a basis for the contents of the questionnaire and the company studies will not be discussed in this paper. The literature used is included in the bibliography.

With regard to planning a distinction was made between long-term planning and short-term planning. The focus of the research on planning methods was on short-term planning practices. Concerning control and performance measurement the first aim of the research was to obtain data on control and performance measurement practices. Secondly we wanted to investigate whether those new ideas (o.a. Integrated Performance Measurement, benchmarking, scorecards, non-financial performance indicators), which have been introduced in the management accounting literature over the past ten years have found their way into practice.

The objective of the research was not just obtaining information on planning and control practices in SMEs, we also wanted to analyze whether these practices differ among SMEs according to the dimension of the enterprise and according to the industry in which the SMEs is operational. Further we wanted to research whether the use of those planning and control instruments was more elaborated in successful firms than in less successful companies.

## 2. Research methodology

In order to obtain information on planning and control practices a questionnaire survey was mailed to a large group of SMEs. Afterwards detailed company studies were undertaken and through a series of interviews information is obtained about alternative and less formal planning and control methods used in SMEs.

The questionnaire, including topics on corporate objectives, long-term planning, short-term planning and control and performance measurement, was mailed to two groups of SMEs: a group of successful firms (defined by a return on assets above 15% during three consecutive years) and a group of less successful firms (characterized by a negative return on assets during a period of three years as well). Within these two groups of SMEs companies of different dimensions were selected. As dimension variable the number of employees employed by a company was chosen. According to the number of employees, three categories were created. First of all a group of very small SMEs (1 to 20 employees), second a group of small SMEs (21 to 50 employees) and third a group of large SMEs (50 to 100 employees). In order to be able to study industry differences SMEs from the following industries were chosen: construction, textile, food, metal, wholesale and retail, hotel & restaurants. In this way we could treat successfulness, dimension and industry as contingent variables.

The companies to which the questionnaire survey was mailed were chosen at random from a larger population. This population was characterized by three criteria namely dimension, industry and successfulness. Within the criteria set with regard to dimension, industry and successfulness about 1400 companies were selected on the basis of their published annual accounts over the years 1992, 1993 and 1994. The database used in this research is the database of annual published accounts in Belgium.<sup>1</sup> Two hundred questionnaires were sent to companies in each industry. These 200 questionnaires were divided over the variables successfulness and dimension in the following way :

	Successful Firms			Non-successful Firms			Total
	1-20	21-50	51-100	1-20	21-50	51-100	
Employees							
Number of questionnaires							
per Industry	50	25	+/-25	50	25	+/-25	+/- 200

The survey results discussed in this paper are based on 94 usable questionnaire responses (= +/- 7%). In order to know whether these results are representative one has to analyze whether or not a response bias exists. Non-response bias can be tested in several ways. We have used two methods in this research. First of all we have analyzed the characteristics of the firms responding late to the questionnaire versus the early responding firms and no significant difference in responses and characteristics were found. A second test for non-response bias did not reveal a bias either. Out of the first population 38 companies were chosen for case studies. The results of those company studies were consistent with the results of the questionnaire survey. So if we combine the survey results with the company studies, the answers of about 132 companies are involved. This brings the total response rate up to +/- 10%.

In order to do some statistical analysis the results of the retail industry and the hotel and restaurant business were grouped together into one category. The results of the food and the textile industry were taken together in the category processing industries. Within the group of usable responses the companies had the following industry and dimension characteristics (see table 1).

**Table 1 : The distribution of all respondent companies by industry and dimension**

N = 94	Retail, hotel & restaurants	wholesale	food and textile industry	construc-tion industry	metal-industry	Row total
< = 20 employees	12 (54,5)*	5 (31,3)	6 (28,6)	6 (42,9)	9 (42,9)	38 (40,4)
21 - 50 employees	4 (18,2)	5 (31,3)	9 (42,9)	5 (35,7)	3 (14,3)	26 (27,7)
> 50 employees	6 (27,3)	6 (37,5)	6 (28,6)	3 (21,4)	9 (42,9)	30 (31,9)
<b>column total</b>	<b>22</b>	<b>16</b>	<b>21</b>	<b>14</b>	<b>21</b>	<b>94 (100,0)</b>

\* column percentages are given between brackets

With regard to dimension and successfulness the group of responding firms had the following profile (see table 2).

**Table 2 : The distribution of all respondent companies by dimension and successfulness**

N = 94	< = 20 employees	21-50 employees	> 50 employees	row total
non-successful	15 (39,5)*	10 (38,5)	13 (43,3)	38 (40,4)
successful	23 (60,5)	16 (61,5)	17 (56,7)	56 (59,6)
<b>column total</b>	<b>38</b>	<b>26</b>	<b>30</b>	<b>94 (100)</b>

\* column percentages are given between brackets

After the closing date for the return of the questionnaire, we have contacted several SMEs that did not return the questionnaire. The following causes for non-response emerged: it was too time consuming to fill in the questionnaire, the questionnaire arrived in a busy period for the company, the company was suffering financial difficulties, the questionnaire was not mailed to the right person and language problems.

In a second step of the research questions for the company studies were formulated based on the survey questionnaire and its results. As the survey results revealed that in the hotel and restaurant business and in the food industry less formal planning and control methods were used, these two

industries became the focus of the company studies. Other companies than those that answered the questionnaire were chosen from the population, defined by the criteria on dimension, industry and successfulness. 38 companies collaborated in these company studies, 50% of them were highly successful whereas the other 50% had a negative return on assets over three consecutive years. Again SMEs from different dimensions were contacted. The results of this empirical research involving together 132 companies will be presented in part three of the paper.

### 3. Research results

First of all we will concentrate on the results with regard to planning practices (short-term and long-term). Secondly we will focus on control and performance measurement practices. For the presentation of the results, the research findings of the survey will always be discussed. If the company studies provided additional information the results of the company studies will be included.

#### 3.1. Planning

##### 3.1.1. Long-term planning

With regard to long-term planning we asked in the questionnaire whether or not SMEs had a written long-term company plan (see table 3).

**Table 3** : The existence of a written long-term company plan and the dimension of the firm

N = 94	<= 20 employees	21 - 50 employees	> 50 employees	Row Total
yes	9 (23,7)*	10 (38,5)	16 (53,3)	35 (37,2)
no	29 (76,3)	16 (61,5)	14 (46,7)	59 (62,8)
<b>Column Total</b>	<b>38</b>	<b>26</b>	<b>30</b>	<b>94 (100)</b>

\* column percentages are given between brackets

The results revealed that written long-term company plans are not popular in SMEs. Only 37,2 % of the survey population had a written long-term plan. Studying the relation between the existence of a written long-term company plan and the dimension of the firm we obtained a significant difference.

Analyzing the contents of the long-term company plan, it became clear that financial and investment plans are the most popular parts of a long-term company plan (see table 4).

**Table 4 : The contents of the company plan and the successfulness of the firm**

N = 35	non-successful firms	successful firms	Row total
marketing plan	10 (76,9)*	14 (63,6)	24 (68,6)
production plan	10 (76,9)	7 (31,8)	17 (48,6)
personnel plan	10 (76,9)	7 (31,8)	17 (48,6)
R&D plan	7 (53,8)	8 (36,4)	15 (42,9)
investment plan	13 (100,0)	17 (77,3)	30 (85,7)
financial plan	12 (92,3)	20 (90,9)	32 (91,4)
<b>Column total</b>	<b>13</b>	<b>22</b>	<b>35 (100,0)</b>

\* column percentages are given between brackets

When we tested for industry differences no significant difference was found. Except for the financial long-term plan the results showed that non-successful firms have more written long-term plans. This was opposite from what we had expected ex ante.

For planning purposes companies need to collect data and relevant information in order to assess the business environment and to plan the future. In the questionnaire we have presented a list of items which could be relevant to follow up. From the data obtained we might conclude that companies do keep track of external and internal relevant data (see table 5).



**Table 5 : External and internal information factors**

N = 93 External factors	Row total	N = 93 Internal factors	Row total
general economic indicators	70 (75,3)*	target turnover	82 (88,2)
industry trends	71 (76,3)	quality of the products	86 (91,5)
situation on money and capital markets	42 (45,2)	position of the company versus the position of the competitors	77 (82,8)
demographic factors	14 (15,2)	production facilities	71 (76,3)
governmental decisions	68 (73,1)	personnel	80 (86,0)
technological evolution	74 (79,6)	other	9 (9,7)
law	73 (78,5)	<b>Column total</b>	<b>93 (100,0)</b>
other	2 (2,2)		
<b>Column total</b>	<b>93 (100,0)</b>		

\*column percentages are given between brackets

On the part of external data only a significant difference with regard to dimension was found for 'situation on money and capital markets'. With regard to successfulness no significant difference was found. Also in the group of internal data only one significant difference was found with regard to dimension and successfulness. The results showed that larger SMEs and less successful SMEs collect more data on the position of the company versus the position of the competitors.

### 3.1.2. Short-term planning

In order to analyze budgeting practices the survey contained questions on the budgeting methods used, the level of detail, the sources of information used in the budgeting process, the perceived advantages and disadvantages of budgeting and their experience with budgeting.

## 3.1.2.1. Budgeting

With regard to the use of budgets, the results are consistent with the results on long-term planning. We found a positive relation between the use of budgets and the dimension of the SMEs (see table 6).

**Table 6 : The use of budgeting techniques and the dimension of the company**

N = 94	< = 20 employees	21 - 50 employees	> 50 employees	Row total
no budgeting technique is used	24 (63,2)*	10 (38,5)	6 (20,0)	40 (42,6)
traditional budgeting	7 (18,4)	9 (34,6)	8 (26,7)	24 (25,5)
flexibel budgeting	3 (7,9)	4 (15,4)	9 (30,0)	16 (17,0)
zero base budgeting	1 (2,6)	1 (3,8)	3 (10,0)	5 (5,3)
incremental budgeting	1 (2,6)	0 (0)	0 (0)	1 (1,1)
other methods	2 (5,3)	2 (7,7)	4 (13,3)	8 (8,5)
<b>Column total</b>	<b>38</b>	<b>26</b>	<b>30</b>	<b>94 (100)</b>

\*column percentages are given between brackets

We noticed also that budgets are more used in non-successful firms than in successful firms. If we combine the data on the use of budgets in successful versus non successful firms with the information obtained on the year in which the company started with budgeting, we notice that most companies which are non-successful started with budgeting more recently than successful firms. A majority of the non-successful firms mentioned that the reason why they started with budgeting was the presence of financial problems. In the group of successful companies one part had started with budgeting since the establishment of the company. The other part had started with budgeting because a new management was put in place as a result of a take-over or merger. The new management then introduced the practice of budgeting.

These survey findings were confirmed by the 38 company studies. In the group of company studies budgeting was positively correlated with the dimension of the company and non-successful firms made more use of budgets (see table 7).

**Table 7: The use of budgeting techniques and the successfulness of the company**

N = 38	non- successful companies	successful companies	Row total
no	10 (62,5)*	18 (81,8)	28 (73,7)
yes	6 (37,5)	4 (18,2)	10 (26,3)
<b>Column total</b>	<b>16</b>	<b>22</b>	<b>38 (100,0)</b>

\* column percentages are given between brackets

Looking at the data included in the table above, we have to keep in mind that the industries we have chosen for the company studies where those industries were the use of budgets was the lowest. Another finding which resulted from the company studies is the fact that in the group of successful firms, budgeting was used by the most successful of the group.

Focusing on the industry variable the following results emerge on the use of budgets (see table 8).

**Table 8: The use of budgets and the industry**

	retail , hotel & restaurant	wholesale	food and textile industry	construc- tion industry	metal- industry	row total
no budgeting technique is used	9 (40,9)*	3 (18,8)	11 (52,4)	8 (57,1)	9 (42,9)	40 (42,6)
traditional budgeting	7 (31,8)	5 (31,3)	4 (19,0)	2 (14,3)	6 (28,6)	24 (25,5)
flexibel budgeting	3 (13,6)	5 (31,3)	3 (14,3)	3 (21,4)	2 (9,5)	16 (17,0)
zero base budgeting	0 (0)	2 (12,5)	2 (9,5)	0 (0)	1 (4,8)	5 (5,3)
incremental budgeting	0 (0)	0 (0)	0 (0)	1 (7,1)	0 (0)	1 (1,1)
other techbique	3 (13,6)	1 (6,3)	1 (4,8)	0 (0)	3 (14,3)	8 (8,5)
<b>column total</b>	<b>22</b>	<b>16</b>	<b>21</b>	<b>14</b>	<b>21</b>	<b>94 (100)</b>

\* column percentages are given between brackets

If companies made use of budgets we wanted to obtain information on the level of detail and the different budgets included in the master budget. The dimension variable was significant for all budgets except for the sales-, cash- and investment budget. Analyzing the level of detail of the master budget. We found that the salesbudget and the cash budget are more used in successful firms. Cost budgets are more used in non-successful firms. It is obvious that the immediate need for cost control is more crucial in non-successful firms than in successful firms (see table 9).

**Table 9 : Parts of the master budget and the successfulness of the company**

N = 54	non-successful firms	successful firms	row total
sales budget	19 (76,0)*	25 (86,2)	44 (81,5)
production budget	15 (60,0)	13 (44,8)	28 (51,9)
liquidity budget	13 (52,0)	18 (62,1)	31 (57,4)
investment budget	18 (72,0)	21 (72,4)	39 (72,2)
cost budget	21 (84,0)	23 (79,3)	44 (81,5)
- materials budget	13 (52,0)	16 (55,2)	29 (53,7)
- direct labour budget	17 (68,0)	17 (58,6)	34 (63,0)
- indirect variable cost budget	11 (44,0)	14 (48,3)	25 (46,3)
- indirect fixed cost budget	17 (68,0)	23 (79,3)	40 (74,1)
<b>column total</b>	<b>25</b>	<b>29</b>	<b>54 (100)</b>

\* column percentages are given between brackets

Concerning industry differences we notice that trade companies make slightly more use of budgets (especially the salesbudget and the liquidity budget) than industrial SMEs.

According to the literature the closing documents of the master budget are the projected P&L account and the projected balance sheet. The survey results show that almost all companies (94%) prepare a projected P&L account, but that only 50% prepare a projected balance sheet. This is not surprising, because the budgets which are prepared by companies are often limited to cost and revenue budgets. The questions with regard to the sources of information which are used to prepare budgets revealed that SMEs often make use of historical data not only for cost budgeting but also for the salesbudget (see table 10).

**Table 10 : Information sources for estimating the turnover and the dimension of the firm**

N = 50	<= 20 employees	21 - 50 employees	> 50 employees	Row total
opinion of sales staff	4 (33,3)*	6 (42,9)	15 (62,5)	25 (50,0)
market research	1 (8,3)	2 (14,3)	2 (8,3)	5 (10,0)
historical data	10 (83,3)	10 (71,4)	17 (70,8)	37 (74,0)
<b>column total</b>	<b>12</b>	<b>14</b>	<b>24</b>	<b>50 (100,0)</b>

\* column percentages are given between brackets

This finding was confirmed by the company studies. These company studies revealed also that historical data are the major information source for budgeting purposes. Using historical data means in practice taking the figures of the year before and using them as the budget for next year. A result of this budgeting practice is that in this way SMEs pursue in fact from year to year a status quo situation. If they have achieved last year's figures, they have done well. The company studies showed further that only in the successful firms sales budgets were prepared on the basis of sales targets, which resulted from a long-term action plan instead than on the basis of last year's figures. Successful firms seemed to be more forward looking in their planning practices.

Besides the level of detail we were interested in the purposes for which companies use budgets. In the questionnaire we have listed several possibilities. The answers to this question revealed that the most important function of the budget is its control function. This control function of the budget is not only important in the group of non-successful firms, but this function is also important in the group of successful firms. We may conclude that SMEs see budgets more as a control instrument than as a tool for planning. Besides its control function, budgets seem to be used as well for sales and pricing decisions. This finding shows that internal data are important with regard to sales and pricing decisions. According to the survey results budgets are not often used in SMEs for the evaluation of the performance of the employees.

In every chapter on budgeting in textbooks the authors list a series of advantages and disadvantages of the budgeting process. We have listed these advantages and disadvantages in the questionnaire and we have asked the SMEs their perception about them. We have found evidence that

disadvantages like budget slack, reflections of power, demotivation of employees, are not perceived as disadvantages by the respondents. Dimension differences were not found (see table 11).

**Table 11 : Disadvantages of budgeting and the successfulness of the firm**

N = 52	non-successful firms	successful firms	Row total
budgeting slack creation	6 (25,0)*	3 (10,7)	9 (17,3)
the budget makes things visible and other things invisible	4 (16,7)	5 (17,9)	9 (17,3)
budgets are a reflection of power in an organisation	3 (12,5)	2 (7,1)	5 (9,6)
tight budget targets demotivate employees	2 (8,3)	2 (7,1)	4 (7,7)
essential information is often missing	10 (41,7)	6 (21,4)	16 (30,8)
information in the budgets is uncertain	12 (50,0)	10 (35,7)	22 (42,3)
no disadvantages	2 (8,3)	8 (28,6)	10 (19,2)
<b>Column total</b>	<b>24</b>	<b>28</b>	<b>52 (100,0)</b>

\* column percentages are given between brackets

The table above shows us that in non-successful firms the lack of information and the uncertainty of information are cited more often as disadvantages.

Analyzing the answers about the advantages of budgeting the importance of budgets for control purposes emerges again as important (see table 12).

**Table 12 : Advantages of budgeting and the successfulness of the firm**

N = 53	non-successful firms	successful firms	Row total
the firm is better prepared for the future	13 (54,2)*	18 (62,1)	31 (58,5)
improves better coordination and communication	11 (45,8)	8 (27,6)	19 (35,8)
stimulate an economical use of the available resources	17 (70,8)	21 (72,4)	38 (71,7)
ability to take corrective actions	15 (62,5)	23 (79,3)	38 (71,7)
motivation of employees	12 (50,0)	12 (41,4)	24 (45,3)
is helpful in decentralization and evaluation of employees	12 (50,0)	15 (51,7)	27 (50,9)
without a budget , control is not possible	17 (70,8)	19 (65,5)	36 (67,9)
<b>Column total</b>	<b>24</b>	<b>29</b>	<b>53 (100,0)</b>

\* column percentages are given between brackets

Two advantages are significant with regard to the dimension variable namely the motivational aspect and the information to take corrective actions.

Companies which do not make use of budgets gave the following reasons as explanation:

- . it is of no use to manage the company (56%)
- . we do not have enough knowledge about it (25%)
- . it is too time consuming (20%)
- . the lack of data (15%)

### 3.1.2.2. Other short-term financial planning methods

An important element with respect to financial planning is the information on cash inflows from receivables and the method used for determining the cashinflows from outstanding accounts receivable. In the questionnaire SMEs were asked how and whether they made projections on cashinflows from receivables. About thirty percent of the survey population found this information

not relevant. Almost 46% of the very small companies found this question not relevant (see table 13). This answer 'not relevant' was significant with regard to dimension and industry. In successful firms cash inflows from receivables seem to be less relevant.

**Table 13 : Methods for determining cash inflows from accounts receivables**

N = 93	< = 20 employees	21 - 50 employees	> 50 employees	Row total
experience percentages	11 (29,7)*	8 (30,8)	13 (43,3)	32 (34,4)
aging schedule	3 (8,1)	9 (34,6)	17 (56,7)	29 (31,2)
days' sales in accounts receivable	7 (18,9)	9 (34,6)	14 (46,7)	30 (32,3)
payment pattern method	3 (8,1)	8 (30,8)	5 (16,7)	16 (17,2)
other method	2 (5,4)	0 (0)	2 (6,7)	4 (4,3)
not relevant	17 (45,9)	5 (19,2)	5 (16,7)	27 (29,0)
<b>Column total</b>	<b>37</b>	<b>26</b>	<b>30</b>	<b>93 (100,0)</b>

\* column percentages are given between brackets

With a purpose of obtaining data about other methods of short-term financial planning methods used in SMEs several open ended questions were included in the survey. In the company studies special attention was also paid to this topic. The survey and the company studies showed that fiscal planning is a popular planning tool and often used as sole planning instrument. Very short-term cash planning (on weekly or daily basis) as sole planning tool was also encountered a few times. Very vague estimations of costs and revenues were in a couple of firms the sole planning device.

We may conclude that if SMEs do not make use of budgets, they will probably plan the future in an informal way often guided by the objective to minimize taxes.



## 3.2. Control and performance measurement practices

The research findings on planning practices revealed already the importance of control. According to the results the most important function of budgeting was its control function instead of its planning function.

### 3.2.1 Financial control and performance measurement

#### 3.2.1.1. Variance Analysis

The traditional performance indicators in this area of financial control are the different variances. Variance analysis however is only possible when the company has budgeted figures to compare the actual outcome with. The results show that variance analysis is even less popular than budgeting. Only 28% of the respondents use it. Interesting to note is that the dimension variable is not significant. Variances are calculated in 33% of the successful firms and only in 22% of the non-successful firms. Having in mind the results on planning, one would have expected the opposite situation. The most used variances are the sales price variance (68%), the sales volume variance (56%) and the labour efficiency variance (44%). The sales variances are more popular in trade companies and labour efficiency variances are calculated in 70% of the respondent industrial SMEs.

#### 3.2.1.2. Other financial performance indicators

Besides variances companies use also financial ratio's for control purposes. Several financial ratio's are calculated on the basis of the profit and loss account and the balance sheet. Other financial information results from the management accounting data. The survey results show that financial ratio's are more used in SMEs as financial performance indicators than the different types of variances are. The most used ratio's are listed below:

. gross profit margin	67 %	. gross sales margin	38 %
. net profit margin	59 %	. net sales margin	28 %

The use of return on assets ratio's was surprisingly low (less than 20%). The use of these ratio's was not different in relation to the dimension of the SMEs and the success of the SMEs. Gross margin

ratio's were calculated more in trade companies. Other accounting measures which are calculated by half of the respondent firms relate to the following liquidity and solvency aspects:

. inventory turnover 47 %	. debtor days 56 %
. creditor days 52 %	. gearing ratio 68 %
. working capital 55 %	

All these accounting measures on liquidity and solvency are significantly different with regard to the dimension of the firm. The ratio's working capital and cash flow/debt are used more in non-successful firms. Value added measures are not popular in SMEs.

The data below result from the management accounting data of a company. The percentage of companies which calculate this crucial information is presented below.

. unit cost	55 %	. market profitability	10 %
. product profitability	41 %	. profitability of a geographical region	5 %
. customer profitability	22 %		

The ratio's unit cost and market profitability are significant with regard to dimension. The survey results indicate further that more trade companies calculate the indicators than industrial SMEs. We noticed further that a slightly higher percentage of successful firms make use of all these ratio's listed above, except for two ratio's. Customer profitability is measured by 27% of the non-successful firms and by 18,5% of the successful firms. On the other hand product profitability ratio's are calculated by 46,3% of the successful firms and 35,1% of the non-successful firms. If we compare the percentage of respondents that calculate unit cost data with the percentage of companies that calculate product profitability, we notice that companies that indicate to have unit cost data do not necessarily have data on product profitability. We will return to this finding later on in section 3.2.1.3.

The survey results showed us that ratio-analysis was the most popular financial performance indicator. However if one analyzes the time intervals over which these ratio's are calculated, one observes that these ratio's are calculated on a monthly or yearly basis. Distinguishing between

successful and non-successful firms we observe that successful firms calculate these ratio's more at specific time intervals (monthly or quarterly) (see table 14).

**Table 14 : Frequency of calculation of ratios and the successfulness of the firm**

N = 86	non- successful firms	successful firms	Row total
now and then	6 (16,2)*	3 (6,1)	9 (10,5)
regularly	5 (13,5)	3 (6,1)	8 (9,3)
weekly	0 (0)	1 (2,0)	1 (1,2)
monthly	9 (24,3)	18 (36,7)	27 (31,4)
yearly	10 (27,0)	15 (30,6)	25 (29,1)
never	1 (2,7)	2 (4,1)	3 (3,5)
other	6 (16,2)	7 (14,3)	13 (15,1)
<b>Column total</b>	<b>37</b>	<b>49</b>	<b>86 (100,0)</b>

\* column percentages are given between brackets

For financial control purposes however this does not seem to be really sufficient. Through company studies we tried to find out whether there are other financial control procedures used in practice on a daily or weekly basis.

### 3.2.1.3. Financial control practices

The company studies revealed that in SMEs financial control means first of all the follow up of bank accounts. There is no difference with regard to the dimension of the SMEs or the successfulness of the SMEs. We only noticed that the larger the SMEs the more frequent these bank accounts are checked. The company studies revealed further the following three other financial control practices: the follow-up of costs, the follow-up of the balance sheet and the profit and loss account and the follow-up of taxes. For the follow up of taxes there is no difference with regard to the dimension of the SMEs or the successfulness of the SMEs. The follow-up of balance sheet and profit and loss account is more popular in large SMEs. Concerning the third method namely the follow up of costs it seems that according to the obtained figures small as well as large SMEs and successful as well as non-successful SMEs pretend to follow up their costs. However if

we investigate the knowledge and information they have about their cost behaviour and how they control their costs, we found interesting differences between successful and non-successful firms. On this topic the company study provided additional information. A major difference between successful and non-successful firms is the knowledge on cost patterns. Successful firms have a better insight in the behaviour of their most important costs, which enables them not only to calculate relevant product costs but makes it also possible to control their costs in a more efficient way than non-successful SMEs. The company studies learned us that the results on unit cost data from the survey must be interpreted with caution. It is possible that companies that only trace one cost item to their products (e.g. materials) have indicated that they calculate unit cost data. In this case they only have a partial unit cost. This could also explain why not all companies that have unit cost information, have data on product profitability (see 3.2.1.2.). Because with a partial unit cost they are not able to calculate product profitability.

### 3.2.2 Non-financial performance measurement

Many articles and textbooks stress the importance of non-financial performance indicators for companies today. In order to research the use of non-financial performance indicators a list of non-financial performance indicators related to different aspects of a business organization was presented in the questionnaire. This list is included in appendix together with the percentage of firms which use these non-financial performance indicators. The results on the use of non-financial performance indicators in SMEs will be presented along the following lines. First we will focus on the use of non-financial performance indicators and the relation with the dimension and industry. Second the use of these indicators in successful versus non-successful firms will be discussed.

The list contains non-financial performance indicators from five broad categories. Each category will be discussed separately below.

#### **. sales, after-sales service and distribution**

In this group of performance indicators four indicators are used by more than 50% of the respondents: delivery time, share of large customers in the turnover, inventory level of products ready for sale and reliability of deliveries. Three performance indicators of this group are significant with regard to dimension: percentage of defect products delivered to customers, inventory level and

time needed for repair. If we compare the use of these indicators in trade versus industry, we only notice a difference for the following indicators: time needed for repair is used more in trade companies, indicators on delivery performance and the share of large customers in turnover are used more in industry.

#### **. production**

All these indicators are used by more than 50% of the industrial SMEs. Inventory levels are used by 60% and unit cost data by 70% of the industrial SMEs. The indicators process time, reject rates, unit cost and materials inventory levels are significant with regard to dimension.

#### **. customer perspective**

The indicators company image and product image are used by about 50% of the companies that answered the questionnaire. Market share data are significantly more collected by large SMEs. If we concentrate on industry differences, we notice that these three ratio's are more used by trade companies.

#### **. innovativeness**

These ratio's obtain very low scores. None of them is significant with regard to dimension. Three of these indicators are more used among industrial SMEs namely time to adapt a new technology, number of technical changes after the launch and number of patents. Time to market and the development time for a product are monitored in trade as well as in industrial SMEs. The number of new products launched is more used in commercial SMEs.

#### **. administration, internal business processes and management decisions**

Indicators that measure aspects from administrative processes are widely used, the other indicators obtain very low scores. With regard to industry differences we only notice a difference for the indicator 'time to implement decisions'. This indicator is more used in industrial firms. Two indicators of this total group are significant with regard to the size of the SMEs namely timeliness of financial documents and accuracy of financial documents.

If one produces a list of the most used non-financial performance indicators we obtain the following collection:

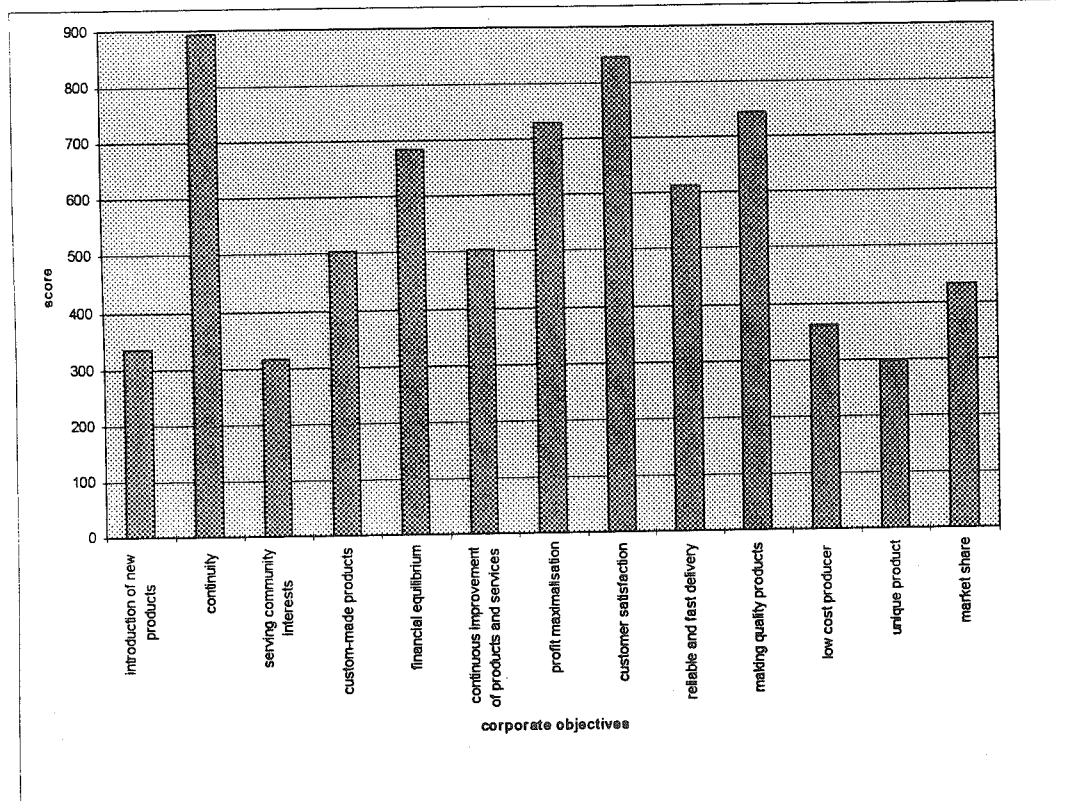
**Table 15 : The use of non-financial performance indicators (N= 94)**

	<u>number of companies</u>
1. timeliness and accuracy of orderconfirmation and invoices	56
2. inventory level of product ready for sale	52
3. company image	49
4. accuracy of financial documents	48
5. unit cost	48
6. share of large customers in turnover	46
7. timeliness of financial documents and reports	43
8. delivery time	43
9. reliability of deliveries	42
10 product image/ inventory levels of materials	40

Many of the indicators in this top 10 are internal indicators. This list reveals the importance of administrative indicators and the lack of indicators concerning innovation. The absence of this kind of indicators is not surprising. When we asked SMEs to rank their corporate objectives, it became clear that objectives with regard to innovation obtained low scores.

On the other hand the figure below shows us that quality and customer satisfaction are very important objectives. In the top 10 list of non-financial performance indicators the importance of quality and customer satisfaction does not really emerge.

**Figure 1 : Ranking of corporate objectives**



On the use of PI in successful versus non-successful firms the outcome is different related to the category of PI studied. In table 16 the use of PI of different categories is presented.

**Table 16 : The use of performance indicators and the successfulness of the firm**

Performance Indicator	Successful firms	Non-successful firms
customer perspective		used more
innovativeness		used more
production	equal	equal
sales	used more	
after- sales service		used more
distribution	used more	
administrative information		used more
internal business processes	used more	
management decisions	used more	

Benchmarking is introduced in the literature as a source of information for the performance measurement process. The answers of the questionnaire survey reveal that 43% of the respondents uses information obtained through benchmarking. Non-successful firms make more use of benchmarking. However if one concentrates on the type of benchmarking process companies undertook it became clear that SMEs see benchmarking as an analysis of the output of other firms. They focus then on the price and the quality aspects of the output. The information sources for their benchmarking exercises are business magazines (51%), company publications (39%), annual accounts of competitors (40%) and suppliers (27%). For small SMEs the suppliers are the most important source of benchmarking information. Further benchmarking seems to be more important in trade companies.

On the topic of benchmarking the company studies revealed that information from the competition is used in a possible dangerous way. Companies drop their prices to the level of the competition without analyzing the business processes behind the competitors which allow them to set the prices at that particular level.

The control chapter of the survey ended with the question whether or not SMEs combine their performance indicators into scorecards. Half of the population answered the question positively. The dimension variable was significant. In relation to successfulness no difference was found, but the results gave evidence of the fact that scorecards are more used in trade companies.



## Conclusion

This paper gave an overview of the results of survey and case research on planning and control practices in SMEs. The survey results revealed that SMEs are much more concerned about control than about planning. The most important aim of the budget is its use for control purposes instead of planning purposes. The research findings on planning practices allow us to put forward the following conclusions. With regard to the variable dimension the results were consistent with what one expected *ex ante*. Planning is more formal and more elaborated in SMEs of a larger scale. However with regard to the variable successfulness results were not consistent with our prior expectations. Short-term planning and especially budgeting is more used in non-successful SMEs than in successful firms. It seems that when companies are facing difficulties, the need for formal planning methods arises. In those situations planning methods are then used as control instruments. Concerning industry differences we noticed that formal planning methods are slightly more used in trade companies than in industrial SMEs. The survey and company studies gave evidence of the fact that fiscal planning is the most used informal planning method in SMEs. We noticed further that long time planning is often absent, SMEs are almost exclusively focused on short-term goals.

In relation to control no overall significant difference was found with regard to dimension, industry and successfulness. Differences arose at the level of individual performance indicators. Analyzing the obtained information on control and performance measurement practices, we noticed that variance analysis is more used in successful firms than in non-successful firms and that accounting ratios are still important financial performance indicators in SMEs. Within the group of non-financial performance indicators, the indicators which measure aspects of administrative processes came out as the most used indicators together with indicators on delivery performance. With regard to indicators on customer satisfaction and innovation the scores were low. Benchmarking processes were limited to obtaining information about the price and the quality of the competitor's output. The use of scorecards was limited.

The company studies confirmed the results of the survey. In addition to the survey results they revealed the importance of knowledge and information about the cost behaviour patterns of the most important costs in a firm. Only in this situation companies were able to calculate product

profitability and they were able to instore valuable cost control and cost reduction techniques. On the basis of the company studies we can conclude that the following two elements are characteristic for successful firms versus non-successful firms: the knowledge on cost behaviour patterns and the translation of long term objectives into short term planning.

In general we may state that planning and control are not necessary tools for success, but they do become necessary when firms are facing difficulties.

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#### Notes

1. All individuals carrying on a commercial activity, general and limited partnerships with a turnover exceeding 20 million BEF and all other companies (public, private and sole proprietor limited liability companies, partnerships limited by shares, co-operatives) have to publish their annual accounts (= about companies).

**Appendix : The percentage use of non-financial performance indicators (N=86)**

<b>Sales</b>		<b>Customer perspective</b>	
Delivery time	50 %	Company image	57 %
Readableness of directions for use	19,8 %	Product image	46,5 %
Share of large customers in the turnover	53,5 %	Market share	44,2 %
Share of new products in the turnover	34,9 %	<b>Innovativeness</b>	
Share of products with patents in the turnover	4,7 %	Introduction time for new technologies	18,6 %
<b>After-sales service</b>		Technological changes after the launch of the product	9,3 %
number of complaints	36 %	New products launched	22,1 %
Time for repair	18,6 %	new patents	5,8%
<b>Distribution</b>		Development time for a new product	15,1 %
Products delivered too late	38,4 %	Time to market	15,1 %
Inventory	60,5 %	<b>Administration</b>	
Reliability of deliveries	48,8 %	Timeliness of financial statements & reports	50 %
<b>Production</b>		Accuracy of financial statements & reports	55,8 %
Process time	40,7 %	Timeliness and accuracy of order confirmation & invoices	65,1 %
Reject rates	38,4 %	<b>Internal business processes</b>	
Unit cost	55,8 %	Timeliness of other document	22,1 %
Capacity levels	32,6 %	Throughputtime of postal document	18,6 %
Materials inventory levels	46,5 %	<b>Management</b>	
Inventory level work-in-process	32,6 %	Percentage of implemented decisions	16,3 %
		Time to implement decisions	30,2 %