

Planning and Control Practices in family firms versus non-family firms: empirical evidence from SMEs in the wholesale sector

Ann Jorissen, Eddy Laveren, Rudy Martens and Anne-Mie Reheul

Family businesses differ from traditional businesses in that they are owned or controlled by family members. Because of the potential for family member's influence, family businesses face many unique and complex problems (Davis & Stern, 1980, Handler, 1989). However since the investigation of the connection between family involvement and organizational processes and outcomes is still in its infancy (Bellet, Dunn, Heck, Parady, Powell and Upton, 1996) many conflicting claims regarding the purported effects of family member involvement remain unresolved.

The organizational processes focused on in this research are differences in planning and control practices between family businesses and non-family businesses. It is often said that family businesses plan much less than non-family firms. Several authors however indicate in the literature that observed differences between family and non-family firms in empirical research are often caused by industry differences, size differences, location differences, strategy differences, etc... In order to avoid this pitfall we have constructed our research sample along the following lines. We have chosen for our research population firms from just one industry namely the wholesale sector. In this way differences in environmental uncertainty are reduced to a certain extent. The following criteria dominated further the choice of the research population: growth rate (fast growth, slow growth and no growth), size (measured by balance sheet total) and location (Flanders – Belgium). In total 616 companies (409 small companies and 207 medium-sized companies) were sent a survey. The questionnaire covered questions on the company's family character, its firm activities, the motives for growth, the enabling and disabling factors for growth, the consequences of growth, and planning and control practices. The response rate for the small wholesale firms was 21,8% (89 usable responses) and the response rate for the medium-sized wholesale firms amounted up to 41% (85 usable responses). Differences in answers are traced according to six criteria: subsector, family business, active generations, family manager versus external management, dimension and growth rate.

For short-term planning practices mixed evidence was obtained with regard to planning differences. There was no significant difference in short-term planning of sales, purchases and investments between family firms and non-family firms. A significant difference was observed with regard to cash planning and planning of expenses (other than purchases). With regard to long-term planning no significant difference was found in relation to long-term planning of investments. Long-term planning of sales, purchases, other expenses and cash was significantly done more by non-family firms. The data reveal further that non-family firms recognize significantly more the usefulness of management accounting information elements like (cost information, profitability of customers, competitor analysis,...) than family firms. These elements were significantly more cited in non-family firms as enablers of growth. Further elaboration of formal long-term planning systems, short-term planning systems and cost information systems were seen as the most important consequences of growth together with delegation to employees. These consequences were significantly more experienced by non-family firms than by family firms. With regard to control practices we found evidence that non-family firms use more financial and non-financial performance indicators than family firms.

In the last part of the research the growth profile of the companies and their use of planning and control systems is linked to their performance, measured from a longitudinal aspect and based on the return on sales, return on assets and return on equity.

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Planning and Control Practices in Family Firms versus Non-Family Firms: Empirical Evidence from SMEs in the Wholesale Sector

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1. Introduction

Family firms are regarded as an important phenomenon throughout the world. In many western developed economies family firms account for over two-thirds of all businesses (Westhead, 1997) and they make a leading contribution to wealth creation, job generation and competitiveness. Family businesses differ from traditional businesses in that they are owned or controlled by family members and thus have a great potential for the family to be involved in or to influence business matters. Because of the potential for family member influence, family businesses face many unique and complex problems (Davis & Stern, 1980, Handler, 1989). Conventional wisdom holds that the more family members are employed and the more central their roles, the greater the influence these men and women will exert on critical decision processes in family businesses (Dyer, 1986, Astrachan, 1988). However since the investigation of the connection between family involvement and organizational processes and outcomes is still in its infancy (Bellet, Dunn, Heck, Parady, Powell & Upton, 1996), many conflicting claims regarding the purported effects of family member involvement remain unresolved.

The organizational processes focused on in this research are differences in planning and control practices between family businesses and non-family businesses. Although SMEs must contend with the same problems and decisions as the large enterprises, they have to cope with them without the advantage of expert personnel and with fewer resources. Managers of large companies have competent co-workers, who can search, analyse and handle information. The process of ‘scanning-interpretation-action-performance’ in a SME is the work of the owner/manager, and possibly with the co-operation of an external consultant (rather than personnel). Therefore it is assumed that family firms rely much less on formal planning and control systems. Non-family firms are also likely to be larger and older than

family concerns because they pursue 'prospector' and 'analyzer' business strategies (Miles and Snow, 1978). Family and non-family firms tend also to have different approaches to internal management matters. Evidence shows that the locus of decision-making is centralized in family firms, while it may be centralized or decentralized in managerial organisations, depending on the complexity of the work (Mintzberg, 1979). Differences arise also in the design and control of organisations. The assignment of tasks, the grouping of work activities, the flow of work and information, and the standardisation and control of work processes are informally organized in family firms (Whisler, 1988). Professionally managed firms are required to justify their actions to shareholders, and consequently they initiate numerous formal reporting procedures to keep a close eye on events.

In the past, characteristics of family firms have generally been explored in isolation (Westhead, 1997; Brockhaus, 1994; Dyer and Handler, 1994) and not a lot of comparative studies of family and non-family firms have been conducted. Several authors however indicate in the literature that observed differences between family and non-family firms in empirical research are often caused by industry differences, size differences, location differences, strategy differences, etc... In order to avoid this pitfall we have constructed our research sample along the following lines. We have chosen for our research population firms from just one industry namely the wholesale sector. In this way differences in environmental uncertainty are reduced to a certain extent. As many studies revealed (a.o. Gul, 1991) there are interacting effects of management accounting systems (MAS) and perceived environmental uncertainty (PEU). The results support the contingency relationship that sophisticated MAS contributes to performance in high PEU situations but hampers performance under low PEU situations. We have tried to reduce further environmental uncertainty by choosing firms from the same region. The location of the firms is the Flanders region. In this region no big differences are found in the economic and legal environment of the firm. As such cultural differences could be kept to a minimum. The following criteria dominated further the choice of the research population: growth rate (fast growth, slow growth and no growth) and size (measured by balance sheet total).

2. Research Questions

The main research questions focused on in this paper are the following:

H1: Do non-family firms significantly make more use of formal planning and control methods than family firms?

By pursuing this research topic we have tried to keep as many influencing variables as possible under control. A question to be solved in this research area is the definition of a family firm. There is a lack of consensus surrounding the definition of a family firm. Analyzing the literature three key issues have frequently been utilized by researchers when defining family firms. First, whether a single dominant family group owns more than 50% of the shares in a business (Stoy Hayward, 1992; Smyrnios and Romano, 1994; Cromie et al., 1995). Second, whether members of an 'emotional kinship group' perceive their firm as being a family business (Holliday, 1993; Binder Hamlyn, 1994; Carsrud, 1994). Third, whether a firm is managed by members drawn from a single dominant family group (Daily and Dollinger, 1992, 1993). In our research we have used the first definition of family firms.

Besides the aspect of family firms versus non-family firms, we have also paid attention to the position of the manager in the company as the distinction between family and nonfamily businesses may be attributable to the differing management styles and motivations of founders/family members versus professional managers (Dyer, 1986; Daily and Dalton, 1992). The term professional manager is meant only to distinguish the family manager from the non-family manager. Professional (non-family) managers, due to their business training and lack of ownership interest in the firm, often do not behave in the same manner as the owner of the firm (Mc Eachern, 1975). While the owner maintains a personal stake in the success of the firm, professional managers are generally limited to the investment of the employment contract alone. According to Cromie, Stephenson & Monteith (1995) owners and managers often have different interests. For example, while family members/owners are less career oriented and will often refrain from drawing money from the business in the interest of its long-term prospects, managers are served better through short-term, calculative

business attachments with rapid career advancement and increased remuneration. The focus on short-term personal goals often produces non-family firms which are larger than their family counterparts. Size is attractive to managers because it creates organisational slack which helps conceal ineffective decision-making; managerial remuneration is more closely associated with organisation size than profitability and larger organisations have more elaborate organisation structures which increase opportunities 'for the advancement of managers within the organisation' (Daily and Dollinger, 1993)

The observations mentioned above with regard to the characteristics of the external manager resulted in a second research question, namely:

H2: Do firms with external managers make significantly more use of formal planning and control methods than firms with owner-managers?

Some authors state (a.o. Chaganti & Schneer, 1994) that the distinctions observed in the personal and business characteristics of owner-started, purchased and family firms lead to argue that there would be systematic differences in their management patterns, and that these in turn would result in significant differences in performance. These arguments in the literature lead us to the third research question.

H3: Are firms which use formal planning systems performing better?

Studies directed at the relationship between planning and business performance have, however, yielded ambiguous results. Operational planning is positively correlated with business performance. However no relation between strategic planning and performance has been found (Schrader, Mulford and Blackburn, 1989). Another stream of research has indicated that planning firms performed no better than did non-planning firms (Robinson and Pearce, 1983). The failure to correlate planning and performance may be explained by the possibility that SMEs enhance their effectiveness through the informal application of business planning concepts. It may also be exacerbated by the fact that a firm's performance is dominated by other factors, such as its size and business activities. In spite of this

ambiguity, a positive relationship between planning and performance can generally be expected if and only if a small business uses the right kind of planning.

The relationship between the size of the company and planning practices, was not studied in this research as the results in the literature are straight forward. Much of the small business planning literature is focused on the relationship between planning behavior and SME size, the latter normally being expressed in terms of employment or sales. The relationship is generally found to be positive – for several reasons, larger firms plan more often and more extensively than do smaller firms, and small firms plan operationally rather than strategically (Risseuw and Masurel, 1994; Robinson and Pearce, 1984; Shrader, Mulford and Blackburn, 1989).

3. Research population, questionnaire, profile of respondents

3.1 Research population

In order to control influences from environmental factors and other industry characteristics, one sector was studied in-depth namely the wholesale sector. In 1997 the wholesale sector consisted of 1,1 million firms in Europe. These firms produced 4 % of the gross national product and employed 6,6 million persons. In Belgium the wholesale sector was composed of 80 000 firms in 1997 and employed 170 000 persons (Statistical Office of the European Communities).

The starting point for the selection of companies for our research population were small, medium-sized and large companies in the wholesale sector, which published their annual accounts and which belonged to the following subsectors: vegetables and fruit, liquors; electrical appliances and audio- en video equipment; China and glassware; wallpaper and cleansing agents; fuels; wood, paint, varnish and building materials (incl. sanitary fittings); ironmongery, plumbing work and heating appliances; and chemical products.

Within this population, a first group of companies was put together that had between 5 and 100 employees, a balance sheet total between 0.1 and 1 billion BEF (between 2.5 and 25 million EURO), and their location in the Flemish region (medium-sized and large wholesale companies (MEs)). For 207 companies that met these criteria, sales figures were obtained for

the period 1991-1996. Very small firms were excluded in this group. Afterwards a second group of wholesale-SMEs was put together along the same criteria as those above, except for the balance sheet total. This total had to be between 10 and 100 million BEF (between 250 000 and 2.5 million EURO). A group of 409 companies met these criteria (small wholesale companies SEs). Later on in the text, results are presented for the whole group of wholesale companies and for the two groups separately.

3.2 The Questionnaire

All 207 companies in the first group and all 409 companies in the second group received a questionnaire that covered questions on the company's family character, its firm activities, and its sales growth. The main part of the questionnaire tried to find out if and why the companies have experienced sales growth between 1991 and 1996. For companies in which sales have increased, questions covered growth motives, factors enabling sales growth, and the consequences of sales growth for the organisation. In companies without sales growth, it was checked whether this was a conscious move, and/or which factors might have hindered sales increase. A supplementary questionnaire concerning the use of planning and control systems and the availability of competent personnel was sent to all respondents on the first two questionnaires.

Most questions in the questionnaire are closed-type questions i.e. that a number of possible answers is offered for each question. Respondents were asked to tick off the importance of each factor on a scale from 1 to 5 (with 1 = no, 2 = little, 3 = moderate, 4 = great, 5 = very great importance). Next to the suggested factors, respondents were given the opportunity to add other factors and give additional comments.

3.3 Profile of respondents

The profile of respondents is set out in table 1. In the first respondent group (MEs Gr.1), an overall response rate was reached of 41% (i.e. 85 filled-out questionnaires), and in the second group (SEs Gr. 2) a response rate of 21.8% (i.e. 89 filled-out questionnaires). We also

received 120 answers on the supplementary questionnaire (i.e. 69 % response rate). We have tested for non-response bias using trend analysis. We did not observe significant differences between early respondents and late respondents.

In order to analyze our results, we classified the respondents according to the following criteria: subsector, family business, active generations, management (= external manager versus owner-manager), and perceived growth rate. In order to detect and analyze differences the following statistical instruments were used: crosstables, chi-square tests, Mann Withney tests and logistic regression.

Companies are divided into two groups of subsectors: consumable goods versus intermediary goods. Also, responding SMEs are grouped according to whether they are a family or a non-family business. Further, with respect to active generations, three groups of companies are distinguished: in the first group, maximally the first generation was active, in the second group maximally the second generation, and in the third group maximally the third (or higher) generation. A next distinction is based upon 'management': companies with an owner-manager are compared to companies with a recruited, external non-family manager in the daily management. Finally, differences in answers are traced between companies that have experienced fast versus slow sales growth between 1991 and 1996.

Table 1: Profile of respondents

	Wholesale MEs Gr. 1			Wholesale SEs Gr. 2			All respondents		
	n	N	%	n	N	%	n	N	%
Subsectors: intermediary goods	61	85	71.8	62	89	69.7	123	174	70.7
1 Independent entities	66	85	77.6	76	89	85.4	142	174	81.6
2 Family companies	69	84	82.1	69	89	77.5	138	173	79.8
3 Active generations (max 1,2,3 or higher)	13+25+36	74		24+29+31	84		37+54+67	158	
4 Ownership:owner-manager in daily mgt.	67	80	83.8	69	88	78.4	136	168	81.0
5 Family member(s) in Board of Directors	75	79	94.9	72	86	83.7	147	165	89.1
6 Fast+slow-growth companies:perception	37+30	83	80.7	40+35	89	84.3	77+65	172	82.6

Gr. 1 = Group 1: 85 wholesale SMEs with balance sheet total between 100 million and 1 billion BEF

Gr. 2 = Group 2: 89 wholesale SMEs with balance sheet total between 10 and 100 million BEF

In the total group of responding firms 142 companies appear to be independent entities (81.6%) and 32 to be subsidiaries (18.4%). 138 SMEs explicitly state that they are family businesses (79.8%), 35 SMEs say that they are not (20.2%). In 81 % of the responding firms an owner-manager is active, while only 19 % have an external manager. In 89 % of all

responding firms a family member is in the Board of Directors. 142 out of 172 SMEs indicated that they had experienced an increase in sales in the period 1991 to 1996. In 77 out of 142 companies, sales growth was perceived to have been fast; in the remaining 65, it was indicated to have been slow.

In table 2 a cross-tabulation between family versus non-family firms and a number of other company characteristics is given.

Table 2 : Cross-tabulation of family versus non-family firms and other company characteristics

	Family firm		Non-family firm		Sign.
	n	%	n	%	%
Owner-manager	129	94.2	6	20.0	0.000%
External manager	8	5.8	24	80.0	
Total	137	100.0	30	100.0	
Fast-growing	59	51.8	18	64.3	23.3%
Slow-growing	55	48.2	10	35.7	
Total	114	100.0	28	100.0	
1 st generation	25	18.1	12	63.2	0.000%
2 nd generation	49	35.5	4	21.0	
3 th generation	64	46.4	3	15.8	
Total	138	100.0	19	100.0	

In table 2 we can see that in 94 % of the family firms an owner-manager is active. In the majority of the 30 non-family firms, an external manager is in place. Most non-family firms are fast-growing firms managed mostly by a member of the first generation. Family firms are divided more equally between fast and slow-growing firms and are managed mostly by a member of the third generation.

It is important to note that there is no significant difference in size between family firms and non-family firms. So observed differences could not be due to dimension differences. One way to control completely for the size effect would be to work with matched pairs. Our research sample however is a representation of the existing population of wholesale companies. Although fast-growing firms are more represented in the non-family group and slow-growing firms are more represented in the family group, the difference is not significant. We have run statistical tests also within sub-population groups. This means that we have looked for significant differences within the group of family or non-family firms among fast, slow or non-growing firms.

4. Empirical Results

In this part of the paper the results of the statistical analyses will be presented.

4.1 Family firms and their use of formal management information systems

In order to test the first research hypothesis the survey data have been studied from different perspectives. First of all we have looked for differences in the planning systems used by companies in the research population. Secondly we have investigated whether or not the use of these management accounting systems had been changed over the past years and thirdly whether family firms had a different perception on the role of management accounting information as an enabler for growth or as a consequence of growth.

Formal management information systems were defined in the survey as formal short-term planning, formal long-term planning and the use of several financial and non-financial performance indicators. Formal short-term planning could be made up of one or more of the following budgets: the sales budget, the purchasing budget, the cost budget (other than purchases) the liquidity budget and the capital budget. Long-term planning could include long-term sales planning, long-term purchasing planning, long-term cost planning, long-term financial planning and long-term capital investment planning. With regard to financial and non-financial performance indicators a list of indicators was presented in the survey.

4.1.1 short-term planning

Table 3 : written short-term planning instruments (< 1 year)

In the short-term (< 1 year) the firm makes up a:	Wholesale-MEs Gr. 1		Wholesale-SEs Gr. 2		All respondents	
	%	Rank	%	Rank	%	Rank
Sales budget	84.3	1	73.9	1	78.3	1
Purchase buget	56.9	2	43.5	4	49.2	4
Cost budget (other than purchases)	56.9	2	63.8	3	60.8	3
Liquidity budget	37.3	5	33.3	5	35.0	5
Capital budget	54.9	4	66.7	2	61.7	2

N = number of SMEs that answered the question about that specific factor

n = number of SMEs that make up the specific budget

As 80% of all respondents prepared a sales budget (table 3), we could not detect any significant differences in relation to the family aspect of the business, the growth rhythm or the management aspect with regard to the sales budget. For the other budgets significant differences were found. These are presented in table 4. Focusing on the family aspect we also noticed that there is no significant difference with regard to the capital budget of the company. If we focus on the difference owner-manager or external manager the sales budget and the capital budget do not give rise to significant differences either. If we focus on the growth rate of the company we notice a significant difference with regard to the use of the capital budget. Surprisingly enough we notice that slow-growing firms make more use of the capital budget than the fast-growing firms.

Table 4: written short-term planning instruments (< 1 year) in family versus non-family firms, with external versus owner-managers and in fast versus slow-growing firms

Written short-term planning instruments:	Family firm %	Non-family firm %	Sign. %
Cost budget (other than purchases)	55.8 SMEs	80.0 SMEs	2.7
	55.8 SEs	88.2 SEs	1.6
Liquidity budget	30.5 SMEs	52.0 SMEs	4.5
	26.9 SEs	52.9 SEs	4.8
	Owner-manager %	External manager %	Sign. %
Cost budget (other than purchases)	52.2 SMEs	91.7 SMEs	0.0
	52.9 SEs	94.1 SEs	0.2
Purchase budget	44.6 SMEs	66.7 SMEs	5.4
	35.3 SEs	70.6 SEs	1.1
Liquidity budget	30.4 SMEs	50.0 SMEs	7.3
	27.5 SEs	52.9 SEs	5.4
	Fast-growing %	Slow-growing %	Sign. %
Capital budget	50.9 SMEs	70.5 SMEs	4.9
	28.6 MEs	80.0 MEs	0.1
Cost budget (other than purchases)	52.4 MEs	80.0 MEs	6.2
Purchase budget	38.1 MEs	80.0 MEs	0.6

If we subdivide the group of family firms in three categories namely fast-growing firms, slow-growing firms and non-growing firms and run Chi-square tests on the short-term planning instruments then we find only one significant difference. This difference is consistent with the difference above namely that within the group of family firms, slow-growing family firms make more use of the capital budget than fast-growing firms.

4.1.2 Long-term planning

Table 5 shows that the long-term capital investment plan seems to be the most popular among the long-term plans.

Table 5 : written long-term planning instruments (> 1 year)

<i>In the long-term (> 1 year) the firm makes up a:</i>	Wholesale-MEs Gr. 1		Wholesale-SEs Gr. 2		All respondents	
	%	Rank	%	Rank	%	Rank
LT sales plan	37.3	2	47.8	2	43.3	2
LT purchase plan	23.5	4	17.4	4	20.0	4
LT expenditure plan (other than purchases)	29.4	3	34.8	3	32.5	3
LT liquidity plan	5.9	5	15.9	5	11.7	5
LT capital investment plan	60.8	1	69.6	1	65.8	1

N = number of SMEs that answered the question about that specific factor

n = number of SMEs that make up the specific plan

With regard to the growth rate no significant differences could be found in the use of long-term plans. With regard to the family aspect of the firm the significant differences are presented in the first part of table 6. Non-family firms make significantly more use of long-term planning instruments. This significant difference is not caused by a difference in growth rate because a chi-square test run on the group of family firms subdivided by the growth rate in three subgroups did not reveal any significant difference in the use of these long-term plans. If we focus on the manager of the company we discern even more significant differences. The second part of table 6 shows that external managers do plan much more formally in the long run.

Table 6 : written long-term planning instruments (> 1 year) in family versus non-family firms and with external versus owner-managers

<i>Written long-term planning instruments:</i>	Family firm %	Non-family firm %	Sign. %
LT sales plan	37.9 SMEs	64.0 SMEs	1.9
LT expenditure plan (other than purchases)	27.4 SMEs 23.3 MEs	52.0 SMEs 62.5 MEs	1.9 2.5
LT purchase plan	14.7 SMEs 18.6 MEs 11.5 SEs	40.0 SMEs 50.0 MEs 35.3 SEs	0.5 5.5 2.5
LT liquidity plan	8.4 SMEs 11.5 SEs	24.0 SMEs 29.4 SEs	3.1 8.1
	Owner-manager %	External manager %	Sign. %
LT capital investment plan	62.0 SMEs	83.3 SMEs	4.8
LT sales plan	34.8 SMEs 41.2 SEs	75.0 SMEs 70.6 SEs	0.0 3.6
LT expenditure plan (other than purchases)	27.2 SMEs 29.4 SEs	54.2 SMEs 52.9 SEs	1.2 7.9
LT purchase plan	13.0 SMEs 9.8 SEs	37.5 SMEs 41.2 SEs	0.6 0.3
LT liquidity plan	8.7 SMEs	25.0 SMEs	2.9

4.1.3 the performance measurement system

Studying the differences in the research population in relation to the use of financial and non-financial performance indicators we noticed that focusing on the growth rate of the company no significant difference could be found with regard to any financial or non-financial performance indicator. With regard to the family aspect and the manager characteristics we found evidence that non-family firms make more use of performance indicators. This was especially true for those financial performance indicators which are related to the profitability of the firm and the solvency of the firm. Tables 7 through 10 show the evidence. The same conclusion holds for firms which are managed by an external manager.

Table 7 : follow-up frequency of ‘the gross profit margin per product’, in family versus non-family firms and with owner- versus external managers

Follow up frequency of ‘the gross profit margin per product’	Subdivision of wholesale SMEs				Total	Sign.
	Family firm		Non-family firm		N	%
	n	%	n	%		
Daily / weekly	14	18.9	9	39.1	23	2.5%
Monthly / three-monthly	32	43.2	11	47.8	43	
Yearly	28	37.8	3	13.0	31	
Total	74	100.0	23	100.0	97	
Follow up frequency of ‘the gross profit margin per product’	Owner-manager		External manager		N	%
	n	%	n	%		
	Daily / weekly	5	13.2	6	40.0	11
Monthly / three-monthly	15	39.5	7	46.7	22	
Yearly	18	47.4	2	13.3	20	
Total	38	100.0	15	100.0	53	

Table 8: follow-up frequency of ‘the profitability per customer’ in family versus non-family firms and with owner- versus external managers

Follow up frequency of ‘the profitability per customer’	Subdivision of wholesale SMEs				Total
	Family firm		Non-Family firm		N
	n	%	n	%	
Daily / weekly	6	10.3	2	11.1	8
Monthly / three-monthly	16	27.6	11	61.1	27
Yearly	36	62.1	5	27.8	41
Total	58	100.0	18	100.0	76
Follow up frequency of ‘the profitability per customer’	Owner-manager		External manager		N
	n	%	n	%	
	Daily / weekly	5	9.1	3	16.7
Monthly / three-monthly	15	27.3	10	55.6	25
Yearly	35	63.6	5	27.8	40
Total	55	100.0	18	100.0	73

Table 9: follow-up frequency of ‘the sales per customer’ in family firms versus non-family firms and with owner- versus external managers

Follow up frequency of ‘the sales per customer’	Subdivision of wholesale SMEs				Total
	Family firm		Non-Family firm		N
	n	%	n	%	
Daily / weekly	6	7.1	4	16.7	10
Monthly / three-monthly	38	44.7	16	66.7	54
Yearly	41	48.2	4	16.7	45
Total	85	100.0	24	100.0	109
Follow up frequency of ‘the sales per customer’	Owner-manager		External manager		N
	n	%	n	%	
	Daily / weekly	5	6.1	5	20.8
Monthly / three-monthly	38	46.3	14	58.3	52
Yearly	39	47.6	5	20.8	44
Total	82	100.0	24	100.0	106

Table 10 : follow-up frequency of ‘profit’ in family firms versus non-family firms and with owner-versus external managers

Follow up frequency of ‘profit’	Subdivision of wholesale SMEs				Total
	n	%	n	%	N
	Family firm		Non-Family firm		
Daily / weekly	0	0.0	0	0.0	0
Monthly / three-monthly	32	68.1	16	94.1	48
Yearly	15	31.9	1	5.9	16
Total	47	100.0	17	100.0	64
	Owner-manager		External manager		
Daily / weekly	0	0.0	0	0.0	0
Monthly / three-monthly	31	67.4	16	94.1	47
Yearly	15	32.6	1	5.9	16
Total	46	100.0	17	100.0	63

With regard to non-financial performance indicators much less significant differences were found. This could be due to the fact that the use of non-financial performance indicators in the wholesale sector as a whole is much less than the use of financial performance indicators, which have a longer tradition. Tables 11 and 12 show that information on customer satisfaction and market share is significantly more collected by non-family enterprises and enterprises led by external managers.

Table 11 : follow-up of ‘marketshare’ in family firms versus non-family firms and with owner-versus external managers

Mode of following up ‘market share’	Subdivision of wholesale SMEs				Total	Sign.
	n	%	n	%	N	%
	Family firm		Non-Family firm			
Written	22	46.8	14	73.7	36	4.7
Informal	25	53.2	5	26.3	30	
Total	47	100.0	19	100.0	66	
	Owner-manager		External manager			
Written	21	46.7	12	70.6	33	9.2
Informal	24	53.3	5	29.4	29	
Total	45	100.0	17	100.0	62	

Table 12: follow-up of ‘customer satisfaction’ in family firms versus non-family firms and with owner- versus external managers

Mode of following up ‘customer satisfaction’	Subdivision of wholesale SMEs				Total	Sign.
	n	%	n	%	N	%
	Family firm		Non-Family firm			
Written	15	29.4	10	55.6	25	4.7
Informal	36	70.6	8	44.4	44	
Total	51	100.0	18	100.0	69	
	Owner-manager		External manager			
Written	13	26.5	8	50.0	21	8.1
Informal	36	73.5	8	50.0	44	
Total	49	100.0	16	100.0	65	

The above results show that family firms rely less on formal control elements. According to Daily & Dollinger (1993) the fact that family-run firms rely to a lesser degree on the use of formal internal control systems may provide some evidence of the desire of the family to maintain personal control rather than relying on impersonal, formalized procedures to monitor employee behaviors and firm processes. While some of the reliance of the professionally managed firm on the use of internal control systems may be a function of the larger size of the firm, family-run firms clearly opt for other means of control.

4.1.4 the planning intensity and the family firm

In order to measure the planning intensity of a firm we have created a new variable measuring short-term planning practices and a new variable measuring long-term planning practices. Afterwards we have combined these elements into an overall planning ratio. If a company did not make use of any short-term plan or budget, then the short-term planning variable was assigned the value zero. If a company made use of all short-term budgets then it was assigned the value five. The same procedure was followed for the creation of the long-term planning intensity variable. In order to get an idea of the overall planning intensity of the firm a planning variable was created for which the minimum was zero (if the firm did not make use of any short-term budget nor any long-term plan) and the maximum value was ten. To test whether the planning intensity of non-family firms was higher a Mann Withney test was used. This test revealed indeed a significant difference between the mean rank of the two populations. The results show that short-term planning intensity, long-term planning intensity and overall planning intensity is significantly higher in non-family firms (table 13).

Table 13: planning intensity in family versus non-family firms

	Family Firm	Non-Family Firm	Sign.
	<i>Mean rank</i>	<i>Mean rank</i>	<i>%</i>
Short-term planning intensity	56.63	75.22	1.6%
Long-term planning intensity	56.42	76	1.0%
Overall planning intensity	55.06	81.18	0.1%

To test further this aspect of differences in the use of formal planning instruments between family businesses and non-family businesses we have run a logistic regression with as dependent variable: family business or non-family business (table 14). The independent variables were the size of the firm, the growth rate of the firm and the planning intensity. The regression was run three times. Each time with a different variable for planning intensity: short-term planning intensity, long-term planning intensity and overall planning intensity. The overall planning coefficient and long-term planning coefficient were significantly different for family and non-family firms. The coefficient of the short-term planning variable was not significant. This is not surprising. If we look at the significant differences obtained with regard to the individual short-term budgets, we find that only the cost budget and the liquidity budget are used in a significantly different way.

Table 14: Logistic regressions

Family = 0 / Non-Family = 1			
Constant Term	Size	Growth rate	Planning intensity
-1.402 8.8%	<i>Assets 98</i> 0.000 10.7%	<i>Two-year average sales growth</i> 1.272 28.7%	<i>Short term</i> 0.286 14.7%
-1.502 10.2%	<i>Assets 98</i> 0.000 20.1%	<i>Four-year average sales growth</i> 7.929 8.5%	<i>Short-term</i> 0.242 23.5%
-1.618 8.2%	<i>Five-year average assets</i> 0.000 30.7%	<i>Four-year average sales growth</i> 7.667 9.7%	<i>Short-term</i> 0.240 24.1%
2.379 0.000%	<i>Assets 98</i> 0.000 33.4%	<i>Four-year average asset growth</i> -0.023 81.3%	<i>Short-term</i> 0.401 1.8%
-1.599 2.1%	<i>Assets 98</i> 0.000 16.7%	<i>Two-year average sales growth</i> 0.770 56.8%	<i>Long term</i> 0.511 0.8%
-1.773 2.1%	<i>Assets 98</i> 0.000 26%	<i>Four-year average sales growth</i> 4.475 34.9%	<i>Long-term</i> 0.558 1.1%
-1.877 1.6%	<i>Five-year average assets</i> 0.000 34.7%	<i>Four-year average sales growth</i> 4.271 37.7%	<i>Long-term</i> 0.563 1.0%
-1.876 15.3%	<i>Assets 98</i> 0.000 45.7%	<i>Four-year average asset growth</i> -0.17 86%	<i>Long-term</i> 0.354 1.8%
	<i>Assets 98</i> 0.000 14.1%	<i>Two-year average sales growth</i> 1.077 39.2%	<i>Overall</i> 0.362 1.0%
-2.744 1.9%	<i>Assets 98</i> 0.000 23.7%	<i>Four-year average sales growth</i> 7.117 12.8%	<i>Overall</i> 0.382 1.8%
-2.873 1.0%	<i>Five-year average assets</i> 0.000 32.4%	<i>Four-year average sales growth</i> 6.889 14.3%	<i>Overall</i> 0.387 1.7%
-2.675 6.9%	<i>Assets 98</i> 0.000 38.7%	<i>Four-year average asset growth</i> -0.20 83.7%	<i>Overall</i> 0.302 0.3%

4.1.5 Evolution in the use of planning systems

In the survey a question was included whether there had been a change in the use of these planning instruments over the past five years. Consistent with intuition especially the small wholesale firms revealed that they have made changes to the planning of their sales and also

to the planning of their investments, especially if they had experienced growth over the past period.

Table 15: more use of planning instruments since 1991

Since 1991 the firm uses more:	Wholesale-MEs				wholesale-SEs				All respondents			
	n	N	%	Rank	n	N	%	Rank	n	N	%	Rank
Sales budget	7	51	13.7	1	16	69	23.1	1	23	120	19.2	1
Purchase budget	3	51	5.9	5	7	69	10.1	4	10	120	8.3	5
Cost budget (other than purchases)	4	51	7.8	3	12	69	17.4	3	16	120	13.3	3
Liquidity budget	5	51	9.8	2	7	69	10.1	4	12	120	10.0	4
Capital budget	4	51	7.8	3	15	69	21.7	2	19	120	15.8	2

N = the number of SMEs that answered the question about the specific factor

n = The number of SMEs that makes more use of the specific forecast or estimation

With regard to family aspects and manager characteristics no significant difference was found among these answers. In relation to the growth rhythm significant differences were found (table 16). Especially the fast-growing firms have planned their sales in a different way due to the growth of the firm.

Table 16: more use of a sales budget since 1991

	Subdivision wholesales-SMEs				Total	Sign.
	Fast-growing (perception)		Slow-growing (perception)			
More use of a sales budget since 1991	n	%	n	%	N	%
Yes	14	25.5	4	9.1	18	3.6
No	41	74.5	40	90.9	81	
Total	55	100.0	44	100.0	99	

This difference is even more significant if we focus on the small wholesale companies (table 17).

Table 17: more use of a sales budget since 1991

	Subdivision wholesales-SEs				Total	Sign.
	Fast-growing (perception)		Slow-growing (perception)			
More use of a sales budget since 1991	n	%	n	%	N	%
Yes	12	35.3	2	8.3	14	1.8
No	22	64.7	22	91.7	44	
Total	34	100.0	24	100.0	58	

Due to the low number of companies which had made changes, these changes are not further analyzed.

4.1.6 Perception of management accounting information as enablers for growth

As the main focus of the study was studying motives, enablers, disablers and consequences of growth in the wholesale sector, the survey contained a list of enablers for growth. In this paper we will focus on the enablers and consequences of growth in relation to management accounting systems.

Table 18: Ranking of growth-enabling factors

Factors that have (very) strongly contributed to sales growth	Wholesale MEs Gr. 1				Wholesale SEs Gr. 2				All respondents			
	n	N	%	R.	n	N	%	R.	n	N	%	R.
Availability of competent staff	46	66	69.7	1	42	67	62.7	2	88	133	66.2	1
Better quality compared to competitors	39	65	60.0	2	43	68	63.2	1	82	133	61.7	2
Quickly taking advantage of opportunities	36	65	55.4	3	35	72	48.6	4	71	137	51.8	3
Availability of funds through self-financing	31	67	46.3	6	35	68	51.5	3	66	135	48.9	4
New products to existing customers	36	67	53.7	4	30	72	41.7	8	66	139	47.5	5
Insight into product profitability	26	63	41.3	9	33	71	46.5	5	59	134	44.0	6
Entrepreneur acting from long-term view	27	66	41.0	10	31	68	45.6	6	58	134	43.3	7
Market niche dominance	31	65	47.7	5	28	72	38.9	9	59	137	43.1	8
New products to new customers	27	65	41.6	8	29	69	42.0	7	56	134	41.8	9
Existing products to new customers	31	67	46.3	6	22	72	30.6	14	53	139	38.1	10
Existing products to existing customers	25	66	37.9	11	26	70	37.1	11	51	136	37.5	11
Entrepreneur's willingness to delegate	22	65	33.8	12	23	68	33.8	13	45	133	33.8	12
Cost accounting	17	60	28.3	15	27	70	38.6	10	44	130	33.8	12
Favourable economic climate	20	65	30.8	13	24	69	34.8	12	44	134	32.8	14
Insight into customer profitability	14	62	22.6	19	21	71	29.6	17	35	133	26.3	15
Performance appraisal and control	16	58	27.6	16	16	66	24.2	18	32	124	25.8	16
Short-term formal planning	13	62	21.0	21	21	70	30.0	15	34	132	25.8	16
Banks grant credits	20	65	30.8	13	14	70	20.0	19	34	135	25.2	18
Long-term formal planning	12	63	19.0	22	20	67	29.9	16	32	130	24.6	19
Qualified personnel on job market	15	63	23.8	18	12	66	18.2	21	27	129	20.9	20
Entry of family members with new ideas	16	64	25.0	17	11	67	16.4	24	27	131	20.6	21
Export opportunities	12	55	21.8	20	11	62	17.7	22	23	117	19.7	22

N = number of SMEs which answered the question about that particular factor

n = number of SMEs which experienced that particular factor to have strongly or very strongly contributed

With regard to growth-enablers, we conducted an in-depth study of factors concerning the company's market environment, its marketing policy, its financial policy and planning, human potential, and general management. It is suggested in the literature that a sound financial policy and planning is an important element for growth. Growth could be established through the introduction and profound use of advanced systems for information, planning, and control (Churchill & Lewis, 1983; Maynard, 1997).

In order to investigate this proposition the questionnaire listed several items of the management accounting system of the firm, namely the planning system, the cost accounting system and the management control system. Table 18 ranks the perceptions of the responding firms with regard to all the enablers for growth included in the questionnaire. Based on the answers (25 to 33 % of the respondents) it is clear that respondents did not abundantly support the literature suggestion about the importance of systems for information, planning and control as important contributors to growth.

We will focus now on the perception of these enablers related to the management accounting information system of the company (adequate information on product profitability, a sound cost accounting system, the existence of formal short-term planning, the existence of formal long-term planning and an existing performance measurement system) within the different subgroups. The only significant difference found with regard to these management accounting elements if companies were classified according to growth rate was the availability of product cost information (table 19). Fast-growing companies perceive the available product costing information more as an enabler for growth than slow-growing companies (significance level 1,6%, data included in table 19). With regard to the family characteristic of the firm more significant differences were found. Information on product costing is perceived as more important for enabling growth by non-family enterprises (table 19). The significance is even stronger if we focus on the manager variable. The same significance emerges with the usefulness of information on product profitability (table 20).

Table 19 : Importance of ‘product costing information’ as a contributor to sales growth

	Subdivision of wholesale-SMEs				Total	Sign
	Family firm		Non-family firm		N	%
‘product costing information’	n	%	n	%		
	Family firm		Non-family firm			
Not important	73	70.2	13	50.0	86	
Important	31	29.8	13	50.0	44	5.2
Total	104	100.0	26	100.0	130	
	Owner-manager		External manager			
Not important	70	70.0	13	48.1	83	
Important	30	30.0	14	51.9	44	3.4
Total	100	100.0	27	100.0	127	
	Fast-growing		Slow-growing			
Not important	41	56.9	44	77.2	85	
Important	31	43.1	13	22.8	44	1.6
total	72	100.0	57	100.0	129	

Table 20: Importance of ‘product profitability information’ as a contributor to sales growth

	Subdivision of wholesale-SMEs				Total	Sign
	Family firm		Non-family firm		N	%
‘product profitability information’	n	%	n	%		
Not important	65	60.2	10	38.5	75	
Important	43	39.8	16	61.5	59	4.5
Total	108	100.0	26	100.0	134	

The perception on the usefulness of a performance measurement system as a contributor to sales growth is not significantly different between family firms and non-family firms. Neither between firms led by an owner-manager or by an external manager.

With regard to short-term formal planning systems and long-term planning systems in family versus non-family firms the following results catch the eye (table 21). Although there is no significant difference at the 5% level between family firms and non-family firms, there is a significant difference with regard to these planning systems as sales growth contributors if we consider the generations active in the family businesses (tables 22 and 23). It seems that the first generation is more aware of the usefulness of planning than the later generations. It seems that at the start-up phase planning is perceived as more useful than later on in the life of the company. If we focus on the difference between owner-managers and external managers, we see that external managers recognize short-term formal planning systems significantly more important as contributors to sales growth than owner-managers (table 21).

Table 21 : Importance of 'a short-term formal planning system' as a contributor to sales growth

	Subdivision of wholesale-SMEs				Total	Sign
	n	%	n	%	N	%
	Family firm		Non-family firm			
Not important	83	77.6	15	60.0	98	
Important	24	22.4	10	40.0	34	7.0
Total	107	100.0	25	100.0	132	
	Owner-manager		External manager			
Not important	82	79.6	14	51.9	96	
Important	21	20.4	13	48.1	34	0.3
Total	103	100.0	27	100.0	130	

Table 22 : importance of 'a short-term formal planning system' as a contributor to sales growth

	Subdivision of wholesale-SMEs into 3 groups						total	Sign
	Max. 1 st generation (generation 1)		Max. 2 nd generation (generations 2, 1+2)		Max. 3 th or higher generation (generations 3, 2+3, higher)			%
'short-term formal planning'	n	%	n	%	n	%	N	
Not important	16	55.2	32	78.0	41	82.0	89	
Important	13	44.8	9	22.0	9	18.0	31	2.5
Total	29	100.0	41	100.0	50	100.0	120	

Table 23 : Importance of 'long-term formal planning' as a contributor to sales growth

	Subdivision of wholesale-SMEs into three groups						Total	Sign.
	Max. 1 st generation (generation 1)		Max. 2 nd generation (generations 2, 1+2)		Max. 3 th or higher generation (generations 3, 2+3, higher)			
'long-term formal planning'	n	%	n	%	n	%	N	%
Not important	16	57.1	33	80.5	39	79.6	88	
Important	12	42.9	8	19.5	10	20.4	30	5.2
Total	28	100.0	41	100.0	49	100.0	118	

The above results confirm the outcome of prior research. Westhead also found (1997) that significantly more non-family companies had used formalized management information systems to support their decision-making (Westhead, 1997).

4.1.7 Development of management accounting systems as a consequence of growth

Wholesale-SMEs that had experienced sales growth in the given period, were asked to indicate the consequences of this growth. Table 24 reveals immediately that planning is more seen as a consequence of growth than as an enabler for growth.

Table 24: Ranking of consequences of sales growth

'Consequences of sales growth'	Wholesale MEs Gr. 1				Wholesale SEs Gr. 2				All respondents			
	n	N	%	R.	n	N	%	R.	n	N	%	R.
Delegation to staff	31	64	48.4	1	33	73	45.2	2	64	137	46.7	1
Further development of long-term formal planning system	26	64	40.6	2	35	73	47.9	1	61	137	44.5	2
Further development of cost accounting system	21	64	32.8	5	33	73	45.2	2	54	137	39.4	3
Further development of short-term formal planning system	23	64	35.9	4	28	73	38.4	4	51	137	37.2	4
Export opportunities	24	64	37.5	3	21	73	28.8	9	45	137	32.8	5
Insight in customer profitability	16	64	25.0	7	28	73	38.4	4	44	137	32.1	6
More competitor analysis	17	64	26.6	6	24	73	32.9	7	41	137	29.9	7
Cooperation with companies	15	64	23.4	8	26	73	35.6	6	41	137	29.9	7
Further development of system for performance appraisal and control	14	64	21.9	9	22	73	30.1	8	36	137	26.3	9
Further development of system for calculation of customer profitability	10	64	15.6	10	20	73	27.4	10	30	137	21.9	10
Cooperation with organisations	5	64	7.8	11	5	73	6.8	11	10	137	7.3	11

The further development of planning systems ranks among the top in the list of consequences. Analyzing whether or not family firms experience these consequences differently we found the following significant differences (table 25).

Table 25 : consequences of sales growth in family firms versus non-family firms

	Family firm %	Non-family firm %	Sign. %
Further development of a short-term formal planning system	30.9 MEs	66.7 MEs	3.8
More competitor analysis	25.2 SMEs	50.0 SMEs	1.3
	21.8 MEs	55.6 MEs	3.4
Further development of a system for customer profitability calculation	18.9 SMEs	34.6 SMEs	8.2

We notice that there is no difference in perception with regard to long-term planning.

Focusing on the manager characteristics in table 26, more significant differences emerge, but still no significant difference with regard to long-term planning.

Table 26: consequences of sales growth with owner-managers versus external managers

	Owner-manager %	External manager %	Sign. %
Further development of a short-term formal planning system	30.8 MEs	70.0 MEs	1.9
More competitor analysis	25.0 SMEs	46.2 SMEs	3.3
Coöperation with other firms	26.9 SMEs	46.2 SMEs	5.5
	19.2 MEs	50.0 MEs	3.7
Further development of a system for customer profitability calculation	18.5 SMEs	34.6 SMEs	7.4
	11.5 MEs	40.0 MEs	2.5

Table 27 reveals that fast-growing firms do significantly more perceive further development of short and long-term planning systems as a consequence of growth.

Table 27: consequences of sales growth in fast-growing versus slow-growing firms

	Fast-growing %	Slow-growing %	Sign. %
Further development of a long-term formal planning system	51.4 SMEs	36.1 SMEs	7.5
	59.0 SEs	33.3 SEs	3.0
Further development of a short-term formal planning system	44.6 SMEs	27.9 SMEs	4.5
	48.7 SEs	24.2 SEs	3.3

4.2 Do firms which make more use of formal management accounting systems perform better?

We have studied the relationship between planning and performance from different angles. The performance of a firm was measured by several financial ratios calculated on the basis of the annual accounts of the companies. At the time of the analysis we had the annual reports of all companies available for the financial years 1994 -1998. The following financial performance indicators were calculated: Return on Assets (ROA), Return on Equity (ROE), Return on Sales (ROS), four-year average growth rate and two-year average growth rate of sales and assets and the five-year average of the ratios ROS, ROA and ROE. With the use of Mann Withney and Kruskal Wallis tests we have analyzed whether or not there are significant differences in performance with regard to the growth rate of the firm, the family aspect and with regard to the use of formal long-term and short-term planning elements.

4.2.1 performance of growth firms

The level of sales growth seems to have an impact on the financial performance of a company. If we consider the whole group of wholesale companies the Kruskal Wallis test (table 27) reveals significant differences at the 5% level for the following indicators: ROS 94-96, ROA 94-96, ROE 94,95, 96 and 98, the five-year average ROS, the five-year average ROA and the five-year average ROE. All these performance measures are significantly lower for non-growing firms, than for slow- and fast-growing firms. Slow - and fast growing firms mutually reveal no significant differences in relation to these performance measures, except for the ROE 98, which is significantly higher for fast-growing firms than for slow-growing firms (Mann Withney test).

So fast- and slow-growing firms have better profitability ratios than non-growing firms. We did not analyse liquidity and solvency differences between these groups of firms.

Table 27: Performance in fast-, slow- versus non-growing firms

Performance indicator	Sales growth rate ('91-'96)			Sign. %
	Fast-growing Mean rank	Slow-growing Mean rank	Non-growing Mean rank	
ROS 96	42.12	45.60	21.46	0.5%
ROS 95	41.99	44.41	19.08	0.2%
ROS 94	41.61	42.23	22.08	0.13 %
ROA 96	44.97	44.30	27.33	3.9 %
ROA 95	44.93	45.17	23.23	0.5 %
ROA 94	43.76	41.98	21.14	0.4 %
ROE 98	47.14	38.78	28.43	2.9 %
ROE 96	46.03	41.93	25.71	2.2 %
ROE 95	47.24	40.27	23.68	0.6 %
ROE 94	44.97	41.30	19.46	0.1 %
Five-year average ROS	39.24	40.15	15.00	0.1 %
Five-year average ROA	42.84	40.91	23.14	1.5 %
Five-year average ROE	43.82	37.57	21.31	0.6 %

4.2.2. performance of family firms

If we run the Mann Whitney test on performance differences between family and non-family firms (table 28) we do not find many significant differences. Further it is interesting to see that the direction of the differences changes. The ROA 94, the ROS 94 and 95, the five-year average ROS and the ROE 94 are significantly higher for family businesses. For the following years however we notice a significant higher ROE 97, ROE 98 and five-year average ROE for non-family firms.

Table 28: performance in family versus non-family firms

Performance indicator	Family firms	Non-family firms	Sign.
	<i>Mean rank</i>	<i>Mean rank</i>	<i>%</i>
ROA 94	86.68	62.84	4.0 %
ROE 98	81.57	96.94	1.8 %
ROE 97	81.52	99.89	3.7 %
ROE 94	83.45	73.26	5.9 %
ROS 95	60.17	45.25	7.8 %
ROS 94	60.93	41.10	0.5 %
Five-year average ROS	47.11	37.72	6.5 %
Five-year average ROE	81.14	96.55	1.1 %

If we focus on medium-sized wholesale companies only (table 29), the few significant differences which are found, are in favour of the family businesses (ROS 94, ROA 94, ROE 94 at the 5% level and ROS 95 and ROA 95 at the 10% level).

Table 29: performance in medium-sized family versus non-family firms

Performance indicators	Family firms	Non-family firms	Sign.
	<i>Mean rank</i>	<i>Mean rank</i>	<i>%</i>
ROS 95	40.54	29.46	9 %
ROS 94	40.83	26.67	2.4 %
ROA 95	43.55	32.33	9.9 %
ROA 94	42.08	28.67	3.9 %
ROE 94	42.81	25.60	0.8 %

However, if we concentrate on the small wholesale companies (table 30), the significant differences are in favor of the non-family enterprises and they relate to the period following the survey period (ROE 96 and five-year average of ROE at the 5% level and ROE 97 and 98 at the 10% level).

Table 30: performance in small family versus non-family firms

Performance indicators	Family firms	Non-family firms	Sign.
	<i>Mean rank</i>	<i>Mean rank</i>	<i>%</i>
ROE 98	41.48	53.67	6.8 %
ROE 97	41.43	53.86	6.3 %
ROE 96	40.57	55.38	2.8 %
Five-year average ROE	39.85	53.78	4.0 %

4.2.3 performance and the use of planning methods

In the literature the results of prior empirical research have been mixed. In order to analyze the relation for our population we have started this analysis by running Mann Whitney tests for each single planning instrument and the relation with performance. The performance of the firm was calculated using the different ratios. Only those planning instruments for which the use was significantly different among the subpopulations were used in this analysis. This means that we did not look for significant differences in performance between firms using a sales budget and firms not using a sales budget, because the majority of wholesale companies made use of a sales budget.

4.2.3.1 Short-term planning instruments

For those short-term planning instruments for which there was a significant difference in use the results are presented in table 31. Only the significantly different results, their direction and the financial year in which this significant difference occurred, are listed below.

Table 31: performance in relation to the use of short-term planning instruments

Performance indicators	Use of short-term planning instruments		Sign. %
	Mean rank	Mean rank	
	Purchase budget		
	<i>yes</i>	<i>no</i>	
Sales 95	41.71	33.06	8.4 %
ROS 98	30.99	39.22	8.9 %
ROS 96	33.65	42.29	8.6 %
ROA 98	53.29	65.30	5.7 %
ROA 94	50.47	63.19	3.9 %
Five-year average ROA	50.76	61.84	7.1 %
	Cost Budget		
	<i>yes</i>	<i>no</i>	
Sales 95	41.64	31.43	4.5 %
	Liquidity budget		
	<i>yes</i>	<i>no</i>	
Two-year average asset growth	66.9	55.56	8.6 %
	Capital budget		
	<i>yes</i>	<i>No</i>	
ROA 95	54.01	67.27	4.1 %
ROA 94	52.27	65.30	4.2 %
Five-year average ROA	52.67	63.39	9.4 %

- *the use of a purchase budget*

The firms which used a purchase budget obtained a significantly higher sales in 1995, but a lower ROS in 1996, a lower ROA in 1994 and 1998 and a lower five-year average ROA.

- *the use of a cost budget (except for purchases)*

Those firms who use a cost budget had a higher sales figure in 1995.

- *the use of a liquidity budget*

The firms who make use of a liquidity budget revealed a significantly higher growth of the assets during the period 1996- 1998.

- *the use of the capital budget*

ROA 1994, 1995 and the five-year average ROA is significantly lower for those firms who use a capital budget.

4.2.3.2. Long-term planning instruments

Table 32: performance in relation to the use of long-term planning instruments

Performance indicators	Use of long-term planning instruments		Sign. %
	Mean rank	Mean rank	
	Sales plan		
	<i>yes</i>	<i>no</i>	
ROE 96	66.92	53.85	4 %
	Purchase plan		
	<i>yes</i>	<i>No</i>	
ROE 94	44.37	58.40	8.4 %
	Expenditure plan		
	<i>yes</i>	<i>no</i>	
Sales 96	31.04	41.00	5.7 %
ROS 97	45.31	32.09	1.2 %
ROS 96	46.62	32.56	0.7 %
ROE 96	67.18	55.85	9.3 %
Five-year average ROS	34.4	24.08	2.8 %
	Capital investment plan		
	<i>yes</i>	<i>no</i>	
Sales 96	34.36	42.96	9.8 %
ROS 97	39.84	30.93	8 %

- *long-term sales plan*

The ROE in 1996 is significantly higher for those firms who prepare a sales plan.

- *long-term purchase plan*

The ROE in 1994 is significantly lower for firms who plan purchases.

- *long-term expenditure plan*

ROS in 1996 and 1997, ROE in 1996 and the five-year average ROS are significantly higher, but turnover in 1996 is significantly lower for the cost planners.

- *long-term capital investment plan*

Firms who prepare a capital investment plan have a higher ROS 1997, but a lower turnover in 1996.

4.2.3.3 Planning intensity

Table 33: performance in relation to planning intensity

Performance indicators	Lower than median planning intensity	Median planning intensity	Higher than median planning intensity	Sign
	<i>Mean rank</i>	<i>Mean rank</i>	<i>Mean rank</i>	<i>%</i>
	Short-term planning intensity			
Four year average sales growth	12.57	11.75	5.60	9.8
	Overall planning intensity			
Two year average assets growth	49.94	59.13	65.59	9.8

The above results are mixed and provide no evidence for a positive relation between planning and performance. The results are not consistent over the years and the significance does not always occur with the same performance measurement indicator. These results learn us that more analysis into this area is needed before further conclusions can be reached.

Conclusion

Three research questions dominated this paper. First of all there was the question whether or not non-family firms made more use of management accounting information systems. This hypothesis was tested in several ways. The results of the different statistical tests show that non-family firms indeed make more use of formal planning and control systems. The data reveal further that non-family firms recognize significantly more the usefulness of management accounting information elements (like cost information, profitability of customers, competitor analysis,...) than family firms. These elements were significantly more cited in non-family firms as enablers of growth. Further elaboration of formal long-term planning systems, short-term planning systems and cost information systems were seen as the most important consequences of growth together with delegation to employees. These consequences were significantly more experienced by non-family firms than by family firms.

For the second research question we focus on the difference between owner-managers and external managers with respect to the use of formal planning and control methods. Here we find that firms with external managers make significantly more use of formal management accounting instruments.

The third research item, namely the relationship between planning and performance, did not generate straightforward empirical results. The first results obtained were mixed. We did however observe a significant positive influence of sales growth on the performance of the firms.

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