

**MANAGEMENT TRAINING, STRATEGIC PLANNING EFFECTIVENESS
AND THE GROWTH OF START-UPS AND EARLY GROWTH FIRMS**

WORKING PAPER FORUM

Gent, 18 april 2002

Tom SCHAMP, Dirk DESCHOOLMEESTER and Stijn GRYMONPRÉ

Department of Management and Organization
Faculty of Economics and Business Administration
Ghent University (Belgium)

Tel.: +32/09264.34.96

Fax: +32/09264.78.88

e-mail: tom.schamp@rug.ac.be
dirk.deschoolmeester@rug.ac.be

ABSTRACT

This article focuses on strategic planning as a fundamental constituent of strategic management and the survival and growth of two groups of start-ups and early growth firms in Flanders (Belgium): firstly, a test group of business-owners that have taken part of one of the most successful management training programs for starters and early growth firms in Flanders (called *ADEPT*), and, secondly, a randomly selected and matched control group of SME-start-ups and early growth firms on the basis of start-up year (period 1987-1996), age, size, industry, and location (referred to as *NOVICE*). In line with earlier findings demonstrating rather significant correlations between the strategic importance attached to management training and the clusters of entrepreneurship and management traits that sustain strategic planning effectiveness for ADEPT (see also: Schamp & Deschoolmeester, 1998a, 1998b, 2001), this reassessment paper gives a more thorough appraisal of the importance of three underlying strategic planning effectiveness attributes, namely *strategic targeting*, *strategic planning correctness*, and *strategic planning accuracy*. Contrary to strategic targeting, strategic planning correctness and strategic planning accuracy are found to be notably explanatory for the growth established by many management trained start-ups and early growth firms. There is greater evidence for the impact of strategic correctness and strategic accuracy on firm growth for ADEPT than for NOVICE.

Keywords: start-ups & early growth firms, strategic planning, firm performance, anagement training, entrepreneurial characteristics and management techniques

INTRODUCTION: CONTEXT, CONSTRUCTS AND PROPOSITIONS

AIMS AND SCOPE

Celebrating almost fifteen years of management education, training and counseling for Flemish start-ups and (very) early growth firms (being operational not longer than 4 years) at the Vlerick Leuven Gent Management School, the need was felt to conduct for the first time ever *a profound follow-up study* on the post-management training survival, growth and general management of the alumni are called "ADEPT".¹ Being aware of the generally assumed impact of management training -more particularly the impact of the business planning training- and networking on the starters' management behavior, we expected ADEPT to clearly disclose different levels of post-training business planning effectiveness and, therefore, survival and business growth rates compared to a control group of starters that had not followed any comparable form of training, hereafter called "NOVICE".

In line with the general belief that "entrepreneurs are not born, they develop" (Hisrich & Peters, 1998(1989), pp. 12), the starting-point for this research for this reason was a vague assumption about the potential beneficial contribution of management education and training on the starter's and early growth firm's business-owners' management behavior, more specifically their strategic planning aptitudes and ultimately the business life cycle of business start-ups.

To begin with, this paper aims to develop further the thoughts on the strategic planning behavior among starters and owner-managers of early growth firms as well as on the level of their strategic well-planning, the scope and structuredness, the groundwork version of which has been edited and adopted in Brockhaus e.a. *Entrepreneurship Education - A global view* (see: Schamp & Deschoolmeester, 2001). For this purpose an extensive review of the preceding research on the subject is presented (see: PRECEDING RESEARCH).

Secondly this paper presents and discusses more recent research conclusions on the link between strategic planning effectiveness and the survival and growth of start-ups and early growth firms. The latter is based to a large extent on an examination of three pivotal strategic management qualities, namely [1] *strategic targeting*, [2] *strategic planning correctness*, and [3] *strategic planning accuracy*. (see: STRATEGIC PLANNING EFFECTIVENESS AND FIRM PERFORMANCE)

PRECEDING RESEARCH

Methodology

Preceding research in the period 1996-1997 on the influence of management training on the management behavior of starters and business-owners of early growth firms was done among a test group of 114 ADEPT (response rate: 49 percent) and a control group of 112 NOVICE (response rate of 11 percent). All privately independent and owner-managed NOVICE were selected randomly out of a database of 1000 start-ups and SMEs, based on the following matching criteria: age, industry, size (annual sales

¹ The SME-Department of the Vlerick Leuven Gent Management School (formerly known as the Vlerick School of Management (Ghent University, Belgium)) has up to date over 15 years experience in organising management training and counselling for starting SME-businessmen or business-owners. Following programs for small business starters were organized on a pseudo-continuous base during the 1987-1998 period: "(Pre-)Starters Program", "SME-Challenge Program", " Women and Entrepreneurship" and "SME-Excellence".

turnover and number of employees), and location (= NOVICE or the control group). Subsequently, in brief, Dillman's *Total Design Method* was followed combining data bank research, telephonic interviews, and direct mailing of questionnaires (Dillman, 1978).² A personalized questionnaire³ was mailed to all ADEPT and all NOVICE. Both groups were rather equally distributed considering the basic indices and therefore comparable for further research and statistical difference analysis⁴ (Schamp & Deschoolmeester, 2001).

Apart from ADEPT-specific questions dealing with the content, relevance, impact, timing and practical use of the management training, the questionnaire was kept the same for both the test and the control group. Embedded in the concepts of the *guidelines* for the exploration of entrepreneurship, entrepreneurial and managerial processes and new-firm performance (Cooper & Gascon, 1992), the questionnaire was divided into three parts. Therefore, the *first part* of the questionnaire dealt with the personal history and present motivational and economical situation/status of the small business-owner and the evolution of the firm's activities (employment and sales turnover). Starters that are motivated to enroll for one or more management training programs share, gain and test each other's expertise, management skills, knowledge and techniques that might eventually lead to better individual performance. Therefore, apart from some typical follow-up questions about the pure economic and financial status of the "Vlerick"-alumni, the business life cycle or fiscal diversification, also "general management issues", "decision-making at the firm level" and "the firm's management processes", especially concerning 'strategic planning' were included. The *second part* of the questionnaire dealt with the importance that businessmen attached to the management education and training (positive and negative experiences, the practical use and applicability of their business plan, etc.) *Part three* of the questionnaire checked upon the starter's attitude towards business planning and the strategic importance attached to another 28 entrepreneurial characteristics and managerial techniques [EC+MT], for example personal, psychological, general and strategic management and a broad range of entrepreneurial issues. Answers were to be formulated by crossing, (nominal and ordinal) scaling, or by commenting writing out.

Who is who?

Venturing in Flanders (Belgium)

Prior to the analysis of the test and control group start-up profiles, a picture of the entrepreneurial activity (in essence the amount of nascent firms and new firms) and the start-up condition in Flanders (Belgium) is essential. Firstly, "in Belgium one out of every 70 adults is currently starting a business. This compares with one in ten in the United States (US), about one in 80 in France, and one in 100 in Ireland or Japan" (Manigart, Clarysse, Crijns, & Goossens, 2000), pp. 7). Flanders in particular has a very low nascent firm prevalence rate: only 0,8 percent of all Flemish adults tries to set

² At first the research group received 73 complete copies of the questionnaire and took the initiative to do another mailing to all remaining non-respondents backed up by a broad telephonic audit. And another 45 questionnaires were returned in time. This operation totaled a very high response rate compared to other SME follow-up studies and surveys. Four questionnaires were excluded from statistical analysis.

³ The questionnaire was based upon a six fold series of interviews with SME-businessmen in order to select and include the utmost plausible and statistical useful topics questions and answering possibilities.

⁴ This is with the exception of a rather unequal distribution for the annual staffing and sales turnover of the spread within the control group over the ten years selection period, containing older start-ups than the test group. (Both elements will be linked to explain higher mean values for the annual staffing and turnover as are presented in table 2.A and table 2.B, see further)

up a new firm compared to almost 10% in the US and over 2 percent in Europe. Also the new firm prevalence rate (start-ups less than 4 years old) in Flanders is lower than all other GEM-countries, except for Japan and Ireland⁵: only 0,7 percent of all adults own and operate a new or young firm. Consistent with the previous findings, the total entrepreneurial activity rate is very low in Flanders (1,4%) only preceding Ireland. This means that only 1,4 percent of all Flemish adults are involved in some kind of entrepreneurial activity, either trying to set up his or her own business or currently running a newly started business. Secondly, overall, men are twice as likely as women to be involved in entrepreneurial activities. Thirdly, Flemish adults are more pessimistic about the future than most European countries, not believing there will be good opportunities for new businesses at the beginning of the new millennium. Fourth, in Belgium entrepreneurship education is considered insufficient at all levels of the education system, and lacks completely at most. Most education is not practice oriented or experience based and not enough attention is given to enhance creativity. In general educating people for self-employment is only slowly being given priority. In contrast, however, many initiatives are focused on SME management and training. The training programs for pre-starters and starters at the Vlerick School for Management is one of the most appreciated in Belgium.

Starters' start-up age

The start-up age is to a large extent determined by the level of education and of entrepreneurial pre-start-up experience (see further). Although higher educated, "*Vlerick*"-starters are significantly younger than NOVICE. About 70 percent of the test group is between 21 and 40 years old (58 percent is in its thirties), the average start-up age being only 30 years. The latter is regarded as a milestone age at which individuals are more inclined to start an entrepreneurial career (Hisrich & Peters, 1998(1989)) and in general in Flanders (Belgium) the entrepreneurial activity peaks among those aged 25-34 (Manigart et al., 2000)⁶. The rather low Vlerick-start-up age can be partly explained by the fact that most of the management programs for SME-business-owners is exclusively accessible for starting businessmen that are under 35 years old having a business-owning experience of four years at maximum (these are SME-Challenge (formerly Starters-program) and Women and Entrepreneurship; see footnote 3). Although an average has little meaning, earlier starts in an entrepreneurial career are better than later ones (Hisrich & Peters, 1998(1989), pp. 72). The on average younger Vlerick-starter's age is to great extent also due to its younger start-up age. Other plausible explanations for the on average lower ADEPT age might lay in the core concept and public image of management training programs as they are organized at the Vlerick Leuven Gent Management School and the *motivation, need and proper timing* to follow such management training programs. Elements such as the program attractiveness, timing and motivation referring to the endeavor, effort and hard working in order to produce a highly conceptual, complete and formal business plan of strategic value clearly drops the average enrollment age way below 40. In 1997 not even 3percent of the Vlerick-small business-owners was over 50 years old, which is very little compared to the 23percent fraction for all NOVICE (see Table 1 for all further specifications on the profile dimensions).

⁵ The GEM study included facts and figures on the US, Italy, Finland, UK, Sweden, Denmark, Germany, Spain, Belgium, France, Japan, and Ireland.

⁶ Worldwide, most entrepreneurs initiate their entrepreneurial careers between 22 and 45 and the average start-up age is 36 years old.

Pre-start-up education

Based on the results of the General Entrepreneurship Monitor 2000, "[...] the higher the level of educational attainment, as measured by the percentage of the eligible population enrolled at high school or taking post secondary education, the higher the level of entrepreneurial activity. [In general, however,] the level of entrepreneurial activity in Flanders (Belgium), drops significantly at the university level and Flemish entrepreneurs are most likely to have at most three years of post-secondary education, rather than a four-year university degree" (Manigart et al., 2000), pp.49). Moreover, the further the student progresses in his/her study, the lower the degree to which university students are attracted to the idea of becoming an independent business-owner: 28,2 percent of all first year students are attracted to the idea of starting up a business after they finished university studies versus 18,8 percent after attaining the bachelor level and 12,5 percent in the last year of study (Deschoolmeester, Braet, & Schamp, 2002). Overall, only 7 percent of the students leaving school think of starting up their own company within the next three years (against 19 percent in the US) (Manigart et al., 2000). ADEPT are pro rata *significantly higher educated* than NOVICE. Moreover, the biggest difference concerns the highest degree ever took: nearly half of the ADEPT have graduated from university (of which 10 percent even with a post-graduate degree), respectively 25 percent (of which six percent post-graduate diplomas) for NOVICE. This can be explained partly due to the fact that the management training programs under consideration here are organized on a post-experience level, however within the framework of the Vlerick School of Management which has ever since its conception been closely tied to the Ghent University. Also one-third of the Vlerick-alumni has an equivalent degree but outside university, again slightly more than NOVICE. These results seem to agree with the thesis that a formal education is not necessary for starting a business, however, it does provide a good background (Hisrich & Peters, 1998(1989); Van Clouse, 1990).

Personal values and objectives as pre-start-up motivations

Nevertheless the amount of studies indicating that personal values and beliefs are important for entrepreneurs, such studies have frequently failed to indicate that entrepreneurs can be differentiated on these elements from managers, for example effective leadership, creativity, veracity, resource seeking, aggression etc. Differences in the attitudinal settings are noted however concerning the nature of the management process and the business in general. Among NOVICE, the nature of the enterprise, the opportunism as well as the individuality of the entrepreneur vary significantly from the bureaucratic organization and the planning, rationality, and predictability of its managers (Hisrich & Peters, 1998(1989)). *(Pre-)start-up values, objectives and motivations* will of course be linked to the already discussed pre-start-up age, the level of education in order to complete theories of entrepreneurship and venture creation. In these the decision to behave entrepreneurial as a result of the *interaction of several factors* has been repeatedly underlined: personal characteristics, the relevant business context or environment, the availability of business idea(s) and the personal goal setting (Hisrich & Peters, 1998(1989)). Examining why people start a business and how they differ from those that do not is therefore useful for getting to understand the "motivation" that entrepreneurs exhibit during the (pre-)start-up phase as a possible explanatory fertile ground for an even wider range of entrepreneurial characteristics and management traits which are exhibited later during the entrepreneur's life (Kuratko, 1995). Hisrich and Peters (1998) stated that although the motivations for venturing out alone vary greatly, the reason cited the most frequently for becoming an

entrepreneur is *independence*, the desire to be one's own boss. Money and opportunity are the second and third reasons for starting a business for men, compared to job satisfaction and achievement for women. Money is a far less important driver for most women. Other triggers are the work and family situation as well as the role model of the entrepreneur. In order to get an overview of the reasons why somebody launches a business, a selection of sixteen pre-start-up motivations were tested. The respondents had the possibility to mark three preferences in their order of importance: a first in rank and most important preference, a second and a third in rank pre-start-up motivation (read: reason for the start-up). Overall, *'the challenge to become an entrepreneur'* and *'the challenge to become independent'* are the number one and two motivations for starting up a privately owned enterprise (more than 13 percent), both within the test and the control group. At the level of the third foremost important motivation, cited were *'the presence of an opportunity'* for the group of ADEPT (about 11 percent first choice and 14 percent second choice) and *'the entrepreneurial parental role model'* or the parental peer pressure for NOVICE (respectively 13 percent and 10 percent). Other significant differences between both groups concern the respectively fourth, fifth and sixth choice: for example *'not longer willing to work for a boss'*, and *'the belief in the quality of one's product'*. Less chosen and therefore less determining motivations for start-up are *'the start-up is a logical consequence of my studies'*, *'the already high participation in this firm'*, *'unemployment or joblessness at that time'*, *'family reasons played (mainly due to inheritance)'*, *'the wish of doing something else'*, *'liking to work hard'*, *'to earn lots of money'*, *'to become rich'*, and *'the personal status of an entrepreneur'*.⁷

⁷ Although 'to earn lots of money' did not count high for the first and second choice, it has (surprisingly enough) got the second highest rating as a third choice (behind 'the challenge to become independent'), respectively 10,71 for ADEPT and 14,29% for NOVICE.

Table 1
The pre-start-up business-owners' profile (in percentage of total counts, missing values not inclusive)

<i>PRE-START-UP CHARACTERISTICS & TRAITS (PROFILE)</i>		"VLERICK"-STARTERS							NOVICE								
		21-30 years		31-40 years		41-50 years		>50 years		21-30 years		31-40 years		41-50 years		>50 years	
Age (N = 112 for both) T-test: p = .000		11,60		58,03		27,67		2,67		4,46		32,14		40,18		23,21	
		1	2	3	4	5	6	7	1	2	3	4	5	6	7		
Education* (N = 112 for both) T-test: p = .000		0,89	1,78	16,06	33,03	36,6	10,71	0,89	3,57	13,39	29,46	30,36	16,96	6,25	-		
		entrepreneurial parents				not entrepreneurial			entrepreneurial parents				not entrepreneurial				
Entrepreneurial parental role model (N = 114 and 112) χ -test: p = .05429		53,98				46,02			68,75				31,25				
		0 years	1-5 y	6-10 y	11-15 y	16-20 y	>20 y	0 years	1-5 y	6-10 y	11-15 y	16-20 y	>20 y				
In-sector experience (N = 61 and 111) T-test: p = .045		42,85	34,21	12,28	4,38	2,63	0,87	43,75	25,00	17,85	5,35	0,89	4,37				
Outer-sector experience (N = 52 and 109) T-test: p = .015		52,67	23,68	14,03	5,26	1,75	0,87	67,86	12,50	5,35	6,25	5,35	1,78				
		management or leading function		supporting function or staff		no experience			management or leading function		supporting function or staff		no experience				
Experience and expertise gained		19,29		34,21		42,98			13,39		41,07		43,75				
<i>In-sector</i> (N = 110 and 111) T-test: p = .694		13,15		34,21		52,63			11,60		19,64		67,85				
<i>Outer-sector</i> (N = 112 and 111) T-test: p = .03		1	2	3	4	5	6	7	1	2	3	4	5	6	7		
Motivation*		14,28	12,50	10,71	10,71	10,71	2,67	7,14	20,54	10,71	13,39	4,46	2,68	13,39	3,57		
* <i>firstly</i> (N = 110 and 112) ^o		4,46	17,85	14,28	5,35	5,35	4,46	0,00	7,14	15,18	6,25	5,37	3,57	9,82	1,79		
* <i>secondly</i> (N = 91 and 95) ^{oo}		5,35	13,39	2,67	6,25	8,92	5,35	2,67	3,57	15,18	2,68	4,46	4,46	5,36	1,79		
* <i>thirdly</i> (N = 90 and 96) ^{ooo}																	

*Educational levels: 1 = primary school; 2 = lower secondary school; 3 = higher secondary school; 4 = higher education outside university; 5 = university; 6 = post-university; 7 = other (for example abroad);

**Motivations for start-up: 1 = the challenge to become independent; 2 = the challenge of becoming an entrepreneur; 3 = the presence of an opportunity; 4 = not longer willing to work for a boss; 5 = belief in product quality; 6 = parental role model; 7 = other reasons. ^oT-test: p = .033; ^{oo}T-test: p = .408; ^{ooo}T-test: p = .809.

Entrepreneurial parental role model

Specific research topics concerning the family environment of the entrepreneur include a.o. birth order, relationship with parents, and social status. Relations between these factors and (successful) entrepreneurship seemed however not conclusive. In terms of the occupation of the entrepreneur's parents, there is, however, strong evidence that entrepreneurs tend to have self-employed or entrepreneurial parents (Hisrich & Peters, 1998(1989)). Research done by Deschoolmeester e.a. on the antecedents of entrepreneurial awareness among 1303 university students in Belgium affirmed that the entrepreneurial parental role modeling is of crucial importance in explaining entrepreneurial activity in terms of new venture creation⁸. In general, 44 percent of all students that have parents running their own business are thinking about starting a business on their own once they finished university versus 19 percent of the students who's parents are both employees.⁹ Moreover, in the case that either the mother or the father has a privately owned business, the wish of starting an own private initiative is respectively 53 percent (versus 20 percent of the students who's mother is employed by a third party) and 40 percent (versus 19 percent of the students who's father is employed by a third party) (Deschoolmeester et al., 2002). Having a parent that runs or owns a business or is self-employed therefore provides a strong inspiration for the entrepreneur ((Hisrich & Peters, 1998(1989)), pp. 71). Based on the above table 1 similar conclusions can be drawn for about 70 percent of the start-up cases in Flanders (Belgium). With a 15 percent gap, the small business-owners of the control group (69 percent) are obviously more likely to originate from *entrepreneurial households* than ADEPT (54 percent). Over 40 percent of all ADEPT started a new business on their own (28 percent for NOVICE). This respectively higher versus lower *entrepreneurial parental role modeling* could also be concluded from the variety of motivations for starting up a business (cf. infra pre-start-up motivations). For instance, in total more than 39 percent of NOVICE stated that they took over or inherited their enterprise, which is double the ADEPT' score. Based on the above pre-start-up motivations and the fact that almost 70 percent of all NOVICE come from entrepreneurial households, clearly sustains the thesis that entrepreneurial parental role modeling is a fabulous catalyst for the entrepreneurial activity (Manigart et al., 2000). As an example, in contrast to NOVICE, ADEPT more frequently appear to create *a new idea in a new setting* using the knowledge, resources and expertise of outsiders, whereas NOVICE seem to follow to a great extent the more classic "join-the-family(-business)" start-up route.

Networking

In general there is a very high correlation between knowing entrepreneurs personally, being inside an entrepreneurial community or network and the willingness or interest in starting up a business and the willingness by third parties of financing potential entrepreneurs (Manigart et al., 2000). In Flanders, more particularly, seemingly very few individuals know entrepreneurs personally. In turn, individuals who want to start a new venture have difficulties in finding business angels who believe in their project.

⁸ Likewise, having one or both parents being employed by a third party discourages students to think about starting up a new business. When either one of the parents or both parents are employed by a third party, 80% of the university student asserts willing to work for a boss as well.

⁹ Note the elements that were discussed concerning the level of education of starters: a higher level of educational attainment is correlated to setting up a new business up to the level of university. At university level, however, entrepreneurial activity in terms of setting up a totally new firm drops again significantly (especially in Flanders). (Manigart et al., 2000)

However, ADEPT are more inclined to set up a business together with *one or more partners* or backed up substantially by at least one (financial) institution.

Pre-start-up experience

The relation between the duration of *pre-start-up experience* and the venture success rate or business performance and growth has been a major subject in academic studies. Though, few studies came up with real evidence for a positive relationship (Cooper & Gascon, 1992). Nevertheless it is assumed that individuals will tend to be more successful in forming and growing business in fields where they have worked and gained vital experience (Hisrich & Peters, 1998(1989)), described as "in-sector" or intrapreneurial pre-start-up experience. In Belgium 1,94 percent and in Flanders 1,4 percent of the entrepreneurial activity comes from intrapreneurial activities (Manigart et al., 2000), pp. 17). The overall very low entrepreneurial activity rates in Belgium and Flanders (see above) are therefore not compensated by high intrapreneurship rates, meaning that far more Belgian and Flemish entrepreneurs start their ventures after having gained experience in another job in another sector (= outer-sector pre-start-up experience). Both test and control group are marked by a higher in-sector over outer-sector pre-start-up experience (> 56 percent). In total 10 percent more ADEPT gain a frequently brief working experience (one to five years both in- and outside the business sectors in which one launched his/her own enterprise). For the in-sector pre-start-up experience, in 20 percent of the Vlerick-cases this happens to be in a leading management function, which is about 50 percent more as for NOVICE. Concerning the outer-sector experience the relative majority of ADEPT over NOVICE is a lot less and varies around 12 percent for both groups. The much higher score on *leading or managerial pre-start-up experience* is most probably due to the longer and higher education of the ADEPT and can be explained by the opportunities that highly educated post-graduates can get in leading functions (often within their field of expertise). It also explains why for ADEPT the difference between the experience from not-leading functions in and outside the sector is not that big as for NOVICE. For the latter, the combination of poorer education with the entrepreneurial parental role model evidently push towards a superior in rank status inside the sector one knows the best, and a subordinate status when it concerns the outer-sector. This apparently accounts for about 55 percent of all NOVICE.

Motivation to carry on with the business

Once started a business, it is very important to know what drives the owner-manager of this start-up to proceed with the business. According to the textbook all legitimacy, wishing and wanting should be incorporated in a '*mission*' or some '*business goals*'? Also interesting to know is what the starter would change *if he or she could start all over again*? The most recurring reason for continuing the business for all respondents is '*to make one's firm as profitable as possible*' (47percent of the ADEPT and 54 percent of NOVICE). ADEPT and NOVICE further aim '*to grow in a more controlled manner*' (38 percent). In third instance, ADEPT want '*to build out a firm with a high marketing value (selling price)*' (7 percent). For NOVICE '*to survive in the market*' is the third most important reason for proceeding with the business (10 percent). Following Hisrich and Peters's start-up typology, the average Flemish starter typically heads a life-style firm, which is privately held, and usually achieves only modest growth (see further: table 2A) and exists primarily to support the owners (Hisrich & Peters, 1998(1989)). As we will see in the next part, only after several years these firms may grow to over two digit number of employees. '*To grow as much as possible*' and '*to survive in*

employment' (= actively seeking opportunities for employability) are not really important "issues" for either group. Since most of the firms were existent and on average 'growing' at the time of the questioning, not surprisingly about 90percent of all interviewed small business-owners replied *positively towards a re-start-up scenario* which means they wouldn't change a lot...

In sum, ADEPT can be characterized as highly educated (twice as many university degrees as compared to the control group), trained and experienced to a large extent outside as well as inside the actual business sector in mostly leading positions. ADEPT most frequently are motivated to start a business on their own, supported by a personal network. On the contrary, NOVICE were highly stimulated to take over a venture due to the parents, largely due to the fact that a greater majority of NOVICE originate from an entrepreneurial or family business environment. So far a broad set of differences in start-up motivations for the group of ADEPT was disclosed: the challenge of an opportunity, and in that way the sense for a challenge and a new product, and the everlasting wish of getting independent. Furthermore, ADEPT joined management training programs to learn and debate with other starters and small business-owners the techniques and ways to meet their entrepreneurial and management shortcomings while working out an own business concept or idea, most of it the NOVICE learn while being confronted with the *family businesses*. The primary goal for a large majority of both test and control group small business-owners is to grow the company as profitable as possible whereas only a small partition is interested in becoming personally rich per se.

Profiles of entrepreneurial characteristics and management techniques [EC+MT]

There is a general belief among researchers in the field of entrepreneurship, venture creation and general management that management education and training (in its different forms) positively influences the entrepreneurial characteristics and management techniques [EC+MT], in particular those of business planning (see introduction). In order to control for this relation a list of 28 entrepreneurial characteristics and management techniques [EC+MT] that relate to business planning, management and controlling was used.

The reader will discover that the proxies for strategic planning (based on its ten dimensions) is -yes- strongly influenced by 'certain identifiable sets' of EC+MT (= EC+MT profiles). But, more important, except for very specific combinations of EC+MT and growth-related strategic planning profiles, in general a meaningful relation between management training, EC+MT and growth-related strategic planning could not be established. As demonstrated in the previous part, in general the discriminating factor (namely the fact of being management trained or not) apparently does have an explanatory value concerning the strategic planning proficiencies of the test group. The question now is whether this can be linked to other EC+MT profiles, and if so to which ones: common EC+MT or significantly differing ones?

Significant differences between both groups was found for the strategic importance attached to the following EC+MT: '*conceptual thinking and rational decision-making*', '*subcontracting*', '*human resource development (HRD)*', and '*stock management*'. ADEPT and NOVICE score significantly higher on respectively the first and the latter two. To a lesser extent ADEPT attach more strategic importance to '*flexibility*' (wage/hours < average of the sector), '*delegation of tasks*', '*general management*', '*strategy making*' (strategic issues management (SIM)), '*local market*

competition, and 'management education and training'. NOVICE attach a higher strategic importance than ADEPT to: 'cost accounting', 'leadership styles', 'time management', 'analytic bookkeeping', 'international market competition', and 'profitability' (see Table 4).

TABLE 4
Strategic important EC+MT profiles for ADEPT and NOVICE

ADEPT attach higher strategic importance than NOVICE to:	NOVICE attach higher strategic importance than ADEPT to:
<i>Significantly higher</i>	
Conceptual thinking and rational decision-making***	Human resource development (HRD)***
Subcontracting***	Stock management***
<i>Higher but not significantly higher</i>	
External advise**	Cost accounting**
Flexibility (wage/hours)**	Leadership styles**
Delegation of tasks*	Time management*
General management*	Analytic bookkeeping*
Strategy formation and review (°SIM)*	International market competition*
Local market competition*	Profitability*
Management education and training*	
External board of directors*	

***p < .05; **0.05 < p < .1; *p > .1; °SIM = strategic issues

Although no significant differences could be noted for about half of the tested strategically important EC+MT, there seems to be a remarkable inter-group EC+MT-profile difference for all other EC+MT. The significantly over-focusing of ADEPT on most of the listed EC+MT and in general most of the inter-group differences can be understood from the fact that ADEPT have both a higher average level of education (less practical and more conceptual-theoretical), especially management education (see: the strategically important perceived 'general management', 'strategy formation and review (SIM)', and 'management education and training') and by their eagerness or drive as said to start *a business from scratch*, being mostly a *new business idea* that needs to be developed in a rather calculative manner with the help of external advisors and eventually with the 'external advise' of amongst NOVICE an 'external board of directors'.

In sum, although no significant differences could be noted for about half of the tested strategically important EC+MT variables, on the basis of all other EC+MT there is a remarkable inter-group EC+MT-profile difference between ADEPT and NOVICE (see above). **Hence, the more general proposition 4a is sustained: both test and control group are characterized by largely distinctive sets of EC+MT.**

More specifically, also proposition 1c is sustained: the typology of the ADEPT is characterized by a distinctive and prime focus or strategic importance attached to management training and education, conceptual thinking and rationality, strategy formation and review (SIM), business planning, management control and networking, and not so much as the average Flemish starters triggered by HRD, stock management, cost accounting, or analytic bookkeeping.

Survival rate of Flemish start-ups

The absence of alarming discrepancies in the sector composition of all SME in the test and control group reassures that the samples were taken properly. Most of the firms in both groups are active in *distribution, transportation, communication and retail*. Smaller parts do business in textile, wood, paper and high-tech.

FIGURE 2
Survival rate of "Vlerick"-start-ups compared to the Flemish average (in number of years after the start-up) for the five oldest start-ups and the average for all

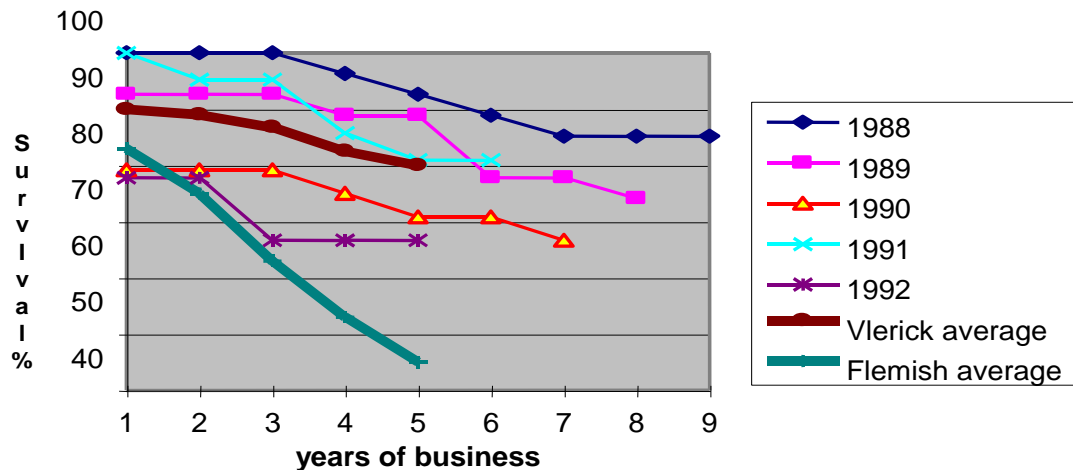


Figure 2 gives an indication of the *survival rate* of ADEPT and the average fall-out for NOVICE. Regional statistics for Flanders indicate that after 5 years more than 55 percent of all starter-ups stop the original business activities either due to bankruptcies (- scenario) or because of a take-over (+ scenario). *After one, three and five years, respectively 90 percent, 87 percent and 80 percent of all ADEPT are still active.* This is only the case for 20 percent¹⁰ only of all "Vlerick"-alumni. Remarkably, ADEPT from before 1989 seem to be *'survivors in the long run'* (at least in 85 percent of all cases).

Firm size and growth rate

Table 2.A shows the *growth tempo of sales turnover and staffing* for both groups (the mean values over the total period are in bold). Start-ups of the control group in general start off with or take over more personnel than their "Vlerick"-colleagues and tend to create more jobs mainly in the early years after the start-up. After a five years period this difference, however, drastically decreases and becomes rather insignificant. This is mainly due to a *catch-up movement* by the ADEPT. In general, after ten years NOVICE also produce a higher average sales turnover. But, here too ADEPT show a considerably higher yearly sales turnover growth rate (cf. table 2.A). Therefore, it can be concluded that ADEPT grow faster both in terms of sales turnover and staffing (cf.

¹⁰ However, the SME-department also enrolls persons who "consider starting or taking over a business" but after following the courses never did. These persons are nevertheless included in the above statistics. Therefore, the reader should not consider the entire 20% as a similar ways of stoppage of business activities in the way as it was described for "NOVICE".

“>”). Mark that the unequal distribution for sales turnover for NOVICE is also due to a respectively smaller number of start-ups and a relative higher number of early growth firms (see the higher frequencies of over 30 million,- BEF [this is 0,7437 million EURO] average sales turnover businesses).

TABLE 2.A
Annual personnel and total sales turnover size and growth rates
(average annual growth in percentages of total counts)

	ADEPT	NOVICE		ADEPT	NOVICE
<i>Average staffing</i> [°]	mean value SIZE (in absolute numbers): 4,70 6,95		<i>Annual staffing growth</i> ^{°°°}	mean percentage: GROWTH 7,69 5,15	
during 1987	1,10	3,95	-5 to 0**	0,87 percent	4,50 percent
1990	2,23	4,96	0 to 5	44,73 percent	45,94 percent
1993	3,15	6,73	5 to 10	14,91 percent	17,11 percent
1994	3,79	7,54	10 to 15	7,01 percent	4,50 percent
1995	4,64	8,15	>= 15	8,80 percent	6,33 percent
1996	6,40	8,87	missing cases	23,68 percent	21,62 percent
<i>Average sales turnover</i> ^{°°}	mean value SIZE (in absolute numbers): 24,49 41,20		<i>Sales turnover growth</i> ^{°°°°}	Mean percentage: GROWTH 6,56 2,19	
0 to 14,99*	41,96 percent	33,04 percent	-5 to 0**	2,63 percent	8,92 percent
15 to 29,99	13,39 percent	9,82 percent	0 to 5	57,01 percent	70,53 percent
30 to 44,99	6,25 percent	13,39 percent	5 to 10	10,52 percent	0,89 percent
45 to 59,99	5,35 percent	10,71 percent	10 to 15	3,50 percent	1,78 percent
60 to 74,99	3,57 percent	2,68 percent	>= 15	6,17 percent	2,71 percent
75 to 89,99	2,67 percent	1,79 percent			
> 90	3,56 percent	9,82 percent			
missing cases	23,25 percent	18,75 percent	missing cases	20,17 percent	15,17 percent

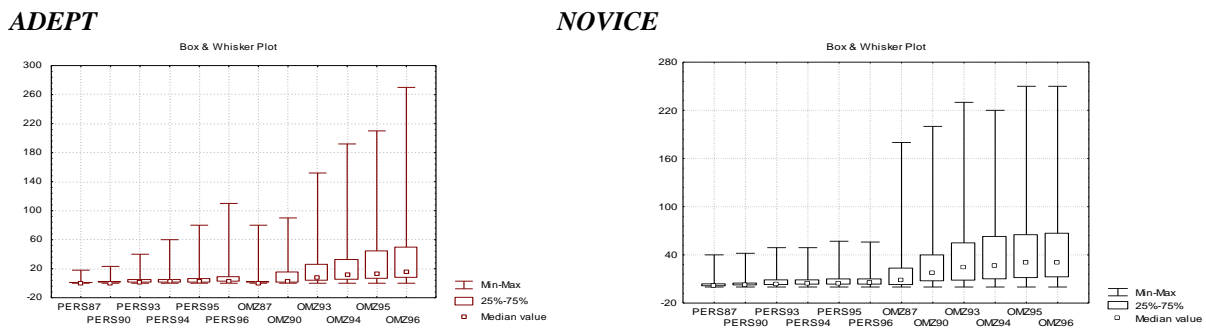
*In million Belgian Francs (BEF) [1 EURO = 40,3399 BEF]; **In percentages

°T-test: p < .05; °°T-test: p = .005; °°°T-test: p = 0.21; °°°°T-test: p = .015.

The Box & Whisker-plots in figure 3 show that over time median-max variance for growth (as a measure of "growth potential") in both personnel and in turnover is higher for ADEPT (respectively 1,1 and 19 in 1987 versus 6,4 and 112 in 1996 for personnel [resulting in a median-max growth 10-year coefficient of $105,6/17,9 = 5,9$ with a median growth of 0,53 annually] and 4 and 90 in 1987 versus 17 and 270 in 1996 for turnover [resulting in a median-max growth coefficient of $253/86 = 2,94$ with a median growth of 1,3 annually]) than for NOVICE (respectively 3,95-40 in 1987 versus 8,87-58 in 1996 for personnel [resulting in a median-max growth coefficient of $49,13/36,05 = 1,36$ with a median growth of 0,49 annually] and 9-178 in 1987 versus 29-250 in 1996 for turnover [resulting in a median-max growth coefficient of $221/169 = 1,3$ with a median growth of 2 annually]). Based on the 10-year median growth (as a measure of on average effectuated growth) NOVICE established higher turnover growth, ADEPT a higher slightly higher growth in personnel; growth numbers which are of course to be corrected for the mean values that are in bold in the last two columns of table 2 (see also the variance in the 25 percent to 75 percent percentile range). The latter 25 percent to 75 percent percentiles moreover suggest that over time more ADEPT generate higher growth both in personnel and turnover (see also the far higher steepness of the slope when connecting the 75 percent percentiles for ADEPT, suggesting a clear growth pattern while the same slope for NOVICE has almost

flattened over the last three years (1994-1996) both for personnel and turnover). Since less than half of the start-ups don't survive their first five years of business, on average ten years is a too long period to give any general guidance on "growth"... but for ADEPT this slow but steady catch-up path is nevertheless important since about three times more Vlerick-start-ups survive and will hence deliver more employment and a higher annual job creation on turnover ratio (= 0,19 versus 0,17 for NOVICE). Hence, calculations via all above incremental growth ratios (for example annual growth of *personnel productivity*) for both groups show that ADEPT *grow faster*.

FIGURE 3
Median-Max growth coefficients for sales turnover and number of personnel



	ADEPT	NOVICE
Median-max growth coefficient for total number of personnel	5,90	1,36
Median max growth coefficient for total sales turnover	2,94	1,30
Annual median growth for total number of personnel	0,53	0,49
Annual median growth for total sales turnover	1,30	2,00

Moreover, in the case of ADEPT table 2.B gives us evidence for the fact that growth in personnel and turnover are significantly related. In the case of all NOVICE we see the opposite. This can be explained by the fact that ADEPT start at a smaller scale and by the *linearity* of their 25 to 75 percentile range growth pace. The .84* correlation is in line with findings suggesting that more formalized planning in small businesses leads to higher annual growth in personnel as well as in sales (turnover) (Lyles, Baird, Orris, & Kuratko, 1993).

TABLE 2.B
Sales turnover versus staffing average annual growth correlations for ADEPT and NOVICE

	GROWTH STAFFING/PERSONNEL	
	ADEPT	NOVICE
GROWTH TURNOVER	.84*	-.16

*Significant correlation ($p < .05$).

In sum, just as the pre- and post-start-up profile of ADEPT is different from the average Flemish entrepreneur, also survival and business growth rates (both in number

of personnel and turnover) are markedly different: ADEPT have a higher survival rate both on short and long term and they grow faster than the average Flemish start-up. Whereas there is no relation between annual growth in number of personnel and sales turnover for the latter, this relation is highly significant for ADEPT.

Strategic planning and firm performance measurement

A major weakness in strategy research is the operationalization and measurement of *firm performance*. Rue and Ibrahim (1998) indicated that many studies have used objective financial measures to determine business planning effectiveness, excluding important non-financial indicators such as productivity growth (= turnover over the number of personnel), product innovation, growth and development of the personnel (HRD), customer relation and market share etc. In this sense, there are numerous field studies that examine "the effects" or outcomes of various forms of strategic and operational planning on a variety of *financial performance measures* for both large and small firms, mainly drawing mixed conclusions based on whether and how the process or the outcome was studied. Some authors concluded that, in the case of small firms, strategic planning simply because of the lack of knowledge, time and staffing did not fit the context of small firms and hence would have no potential payoff (Robinson & Pearce, 1984; Sexton & Van Auken, 1985) or that there is little or no significant relationship between strategic planning and the (financial) performance of small firms (Robinson & Pearce, 1983; Schrader, Mulford, & Blackburn, 1989). These studies report ambiguous planning/performance relations, and most suggest that the value of planning is mitigated by factors such as environmental uncertainty (*as perception of environmental uncertainty increases strategic planning decreases* (Matthews & Scott, 1995)), managerial expertise or the stage of firm development (Schwenk & Schrader, 1993). For instance Rue and Ibrahim (1998) concluded that there is moderately significant relationship between planning and perceived performance relative to the industry. The results of Schwenk & Shradler's (1993) meta-analysis show two types of performance measures. The first is growth in *sales or revenue* and the second includes several *measures of return* (return on assets (ROA), return on investments (ROI), return of equity (ROE)). In their study, Lyles e.a. (1993) used ROE, ROA and growth in sales as business performance parameters. Smith (1998) for example found that high performing business starters prefer to sustain growth through reinvested profits and would seek equity investment rather than debt financing if further funds were required. The average effect size for such parameters across studies is positive, indicating an association between planning and sales and revenue growth under a 95percent confidence that the effect is not due to chance. The relationship between planning and return measures was also significant at the .05 level. On the other hand, no significant relation was found with respect to return on investment (ROI).

Altogether, these reviews -having produced a large number of potential topics for future research- have, however, not been tremendously illuminating as to the basic question of how formal strategic planning affects firm performance... a subject that lies at the very heart of the strategic management discipline. Ramanujam e.a. (1986) had the following suggestion: *the effectiveness of planning must be measured according to how well the planning system helps the organization fulfill the objectives of planning*. Hence, firm performance was measured based on both financial and non-financial

criteria (Ramanujam & Venkatraman, 1987; Smith, 1998)¹¹, respectively annual growth in turnover/sales (or productivity) and personnel (total employment growth of the firm). If we take business performance to be a function of strategic planning proficiency and assert that the principle features of performance can be categorized by growth in sales turnover (ST(ag)) and growth in the number personnel or staffing (P(ag)), then we have a quantifiable measure.

Rue and Ibrahim (1998) operationalized strategic planning according to quantifiable strategic objectives in the following areas: sales/turnover, return on investment (ROI), return on equity (ROE), market share (customer relation), job creation and human resource development (HRD), product innovation, return on assets (ROA) or general firm development and global expansion (general success rate (= image, reputation, market ranking versus competitors)). Based on these and other's findings (Lyles et al., 1993; Schwenk & Schrader, 1993; Smith, 1998) the authors operationalized "*strategic planning*" by a mix of five financial [F] and five non-financial [NF] return and growth measures including respectively return on assets (ROA), return on sales turnover (ROS) (profitability), sales turnover, return on investment (ROI), and return on equity (ROE) [F] and growth and development of personnel (human resource development or HRD), product innovation, pro-active adaptation (probability and risk calculation), general success rate (= image, reputation, market ranking versus competitors), and the customer relation and market share [NF].

Proposition 3a: Small firm *financial and non-financial performance*, respectively growth in annual sales turnover and number of personnel (employability) is strongly related to *financial versus non-financial strategic planning*.

Proposition 3b: Following propositions 1a and 2a ADEPT in general produce higher financial as well as non-financial firm growth (resp. sales turnover and employment) than their non-trained counterparts.

Preliminary findings on the link between management training, strategic planning and firm performance

Strategy, strategic management and planning

In general, over the past forty years writers on the fundamentals of corporate strategic management (for instance Ansoff (1988(1965)), Steiner (1967), Timmons (1978), Porter (1980) or Rowe, Mason, Dickel, Mann, & Mockler (1994) describe *planning* as one of the basic, essential and primary managerial tasks. They mostly agree on planning being an integral part of the business from the pre-start-up over early growth to maturity, and entrepreneurs who learn early to plan will be able to cope with the process as their businesses become more complex (Anderson & Dunkelberg, 1993). "Planning what is our business, planning what will it be, and planning what should it be have to be integrated. [Therefore] everything that is 'planned' becomes immediate work and commitment" (Drucker, 1999(1973), pp. 122). Whereas business planning before and during the start-up in the main includes defining the business, the company's strengths and weaknesses, the nature of the industry and the market for its products and services, and the resources and capabilities needed in order to market and survive successfully in the short term (Anderson & Dunkelberg, 1993, pp. 117-120), business

¹¹ Growth was understood by the respondents to be an increase in the number of branches, higher profile, more business, more money, increased turnover and profitability, an increase in the client base, etc... as well as the strength of their employees (human resource development (HRD)) (Smith, 1998, p. 864)

strategy and strategic planning are aimed primarily at sustainable long term firm performance and growth including the setting of strategic goals, business policies towards product and market development, human and other capital investment, resource expansion planning, organization and production effectiveness, technical management etc. (Smith, 1998). Business strategy and strategic management for the development or growth of the firm and the creation of a (sustainable) competitive advantage in the marketplace, therefore, will require some additional quite logical and systematic *planning of action* that sets out where the business is determined to go to, at the mean time identifying the means of getting there (strategy policies), and coherently focusing all operations and necessary tasks (Gibb & Scott, 1985). *Strategy* is, therefore, more broadly defined as a temporary bundle or cluster of logical frameworks for management thinking, sense-making, understanding, decision-making and action that guide the firm to exploit opportunities while neutralizing threats.

Strategic planning formalization

No precise figures exist about start-ups with or without a business plan and early growth firms engaging in strategic planning, but it appears that planners outnumber non-planners. Reasons for non-planning the business (in a formal manner) include that the planning is done 'in the head', that plenty of examples exist of fabulous and successful entrepreneurs who grew a business without formal plans, that it is too difficult, that doing is more important than planning, that planning is notoriously inaccurate etc... (Anderson & Dunkelberg, 1993). Indeed the problem often is that if the owner does not perceive that his/her company is better off having planned he/she will no longer allocate time nor resources to planning...(Shuman & Seeger, 1986). The planners however argue that business plans allow to organize their thoughts, develop a road map for the business, and gives them a way to communicate their thoughts to bankers, investors, key employees, the management, and the network of suppliers, customers, and other strategic partners or stakeholders.

There are various arguments as to what type of strategy is the more effective one; for example, should it be more formal and written or rather informal and implicit? For instance, while Porter believes that some degree of formalized planning is more effective, Quinn advocates that strategy (and therefore strategic management) is the representation of logical steps in the historical strategic evolution of the firm (Quinn, 1980) and Mintzberg favors the adaptive 'visionary' approach of strategy based on implicit experiential learning, intuition and creativity of key personnel and cautions that planning can be overdone, inherently incorrectly done, and therefore largely ineffective (Mintzberg, 1994a). Mintzberg does not believe in no planning at all, but argues that both pro-active adaptation, learning and dynamic processes should be used in developing a final business strategy. As a matter of fact, however, small firms by and large strive to achieve firm growth and competitive advantage by employing formal Porterian strategies such as cost leadership, differentiation and focus (Reid, Jacobson, & Anderson, 1993). Schwenk and Shrader (1993) have applied meta-analysis for the first time to the results of a broad range of studies on *formal strategic planning* and small firm performance, concluding that, firstly, *the effect of strategic planning moderates or affects performance in small firms* and, secondly and more specifically, *strategic planning is a beneficial activity for small firms*. In their break-through work Schwenk and Schrader (1993) refer to research on the effects of strategic planning on the financial performance of small businesses done by Bracker (1986), Bracker e.a. (1988), and Shrader e.a. (1989). Also reference is made to other meta-analyses by Robinson & Pearce (1984) studying at the one hand "the process" of strategic planning

(see Armstrong (1982) and Bracker (1986)) and at the other hand "the degree of formality" (Pearce, Freeman, & Robinson, 1987; Schrader, Taylor, & Dalton, 1984), for example manual usage, the amount of emphasis on developing written plans covering at least three years (at max 5 years), the formulation of goals and strategies, and/or the existence of specific schedules for formulating and/or evaluating plans (Fredrickson, 1984; Ramanujam & Venkatraman, 1987) and by the planning comprehensiveness (Fredrickson & Mitchell, 1984), thoroughness, sophistication (Robinson & Pearce, 1988) or structuredness of the planning process used by the organization (Phillips & Moutinho, 2000), for example business mission and objectives, contextual (internal versus external) and environmental analysis, strategy formulation, definition of the strategic planning and policies, implementation of the planning, monitoring policies, control strategy outcomes, and feedback (in terms of further commitment to the strategy process or change) (Hisrich & Peters, 1998(1989)). Although strategic planning most likely improves performance, in relation to performance the simple fact of writing out of the plans does not affect performance (Ackelsberg & Arlow, 1985). On the other hand, small electronics firms that engaged in sophisticated strategic planning - requiring a formal format- performed better than unstructured planners; *strategic planning sophistication* ranging from structured strategic planning over structured operational planning and intuitive planning to unstructured planning (Bracker, 1986; Bracker, Keats, & Pearson, 1988). Lyles e.a. (1993) concluded that greater planning sophistication is associated with improved performance as measured by growth in sales. Therefore, nevertheless the fact that firms with no written plans exhibit a slower growth rate than firms with more sophisticated planning (Rue & Ibrahim, 1998), not the degree of formality but rather the *planning sophistication* is expected to relate to better firm performance. Analysis of the content, comprehensiveness or *scope* of strategic planning started of with case studies, mostly of larger firms, followed by single industry and intra-industry studies in order to develop typologies of generic business strategies (Hofer & Schendel, 1978; Miles & Snow, 1978; Porter, 1980), providing a common set of business strategies from which firms can select the most appropriate depending on their own strengths and weaknesses relative to competitors (Rue & Ibrahim, 1998) addressing different goals and objectives such as growth, profitability, human resource development, company image, customer relations, new products (innovation), new markets, finances etc. (Hisrich & Peters, 1998(1989)) Thus, planning -being one of the major categories of strategy process research- and its content are interrelated concepts when linked to performance (Olson & Bokor, 1995). Some relations between content and performance have been shown; however, the generalizability of the findings has been challenged.¹² Notwithstanding the fact that Fredrickson (1984, 1986) argues that planning formalization does not represent what actually occurs during the strategic decision process, Lyles e.a. (1993) have found evidence for the relationship between planning formality and three other elements - the process by which strategic decisions are made, the content of small firm strategies, and firm performance. One of the major findings was that *a key effect of formal planning is that it alters specific elements of the overall strategic decision process* (Ramanujan e.a. (1986) in Lyles e.a., pp. 39), for example the variety of strategic decision-making (Rue & Ibrahim, 1998). As suggested already at the beginning, many business-owners argue that formal strategic planning provided a structure for decision-making, helping small business managers to take a more realistic long-term view (Schwenk & Schrader, 1993,

¹² Because a firm's performance is influenced by the main effects of strategy process and content as well as their interaction effect, distinctive mixtures of strategic planning patterns for both test and control group will be made even more apparent when the above characteristics are linked to other parameters such as the growth rate of the firm, the creation of other firms, financing methods, etc.

pp. 53). For example (Robinson, 1982) found that small businesses that employed consultants to help with strategic planning performed better than firms that did not. Formal and non-formal planners follow basically the same strategic decision processing differing only on one dimension - formal planners place more emphasis on formulating strategic goals (Robinson & Pearce, 1983). According to Smith (1998) business-owners that plan in a formal way deal more effectively with problems and risky situations as they occur on a pro-active rather than a reactive basis.

Strategic planning effectiveness

Previous mentioned research has extensively elaborated the relationship between (formal) business planning and organizational performance (survival rate, business growth, etc...) and showed that a rather consistent and positive relation exists between the extent of planning activities and performance (Lyles et al., 1993; Smith, 1998). In the case of *small business research*, Rue and Ibrahim (1998) classified the business planning versus performance research in two main streams: the first contends that planning improves profitability (for example Aram & Cowen, 1990), and the second stream recognizes that "good" planning is a key to "firm success" (for example Hillidge, 1990). However, the existence of a business plan was not, in itself, found to be a predictor of success (Reid et al., 1993). As seen, the literature nevertheless strongly supports the argument that, in small business, *planning is a key issue* (Rue & Ibrahim, 1998). Planning not only increases the company success rate (Jones, 1982), but it also influences the level of performance and chances for survival (Perry, 2001). In essence, Perry (2001, pp. 204) found that failed firms planned less prior to their failure than non-failed firms indicating that "planning does make a difference and can reduce the probability of firm failure". *Effective business planning* is so important to small business management that it has since the late seventies received a great deal of attention from researchers such as van Hoorn, 1979), Jones (1982), Ackelberg & Arlow (1985), Timmons, 1998(1994), Trailer and Wolford (1997) or Rue and Ibrahim (1998). Business plans draw conclusions regarding the feasibility and viability for both the short term and the long term of business ideas, venture creation, or performance goals, assessing the safety and social legitimacy of the business for all stakeholders (Trailer & Wolford, 1997). It is, therefore, that, most commonly, small business-owners believe that, firstly, the process or formalization of sophisticated planning, not just the plan, enhances management decision-making (Pearce et al., 1987) as well as the evaluation of the outcomes of strategic planning as well as a firm's performance (Lyles, Baird, Orris, & Kuratko, 1993; Robinson & Pearce, 1984) and that, secondly, planning should not only be the outcome of covering all the bases but also of covering them *effectively* (Lyles et al., 1993; Watts & Ormsby, 1990). Therefore, *planning is a continual and partly routine process*, particularly in a rapid changing environment; changes are made over time with the purpose of establishing an important long-term focus (Hisrich & Peters, 1998(1989)). Effective business plans (answering questions about what business are we entering and how?) are however not a function of management and entrepreneurial topics alone. Smith's work (1998) suggests a positive association between higher intensity of *information gathering* on these issues and higher levels of performance (Chi-square: .059 at p-level < .10). In general, it seems reasonable to believe that greater knowledge of the environment in which the firm operates (perceived in terms of opportunities and threats) and of the internal capabilities (in terms of strengths and weaknesses) enables the business-owner to take more informed and therefore better decisions, leading in turn to better management, more realistic and proficient planning and thus enhanced performance (Madu & Kuei, 1993). The reality, however, still all too often is that entrepreneurs get bogged down in the actual mechanics of writing. The

material often comes out too conceptual or disorganized, and they don't know how to fix it... (Bygrave, 1990).

Management training and strategic planning

Since the mid-eighties institutions for graduate, post-graduate, advanced, and post-experience education experienced a massive increase in the demand of general management, planning and entrepreneurship modules in their training courses dealing with start-ups or new venture creation. Universities and centers for continuous education came up with a variety of course offerings, ranging from the more traditionally structured ones consisting out of lectures and projects on business idea development, venture design and business planning, case-study writing, and reading to more innovative courses developed to address the unique personality (= entrepreneurial characteristics and managerial techniques [EC+MT]) of the trainee. In the same way most of the management programs at the SME-Department of The Vlerick School of Management were re-oriented too... in a rather successful way, as we will see. In the early nineties, the first studies and readings demonstrating the positive effect of management education and training and individual counseling on entrepreneurship and applied management techniques in general and on the business planning proficiency of SME-businessmen more specifically appeared (Atherton & Hannon, 1995; Gibb, 1995; Gibb & Nelson, 1996; Schwenk & Schrader, 1993). Some contributions even manifestly suggest post-experience management training to be "*an important explanatory factor*" for a higher survival rate and chances for growth (Crant, 1996; Rosa, Scott, & Klandt, 1996; Van Clouse, 1990) and that mortality risk for new ventures is a function of *mastering general management techniques* (Douglas, 1997 pp. 1), especially business planning or strategy formulation (Smith, 1998). Moreover, Smith (1998) found that "*if there was a recurring management problem, (business starters) would address it most effectively in a training way.*"

According to the '*pro-active entrepreneurial attitude*' involving certain entrepreneurial intentions and heritage (for example gender, education and entrepreneurial parental role modeling) (Crant, 1996), and the above assumed positive effect of management training on entrepreneurial skills and managerial techniques, above all on business planning proficiency, ADEPT are likely to show '*a distinctive strategic planning*' attitude from NOVICE.¹³ ADEPT were expected to differ not only on the full list of entrepreneurial characteristics and management techniques [EC+MT], but also on the strategic planning relating EC+MT (**proposition 4a**), in other words the most distinctive EC+MT were expected to correlate better with the growth-related strategic planning modes in the case of ADEPT (**proposition 4b**). Moreover, in the case of ADEPT the strategic importance attached to management training (as a control variable) was expected to relate significantly to the EC+MT as mentioned in proposition 4b (**proposition 4c**); no relation was expected for NOVICE.

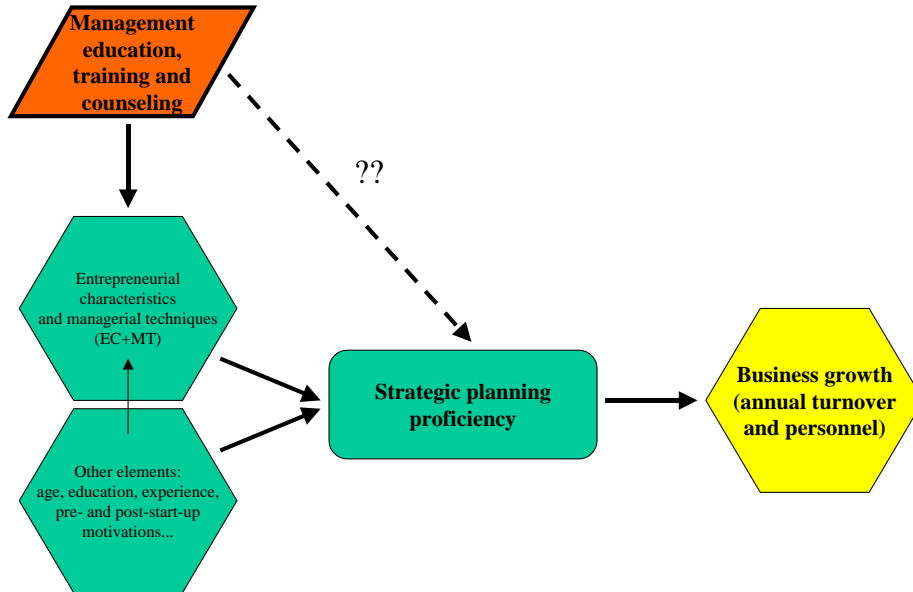
The above propositions are summarized and visualized in the research models 1A and 1B. Explanatory value of relations between (a) *definite sets of entrepreneurial characteristics and managerial techniques* [EC+MT] and (b) *strategic planning proficiencies*, and between the latter and (c) *business growth rate of start-ups* (both

¹³ Because it seems impossible to quantify and conglomerate the effects and entrepreneurial, managerial and self-employing characteristics of entrepreneurship inside one definite holistic structure, this research must be seen as nothing more than '*another attempt*' to determine what kind of entrepreneurial characteristics (entrepreneurship) versus managerial techniques (management) interrelations originate from what contextual business background.

financial and non-financial) were sufficiently established for both the test and control groups.

FIGURE 1A

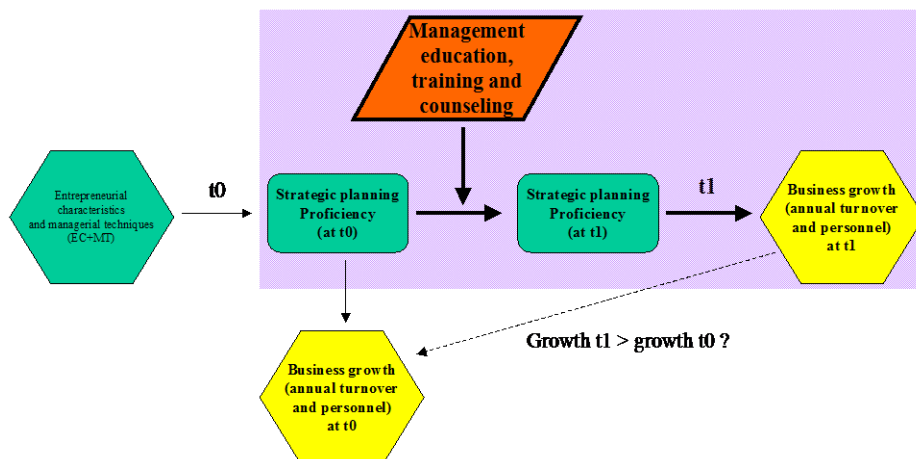
Management training as a catalyst for better strategic business planning proficiency



Moreover, for ADEPT the catalyst role of "*the strategic importance attached to management education and training*" (= EC+MT control variable) and the fact of being trained or not on the relation (a) \Leftarrow (b) for more proficient strategic planning (both quantitatively and qualitatively -see above-) was also be established (see figure 1B).

FIGURE 1B:

Is management education and training a "catalyst" for strategic planning effectiveness?



From here the authors will determine, firstly, what sets of strategically important EC+MT relate best to what kind of business growth-related strategic planning, secondly, if there are any significant differences between the test and control group, and thirdly, if these EC+MT profiles for ADEPT significantly better links with the discriminating EC+MT variable "*the strategic importance attached to 'management education and training'*".¹⁴ One way to investigate possible explanatory one- or two-way relations is by testing correlations resulting in a selection or set of positively correlating EC+MT and by doing a regression analysis for all well-planners (assuming their businesses indeed grew due to the strategic well planning). In brief, arguments *pro or contra* the fact that ADEPT show a higher survival rate, a higher business growth related strategic planning proficiency and their general EC+MT profile (included the fact of having enjoyed management education, training (and counseling)) is researched. EC+MT-profiles versus strategic planning profiles

Research findings suggest that any of the above listed inter-group differentiating specific EC+MT (see Table 4) may enhance the strategic planning proficiency ((1) performance better or equal as planned, and (2) performance worse than planned) and therefore the overall performance of the SMEs (Ballantine e.a, 1992). In this part through correlation and multiple regression analysis at a 5percent level of significance the explanatory value and causality between (sets of) EC+MT (= independent grouping variable) and the dependent sets of growth-related (well-)planning attributes (see previous part) will be examined, hence out-selecting all growth-restraining planning profiles. Triple correlations for all 28 EC+MT-variables and all ten dependent strategic planning variables resulted in the analysis of EC+MT profiles for (1) well planning businessmen (cf. Spearman R: $R > .30$) as well as for (2) the strategic planning correctness (Spearman R: $.10 < R < .30$).¹⁵ The multiple regression analysis gives an indication of how what the relation is between the EC+MT profiles and the growth-related strategic (well-)planning profiles. Table 6 and 6 summarize the respective EC+MT sets for ADEPT and NOVICE.

In the case of ADEPT (n=13 to 18 for well planning and n=90 to 105 for planning (** see table 6: resulting regression optimization)) the significantly growth-related (well-)planning of '*pro-active adaptation*', '*sales turnover*', '*return on sales turnover*', '*product innovation*' and ROE are due in a rather indicative way to a focus on the following strategic important EC+MT: '*conceptual thinking and rational decision-making*', '*delegation of tasks*', and to a less significant extent to '*external advise*', '*external board of directors*', '*general management*', and '*management education and training*'.

This combined set of EC+MT items is to be considered to have a more than average strong *positive influence on the growth-related planning*, explaining:

¹⁴ In order to comprehend better the possible explanatory value of the strategic importance of "*management education and training*" for the above relationships between the distinguished pre- and post-start-up and EC+MT-profiles and the business growth-related (well-)planning profiles we refer to figure 2.A and 1.B (see above).

¹⁵ Only originally retrieved significant correlations by one-way ANOVA/ MANOVA which were reinforced by either the sign or the intensity of the Spearman R rank correlation value for ordinal scales were selected for further research on their relative impact on business growth. The adhered methodology is generally accepted and is described in Huizingh, E. (1996) *SPSS voor Windows*, Academic Service - economie en bedrijfskunde, Schoonhoven - Holland, p. 286.

- ⇐ 4percent of the (well-)planning of return on sales turnover
- ⇐ 4percent of the (well-)planning of sales turnover
- ⇐ 1,7 to 7,7percent of the (well-)planning of product innovation
- ⇐ 1,7 to 7,7percent of the (well-)planning of pro-active adaptation
- ⇐ 1,7 to 7,7percent of the (well-)planning of ROE/personal wealth.

TABLE 6
EC+MT versus growth-related strategic planning attributes for ADEPT

<i>EC+MT / Growth-related strategic planning attributes</i>	Pro-active adaptation	Return on sales turnover	Sales turnover	Product innovation	ROE
Conceptual thinking and rational decision-making	-.12*	.33	.16	.45	-
Delegation of tasks	.38	.41	.32	(-.12)	(-.10)
External advise	-	(.20)	.33	-	(.10)
External board of directors	-	(.16)	.32	-	(-.15)
General management	-	-.45	-	-	.36
Management education and training	-	-	-.10	-	.31

**Spearman R ($R > .30$ ($t(N-2) > 1$ and $p < .32$) confirmed by intensity of the T-test correlation value ($p < .05$) (values) = based on Spearman $R = .10 < R < .30$ for all planners.

For NOVICE ($n=13$ to 17 for well planning and 91 to 108 for planning) only three out of eight significantly differing EC+MT items correlated positively for the growth-related strategic planning mode consisting out of planning '*return on sales turnover*', '*sales turnover*', and '*product innovation*'. This combined growth-related planning proficiency depends in 4 to 13percent of all cases on a combined strategy focus on '*analytic book-keeping*' (.42), '*international market competition*' (.75), and '*profitability*' (= rentability; .43).

In the case of NOVICE, the above set of EC+MT is more than the average *positively influencing the growth-related planning profile*, explaining:

- ⇐ 18percent of the (well-)planning of return on sales turnover
- ⇐ 10percent of the (well-)planning of sales turnover
- ⇐ 17percent of the (well-)planning of product innovation.

Compared to ADEPT, the explanatory value of these EC+MT variables for NOVICE is higher, which is partially due to the *extreme low variance* between the cases included in the sample (based on the selection of all cases (well-)planning the three strategic items simultaneously). However, only the strategic importance attached to the internal market competition (.75) makes the growth-related planning profile of NOVICE as conclusive as that of ADEPT.

TABLE 7
EC+MT versus growth-related strategic attributes for NOVICE

<i>EC+MT / Growth-related strategic planning attributes</i>	Return on sales turnover	Sales turnover	Product innovation

Profitability (rentability)	-	-	.43
Analytic book-keeping	.42	-	-
International market competition	-	-.31**	.75

**Spearman R confirmed by intensity of the T-test correlation value ($p < .05$).

For ADEPT most differentiating EC+MT variables (namely the strategic importance attached to '*conceptual thinking and rational decision-making*', '*external advise*', '*external board of directors*', '*general management*', '*delegation of tasks*' and '*management education and training*') relate extraordinary well with the growth-related strategic (well-)planning profiles (for example 'pro-active adaptation' and 'product innovation' in combination with 'return on sales turnover (ROS) (profitability)' for growth of sales turnover, and in combination with 'sales turnover' and 'ROE/personal wealth' for annual growth of personnel). In the case of NOVICE hardly any of the significantly above-mentioned intra-group differentiating EC+MT relate to the business growth-related strategic planning profiles. **Hence, proposition 4a is sustained for ADEPT only: business growth related EC+MT link significantly to the discriminating EC+MT control variable for the relevance of management education and training for business growth, namely the strategic importance attached to management education and training.**

In how far is the strategic importance attached to "*management education and training*" a catalyst for proficient strategic planning?

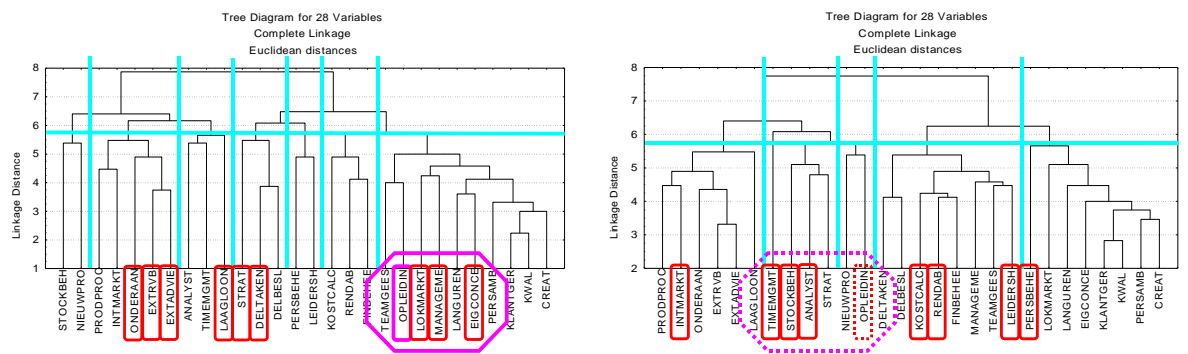
In essence, the above question summarizes *existential issue* for all business schools, and the positive answer provides them with long-term legitimacy of their work and ambition of teaching, counseling, networking etc. In this part the authors control for the discriminating effect of the strategic importance attached to management training and education for the growth-related strategic planning proficiencies. Therefore, as a control variable for this "*the strategic importance attached to management training and education*" was adopted in the total EC+MT list. Firstly, the very simple logic that business-owners that attach a high strategic importance to management education and training will eventually get management trained was proven correct, the correlation being 1.00** at a p-significance level of .01 (for ADEPT). Secondly, the higher the co-alignment or correlation between the strategic proficiency-related EC+MT-attributes and the control variable 'management training and education', the higher the plausibility that management training has indeed an impact on the business performance (survival and growth).

Following basic statistics, non-parametric statistics (since EC+MT concern dummy variables), and correlation tests using 'performance/growth' as the dependent variable and controlling for the above proposition 4b and 4c the authors therefore assume that (1) management training in general positively relates to the growth pattern of those enterprises that attach a highly strategic importance to management training and education and are therefore likely management trained, and (2) that this is merely the case when the control variable 'management training' relates positively with the respective growth-related planning profile related EC+MT variables.

A tree cluster for all EC+MT variables makes it possible to line up all EC+MT that relate more or less to the EC+MT control variable "*the strategic importance attached to management education and training*". Concerning the 11 C+MT that more or less significantly differed from NOVICE (see Table 4) in the case of ADEPT clearly

three sub-clusters could be detected: a first one combining '*subcontracting*', '*external advise*' and '*external board of directors*', a second sub-cluster containing '*strategy making (SIM)*' and '*delegation of tasks*', and a third sub-cluster with '*management education and training*', '*local market competition*', '*general management*', and '*conceptual thinking an rational decision-making*'. Although only two of these EC+MT relate within narrow Euclidean distances to the EC+MT control variable looking at the growth-related strategic (well-)planning EC+MT profile for ADEPT (see Figure 5) all three sub-clusters seem to be largely important in explaining the eventual growth path of the start-ups.

FIGURE 5
Tree structure for all more or less 'strategically important' EC+MT, including "management education and training"



Legend:

(the strategic importance of) ANALYST = analytic book-keeping; CREAT = creativity; DELBESL = delegation of decision-making; DELTAKEN = delegation of tasks; EIGCONCE = conceptual thinking and rational decision-making; EXTADVE = external advise; EXTRVB = external board of directors; FINBEHEE = financial management; INTMARKT = international market; KLANTGER = client oriented; KOSTCALC = cost-accounting; KWAL = quality management; LAAGLOON = flexibility (wage/hours < average in the sector) LANGUREN = flexibility (hours/wage < average in the sector); LEIDERSCH = leadership; LOKMARKT = local market; MANAGEME = general management; NIEUWPROD = product innovation; ONDERAAN = subcontracting; **OPLEIDIN = management education and training**; PERSAMB = personal ambition; PERSBEHE = HRM/HRD; PRODPROC = production process; RENDAB = profitability (rentability); STOCKBEH = stock management; STRAT = strategy making (strategic issues management) TEAMGEES = team spirit; TIMEMGT = time management.

The same analysis for NOVICE suggests that only two sub-clusters and a couple of loose related EC+MT can be identified: the sub-cluster containing '*time management*', '*stock management*', and '*analytic book-keeping*' relates in some way with "*the strategic importance attached to management education and training*". These EC+MT are however not as important for explaining the eventual business growth compared to the EC+MT of the two sub-clusters for ADEPT (see Table 7).

In general it has become clear that the strategic importance of *management education and training by itself* does not relate significantly to any of the strategic planning profiles nor to any of the strategy dimensions that have been identified as being growth-related. Only in combination with or through other EC+MT the strategic importance of management education and training and therefore the fact of being management trained or not could be established. **In the case of ADEPT proposition 4b has been sustained to a rather positive extent and not sustained in the case of NOVICE: business growth-related strategic planning proficiencies correlate only with the EC+MT control variable for ADEPT.**

Hence, based on the constitution of the above EC+MT sub-clusters and their relative strength in explaining the growth-related strategic planning proficiencies as well as on a positive relation with the EC+MT control variable "*strategic importance*

attached to management education and training", the catalyst function of this EC+MT is not surprisingly more apparent in the case of ADEPT than for NOVICE. **Hence, proposition 4c has been sustained: the general firm growth-related EC+MT profile relates to a great extent to the EC+MT control variable, whereas this is not the case for NOVICE.**

Within the boundaries of the above literature review, research questions and basic tentative propositions, explanatory value of the business-owners' entrepreneurship and management traits and more specifically the strategic planning practice and the growth rate of their firms as well as the assumed catalyst effect of management education and training hereupon are investigated. Since the touchstone for the latter two is *the proficiency with which small business-owners plan* their future businesses, *strategic planning correctness and accuracy* will be studied as critical management traits and therefore potential growth factors.

Although many aspects on an entrepreneur's background have been explored, in this part first of all the pre-start-up profile of the starting businessmen of both groups (for example age, education, childhood family environment and the parental role modeling, work history or pre-start-up experience, and start-up motivation or personal values¹⁶) will be explored (Hisrich & Peters, 1998(1989)). These factors (see figure 1A 'Other elements') do not only mould diverse ranges of entrepreneurial characteristics and management techniques [EC+MT] but could also directly affect the business planning abilities. In most of the cases this background information indeed helped to understand research findings regarding the relation between EC+MT profiles and strategic planning proficiencies.

Secondly, the way in which post-start-up planning skills/abilities and EC+MT (inclusive the motivation to continue the existing business) are supposed to be influenced by management education and training during the start-up stage has been studied. All variables -whether or not typically strategic of nature- were selected on grounds of their relevance to the underlying research questions and tentative propositions and because they are often cited as critical success factors for small businesses (Attahir, 1995). In brief the growth and survival rate of both groups of start-up firms will be analyzed. Where needed, T-test and/or χ^2 -test results will indicate the significance of the discrepancies between samples (variables or groupings) and their average scores.

As we assumed a relationship between management education and training and *more effective planning*, one would expect a majority of ADEPT to attach a higher strategic importance to conceptual thinking, rational decision-making, strategy formation, formalized and systematic planning and management control than their average non-trained colleague-starters. Early findings (Schamp & Deschoolmeester, 1998a, 2001) indeed suggested that:

1. Management training increases the level of (strategic) planning proficiency, meaning more formalized and better planning, and, secondly, more and better planning leads to better firm performances. In particular, ADEPT produce significantly higher average scores on the multidimensional proficiency

¹⁶ Ten years ago, the fraction of women in our management training programs was far too little to analyze. Since then the Center of SME launched the "Women and Entrepreneurship" program. Still, statistical analysis is insignificant compared to the total population of female entrepreneurs. No comparative study was done on this matter between the "Vlerick"-starters and "NOVICE".

- scaling of strategic planning, both quantitatively (= the frequency and correctness of the planning) and a qualitatively (= the sophistication, scope and comprehensiveness of the planning) way.
2. Proficient planning is to a large extent be explained by the planning formalization, its frequency, the sophistication or thoroughness of the plan and the well planning of the strategy items.
 3. As suggested, ADEPT attach a higher strategic importance to *management education and training, conceptual thinking and rational decision-making, strategic (issues) management, business planning, general management control and networking*.

STRATEGIC PLANNING EFFECTIVENESS AND FIRM PERFORMANCE

Introduction

Strategic planning formalization has been defined as the degree to which strategic planning unfolds as an unending process of timely recurring evaluation of the firm strategy and innate strategic planning, in which [1] a wide-ranging scope of strategic issues is developed in a sophisticated and well-structured manner, [2] a set of strategic targets are formulated and [3] proper evaluation mechanisms are defined.

From the above it may be assumed that more strategic planning formalization (in other words proficient strategic planning) will lead to higher levels of strategic planning effectiveness. There are, however, many layers in constructing *strategic planning effectiveness*. Planning formality, frequency, timing, scope, profoundness, sophistication, etc. all influence the strategic planning success ratio in terms of firm growth. From the preceding literature study and empirical data research (see above: PRECEDING RESEARCH) this part of the study narrows down to three important determinants of the strategic planning effectiveness: strategic targeting, the degree of strategic planning correctness and the level of strategic planning accuracy. As we will see a more general model could be derived, indicating that, firstly, more strategic planning leads to more correct planning (lower overestimating), and that, secondly, under these conditions more correct planning will lead to more accurate planning (i.e. strategic planning leads to firm growth). Based on these assumptions, strategic planning effectiveness is thus proposed as a viable measure for the way strategic planning accuracy is due to correct strategic planning.

From the literature it may be concluded that there is an essential relationship between the independent variable '*business planning* (attitude)' and the dependent variable '*business growth* (performance)' and that planners out-perform non-planners. As seen, past research efforts to determine the effect of the planning process on firm performance mainly concentrated on dividing firms into those with formal planning systems and planning sophistication and related these factors to measures of financial, sales, turnover, etc. performance. Hence assuming that proficient business planning will outperform firms informal, non-recurring and incomplete planning. Recent reviews however also have pointed to certain gaps in our knowledge of planning versus performance relationships, caused by (1) the standards used to define small businesses and to assess formal planning, (2) the seldom relevant time periods during which it is measured and (3) the lack of organizational and contextual background information (Lyles et al., 1993; Mintzberg, 1991; Naffzinger & Kuratko, 1991; Schrader et al., 1989). Assuming that formalized (and therefore written) strategic planning is rarely

undertaken by firms with fewer than five employees, firstly, the firm size in number of personnel at the start-up being on average more than five meets the threshold for the research of strategic planning practices among starters and early growth firms (Perry, 2001). Secondly, pre- and post-start-up profiles for both the test and control groups over a period of ten years of business performance will therefore be used to fill some of these gaps (cf. supra).

Strategic targeting

Contrary to the general evidence and believe that very little planning takes place in small businesses (Perry, 2001) mainly due to a lack of time and funding or personnel to engage in strategic planning or strategic issues management (SIM) (Robinson & Pearce, 1988), respectively 22 percent of all ADEPT and 20 percent of all NOVICE plan on all ten strategic issues at the same time. Thus, "...if planning at all was done, there was a tendency to do a moderate amount of it" (Perry, 2001, pp. 204). For example *general success rate (= image, reputation, market ranking versus competitors), the customer relation and market share, and return on investment (ROI)* are planned in about 95 percent of all cases. Product innovation, return on equity/personal wealth (ROE), growth and development of personnel (HRD), and to a lesser extent ROA and sales turnover are the least frequently planned strategic items.

TABLE 3A
Strategic targeting and total average strategic planning correctness scores

<i>Strategic planning correctness measures</i>	<u>percent planned</u> percent not-planned	percent well-planned out of total planning**	Average correctness score ^o
General success rate (image, reputation, competitive position) (n=214)	34,7 (= 97,2/2,8)	70,2 percent	1,950
Customer relation and market share (n=203)	28,4 (= 96,6/3,4)	72,9 percent	2,189
Return on investment (ROI) (n=214)	20,3 (= 95,3/4,7)	80,2 percent	1,855
Proactive adaptation (= risk probability calculation) (n=212)	16,5 (= 94,3/5,7)	82,6 percent	1,885
Return on sales turnover (ROS) (n=215)	14,4 (= 93,5/6,5)	59,0 percent	1,809
Human resource development (HRD) (n=216)	11 (= 91,7/8,3)	73,5 percent	1,870
Sales turnover (n=215)	11 (= 91,7/8,3)	63,9 percent	1,930
Return on assets (ROA) (n=209)	9,7 (= 93,4/9,6)	58,9 percent	1,756
Return on equity (ROE) (n=216)	6,2 (= 86,1/13,9)	74,4 percent	1,707
Product innovation (n=210)	4,4 (= 81,4/18,6)	56,0 percent	1,865
MEAN VALUES	15,66		1,877**

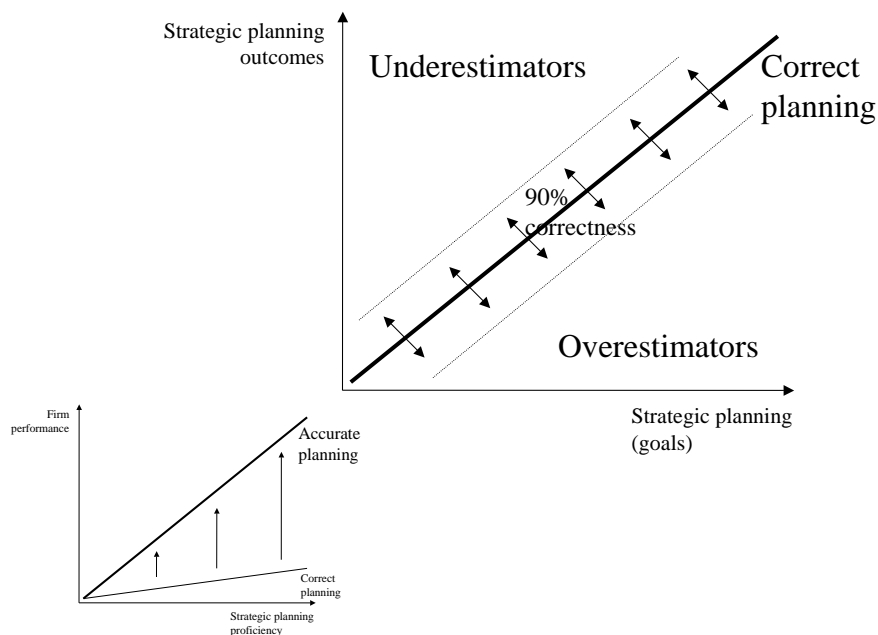
** PT_CORR (or percent well planning): $(2 - 1,877)/2 = 6,15$ percent accepted variance for "correct" planning of the strategic item or range 1,877 to 2,123 (see in bold); ^o CORRECTN (or total mean correctness score over all ten strategic items)

In line with the Ansoffian tradition of long-term profitability measurement we could argue that ROI is the most valid measure of profitability (target).

Strategic planning correctness

Figure 4A visualizes the strategic planning versus performance axes defining the following types of strategic planning: non-planning, bad-planning (overestimators as well as underestimators), and correct planning. Non-planners don't plan and bad-planners deliver business performance outcomes over the years for instance 10 percent up or below what was originally planned for; hence, performance far of the expected and planned for. In figure 4B this accepted deviation percentage from the optimal 2-score is calculated based on the total mean value of all ten strategic planning items. In the case the business outcome are way above the expected we see underestimators at work, when performances are way below expectations we have overestimators at hands.¹⁷ *Correct planners deliver business performance outcomes over the years as was planned for; hence, performances in the line of the expected or planned for.*

FIGURE 4A
Strategic planning correctness and accuracy versus a strategic planning typology



Tables 3A and 3C represents the results which formed the basis to set out a *four-dimensional strategic planning scale* (for example 1 = the business performance was worse than planned; 2 = the performance was as planned; 3 = the performance was better than planned; and the performance was not-planned) (Bracker, 1986; Lyles et al., 1993). This scale enabled the measurement of the frequency, scope, and the *strategic planning "correctness"* for both test and control group. Due to the small number of firms reporting that the performance was better than planned, strategic planning correctness was dichotomised into (1) *performance better (= underestimators) or equal (= correct planners) as planned*, and (2) *performance worse than planned*. This

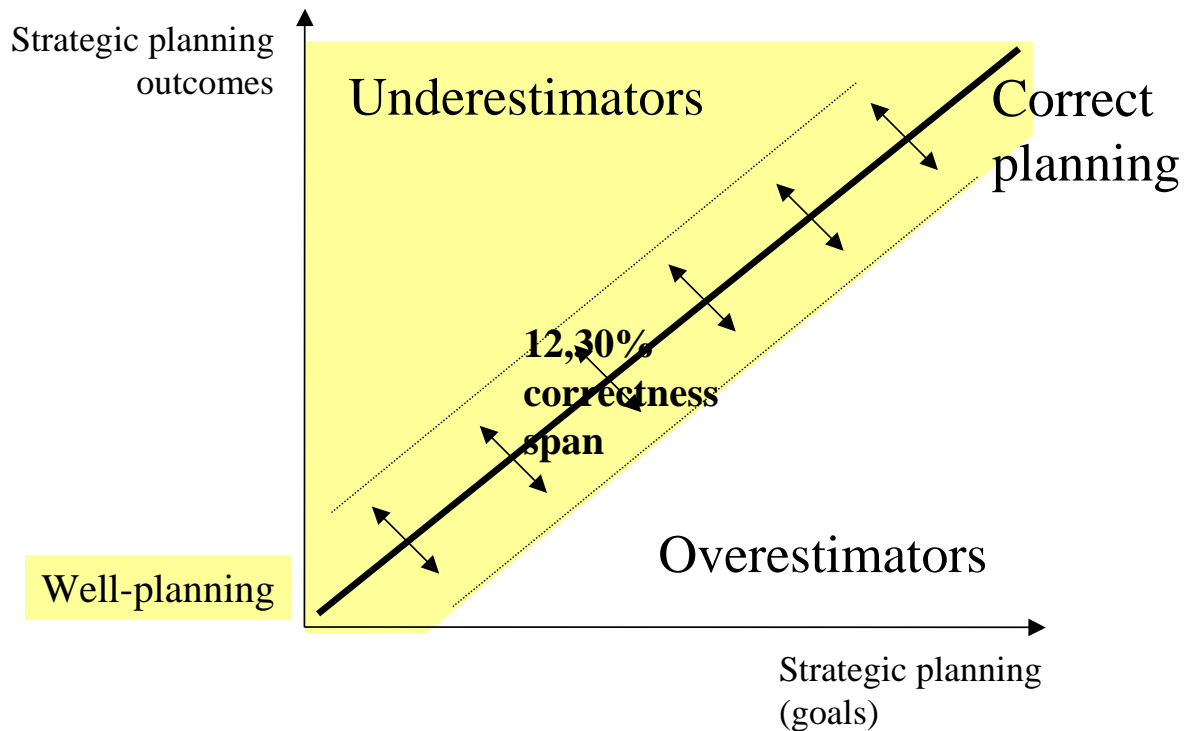
¹⁷ In order the mention the downside of this categorization we refer to the fact that the group of well planning starters might also include some very proficient, realistic or even conservative planners (the latter setting rather low, easy to fulfill targets). On the contrary the over-estimators might include some very progressive and challenging business-owners.

research focuses, firstly, on strategic planning proficiencies since *formalized and sophisticated planning* -making it a tangible management tool, also for the small business-owner or starter- was stressed continuously during the referred to *management training* and, secondly, on the "well-planners" (= business performance better or equal as planned) since we want to control for the assumed positive influence of management training on the (strategic) planning proficiencies of the trainees. Therefore, *non-planners* are not the focus. Since business planning might be more likely defined as a *proxy* for a number of organizational and (strategic) management activities, the building and leverage of entrepreneurship and management resources and competences such as management involvement, leadership styles, pro-active adaptation, scenario planning, problem-solving, decision-making, or employee commitment, the effect of proxies of *strategic planning proficiencies* on business growth and the underlying relation with one or more sets of differing EC+MT were tested. Firstly, both groups were tested on a proxy of ten strategic planning items in order to find out about the relationship between the planning correctness of those business-planning attributes and the growth of the firm. This *strategic planning correctness measure* has both a quantitative side, namely the frequency of formal planning (see up) and a qualitative side, referring to the planning content aspect (see above: overestimators, underestimators and well-planners).

There is a slight difference between the column-two results for well planning and the column-three results for average strategic planning correctness. Well planning means that the outcome(s) on the respective planned for strategic parameters are either as planned for (score 2) or higher than planned for (score 3). Well planning therefore means that at least the "planned for" is reached by the firm; conversely, bad planning would refer to those strategic planning outcomes that were below the planned for. Over time bad strategic planning may endanger the firm's longevity. Overall, top well-planned strategy items are proactive adaptation and ROI. Also well-planned -though to lesser extent- are ROE/personal wealth, HRD, customer relation/market share, and the general success rate of the firm. Well planning is by no means the equivalent of the strategic planning correctness, since strategic correctness refers to the 2-score, meaning strategy outcomes were as planned for. Correctly planned strategic items are agreed to be having an average correctness score less or equal than the optimal 2-score minus the mean correctness score (= 1,877), the accepted error being 0,123. This *strategic planning correctness* range hence contains all values from 1,877 up to 2,123.

General success rate (1,950), sales turnover (1,930) and proactive adaptation (1,885) are therefore highly correctly planned. All other strategic planning items are not. Less correctly planned are HRD, product innovation, and customer relation/market share. On average least correctly planned strategic issues are return on investment (ROI), return on sales turnover (ROS), return on equity (ROE) and return on assets (ROA), which would sustain the beliefs that, firstly, "[...] financial forecasts are harder to make than non-financial forecasts, [secondly,] financial planning is less correct, and [thirdly,] small business-owners nearly always overestimate income and underestimate expenses" (Anderson & Dunkelberg, 1993, pp. 121).

FIGURE 4B
Strategic planning correctness and accuracy versus firm performance typology



Since most average correctness scores fall below the correct strategic planning span, in essence, *most strategic items were overestimated*. This means that even though the strategic planning may be well, in the main the strategic goals that were set were mostly above reach. Only one item was clearly underestimated, namely customer relation and market share. Here strategic planning aimed for a too easy to fulfill goal regarding the relation with the customer and the market share derived from customer-faith and -loyalty. In general, the best general strategic planning versus business performance ratio regards "general success rate (= image, reputation, market ranking versus competitors)". As product innovation, return on equity/personal wealth (ROE), growth and development of personnel (HRD), and to a lesser extent ROA and sales turnover are the least frequently planned strategic items, these are also the least correct planned. On the contrary, the most frequently planned items (over the two groups) are consistently more correctly planned.

TABEL 3B

Planning, well planning and strategic planning correctness for the total population of ADEPT and NOVICE

		ADEPT + NOVICE		
		Strategic planning°	Well planning	Planning correctness
Strategic planning	Pearson Correlation Sig. (2-tailed)	1.000		
	N	10		
Well planning	Pearson Correlation Sig. (2-tailed)	.413	1.000	
	N	10	10	
Planning correctness	Pearson Correlation Sig. (2-tailed)	.638*	.103	1.000
	N	10	10	10

*Correlation significant at the .05 level (2-tailed)

Based on the above table 3A and the correlations in table 3C we conclude that more strategic planning (X-axis: the amount of planning versus non-planning ratio as adopted in table 3A, first column) not only relates to better strategic planning in terms of the amount of well planning (2- and 3-scores) (correlation coefficient: .413) but also to more correct strategic planning (Y-axis: the correlation coefficient of .638* at a level $p < .05$). Nevertheless the fact that the insignificance of the relation between planning -yes or no- and the amount of correct strategic planning and that between the amount of correctness and the level of well planning, because of the *positive correlations*, the supposed model is adopted:

strategic planning (frequency) → strategic planning correctness → well planning [1]
strategic planning (infrequency) → strategic planning incorrectness → bad panning [2]

Examples for [1]-relations (in decreasing order of significance) are for example general success rate (image, reputation and competitive position), return on investment (ROI), proactive adaptation, the customer relation/market share, return on sales turnover (ROS), and sales turnover. Examples for [2]-relationships (in decreasing order of significance) are return on equity/personal wealth (ROE), product innovation, return on assets (ROA), and growth and development of personnel (HRD).

TABLE 3C
Strategic planning correctness: ADEPT versus NOVICE

Strategic planning correctness measures	ADEPT			NOVICE		
	outcome/ planning (= planning correctness)* ↓	well-planning (2-3)**↓	not-planners (out of total)	outcomes/ planning (= planning correctness)* ↓	well-planning (2-3)**↓	not-planners (out of total)
1. Sales turnover° (N = 105 and 110)	1,87	65,1 percent	5,35 percent	1,90	62,7 percent	10,71 percent
2. Return on sales turnover (ROS)° (N = 106 and 109)	1,82	59,8 percent	4,46 percent	1,75	53,2 percent	8,04 percent
3. Return on equity (ROE) / personal wealth (N = 107 and 109)	1,54	62,9 percent	14,28 percent	1,84	68,8 percent	13,39 percent
4. Return on assets (ROA)°° (N = 103 and 106)	1,68	55,7 percent	2,67 percent	1,78	51,9 percent	16,07 percent
5. Growth and development of personnel (HRD) (N = 108 for both)	1,75	70,6 percent	9,82 percent	1,99	66,1 percent	8,04 percent
6. Product innovation (N = 105 for both)	1,63	62,3 percent	16,9 percent	2,10	41,9 percent	19,64 percent
7. Return on investments (ROI) (N = 107 for both)	1,86	79,6 percent	3,57 percent	1,85	73,2 percent	5,36 percent
8. Pro-active adaptation (probability and risk calculation) (N = 106 for both)	1,90	85,0 percent	5,35 percent	1,87	72,3 percent	5,36 percent
9. General success rate (= image, reputation, market ranking versus competitors) (N = 107 for both)	1,95	72,2 percent	1,78 percent	1,95	68,2 percent	3,57 percent
10. Customer relation and market share (N = 98 and 105)	2,15	88,9 percent	3,57 percent	2,08	80,0 percent	3,57 percent

*General planning/planning outcome = mean value on a tree-point scale (1 = performance was worse than planned, 2 = firm results were as planned, and 3 = results were better than planned); **well planning percentages (hence categories 2 and 3); °T-test: p = .000; °°T-test: .05 < p < .1.

Comparing both test and control group, we see that the correctness score of four strategic planning items is higher for ADEPT than for NOVICE: ROS, ROI, customer relation and market share, and proactive adaptation. The strategic planning correctness score for general success rate is the same for both groups. NOVICE plan more correct on the following strategic items: ROE, ROA, HRD, product innovation, and sales turnover. Nevertheless these average scores for all ten strategic planning items, we see that except for the strategic planning of ROE/personal wealth and growth and development of personnel (HRD), ADEPT plan on all other strategic planning items

'more frequent' than NOVICE. Moreover, compared to NOVICE, the partition of well planning (score 2 and 3) ADEPT is higher for all ten strategic items.

In the case of ADEPT the most correctly planned strategic items also are the most frequently planned items. As said, ADEPT plan most correct on *general success rate* (= image, reputation, market ranking versus competitors), ROI, ROS, proactive adaptation, and customer relation/market share. Less frequently planned by ADEPT are the growth and development of personnel (HRD), return on equity (ROE)/personal wealth and product innovation. These strategic items are also far less correct planned compared to the other items. The tendency not to (over-)focus or even partially avoid planning '*ROE/personal wealth*' can be understood from specific Belgian fiscal regulations and the business motivations, the top-seven of which does not include '*to gain lots of money*' or '*to become rich*'. (see above)

The least planned as well as least correctly planned by NOVICE are ROE/personal wealth, ROA, product innovation, HRD, and sales turnover. The fact that NOVICE plan most of these items as well as the customer relation/market share more correctly than ADEPT can be explained by the relative higher partition of overestimators within the group of NOVICE. Also in the case of NOVICE the most frequently planned strategic items are eventually the most correctly planned: general success rate, the customer relation/market share, ROI, and proactive adaptation. As with ADEPT, the least planned strategic items are the worse planned: ROE/personal wealth, ROA, and ROS.

TABEL 2D
Planning, well planning and strategic planning correctness

		ADEPT			NOVICE		
		Strategic planning ^o	Well planning	Planning correctness	Strategic planning ^o	Well planning	Planning correctness
Strategic planning	Pearson Correlation Sig. (2-tailed) N	1.000 .10			1.000 .10		
Well planning	Pearson Correlation Sig. (2-tailed) N	.316 .374 10	1.000 .10		.815** .004 10	1.000 .10	
Planning correctness	Pearson Correlation Sig. (2-tailed) N	.585 .024 10	.756* .011 10	1.000 .10	.165 .972 10	.77 .832 10	1.000 .10

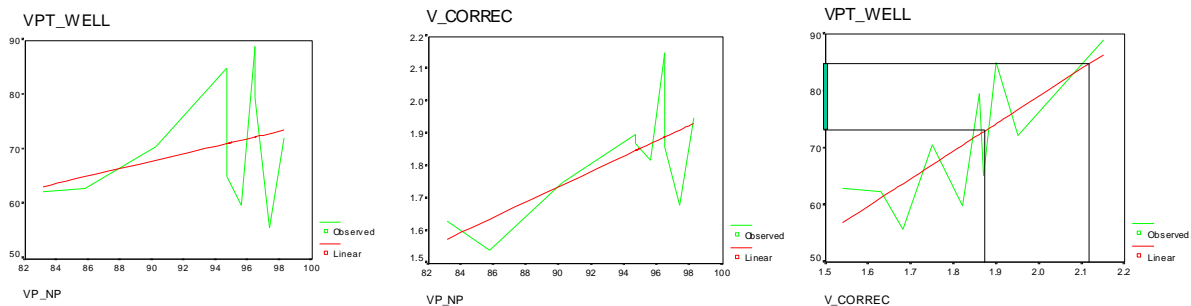
*Correlation significant at the .05 level (2-tailed); ** correlation significant at the .01 level (2-tailed).

^oNon-parametric scaling (0 = not planned; 1 = planned)

Also on a group level, it seems that higher strategic planning frequency leads to more correct strategic planning. The only exceptions here are ROA (for ADEPT) and HRD (in the case of NOVICE). Though there are important inter-group differences as to the strengths of the relations between the level of planning and well planning,

planning and correct planning and correct planning as an important condition for well planning.

In the case of ADEPT it seems from the correlations in table 3C that more planning (VPT_NP) more often leads to more correct planning (V_CORREC) and that strategic planning correctness to a large extent relates to the planning quality, in essence the well planning (VPT_WELL). Therefore, we assume *a cumulative learning*



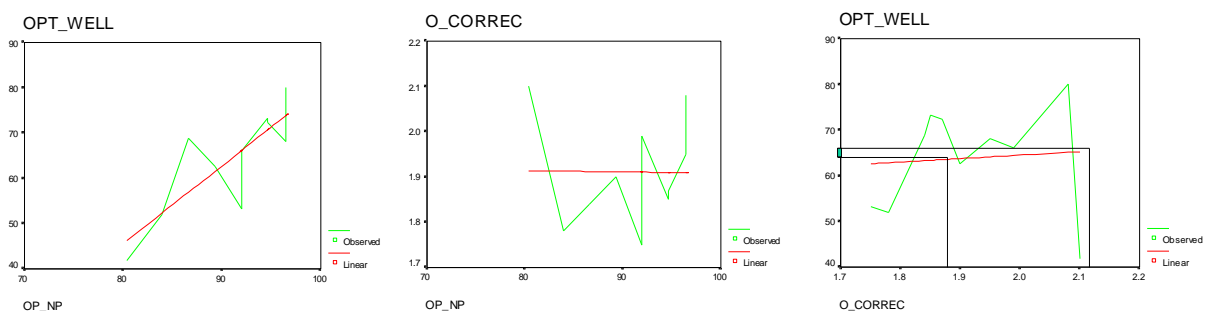
effect throughout the strategic planning process: the more or frequently the strategic planning process unfolds, the more likely the planning will be correct and therefore high quality. Strategic planning is after all a *necessary condition* for strategic planning correctness and strategic well planning. Because strategic planning correctness explains to a large extent the levels of well planning, strategic planning correctness is a *sufficient condition* for strategic planning quality in terms of better strategic planning outcomes (this is, better or equal than the planned for strategic goals). Therefore,

strategic planning (frequency) → strategic planning correctness → well planning [3]
strategic planning (infrequency) → strategic planning incorrectness → bad planning [4]

Certainly for ADEPT more strategic planning leads to more strategic planning correctness, reducing primarily the level of overestimation. The plausibility of the assumption that planning overestimation in the case of ADEPT could be due to higher levels of self-esteem, locus of control, planning effort and other secondary effects caused or induced by the management training and education or else, seems to hold. Further, the level of strategic planning well planning is highly related to the level of strategic planning correctness: high strategic planning correctness will lead to about the same levels of strategic well planning (the number of underestimators growing not as fast as the decrease in the number of overestimators, therefore leading mainly to more correct planning); lower levels of strategic planning correctness will lead to lower levels of strategic planning quality (the number of overestimators increasing faster than the decrease in number of underestimators, therefore resulting in fewer correct planning). Thus, the level of strategic planning correctness is mainly determined by the amount of correct planning. The higher the level of planning correctness, the lower the level of strategic planning overestimation and the higher the respective level of correct planning as well as -although to a lesser extent- planning underestimation. However, in general strategic well planning among ADEPT is mainly due high levels of correct planning and lower levels of strategic planning *overestimation*, meaning that strategy outcomes mostly equal or shortfall the aimed for. In the long term this *strategic bad planning* condition could harm or endanger the sustainable growth of the firm (see figure 4B).

The case of NOVICE is not as clear as that of ADEPT. Firstly, in the five cases where NOVICE yield higher correctness scores than ADEPT only one is based on higher levels of strategic planning and higher levels of well planning respective to ADEPT, namely the planning of ROE/personal wealth. Moreover, in the case of NOVICE, generally less frequent and worse planning often generate levels of strategic planning correctness as high as that of ADEPT, the causes for which are hard to determine. In general, different levels planning frequency (OPT_NP) do not affect the level of strategic planning correctness (O_CORREC), and the strategic planning correctness does not relate to strategic well planning (OPT_WELL). Still, planning frequency seems to influence positively the strategic well planning. Propositions [5] and [6] hence contradict the assumptions leading to propositions [1] to [4] in that more strategic planning by NOVICE over time does *not* relate to more correct strategic planning correctness, and that the level of strategic planning correctness only marginally relates to the level of strategic planning quality (well planning). Here, strategic planning is to only necessary condition (see above) and sufficient condition for strategic well planning.

**strategic planning (frequency) → well planning [5]
strategic planning (infrequency) → bad planning [6]**



The only plausible explanation for the above assumptions concerning the correlations between strategic planning, strategic planning correctness and well planning is that the majority of NOVICE are overestimators and underestimators. A clear minority of the control group are correct planners. This then means that NOVICE more frequently score "1" (= outcomes were lower than planned for) and "3" (= outcomes were higher than planned for). The planning over planning correctness curve linear estimation shows that more planning does not lead to more correct planning. Nonetheless more planning increases the level of well-planning. This is explained by the fact that overestimators compensate for underestimators, the combined score of which approximates the 2-level of strategic planning correctness. Since strategic planning correctness does not explain strategic well planning, it is assumed that the overestimators outnumber the underestimators. Therefore, the *planning NOVICE are mainly overestimators* (see also Table 3C: .815** correlation coefficient). Based on the rationalizations regarding figure 4B the case of overestimation was defined as a case of *strategic bad planning*. The same conclusion regarding the long term sustainability of the firm can be made as for ADEPT.

In sum, ADEPT and NOVICE have significantly differing strategic planning profiles. Compared to ADEPT, *NOVICE plan less frequently and less frequently well*. However, NOVICE and ADEPT strategic planning seems equally correct. Because from a comparative inter-group analysis there is no clear evidence that the combination of more frequent and more comprehensive or sophisticated strategic planning leads to

more correct strategic planning, **hypothesis 1a is only partially sustained by the above observations: in most cases more strategic planning and well planning of the strategic items leads to better strategic correctness scores.**

Nevertheless, on a non-comparative group level as well as on the aggregate level, *the relation between either the (frequency of) planning or the amount of well planning is evident.* **Proposition 1b is therefore sustained: strategic planning correctness is a function of planning frequency (formalization).**

Strategic planning accuracy

Strategic planning accuracy refers to the degree in which correct strategic planning (see above) explains for firm performance. In other words, strategic planning accuracy answers the question whether the business-owner or manager planned those strategic parameters that ultimately determined firm performance. The level of strategic planning accuracy is considered high when firm performance, in essence growth in sales turnover and/or total number of employees- is explained mainly by those strategic parameters that were highly correct planned. Conversely, inadequate strategic planning include all the planning that does not explained firm performance, whether or not the planning was done in a more or less correct way. The assumption therefore is that accurate strategic planning excludes all forms of incorrect strategic planning.

Table 5 summarizes all *strategic planning profiles* that significantly correlate with the business growth in sales turnover as well as in total number of personnel (formulated as optimized regression sets according to relative significance). Some general observations include, first of all, that all ten strategic planning items have depending on the level of analysis a more or less significant positive or negative influence on the (probability of) firm growth, both in terms of sales turnover as well as in personnel, could be determined. This is mainly explained by the fact that there are many differences between ADEPT and NOVICE regarding the strategic parameters involved in accurate strategic planning.

Secondly, the focus on the strategic planning of '*return on sales turnover (ROS) (profitability)*' and '*product innovation*' (whether or not simultaneously) increases the likeability for business growth [note: as it has become clear that on average the growth speed of ADEPT is higher than that of NOVICE (see Table 2.A), and that, more important, there is positive correlation between *the growth pattern for the sales turnover and staffing is significantly* for ADEPT (.84*), while this correlation is negative for NOVICE (see table 2.B) the relevance of the strategic planning by ADEPT of '*return on sales turnover (ROS)*' and '*product innovation*' for the growth in turnover and personnel seems to be pretty high]

Third, the planning of '*growth and development of personnel*' and/or '*customer relation and market share*' generally lowers the likeability for the general growth in sales turnover, and in the case of well planning ADEPT for the growth in annual personnel too. Fourth, *pro-active adaptation* seems to be a most promising business growth related value for well planning ADEPT. Fifth, the effects on firm growth of the strategic planning of ROI and ROE are ambiguous.

TABLE 5
Business growth-related strategic planning (regression analysis)

ADEPT	<i>WELL PLANNING OF</i>	<i>PLANNING OF</i>
Annual growth in sales turnover	general success rate (= image, reputation, market ranking versus competitors) (-1.52**) return on sales turnover (ROS) (.55***)	customer relation and market share (-.39)
Σ respectively 97percent of the well planning and 29percent of all planning cases due to a set of respectively 92percent of the well planning and 20percent of all planning cases (pro-active adaptation (.17** / 1.36***) ROI (.67*** / -1.7***) sales turnover (.30**) ROE/personal wealth (.37**)	growth and development of personnel (-.41*** / -.46*) return on sales turnover (ROS) (.37 / .35) product innovation (.27* / .23)
Annual growth in personnel		
NOVICE		
Annual growth in sales turnover	ROI (-.19**) customer relation and market share (-.19**)	sales turnover (.24) customer relation and market share (-.20)
Σ respectively 7percent of the well planning and 11percent of all planning cases due to a set of respectively 6percent of the well planning and 51percent of all planning cases (return on sales turnover (ROS) (.19** / .20**)	Product innovation (.34* / .70***)
Annual growth in personnel	ROE/personal wealth (-.15*) growth and development of personnel (-.17**)	return on sales turnover (ROS) (.33**) tempo of realization of the firm (-.36***)

***p < .01; **p < .05; *p < .1. (regression coefficients)

ADEPT' strategic planning accuracy

In addition to the previous descriptive part, more profound correlation and hierarchical multiple regression illuminates the way in which strategic planning items that are significantly more correctly planned by ADEPT at the same time sustain their firm growth. In general, as said already, we expect that the annual growth for ADEPT is more than for NOVICE related to higher strategic planning correctness (the latter being a function of strategic planning frequency, as concluded above). This means that in the case of ADEPT more strategic planning items as well as more correctly planned strategic items relate better to the business growth, at least more and better than for NOVICE.

Well planning ADEPT annual growth in sales turnover (ST(ag)) is *to a very large extent* (in 97 percent of all cases (n=11)) explained by an optimized combination of planning return on sales turnover (ROS; .64***), ROI (.19*) and pro-active adaptation

(ProAct; .17**), and non-planning of general success rate (= image, reputation, market ranking versus competitors) (GSR; 1.09*)¹⁸ -see also table 5 for the combined influence of these elements on growth of sales turnover¹⁹:

$$[1] ST(ag)_{WP-Vlerick (n=11)} = .97 f (ROS + ROI + ProAct - GSR)^{19}$$

Annual growth in personnel (P(ag)) in the case of well planning ADEPT is for 92percent of all cases (n=11) determined by the combination of planning pro-active adaptation (ProAct; 1.43***) and sales turnover (ST; .30**) and the non-planning of ROE/personal wealth (.18) and ROI (-.42):

$$[2] P(ag)_{WP-Vlerick (n=11)} = .92 f (ST + ProAct - ROE - ROI)$$

In the case of all (not necessarily well planning) planning ADEPT, annual growth in sales turnover is to a significantly large extent (in 29percent of all cases (n=38)) determined by the planning of 'return on sales turnover' (ROS; .34**) and 'product innovation' (Inno; .27*) and the non-planning of 'growth and development of the personnel' (HRD; -.35**) and 'customer relation and market share' (CM; -.31*):

$$[3] ST(ag)_{P-Vlerick (n=38)} = .29 f (ROS + Inno - HRD - CM)$$

In the same case, annual growth in number of staffing is to a smaller extent (in 20percent of all 38 cases) determined by planning of 'return on sales turnover' (ROS; .39) and 'product innovation' (Inno; .23) and the non-planning of 'growth and development of the personnel' (HRD; -.28*):

$$[4] P(ag)_{P-Vlerick (n=38)} = .20 f (ROS + Inno - HRD)$$

Although, in the case of ADEPT, most correctly planned strategic planning items (see Table 3) were customer relation/market share and general success rate (= image, reputation, competitive position), the (well-)planning of these strategic items seem to be disadvantageous for the growth of sales turnover or number of personnel. Strategic planning proficiency is rooted in the strategic planning of ROS, innovation, sales turnover, and proactive adaptation. Except for innovation, these strategic planning items are highly frequently planned as well as mostly well-planned. Moreover, the non-planning of already least and worse planned strategic items such as HRD and ROE/personal wealth seem to be beneficial for the growth in sales turnover and the number of personnel. Despite inconsistencies concerning the strategic planning of general success rate, customer relation/market share, and product innovation, the combination of most frequently planned and most correctly planned strategic items seem to explain rather vastly the yearly growth of ADEPT. Hence, the strategic planning by ADEPT can be considered to be "proficient" in nature.

NOVICE strategic planning accuracy

There are not enough well planning cases for NOVICE to get sufficient variance on the ten strategic planning items and to produce any meaningful statistical regression. Due to this shortcoming, looking at table 5, annual growth in turnover (ST(ag)) is only to a

¹⁸ (GSR; 1.09*) e.a. refers to the individual Beta and hence relevance of the particular strategic planning profile elements for the growth of annual turnover and/or personnel. ***p < .01; **p < .05; *p < .1.

¹⁹ .97, .92, .29 and so on refer to changes in the R² and the combined regression coefficients.

very small extent some extent (7percent of all cases (n=13 to 17)) due to the planning of 'return on sales turnover' (ROS; .12*) and non-planning of 'customer relation and market share' (CM; -.20**) and 'ROI' (-.19*):

$$[5] ST(ag)_{WP-NOVICE (n=13-17)} = .07 f (ROS - CM - ROI)^{20}$$

Annual growth in personnel (P(ag)) in the case of well planning NOVICE is to a similar extent (6percent of all cases (n=13 to 17)) determined by the planning of 'return on sales turnover' (ROS; .16*) and non-planning of 'ROE'/personal wealth (-.15*) and 'growth and development of personnel' (HRD; -.19**):

$$[6] P(ag)_{WP-NOVICE (n=13-17)} = .06 f (ROS - ROE - HRD)^{21}$$

Conclusive enough, annual growth in turnover (ST(ag)) in the case of all "planning" NOVICE (n=33) is partly related to planning 'sales turnover' (ST; .24) and 'product innovation' (Inno; .30*) and non-planning of 'customer relation and market share' (CM; -.21):

$$[7] ST(ag)_{P-NOVICE (n=33)} = .11 f (ST + Inno - CM)$$

If the focus of strategic planning is on the combination of 'product innovation' (Inno; .60***) and 'return on sales turnover' (ROS; .33**) and the non-planning of 'return on assets' (ROA; -.30**) NOVICE are in 51percent of all cases (n=33) likely to grow both in terms of personnel:

$$[8] P(ag)_{P-NOVICE (n=33)} = .51 f (ROS + Inno - ROA)$$

For the most explanatory strategic planning factors, namely the strategic planning of return on sales turnover (ROS) and product innovation and the non-planning of HRD (and to a lesser extent to the customer relation/market share) the conclusion differs in many respects from that drawn as for ADEPT. There seems to be no relation between the frequency of the planning or the beneficial character of the well planning for any of these strategic planning factors. Mostly planned and correctly planned strategic items by NOVICE are customer relation/market share, general success rate, proactive adaptation, and ROI. However, the planning of none of these strategic items seems to be explanatory or significantly beneficiary to the firm growth in annual sales turnover or number of personnel. On the contrary a strategic focus on customer relation/market share and ROI seems to be disadvantageous. Moreover, return on sales and sales turnover which explain to a rather large extent the annual firm growth seems to be of the east planned and rather poorly planned strategic items by NOVICE, apart from ROA and ROE. So there seems to be no evidence at all for a plausible relation between the way that NOVICE strategically plan, correctly plan, and the beneficial influence from that planning behavior on firm performance. Hence, the strategic planning by NOVICE is typically "not-proficient" or "inadequate" in nature.

t last, annual growth in sales turnover and number of personnel for ADEPT and NOVICE depends to a large extent on the well planning of two financial and two non-financial strategy items, respectively of three financial and one non-financial strategy

²⁰ Note: (°) too less valid cases and not enough variance were found for the well planning sets on all ten items; hence this grouping variable was fragmented.

²¹ Note: (°) too less valid cases and not enough variance were found for the well planning sets on all ten items; hence this grouping variable was fragmented.

item(s). Nonetheless the fact that the general strategic planning of firm growth is of a rather non-financial nature for ADEPT and equally for NOVICE (see above Table 5), "*proficient*" -thus, correct and accurate- strategic planning seems to be financial of nature. Moreover, over-focusing on the (well-)planning of non-financial strategy items seems to generate a rather negative effect on the sustainability of the business growth (in 78percent of the cases), whereas only in 27percent of the (well-)planning of financial strategy items this is the case.

Altogether, there are significant inter-group differences in the optimized sets strategic planning accuracy (summarized in Table 5: most explanatory combinatory sets of significant cumulative R²). Contrary to the findings for NOVICE, in the case of ADEPT there are unmistakable indications of highly significant relations between perfectly identifiable sets of *correct strategic planning* and *business growth* (explaining business growth for at least 20 to 29 percent in the case of all planners and up to 95 to 97percent in the case of all well-planners), and therefore of a level of *strategic planning proficiency*. **Hence, proposition 2a is sustained in general and proposition 2b is only sustained in the case of ADEPT: strategic planning correctness leads to higher firm performance and in the case of ADEPT increased firm performance is largely due to unambiguous strategic planning proficiency.**

Following this, the fact that in general more proficient strategic planning is likely to sustain firm growth and that, more specifically, ADEPT plan more often, more comprehensive and more proficient than NOVICE (see above), **proposition 3b is sustained: ADEPT in general produce higher growth in turnover and employment than NOVICE.**

The assumption that annual growth in sales turnover is mainly due to planning financial strategy items and that annual growth in staffing (employability) is mainly due to the strategic planning of non-financial items has been largely contradicted. **Hence, proposition 3a is not sustained: small firm financial and non-financial growth measures, respectively growth in annual sales turnover and number of personnel, are not significantly correlated to financial versus non-financial strategic planning (proficiency).**

GENERAL CONCLUSION

Nonetheless the fact that in general ADEPT are younger of age and running smaller companies (during the first five start-up years), the fact that *ADEPT plan more (frequent), more broadly, and more correctly* enables them to generate a higher average business growth rate over the following years. Not surprisingly, the growth rate of both tested parameters (sales turnover size and number of personnel) is significantly higher for the ADEPT than for NOVICE.

In the second part of the paper, the reader got an idea of what kind of strategic planning is argued to effectively induce what levels of correct and/or well-planning, and to what extent accurate planning can explain the business growth either in sales turnover or in the number of personnel (as a measure of employability). Based on the above, an extension to already existing studies, the authors proposed a new method in which the degree of *strategic planning formalization* (= frequency, scope and sophistication or structuredness) can be both quantitatively and qualitatively tested. Also *strategic planning correctness* and *strategic planning accuracy*, referring to the

extent to which strategic goals is attained and strategic planning explains firm performance and growth, were found to be meaningful and workable construct for the study of the degree to which starters seem to be able to plan for company survival and growth, or the "*strategic planning proficiency*". In essence, the link between formalized strategic planning and firm performance (annual growth rate of in the number personnel and sales turnover) could be explained by (1) the level of strategic planning correctness, (2) the amount of strategic well planning, and (3) by the interrelations between strategic planning correctness and accuracy. Although both the test and control group hold large numbers of bad planners -in particular overestimators-, levels of strategic planning accuracy in the case of (well) planning ADEPT topped those of NOVICE considerably, the latter confirming that strategic planning by ADEPT is more proficient.

The research findings even so clarify some plausible catalyst effect of management education and training on the strategic planning proficiency of the starter and early grower and evidence was found to conclude that management training increases the probability of more proficient strategic planning and therefore for higher small firm or start-up performance, survival as well as growth. As noted from the last part of the paper, even though '*the strategic importance attached to management education and training*' does not significantly explains the relationship between the strategic planning mode and firm performance, pretty conclusive results were found on (broader) *sets of entrepreneurial characteristics and management behavior* [EC+MT] that to a certain degree (ranging from 6percent to 97percent of all cases) determine the business growth-related strategic planning proficiency modes. Moreover, the convergence effect of most of the strategic planning proficiency-related EC+MT around the variable '*strategic importance attached to management education and training*' for ADEPT extents possibilities for interpretation for its relative impact on *successful strategic management and managerial behavior in general*. Moreover, ADEPT' average strategic planning mode was identified as *proficient* as the growth pattern, pre-start-up and post-start-up EC+MT, and strategic planning correctness were all linked by a single control variable '*strategic importance attached to management education and training*'. This therefore suggests also an interaction or catalyst effect of the latter on the whole process. This observation does not stand for the control group of NOVICE. Moreover, as we saw many of these strategic planning proficiency-related EC+MT were supported by the pre- or post-start-up profiles. For instance, the assumption that ADEPT typically start from an own business concept or an innovative business idea has been sustained both in terms of their pre-start-up profile and their post-start-up average strategic planning mode which is focused primarily on sustaining their business and their personal lifestyles (cfr. life-style firms).

In conclusion, we offer some suggestions for further research. Despite the support that we found in the literature, the multi-dimensional strategic planning measure is easily subject to criticism, shortcomings and ambiguities. Moreover, the fact that business growth has only been tested through the size of sales turnover and the number of personnel and respective growth rates is open for discussion. These are of course the most frequently quoted business growth parameters in most of the academic management journals and other readings, but nevertheless the measurement of "*business success*" can be made more comprehensive (for example by incorporating ROA, ROI, and other pure financial measures of performance or by the incorporation of more subjective measures such as market share, customer satisfaction, etc.) depending on the *strategy focus* of the firm. Business success measurement has to be developed based on the testing of the strategic planning parameters. Therefore we suggested

taking the broader dimensions such as profitability, market share, customer satisfaction, growth in sales turnover etc... rather than more precise ones.

Other elements for discussion may concern the differences in the entrepreneurial and managerial profiles, including the bias of being management trained or not, non-planning, and the outfall (non-response). Management training and education may be assumed to cause instantly different management styles and behavior in general and to differentiate between strategic planning practices more specifically. The mission of the referred to management training programs is to illuminate the advantages stemming from more fundamental, profound and conceptual thinking, realistic, pragmatic and rational business planning and decision-making, networking (mainly locally), etc. Hence, the relationship between management training and education and business planning proficiency (in terms of effectiveness in sustaining the firm growth) may be *self-feeding*. And, it hopefully is! A potential bias however is in the management training enrollment practice: only starters that clearly signal the need for refining their conception of the firm and business planning abilities as well as a hunger for networking will get accepted to the management training. The search for outside help regarding these matters is considered to be just another indication of this distinct need. But, also "*other elements*" (see figure 1.a) could have affected the relationship between strategic planning and firm performance or growth, for example changes in the environmental, economical and personal context. Therefore, notwithstanding the validity of the here presented findings, further investigation on the linkage between the pre-start-up motivation, age distribution, level of education, etc. on the personal and other levels and the strategic planning modes and the growth pattern of the enterprise is needed. Moreover, a very rigid selection was done by only checking on the EC+MT and strategic planning proficiencies of (well-)planning starters and their relation to the business growth rate. In addition, research also ought to be done on how this relationship specifically looks like in the case of for *not-planners*.²²

In sum, evidence has yet been found for the fact that typical sets of entrepreneurial characteristics and management techniques [EC+MT] can with a significant level of probability contribute to the business growth both in terms of sales turnover as employment, although only through their energizing or multiplication effect on the respective strategic planning proficiency. In the case of ADEPT the EC+MT determinants that cluster around the catalyst '*management education and training*' are of utmost importance and strategic value to future business growth. Knowing this, this research will hopefully lead to further elaboration of management education and all forms of management training, counseling etc. for start-ups and early stage growth firms. Important for Europe's future is the awareness that such unique educational and even vocational management training programs are "indeed" leading to better performing and more sustainable businesses.

²² Because all firms of the control group were selected out of a last years' start-up database for Flanders, all business-owners in the 1996 population were de facto still in business. Hence, to this point no comparative survival analysis could be done. The current research will therefore focus on the *growth rate* of all these firms and leave the mortality (for instance by bankruptcy), stoppage (for instance because the firm was sold) or fall-out analysis of this first cohort for a longitudinal revision of this study which is foreseen for 2001-2002, and currently ongoing.

REFERENCES

- Ackelsberg, R., & Arlow, P. (1985). Small Business do Plan and it Pays off. *Long Range Planning*, 18(5 [October]), 61-67.
- Anderson, R., & Dunkelberg, J. (1993). *Managing Small Businesses*. Minneapolis/St. Paul: West Publishing Company.
- Ansoff, I. (1988(1965)). *Corporate Strategy* (Revised edition ed.). London: Penguin Books.
- Aram, J., & Cowen, S. (1990). Strategic Planning for Increased Profit in Family Owned Business. *Long Range Planning*, 23(6 [December]), 63-70.
- Armstrong, J. (1982). The Value of Formal Planning for Strategic Decisions. *Strategic Management Journal*, 3(3), 197-211.
- Atherton, A., & Hannon, P. (1995). The Business Plan - A 21st Century dinosaur? In H. Klandt & Muller-Boling (Eds.), *IntEnt '95 Proceedings* (pp. 22).
- Attahir, Y. (1995). Critical Success Factors for Small Business: perceptions of South Pacific entrepreneurs. *Journal of Small Business Management*, 33(2 [April]), 68-73.
- Bracker, J. (1986). Planning and Financial Performance of Small, Mature Firms. *Strategic Management Journal*, 7(6), 503-522.
- Bracker, J., Keats, B., & Pearson, J. (1988). Planning and Financial Performance among Small Firms in a Growth Industry. *Strategic Management Journal*, 9(6), 591-603.
- Bygrave, W. (1990). *The Portable MBA in Entrepreneurship [2e set]*. NY: Wiley and Sons Inc.
- Cooper, A., & Gascon, F. (1992). Entrepreneurs, Processes of Founding and New-Firm Performance. In D. Sexton & J. Kasarda (Eds.), *The State of the Art of Entrepreneurship*. Boston: PWS-Kent Publ. Company.
- Crant, J. (1996). The Pro-active Personality Scale as a Predictor of Entrepreneurial Intentions. *Journal of Small Business Management*, 34(3 [June]), 42-49.
- Deschoolmeester, D., Braet, O., & Schamp, T. (2002). *The Antecedents of Entrepreneurial Awareness among Belgian University Students*. Gent: Ghent University.
- Dillman, D. (1978). *Mail and Telephone Surveys. The total design method*. NY: Wiley Interscience.
- Douglas, E. (1997). New Venture Survival: ignorance, external shocks and risk reduction strategies. In S. Kunkel (Ed.), *Journal of Best Papers 42nd World Conference of the International Council for Small Businesses*. San Francisco: University of Chicago.
- Drucker, P. (1999(1973)). *Management. Tasks, responsibilities, practices*. Woburn/MA: Butterworth-Heinemann.
- Fredrickson, J. (1984). The Comprehensiveness of Strategic Decision Processes: extension, observations, future directions. *Academy of Management Journal*, 27(3), 445-466.
- Fredrickson, J., & Mitchell, T. (1984). Strategic Decision Process: comprehensiveness and performance in an industry with an unstable environment. *Academy of Management Journal*, 27(2), 399-423.
- Gibb, A. (1995). *The Role of Education and Training in Small and Medium Enterprise in Europe: creating an agenda for action*. Paper presented at the Inter-Ministerial Conference of Education and Employment Ministries of the European Union and Partner States, Italy.

- Gibb, A., & Nelson, E. (1996). *Personal Competencies, Training and Assessment: a challenge for small business trainers*. Paper presented at the 26th EFMD European Small Business Seminar, Vääsa/Finland.
- Gibb, A., & Scott, M. (1985). Strategic Awareness, Personal Commitment and the Process of Planning in the Small Business. *Journal of Management Studies*, 22(6 [November]), 597-631.
- Hillidge, J. (1990). Planning for Growth in a Small Company. *Long Range Planning*, 23(3 [June]), 76-81.
- Hisrich, R., & Peters, M. (1998(1989)). *Entrepreneurship* (Fourth edition ed.). Boston: Irwin/McGraw-Hill.
- Hofer, C., & Schendel, D. (1978). *Strategy Formulation: analytic concepts*. NY: West/Prentice Hall.
- Jones, W. (1982). The Characteristics of Planning in Small Firms. *Journal of Small Business Management*, 20(3), 15-19.
- Kuratko, D. (1995). The Real Challenges are Risk, Stress, Ego, and Motivation. *Entrepreneurship, Innovation, and Change*, 4(1 [March]), 3-10.
- Lyles, M., Baird, I., Orris, B., & Kuratko, D. (1993). Formalized Planning in Small Business: increasing strategic choices. *Journal of Small Business Management*, 31(2 [April]), 38-50.
- Madu, C., & Kuei, C.-H. (1993). Introducing Strategic Quality Management. *Long Range Planning*, 26(6), 121-131.
- Manigart, S., Clarysse, B., Crijns, H., & Goossens, H. (2000). *The General Entrepreneurship Monitor - Executive report Belgium and Flanders*. Gent: Vlerick Leuven Gent Management School.
- Matthews, C., & Scott, S. (1995). Uncertainty and Planning in Small and Entrepreneurial Firms: an empirical assessment. *Journal of Small Business Management*, 33(4 [October]), 34-52.
- Miles, R., & Snow, C. (1978). *Organizational Strategy - Structure and process*. NY: McGraw-Hill.
- Mintzberg, H. (1991). The Entrepreneurial Organization. In H. Mintzberg & J. Quinn (Eds.), *The Strategy Process: concepts, contexts, cases* (pp. 604-613). Englewood Cliffs: Prentice-Hall.
- Mintzberg, H. (1994a). *The Rise and Fall of Strategic Planning*. NY: The Free Press - Pearson Professional Education.
- Naffzinger, D., & Kuratko, D. (1991). An Investigation into the Prevalence of Planning in Small Business. *Journal of Small Business and Entrepreneurship*, 3(2), 99-109.
- Olson, P. D., & Bokor, D. (1995). Strategy Process - Content Interaction: effects on growth performance in small, start-up firms. *Journal of Small Business Management*, 33(1 [January]), 34-44.
- Pearce, J., Freeman, E., & Robinson, R. (1987). The Tenuous Link between Formal Strategic Planning and Financial Performance. *Academy of Management Review*, 12(4), 658-675.
- Perry, S. (2001). The Relationship between Written Business Plans and the Failure of Small Business in the U.S. *Journal of Small Business Management*, 39(3), 201-208.
- Phillips, P., & Moutinho, L. (2000). The Strategic Planning Index: a tool for measuring strategic planning effectiveness. *Journal of Travel Research*, 38(4 [May]), 369-379.
- Porter, M. (1980). *Competitive Strategy. Techniques for analyzing industries and competitors*. NY: The Free Press.
- Quinn, J. (1980). *Strategies for Change*. Homewood, IL: Irwin/McGraw-Hill Inc.

- Ramanujam, V., & Venkatraman, N. (1987). Planning System Characteristics and Planning Effectiveness. *Strategic Management Journal*, 8(5), 453-468.
- Reid, G., Jacobson, L., & Anderson, M. (1993). *Profiles in Small Business: a competitive strategy approach*. London: Routledge.
- Robinson, R. (1982). The Importance of "Outsiders" in Small Firm Strategic Planning. *Academy of Management Journal*, 25(1), 80-93.
- Robinson, R., & Pearce, J. (1983). The Impact of Formalized Strategic Planning on Financial Performance in Small Organizations. *Strategic Management Journal*, 4(3), 197-207.
- Robinson, R., & Pearce, J. (1984). Research Trusts in Small Firm Strategic Planning. *Academy of Management Review*, 9(1), 128-137.
- Robinson, R., & Pearce, J. (1988). Planned Patterns of Strategic Behavior and Their Relationship to Business-Unit Performance. *Strategic Management Journal*, 14(4), 43-60.
- Rosa, P., Scott, M., & Klandt, H. (1996). *Educating Entrepreneurs in Modernizing Economies*. Avebury/UK: Ashgate Publishing Group / Stirling School of Management.
- Rowe, A., Mason, R., Dickel, K., Mann, R., & Mockler, R. (1994). *Strategic Management. A methodological approach* (Fourth edition ed.). reading, MA: Addison-Wesley Publishing Company.
- Rue, L., & Ibrahim, N. (1998). The Relationship between Planning Sophistication and Performance in Small Businesses. *Journal of Small Business Management*, 36(4 [October]), 24-32.
- Schamp, T., & Deschoolmeester, D. (1998a). Strategic and Operational Planning Behavioural Changes and the Survival and Early Growth of Business Start-ups. *International Journal of Entrepreneurial Behaviour and Research*, 4(2 [Special Issue on Enterprise and Learning]), 141-177.
- Schamp, T., & Deschoolmeester, D. (1998b). *Survival and Growth Business Start-ups: strategic and operational planning through management training*. Paper presented at the The Babson College-Kauffman Foundation Entrepreneurship Research Conference, Gent (Belgium).
- Schamp, T., & Deschoolmeester, D. (2001). Planning and the Business Growth of Start-ups: management training matters. In R. Brockhaus & G. Hills & H. Klandt & H. Welsch (Eds.), *Entrepreneurship Education - A global view* (pp. 387-416). Aldershot, UK: Ashgate.
- Schrader, C., Mulford, C., & Blackburn, V. (1989). Strategic and Operational Planning, Uncertainty, and Performance in Small Firms. *Journal of Small Business Management*, 27(4 [October]), 45-60.
- Schrader, C., Taylor, L., & Dalton, D. (1984). Strategic Planning and Organizational Performance: a critical review. *Journal of Management*, 10(2), 149-171.
- Schwenk, C., & Schrader, C. (1993). Effects of Formal Strategic Planning on Financial Performance in Small Firms: a meta-analysis. *Entrepreneurship: Theory & Practice*, 17(3 [Spring]), 53-64.
- Sexton, D., & Van Auken, P. (1985). A Longitudinal Study of Small Business Strategic Planning. *Journal of Small Business Management*, 23(1), 7-15.
- Shuman, J., & Seeger, J. (1986). The Theory and Practice of Strategic Management in Smaller Growth Firms. *American Journal of Small Business*, 31(1), 7-18.
- Smith, J. (1998). Strategies for Start-Ups. *Long Range Planning*, 31(6), 857-872.
- Steiner, G. (1967). Approaches to Long Range Planning for Smaller Business. *California Management Review*, 10(1), 3-16.
- Timmons, J. (1978). Goal Setting and the Entrepreneur. *Journal of Small Business Management*, 16(2), 1-9.

- Timmons, J. (1998(1994)). *New Venture Creation: entrepreneurship for the 21st century* (Fifth edition ed.). Boston: McGraw-Hill International Editions [Irwin].
- Trailer, J., & Wolford, C. (1997). *On the Logic of Composition in Writing Business Plans: teaching argument structure*. Paper presented at the 42nd World Conference of the International Conference for Small Business (ICSB), San Francisco (USA).
- Van Clouse, G. (1990). A Controlled Experiment Relating Entrepreneurial Education to Students' Start-Up Decisions. *Journal of Small Business Management*, 28(2 [April]), 45-53.
- van Hoorn, T. (1979). Strategic Planning in Small Business and Medium Sized Companies. *Long Range Planning*, 8(2), 84-91.