UNDERSTANDING ENTREPRENEURIAL ORIENTATION AFTER A MANAGEMENT BUY-OUT
-Evidence from Dutch case studies-
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ABSTRACT

This paper focuses on the role that entrepreneurial orientation plays as intermediate driver of post-buy-out performance. It presents results of two case studies in divisional buy-out firms and continues building upon the value creation studies in MBOs where the incumbent managers acquire a significant equity stake as individuals with institutional support in order to control the company. In order to study the relationship between entrepreneurial orientation and economic performance, effort is put on operationalising the dimensions of the entrepreneurial orientation construct of Lumpkin and Dess (1996) in relation to elements of the external and internal environment of the buy-out firm.

As a consequence of being hived off from the parent company, preliminary results of the case studies show two developments simultaneously, e.g. an increasing tendency to be proactive relative to market opportunities and substantial restructuring activities. These seem to be key factors and influence strongly the willingness and the skills to innovate and take risks. Individuals and teams in the firms are encouraged to carry vision and plans through completion. However, being aggressive to competitors is not in all cases a vital condition for successful performance. Specific buy-out characteristics as renewed strategic goals, reallocation of financial and personnel resources and decentralisation are fuelled by management equity stake, increased debt and venture capital monitoring. These motivating mechanisms behind the MBO are recommended to improve the conceptual model of entrepreneurial orientation for a specific MBO setting.

This paper contributes to getting more consensus toward building and testing theory and to achieving a better understanding how entrepreneurial processes take place in a value creating MBO setting and how venture capitalist relate to these processes.

1. INTRODUCTION

A very important event in the life-cycle of a firm which harbours serious growth ambitions is the management buy-out (MBO) accompanied by the infusion of venture capital (Reid, 1996, Wright and Robbie, 1996). Certainly not all Dutch MBOs belong to this category, especially the first buy-out movement in Holland consisted for a large part of firms which were hived off from financially troubled parents in a defensive way. Most of them were bankloan financed (Bruining, 1992). For them it was a challenge to aim for survival. Later on this situation changed strongly and MBOs were divested mainly because of strategic reasons of the parent company to concentrate on their core activities, thus offering in essence financially healthy subsidiaries better economic perspectives for expansion while standing on their own feet.

MBOs backed by venture capital lead to significant changes in firm’s ownership composition, and can affect its subsequent rate of growth, its size, strategy and organisational structure. It is within the context of these changes that information about the
entrepreneurial practices after the MBO in such firms is stimulated. In this article we aim to answer the following questions:

1. Does the entrepreneurial orientation of a firm change after a buy-out and if so, how?
2. How does the external and internal environment relate to this development?
3. In what areas are the venture capital investor representatives in the supervisory board of real assistance to the entrepreneurial orientation?
4. Does the entrepreneurial orientation after a buy-out contribute to economic performance?

The structure of this paper is as follows. After the introduction we explain in section 2 our research methodology and data gathering as well as our criteria for selection of MBO firms and venture capital investors in this study. In section 3 we give a short description of the MBO and the empirical MBO-performance studies in order to legitimate focus of this paper on value creation interventions. The conceptual framework of entrepreneurial orientation (E.O.) of Lumpkin and Dess (1996) is presented in section 4. There we also formulate propositions about how entrepreneurial orientation dimensions relate to environmental and organisational factors before and after the MBO. In Appendix 4 we present the contribution of the empirical literature to the operationalisation of the entrepreneurial orientation dimensions. In providing answers for our hypotheses we analyse in section 5 and 6 the results of the case studies using the entrepreneurs' as well as the venture capitalists' perspective on entrepreneurial orientation, supplemented by information from interviews with VCI's about their assistance during and after the buy-out process. In section 7 we sum up and draw the major conclusions of this study.

From a theoretically point of view academians are interested how those firms manage the processes to become entrepreneurial (again) which give them opportunity to verify their models and refine their theories about entrepreneurial orientation in firms, including the question which role venture capital plays with respect to this in restarted firms. Practicians such as managers/entrepreneurs and venture capitalists will look after combinations of skills of each other and situations that attribute to growth of the buy-out firm. When competition among venture capitalist as fund providers increases and value added is seen as a critical factor in positioning themselves in addition to financial resources to their portfolio companies, then they should need to pay more attention to this.

2. METHODOLOGY AND DATA GATHERING

In the empirical performance literature (e.g. Kaplan, 1988 and Wright, 1994) two different kinds of arguments are offered for economic performance improvement after a Management Buy-out (MBO). Value creation asserts that MBOs are made feasible through major changes in assets management after the MBO, whereas the non-intervention arguments assume no significant post-buy-out changes in the operations of the firm and attach importance to such factors as pre-buy-out tax saving, substitution of equity by debt, etc. This paper belongs to the value creation studies and focuses on the relationship between entrepreneurial orientation and economic performance before and after buy-out.

Empirical studies of Robbie & Wright (1995) and Bruining (1992) describe operational changes after a MBO and report improvements on financial performance. Zahra (1995) documents post buy-out corporate entrepreneurship changes, measured by venturing and innovation, and the corresponding changes in performance. In order to study the relationship between entrepreneurial actions after the MBO and the firm's performance in a more coherent and systematic way we use the conceptual model of Lumpkin & Dess (1996) relating dimensions of entrepreneurial orientation (E.O.) to the firms external and internal environment. Based on the conceptual model and the buy-out performance studies we
develop hypotheses how the entrepreneurial orientation after the MBO relates to the
dynamism and hostility of the environment, to the strategy of the firm and to internal
variables such as top management characteristics, structure, culture, firm resources and
competencies.

In the conceptual framework of E.O., which we will describe in section 4, the relationship
between entrepreneurial orientation and performance is explored by looking at
environmental and organisational factors that may affect this relationship. We operationalise
these factors as well as the dimensions of the entrepreneurial orientation construct and the
economic performance, by selecting variables from the vast body of empirical studies in the
respective fields of entrepreneurial management, strategy and structure (see Appendix 4).
In order to create a direction for our research in this so-called process side of
entrepreneurship we formulate hypotheses about the influence of environmental and
organizational factors on the development of entrepreneurial orientation. In gaining
independence as a firm by means of an MBO we expect to observe some important changes
in entrepreneurial practices. Therefore we consider this area as a good opportunity to test
the conceptual model of entrepreneurial orientation in an analytical way by means of case
studies.

The case study method is applied because it is a more appropriate instrument for capturing
the complexity of the managerial and organisational changes that take place following the
transfers of ownership (Green, 1992) than the survey method. Case studies are written and
interviews were held on the basis of information gathered from questionnaires which
contained propositions with regard to factors that may affect the relationship between
entrepreneurial orientation and performance before and after the MBO (see Appendix 2).
We used 5-point Likert scale questions for gathering the answers on the list of propositions
of the CEOs of the selected venture capital backed buy-out firms. In order to observe
changes over time these propositions refer to the period of two years before and two years
after the MBO.

Questionnaires and face-to-face interviews were used as data gathering methods. Originally
4 divisional buy-out firms were selected from our database on Dutch MBOs held at
Erasmus which were bought out during 1992-1995 with the help of venture capitalists. All
CEOs and their venture capital investors (VCIs) gave their co-operation. Two MBO firms
represent the medium segment of the Dutch buy-out market (500 employees) with deal
prices varying between f 50-f160 million, and two MBO firms are characteristic for the
smaller segment of the market (50-100 employees) with substantial lower deal prices
between f 5-f10 mn. Only from two case studies, one from the medium and one from the
smaller segment, results will be reported in this paper. In all cases the larger Dutch venture
capitalists were involved. If we look to the buy-out source, numbers of employees, size
and the industries, the selected MBOs for our study do not differ significantly from the
Dutch MBO population.

After completion of the questionnaire we conducted face-to-face interviews in order to
gather the CEOs explanations for their points of view and to remove uncertainties about the
questionnaire. Full reports of the case studies were sent for comments to the CEOs and a
synopsis (see Appendix 1) together with the entrepreneurial orientation profiles of the
respective CEOs were sent for comments to their venture capital representatives in the
supervisory board. With the latter interviews were held in order to verify in the first place
whether or not the venture capital investor agrees with any shift in profile of entrepreneurial
orientation as perceived by the CEOs with respect to their firms. In the second place we
verified selected areas to which the venture capitalist might have given their assistance to
the CEO and his management team in order to act more entrepreneurial, thus trying to
understand what they mean with added value of the venture capital investor in post buy-out
situations (see Appendix 3).
We used the following criteria in selecting the MBO firms. The firms should be divested by their parent companies by means of an MBO, because these MBOs belong to the by far largest MBO category in The Netherlands. For the same reason we selected small and medium sized firms as measured by the numbers of employees employed (50-750) because most Dutch MBOs fall in this category. Another criterion was the time period in which the MBO transactions should have taken place. We think that MBOs implemented during 1991 and 1995 do not suffer disadvantages intrinsic to recent or to transactions from too long ago. By choosing MBO firms from this period we try to avoid the disadvantages of lack of information because the operational and organizational consequences are not yet fully implemented or information is not existing anymore because the buy-out managers have left the firm. A final criteria for the selection was that the firms had to be venture capital backed by leading Dutch venture capital investors (VCI), indicating that the VCIs are all experienced buy-out advisers. These VCIs must be involved from the very start of the MBO and present representative in the board of commissioners, thus very well informed over the years about the development of entrepreneurial practices.

3. POST BUY-OUT PERFORMANCE AND ENTREPRENEURIAL ACTIONS

An MBO involves members of the incumbent management team acquiring a significant equity stake as individuals with institutional support in order to control the company. Sometimes they obtain a controlling interest in the company or subsidiary for which they are employed. It is well-known that the structuring of a buy-out involves the introduction of significant equity incentives for the entrepreneurs involved, together with monitoring systems by venture capitalists and other funds providers (Jensen, 1993; Wright, et.al., 1994). It is also clear from both practitioner texts and academic research that extensive screening by venture capitalists at the time of investment appraisal places considerable emphasis on the entrepreneurial skills of the managers leading a proposed buy-out or buy-in (Robbie and Wright, 1995). Examination of the characteristics of the leading individuals in buy-outs and buy-ins show that they do display similar characteristics of entrepreneurs generally.

There is extensive evidence that entrepreneurs involved in buy-outs make major changes at the time of the transaction or shortly afterwards (Wright et.al., 1992; Bruining, 1992). These changes most noticeably involve reductions in employment levels but also concern the introduction of tighter and more appropriate management control systems as well as more decentralised decision-making (Bruining, 1992).

Most available studies concern post buy-out performance changes and relate primarily to the US and the UK and concern hitherto the first two to three years after the transaction. Research on US LBOs (leveraged buy-outs) indicates substantial mean improvements in profitability, cash flow and productivity measures over the interval between one year prior to the transaction and two or three years subsequent to it. A series of studies of early 1980s LBOs (Palepu, 1990 and Thompson and Wright, 1995) reports mean gains in operating cash flows/sales ration of between 11.9 and 55 percent and also major increases in productivity. A subsequent study (Opler, 1992) using deals completed in the later 1980s report a 16.5 percent gain in that ratio over a similar three year period. A survey of 182 mid 1980s MBOs in the UK indicated that 68 percent showed clear improvements in profitability, compared with 17 percent that showed a clear profitability fall (Wright et al, 1992). In this study improvement in working capital management, particularly credit management and productivity appear to be important identified source of improved performance.
Results from the first Dutch survey of 73 MBOs permits comparisons of performance to be made between buy-outs and their industrial sectors (Bruining, et al., 1995). The results indicate that in general for a seven year period post buy-out enterprises concerned outperform their industrial sectors for the three ratios examined, that is cash flow to total debt, EBIT to total assets and return on equity. The study also showed that buy-outs involve considerable means to improve operating efficiency (cost cutting programmes, improving planning and logistics, etc) and structural flexibility (reorganisation, etc.) and that changes were primarily associated with increased managerial ownership incentives.

Results from the second Dutch survey of 54 MBOs simply enable raw post buy-out changes to be compared with the pre-buy-out position (Bruining, et al., 1995). Indications are that both turnover and employment grow steadily after the buy-out throughout the five year period. The investment expenditures to sales ratio falls immediately post buy-out and then rises in each of the next four years except the fourth year after the buy-out. This finding appears to be in contrast to much of the US research. The ratio of working capital to sales falls immediately after the buy-out, perhaps reflecting a tightening of debt control on buy-out. After this time, the ratio increases, perhaps reflecting that creditor control is not maintained as sales grow. The EBIT to sales ratio rises post buy-out for three years and then falls.

Malone (1989) in US study and Wright, et al. (1992) for the UK show significant increases in new product development occur post buy-out which the entrepreneurs consider would not otherwise have happened. Zahra (1995) shows for a sample of 47 US buy-outs substantial increases in product development, technological alliances, R&D staff size and capabilities and new business creation activities. These corporate entrepreneurship factors were significantly and positively associated with changes in company performance. Green (1992) reports that over and above any financial incentive on the buy-out team to become better managers, ownership was interpreted as allowing them to perform their tasks more effectively.

Entrepreneurial actions in buy-outs take various forms and may be spread over short or long periods. Entrepreneurial actions may involve restructuring actions to bring about more effective and appropriate use of resources. These actions are typically occasioned in response to problems provoked by the pre-buy-out ownership and control regime and involve cost reductions and the introduction of new control systems and management structures. Entrepreneurial actions may also involve innovative activity concerning new product development, increased investment, etc. which entrepreneurs were unable to effect pre-buy-out, typically because of managerial and financial constraints imposed by previous owners. Both groups of actions are consistent with the dimensions proactiveness and innovativeness from the Lumpkin&Dess model which we will discuss in the next section. In the next Chapter this conceptual model is presented in order to study these entrepreneurial actions after the MBO in a more coherent and systematic way.

4. CONCEPTUAL FRAMEWORK OF ENTREPRENEURIAL ORIENTATION

Covin & Slevin (1986) were the first authors who argue that the common tendency to view entrepreneurship as an individual’s psychological profile has not led to replicable research findings. There are too many individual differences across subjects and the character of entrepreneurship is highly situational. They suggest to see entrepreneurial behaviour as an construct which may have more reliability and long term validity and recommend the organisation as the unit of analysis to determine more stable relationships between entrepreneurship as a more macro, internal variable and organizational performance.
Also according to Lumpkin and Dess (1996) there is little agreement on the nature of entrepreneurship and how it contributes to performance because the term is used in the context of various levels of analysis. It is often associated with individuals introducing revolutionary inventions, or the concept is primarily applied to the sector of small business which are responsible for economic growth, new-job creation via new entry (markets).

Corporate entrepreneurship (Guth & Ginsberg 1990; Stopford & Badenfuller 1994) is a concept which is more harmonious with the concept of entrepreneurial orientation used in this paper. The typical phenomena this concept addresses are the birth of new business within existing organisations, i.e. internal innovation or venturing and the transformation of organisations through renewal of the key ideas on which they are built, i.e. strategic renewal. Also Miller explains the multidimensional concept of corporate entrepreneurship by stressing the meaning of innovativeness, risk-taking and pro-activeness. On the basis of empirical literature research Lumpkin & Dess add two other dimensions to the entrepreneurial orientation of a firm: autonomy, because discussions of entrepreneurial activity in the strategy-making process literature often emphasise the role of autonomous behaviour (Burgelman, 1983; Hart, 1992) and competitive aggressiveness which can be seen as a decisive way to create competitive advantages for the firm amongst competitors (Day, 1994). This last dimension uses a slightly different angle than pro-activeness which indicates how a firm relates to market opportunities, influence trends, create demand, etc.

![Conceptual Framework of Entrepreneurial Orientation](Source: Lumpkin en Dess 1996)
New entry is the essential act of entrepreneurship. Entering new or established markets, launching new venture, either by start-up, through an existing firm as in this article, or via "corporate venturing" is the central idea underlying the concept of entrepreneurship. The processes, practices and decision-making activities that lead to new entry are underlying the concept of entrepreneurial orientation. We can explain this distinction by the well-known contrast made in strategic management literature between the content and the process dimension. The content dimension can be represented by the question as "What business shall we enter?", whereas the process dimension questions "What methods, practices and decision styles are used to act entrepreneurial"?

The primary purpose of this article is to clarify the nature of the entrepreneurial orientation after the MBO firm and the way how it is related with firm performance. To address this question we use the conceptual framework of L&D for exploring the relationship between entrepreneurial orientation and performance. Their model is based on the work of contingency theorists (Burns & Stalker 1961; Chandler, 1962; Lawrence & Lorsch 1967; Schendel & Hofer 1979; Miles & Snow 1978; Miller & Friesen, 1983; Miller 1988) who suggest that congruence or fit among key variables environment, structure and strategy is critical for obtaining optimal economic performance. L&D add to these contingency factors a set of entrepreneurial dimensions representing entrepreneurial processes, methods, styles that firms tend to use when acting entrepreneurial and thus obtaining optimal performance. We follow the view of L&D that contingency factors influence how an entrepreneurial orientation will be configured to achieve high performance. We use their model to investigate the role of contingency factors on the E.O.-performance relationship in the context of Dutch MBOs and make comparisons before and after the MBO in order to describe what kind of interaction is going on in the E.O.-performance relationship. In their eyes (a) the relationship between the entrepreneurial orientation and performance is context specific and (b) the dimensions of EO may vary independently of each other in a given context. In 4.2 we present hypotheses about this relationship.

In the framework we conceptualise the E.O.-performance relationship in an interactive way. An increase in one of the E.O.-dimensions could possibly interact with changes in the environment, in organizational factors as structure, top management team characteristics or in strategy. For the time being we limit ourselves to the interaction effects between entrepreneurial orientation and the contingency factors from the model. In analysing the results of our case study we will come back to the question what kind of additional insight into the relationship between E.O. and firm performance is provided. Before we present the results of our case studies we will give in the following paragraph more detailed descriptions of the entrepreneurial dimensions which we consider as intermediate drivers of post buy-out performance.

**Entrepreneurial Dimensions**

Below we describe shortly the content of the five different dimensions. We refer the reader for operationalisation of each of the dimensions to the Appendix. The resulting questions were reformulated in the form of propositions for our questionnaire in order to create appropriate possibilities for answering on a five point Likert scale (see questionnaire in the Appendix).

**Innovativeness** is described as the tendency of an organisation to engage in and to support new ideas, novelty, experimentation and creative processes that result in new products, services or technological processes

**Proactiveness** is a process aimed at anticipating and acting on future needs by seeking new opportunities which may not be related to the present line of operations, introduction
of new products and brands ahead of competition, and strategically eliminating operations which are in the mature or declining stages of life cycle.

-Competitive aggressiveness refers to "a firm's propensity to directly and intensely challenge its competitors to achieve entry or to improve position, that is, to outperform industry rivals in the marketplace" (Lumpkin & Dess, 1996).

-Risk taking is formulated as follows: to what degree are managers willing to make large and risky resource commitments, i.e., those which have reasonable chance of costly failures.

-Autonomy the extent to which a team or an individual in the firm is free to bring forward a vision or an idea and the extent to which they have freedom to implement them on his/her own.

• Aspect delegation:
• Aspect formalization:

-Hypotheses

In this paragraph we present our hypotheses to test the conceptual framework of entrepreneurial orientation. For a summary of the operationalisations of the contingency variables from the conceptual model we refer the reader to the questionnaire (see Appendix).

Surviving and staying competitive in an hostile and dynamic environment is a difficult task for the established firms (Hall, 1980). Miller & Friessen (1983) report that successful firms show more positive correlations between increases in environmental dynamism and new products, increases in innovation, proactiveness and risk taking. Covin & Slevin (1989) report about the positive relationship they found among small firms between hostility and the organic structure as well as the small firm's overall competitive orientation. Also Zahra (1991) confirms that the more hostile the environment is for a company the more entrepreneurial activities it will report.

With regard to the relationship between environment and entrepreneurial orientation in buy-out firms we formulate the following hypotheses:

H 1: Dynamism in the environment of the MBO firm is positively associated with its entrepreneurial orientation.
H 2: Hostility in the environment of the MBO firm is positively associated with its entrepreneurial orientation.

In several studies (Zahra, 1991; Naman & Slevin 1993) growth oriented strategies are positively associated with entrepreneurial orientation. To limit the scope of our research the strategy formulating process is excluded from our research. Khandwalla (1977) investigated whether or not an orientation to standardisation is negatively related to entrepreneurial activities emphasising innovation and risk taking. Surprisingly he could not confirm such a relationship.

With regard to the relationship between strategy and entrepreneurial orientation we formulate the following hypotheses:

H 3: Growth oriented strategies are positively associated with entrepreneurial orientation after the MBO.
H 4: Emphasis on product quality is positively associated with entrepreneurial orientation after the MBO.
Extensive empirical literature can be found on the subject of organisational structure and entrepreneurship. According to Khandwalla organisations with a strong [entrepreneurial] orientation ought to be an organic orientation. He explains this by referring to risk-taking management teams who usually seize opportunities and make commitments of resources before fully understanding what actions need to be taken. Organisations will not be able to adapt itself to the evolving situation unless management is flexible. The research of Naman & Slevin (1993) led to the same conclusion: entrepreneurial style (willingness to take risk, to innovate and to act proactively) and organicity (open communication, result-oriented and loose or informal control) are positively correlated with firm performance. Miller (1983) examined the relationship between (de)centralisation and the entrepreneurial capacity of a firm.

With regard to the relationship between structure and entrepreneurial orientation we formulate the following hypotheses:

H 5: The extent to which decisions are centralised is negatively associated with entrepreneurial orientation after the MBO.

H 6: The extent of formalization is negatively associated with entrepreneurial orientation after the MBO.

The next organizational variable from the conceptual framework we take into account is organizational culture. Covin & Slevin (1991) argue that in entrepreneurial organisations positive cultures support organizational entrepreneurship. In organisations where entrepreneurship is lacking as a strategic goal, the culture does not support risk taking, searching for opportunities and innovation. Cornwall & Perlman (1990) assert that culture is a key determinant of, and the first step in fostering entrepreneurial activity within an organisation. It touches and influences everything that people do. Burgelman & Sayles (1986) discuss culture is a decisive factor for risk taking, one of the entrepreneurial dimensions from the framework of Lumpkin & Dess.

Regarding the relationship between culture and entrepreneurial orientation we formulate the following hypotheses:

H 7: The extent to which culture values and supports the open expression of novel or radical ideas is positively related to entrepreneurial orientation after the MBO.

H 8: The extent to which the organisation culture values and supports the empowerment of middle- and lower level employees is positively associated with entrepreneurial orientation after the MBO.

Resources and competencies form the basis for the actions of the firm. Covin & Slevin (1991) state that a firm’s ability to engage in entrepreneurial behaviour will depend, in part, on its resources and competencies. They found that entrepreneurial posture is reflected in three types of organizational-level behaviours such as top management risk taking, the frequency of product innovation and the firm’s propensity to aggressively and proactively compete with industry rivals. They suggest that entrepreneurial posture is positively related to the ability of a firm to quickly bring new products to market and also positively related to the percentage of a firm’s financial resources spent on R&D activities. Other authors (Stevenson & Gumpert, 1986 and Burgelman, 1983) shed light on the importance of performance related rewards systems to encourage entrepreneurial activities.

With respect to the relationship between entrepreneurial orientation and the resources and competencies of the MBO firm we formulate the following hypotheses:

H 9: The ability to bring new products quickly to market is in MBO firms positively associated with entrepreneurial orientation.
H 10: The extent to which financial resources are spent on R&D activities is positively related to entrepreneurial orientation.

H 11: Performance related reward systems are positively associated with entrepreneurial orientation.

In this paper we abstract from studies which focus on psychological characteristics of top management (Begley & Boyd, 1987) such as psychological attributes as need for achievement, locus of control, risk taking propensity, tolerance of ambiguity and type A behaviour. Instead we concentrate on the top management team experience which venture capital investors claim as important characteristics for successful running the company. Respectively these experiences are located in the following areas: production, human resources, financial accounting, information technology, marketing, industry and general management.

Therefore our hypotheses with respect to entrepreneurial orientation and top management team characteristics is as follows:

H 12: The presence and experience with all of the important disciplines in top management team are positively associated with entrepreneurial orientation.

Zahra (1995) study observes increases in a firm's commitment to corporate entrepreneurship after a leveraged management buy-out. Increases were significant in several commitments such as to commercialisation, to product development, to enhancing the quality of the R&D function and to business venturing. Therefore we formulate as our main hypothesis:

H 13: The entrepreneurial orientation of the firm increases after the MBO.

In several studies about entrepreneurship and performance positive correlations are found between corporate entrepreneurship and corporate financial performance (Zahra 1991, 1993; Zahra&Covin 1995), between entrepreneurial intensity and financial and market performance (Morris&Sexton 1996).

H 14: The development of the entrepreneurial orientation is positively associated with the firm’s economic performance after the MBO.

In the next paragraph we will present our results from our five case studies.

5. CASE STUDY RESULTS

Here we will present our case study research findings based on the questionnaires and interviews with the CEOs and the VCI representatives in the supervisory boards of the MBO firms. The content of this chapter is as follows. In the first place we compare before and after the MBO for each of the case studies whether the CEOs of the MBO firms report any changes in the dimensions of entrepreneurial orientation or not. We describe whether or not there is some coherence between these five dimensions. In the second place we relate the changes in the E.O. dimensions to the context of their external and internal contingency variables in order to find out if and how they are related to each other. In the third place we explain how the E.O. construct is related to the improved economic performance. And finally we present in addition to the CEOs perception, the view of the venture capital representative in the supervisory board as to what areas this board has contributed to the firm’s performance after the MBO.
5. MERVO PRODUCTS BV

For a short description of the firm we refer the reader to the case synopses in the Appendix 1.

5.1 Development of Entrepreneurial Orientation

As we can see from Figure 2 (ad A, B, C, D) after the MBO the firm's active search for new opportunities increased. Instead of 'Japanizing', Mervo Products started developing new products on its own, e.g. several animal snacks, especially for the puppy segment.

The on-going need for improving the health status of its products offered a lot of opportunities to increase quality as well as the margins of its products. This increase in proactiveness has influenced directly the need of innovation. Before the MBO the firm already had developed a range of new products but occasionally its parent company CEBECO did not approve new product ideas. Thus, investing more in R&D (excess expenditures amounted 50 percent), even more than the industry average together with an emphasis on technological leadership (scarce technology to produce extreme high percentages of fat) stimulated the firm's innovativeness after the MBO. After the MBO top management has become more R&D oriented, indicating the preference for projects which yield relatively high added value and thus a high return on investment. The program is financed by the company's own cash flow. The degree to which the management is willing to take risk is slightly increased.

The role of marketing in the company became somewhat more important after the MBO, in the sense that marketing generates not only more new product ideas from its customers but also new products from important international industry conferences, e.g. the Chicago petfood meeting. This shows where the firm gradually increased its competitive aggressiveness, e.g. the willingness to improve its position quicker than its industry rivals. Despite its private label strategy the firm aims to follow the biggest competitor as Hills (US) quicker than other competitors. Within six months Mervo Products succeeded to become market leader in the cat food sector in Finland. However, most of the items on the competitive aggression dimension remained unchanged after the MBO. There is no "undue the competitor" attitude, because of the damaging effects for the total industry, nor a stronger influence of marketing on the strategic direction of the firm, nor an increase in use of marketing consultants or marketing research. At last we observed an increase in autonomy. Referring to independent action of an individual or team to bring forth an idea or vision and carrying it through completion, we found that the magnitude and direction of research into new products was delegated as was the case with significant price changes (within certain limits) in existing products. In a certain way the firm had become somewhat less formalistic. After the MBO formal policies and procedures are not the predominant guide for most of the decisions as compared to the situation before the MBO, indicating some room to manoeuvre. But planning well in advance of capital expenditures as well as of operational budgets are examples that demonstrate the drive for formal tight financial control after the MBO.

From Figure 2 we can see that not all items of the E.O. dimensions change after the MBO. Some personnel, pricing of products and investment decisions are not delegated. Because Mervo Products prefers a 'live-and-let live' attitude towards its competitors it does not take an aggressive stance in taking their advantage of chances.

We conclude that the E.O.-dimensions show a coherent mutual interdependent structure and affirm therefore hypotheses number 13 that the entrepreneurial orientation of the firm increases after the MBO.

Figure 2: ENTREPRENEURIAL ORIENTATION MERVO PRODUCTS
4. Entrepreneurial orientation

A. Autonomy (Refers to the independent action of an individual or a team bringing forth an idea or vision and carrying it through completion):

- **Delegation of authority:**
  To what extent has the chief executive delegated to others to make each of the following classes of decisions.

  - Marketing strategy for a new product/service is not delegated
  - Changes in the strategy for existing products/services is not delegated
  - Hiring and firing of personnel is delegated
  - Raising of long term investments is not delegated
  - Pricing of new products is not delegated
  - The magnitude and direction of research into new products is delegated
  - Significant price changes in existing products are not delegated
  - Bargaining with personnel or their unions about wages etc. is delegated

- **Formalization:**
  - Formal policies and procedures guide most decisions
  - Lines of authority are specified in a formal organization chart
  - Plans tend to be formal and written
  - Capital expenditures are planned well in advance
  - Formal operating budgets guide day-to-day decisions
  - Formal job descriptions are maintained for each position

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<th>PERIOD BEFORE THE MBO</th>
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B. Risk taking (The degree to which managers are willing to make large and risky projects- i.e., those which have a reasonable chance of costly failures):

- Top management has a strong emphasis on the marketing of tried and true products or services
- Top management has a strong proclivity for low-risk projects with normal and certain rates of return (e.g., virtually certain 10% R.O.I. after tax)
- Policy of growth primarily through internally generated funds (retained earnings)

C. Innovativeness (Creating and introducing original solutions for new or already identified needs):

- No changes in product lines in past 5 years
- No new products in past 5 years
- No very strong emphasis on R&D, technological leadership, and innovations
- Much lower R&D expenditures compared to industry's average
- Much less successful introductions compared to industry's average
D. Proactiveness (Processes aimed at anticipating and acting on future needs by seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of life cycle):

- No active search for big opportunities
- In dealing with competitors the company typically responds to actions which competitors initiate
- In dealing with competitors the company is very seldom first to business to introduce new products/services, etc.
- When confronted with decision-making situations involving uncertainty, the company typically adopts a cautious, 'wait-and-see' posture in order to minimize the probability of making costly decisions

E. Competitive aggressiveness (The firm’s propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is to outperform industry rivals):

- Strong emphasis on marketing in attacking opportunities
- Marketing generates most new product ideas
- No use of marketing consultants by the company
- Customers are never source of new ideas
- No marketing research by the company
- In dealing with the competitors the company typically seeks to avoid competitive clashes, preferring a 'live-and-let-live' posture

5. Company results

- Cash flows (profit after taxes + Δ working capital) have diminished in the course of the years
- Customer satisfaction has diminished in the course of the years
- EBIT has diminished in the course of the years
- Turnover (in personnel) has increased in the course of the years
- Absenteeism (among workers) has increased in the course of the years
- Turnover has decreased in the course of the years
- Labor productivity has diminished in the course of the years

5.2 External and Internal Contingency Variables

-Environment

None of the environmental factors remained constant as compared to the situation before the MBO. One of the most important trends in the petfood industry is the increasing humanising of animals creating abundant health claims for product opportunities for the complete life-cycle of the animal. The speed at which products and the related technology are getting obsolete in this kind of industry is rather high. After the mbo even higher than before. On the one hand this implies a decrease of dynamism because demand and
consumer tastes are fairly easy to predict and on the other hand competitor actions are becoming more and unpredictable. Following the buy-out the director and his team have become more alert in order to act more proactive in creating healthy animal menus. By introducing engineers of the agriculture university Wageningen the firm was able to anticipate on new technology developments necessary to produce the improved animal food and on new products, e.g. the animal snack for the puppy segment with extreme high percentages of fat.

We see three dimensions of the E.O. directly and positively related to the dynamics of the environment, namely competitive aggressiveness, proactiveness and innovativeness.

Hypothesis H 1 is confirmed:

*Dynamics in the environment of the MBO firm is positively associated with its entrepreneurial orientation.*

In contrast to dynamism, the hostility of the environment in the eyes of the CEO does not show an increase in threat to survival for the buy-out firm as compared to the situation before the MBO. Because price competition can easily be avoided by the abundant niches in the pet food industry Mervo Products is not trapped in the typical Dutch fighting market, but uses plenty of room for quality driven instead of price driven competition. This is consistent with the finding of constant scores on the E.O. dimension competitive aggressiveness before and after the MBO. For most of the variables this dimension remained unchanged overtime. An exception must be made however for the marketing function which contributes after the MBO more to product development than before. The environment for Mervo Products has become lesser hostile than before but did not effect the entrepreneurial orientation adversely.

Dimensions of the E.O. directly related to this aspect of the environment are pro-activeness, and innovativeness and to a lesser extent the marketing aggressiveness.

We confirm hypothesis H 2:

*Hostility in the environment of the MBO firm is positively associated with its entrepreneurial orientation.*

-Strategy

All items concerning the strategy change after the MBO. The markets for petfood are expanding, not in latest place because of the humanizing animal trend which enables Mervo Products to use a high quality and high price strategy. The firm exports 90 percent of its sales to Scandinavia, Germany, Belgium, Spain, Portugal and Greece. Within the framework of strong and centralized control systems, as cash management, quality control and cost control inherited from their stay in parent company Cebeaco-Handelsraad, investment proposals are only carried out by means of investing own cash flows. Despite the fact that top management runs higher risks as compared to before the MBO, investment proposals from the marketing department don’t make any chance without thorough cost-benefit analysis. After the MBO the firm takes a longer time perspective for planning its future instead of taking a-bird-in-the-hand emphasis on making future decisions. After the MBO the strategy evolved more strongly than before because of the necessity to release entrepreneurship in order to grow.

Dimensions of the E.O. directly related to this aspect of the strategy are pro-activeness, innovativeness and autonomy, which measures the extent to which delegation has taken place after the MBO. So we confirm hypothesis H 3:

*Growth oriented strategies are positively associated with entrepreneurial orientation after the MBO.*

The emphasis on the top quality petfood segment of the market required from this small sized company after the MBO an increasing effort to qualify for international standards
organization (ISO) certificates and the more recently acquired Hazard Analysis Critical Control Point in order to guarantee the safety and quality of pet food. However the preference for the top segment in the market is not caused by the MBO, but this event has intensified alertness to look for chances by much more talented people than before the buy-out in order to make the most of its opportunities in an decentralized and efficient way. The quality control requires that all products with complaints are shipped back to the firm. Consultation takes place in platforms of employees for detailed analyses of the causes and adaptations of systems and processes, whether it concerns colour deviations in the food, fungal growth, differences between billing and delivering goods or inadequate packaging. Therefore we confirm hypothesis H 4: *Emphasis on product quality is positively associated with entrepreneurial orientation after the MBO.*

-Structure

All items concerning the structure change after the MBO. With more financially involved and experienced managers than in former days, the circumstances most business measures appear to be easier and more natural to implement than before the buy-out. E.g. delegation processes by installing self managing teams which deal with matters such as gathering knowledge from exhibitions, product development, quality assurance, complaints of clients and the authority to determine prices within certain limits in order to justify higher margins in the higher price segments of the pet food market. After the MBO the structure has become flatter and communication more two-way then before. Ones a week a discussion about planning and realization between office and factory takes place, and several innovation working groups and quality platform meetings have regular meetings. This description of structure is consistent with the findings on the autonomy dimension with specific reference to delegation aspects. Therefore we confirm H 5: *The extent to which decisions are centralized is negatively associated with entrepreneurial orientation after the MBO.*

Mixed results were found with the formalisation aspect of structure. A tendency to become lesser formalistic was the role ascribed to formal policies and procedures by its CEO. According to him it appeared not be the predominant guide for most of the decisions as compared to the situation before the MBO, indicating some room flexibility. But planning in advance of capital expenditures as well as of operational budgets are examples which demonstrate the drive for tight financial control after the MBO and thus the need for formalisation. So we can not claim in H 6 that *The extent of formalisation is negatively associated with entrepreneurial orientation after the MBO.*

-Culture

All items concerning the culture change after the MBO. Before the MBO the company did not had a policy to encourage new and/or radical ideas among its employees, after the MBO this changed. More attention is given to empower employees e.g to self managing teams by delegation of authority, information and control. Before the MBO strong emphasis was to follow the formally laid down procedures. After the MBO employees are invited to look for new challenges for the company and show a stronger results oriented attitude towards work. Visible proofs are the introduction of an animal snack and puppy food, both ideas developed during brainstorm sessions in teams of workers and management. Dimensions of the E.O. directly related to this aspect of the organisation are proactiveness, innovativeness and autonomy.
We confirm hypotheses 7 and 8:

**H 7:** *The extent to which culture values and supports the open expression of novel or radical ideas is positively related to entrepreneurial orientation after the MBO.*

**H 8:** *The extent to which the organisation culture values and supports the empowerment of middle- and lower level employees is positively associated with entrepreneurial orientation after the MBO.*

- **Resources and Competencies**

  It is the CEO's view that personnel resources do not constrain the flexibility of the work force of the firm nor before nor after the MBO. From the total work force of 60 employees, 10 are part timers and another 10 have temporarily contracts. This was the only item which did not show changes after the MBO. Another field where the firm experiences flexibility is outsourcing. In first instance growth is outsourced to other companies and after successful introductions the products are processed by its own company.

  Reward systems are not related to performance for most of the firm's employees. Only the buy-out team (top management) having equity stakes in the firm enjoys a profit related payment, which has to be approved by the supervisory board. In 1996 this amounted for each member of the management team to approximately \( f150.000 = \).

A constraint which is new after the MBO is the scarcity of money for investment. Mervo Products investment program is financed by its own cash flows. After the MBO the management shows strongly the need to be more alert to cash management in order to control cost and working capital. E.g. in the year of the buy-out accounts receivable decreased from \( f3.480.800 = \) to \( f2.900.000 = \). This enables the firm to carry out its investment priorities in contrast to the time before the MBO and spend relatively more R&D to product development than the industry average. Compared to competitors, Mervo's time to market reduced to approximately six months, a period which can not decrease anymore because it has to be taken in account of safety prescriptions in the food industry. To become market leader in Finland within six months shows that Mervo as "fast follower" has developed after the MBO a strong position.

With reference to the development of its competitive aggressiveness and innovativeness we confirm hypothesis H 9: *The ability to bring new products quickly to market is in MBO firms positively associated with entrepreneurial orientation.*

And also hypothesis H 10: *The extent to which financial resources are spent on R&D activities is positively related to entrepreneurial orientation.*

Only top management at Mervo Products has a performance related reward by its equity stake and a turnover related bonus system. Therefore we can not confirm hypothesis H 11: *that performance related reward systems are positively associated with entrepreneurial orientation of the firm.*

- **Characteristics of Top Management Team**

  With reference to the situation before and after the MBO top management sees itself to the same extent experienced with all business functions. However, not all disciplines are represented in the board of management of Mervo Products. The sales manager and the nutritionist are both not formally part of the management team, but on an ad hoc basis callable. Changes we observed were that the director of finance has become after the MBO...
also the director of human resources and that top management has become more acquainted with information technology. So we can not confirm hypothesis 12:

H 12: The presence and experience with all of the important disciplines in top management team are positively associated with entrepreneurial orientation.

5.3 Economic results Mervo Products

In general the cash flows (profit after taxes plus changes in working capital) of Mervo Products were quite stable before the buy-out, but after the MBO (1995) we observe a substantial increase due to higher volumes of sold tons of petfood (see Table 1 and 2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Flows x f1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>2539</td>
</tr>
<tr>
<td>1992</td>
<td>2964</td>
</tr>
<tr>
<td>1993</td>
<td>2767</td>
</tr>
<tr>
<td>1994</td>
<td>2744</td>
</tr>
<tr>
<td>1995</td>
<td>5010</td>
</tr>
<tr>
<td>1996</td>
<td>4636</td>
</tr>
</tbody>
</table>

Tons of petfood produced by Mervo Products sharply rose after the MBO from 25.508 ton in 1994 to approximately 43.000 ton in 1997.

<table>
<thead>
<tr>
<th>Year</th>
<th>Tons of 'petfood'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>23383 ton</td>
</tr>
<tr>
<td>1994</td>
<td>25508 ton</td>
</tr>
<tr>
<td>1995</td>
<td>31706 ton</td>
</tr>
<tr>
<td>1996</td>
<td>39461 ton</td>
</tr>
<tr>
<td>1997</td>
<td>43000 ton</td>
</tr>
</tbody>
</table>

If we look to the income before taxes the figures are consistent with the other parameters as cash flows and produced tons of petfood. After the MBO performance increases substantially.

<table>
<thead>
<tr>
<th>Year</th>
<th>Income before taxes x f1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>1.525</td>
</tr>
<tr>
<td>1993</td>
<td>3.052</td>
</tr>
<tr>
<td>1994</td>
<td>1.277</td>
</tr>
<tr>
<td>1995</td>
<td>5.155</td>
</tr>
<tr>
<td>1996</td>
<td>5.163</td>
</tr>
</tbody>
</table>
Customer satisfaction is another yardstick related to quality control systems in use at Mervo Products. After the buy-out the handling of complaints increased from 0.22 percent to 0.26 percent of turnover (tons of petfood), indicating that the implemented system did not result yet in significant decrease of complaints. All the products with complaints are shipped back to the firm where consultation takes place in platform of employees for detailed analyses of the causes and adaptations of systems and processes, whether it concerns colour deviations in the food, fungal growth, differences between billing and delivering goods or inadequate packaging.

Referring to the development of economic performance we can conclude that Mervo Products shows improvement despite the fact that the number of customer complaints have risen after the MBO. However, this is inherent to the "fast follower strategy" but receives ongoing attention for improvement from all levels in the firm due to its quality management practices.

5.4 Entrepreneurial Orientation And Performance

According to the CEO, one of the most important changes after the MBO is the release of entrepreneurship and the job satisfaction which goes along with it. The management team knows what it wants, sees itself capable to achieve the targets set by its own policy and is personally involved in the performance of Mervo Products by having equity stakes in the firm. From our interviews with the venture capital investor it shows that they undertook serious effort to judge the quality of the management team. Instead of talking, management and employees do act more after the MBO. The organisational structure becomes flatter because a management layer was abandoned and more organic because of an increase in decentralisation. The scale of the two-way communication necessary to generate product ideas and innovations is intensified. Also decision-making in order to act proactively has to be included in order to correctly specify the E.O.-performance relationship. Cost control and renewed strategic positioning of the existing product mix have lead to divestment of the sojabean division, an activity with large volumes and low margins which did not fit the strategy focussing on high quality and higher added value. With reference to Tables in section 5.3 we confirm hypotheses 14: The development of the entrepreneurial orientation is positively associated with the firm's economic performance after the MBO.

5.5 Assistance Venture Capital Investor (VCI)

Here we will present the findings from our interviews with Alpinvest representative in the supervisory board with regard to the areas of which he thinks supervisory board members have been of value for Mervo Products BV. We make a distinction between VCI services rendered during and after the buy-out process.

Alpinvest has 41 percent of its total investment portfolio invested in MBOs/MBIs. Total amount invested in MBOs is approximately f300 million. Target rate of return for MBOs is 15-40 percent return on investment. The petfood producer belongs to the middle range class of Alpinvest investments. Alpinvest owns 43 percent of the shares, another large Dutch VCI NPM Capital has also 43 percent, whereas the rest is owned by the CEO, the controller and the director production.

The relationship must click between them from the very beginning. Even in situations of bad news this relationship must endure. So, there should not be any irritations from the very beginning.

During the MBO preparation of Mervo Products Alpinvest writes its own business plan, makes its own valuation and forms its own interpretation based on the firm's figures which
are based on the past 3 years. Sensitivity analyses are made and sometimes independent advise about the market is obtained if their is a lack of expertise in Alpinvest. The investigations must lead to identification of the critical success factors and of the risks and surprises. They test the quality of the management whether they are able to run a company or not.

In the case of Mervo Products the management team had the plans ready, and Alpinvest had only discussions about the original strategy whether or not to open up a third production line or the install a non stop production. That was in the very beginning of the MBO a central question to decide on. After ample discussion with the institutions the latter solution was chosen by the management.

Another important decision was supported by the VCI with regard to the dismissal of one of the deputy directors. Interfacing with investors to do acquisitions was not applicable.

Access to accounting information system is required and no variation in information provided is allowed. The Accounting information system before approval of the buy-out transaction is vetted. The VC firm does not exert influence on investee's audit and there are no cost deterrent in obtaining information.

In general nor NPM Capital, nor Alpinvest was involved directly with operations at Mervo. Of course the supervisory board will discuss relevant operational issues with the management. However, the settlement of environmental licenses was important before the MBO of Mervo Products could be effectuated.

Of course the monitoring task of the venture capital representative in the supervisory board is very important. Mervo Products had a well balanced performance measurement information available, due to its stay in the parent company CEBECO-Handelsraad. All relevant profit & loss components as turnover, labor cost and net profit were adequately used internally and reported to the VCI. No such information was developed since the VCI's involvement. The same holds for financial ratios as return on equity employed, return on assets and sales/assets invested and cash flow. All relevant control information was used and reported to the VC firm by the investee such as monitoring reports, financial budgets set and budget components as P&L, cash flow, balance sheet, capital expenditure, overhead, etc No additional control information was developed on advise of the VC firm. The frequency with which Mervo Products reported about its budgets was quarterly. Normally firms are asked to report monthly but in the case of Mervo Products this was not necessary. The format normally used consists of a comparison between 4 weeks budget and 4 weeks reality, cumulative and related to the period in the year before. Operating and capital investment decisions were already in use at Mervo.

The contractual relationship between Mervo Products and Alpinvest generated overtime a better balance between information and risk for both. Decisive for a MBO transaction to happen is the relationship of trust between investment manager and CEO. No support in the short run operationally, but personally with regard to the share option scheme things had to be arranged with the revenue service. 7.5 % of the option value must be added to the personal income for taxing purpose. No services were rendered in opening up business contacts.

However, information about strategic decisions was developed since the VCI took over from the parent CEBECO-Handelsraad. Characteristic for this case was the adaptation of the sales strategy after the MBO. This was discussed during the year 1997 when Mervo Products was faced with downward pressure on margins of their products, due to higher purchase prices of raw material. Mervo Products was not able to pass on the increased prices to the customer. An extremely important consequence was that the investment program based on internal finance was endangered. The discussion between the
management board and the supervisory board was about the question whether or not to stop with investment program and accept the lower margin on the sales or to keep the investment program in operation and focus sales effort at the higher price/quality segment of the petfood market with the consequence of not accepting all orders any longer. This event is an example of the interactive way strategic management decision was taken. The supervisory board members representing the venture capitalists succeeded in convincing the buy-out team in a good atmosphere of the usefulness of higher added value strategy for Mervo Products.

Financial assistance is given to acquire mezzanine finance from RABO bank. The first years after the MBO no dividends were paid to the shareholders but instead were used to increase the amount equity.

Other than the VCI members in the supervisory board bring in their own skills and experiences. E.g. political experience was helpful in solving questions of relatively little environmental pollution in which the firm was involved.

6. NEDGRAPHICS BV
For a short description of the MBO firm we refer the reader to the case synopses in Appendix 1.

6.1 Development of Entrepreneurial Orientation

The firm’s major sources of revenues come from software, implementation, consultancy and related services. Frequent changes in styles and trends put textile manufacturers under increasing pressure to deliver superior products and services in a faster and more efficient manner. Reducing time-to-market is essential for these manufacturers to stay competitive. In order to conduct their business NedGraphics has anticipated to these trends by providing one-stop CAD/CAM solutions for all market areas of the textile industry, which will increase the productivity of the design department, enable quick market response and reduce overall time needed from the initial stage of product development to final production. Manufacturers seek not only to cut back cost on sampling costs by providing high quality samples directly from the CAD system, but create lifelike 3D presentations of the product even before a physical sample is produced.

The financial distressed parent company HCS Technology used all the cash flow of its subsidiaries, including NedGraphics, to payoff its debt. Moreover the parent did not have feeling and knowledge of the markets for applications of computer aided design and computer aided manufacturing. Before the buy-out NedGraphics could not seize its opportunities in the design and production of one stop solutions for the carpet industry, the printed textiles, the woven fabrics and the geographical information systems, the other nichemarket of NedGraphics, specialised in storing and analysing geographical data.

Before the MBO the firm was not highly innovative, because HCS could not supply the financial resources at that moment and the CEO had first to reorganise and lay off some people who could not make the step to working in an independent company. The CEO had the vision and had adequately implemented it in his organisation, that Unix system had to be replaced by the windows system in order to design better software programs to drive the machines of the industrial carpet customers. The technology as such was not distinctive from that of the competitor. The CEO did know the industry very well. After the MBO the firm shows an increased effort to search for new opportunities. Its software fully computerises product development from design to actual production and aids the entire business process, including design, digital production, simulation and three dimensional presentations.
After the MBO NedGraphics was the first company in the industry which provides customers with state of the art PC / Windows95 / NT-based technology. The development of this product took two years for 5 software specialists. During the last years the systems evolved from pure design to fully functional CAD/CAM systems supporting production and digital presentation of the product.

The company strives to maintain and enhance technological leadership and claims a higher numbers of more successful introductions than its main competitors. Current product developments in Textile CAD/CAM focus on:

- improving communication, networking and multimedia solutions (Intranet / Internet) because design and sales of textile companies are in general based in other countries than the manufacturing operations of these companies. Market introduction is expected in second quarter of 1998;
- completion of Windows95 / NT versions of main applications
- off-the-shelf software solutions for the fashion industry
- increased color-matching capabilities

Product development in the geographical information systems focuses on:

- a geographical database and storage with alphanumeric data
- software application which provides Internet viewing and access the geographical database
- low threshold viewing access to digital maps and related alphanumeric data
- conversion existing applications to Windows/NT
- database management system for fully integrated storage of administrative and geodata (together with IBM Holland)
- integration of NedGraphics applications with software solutions of business partners

We did not observe any differences between the extent of delegation before and after the MBO. Responsibilities and authority were already delegated before the MBO in the fields of marketing and the research. However one exception must be made. The financial function of the company has been carried out by the chief financial officer. He is classified as an excellent financial administrator with a good feeling for calculation to assess risk involved in decisions.

There is a shift toward a more flexible use of formal rules and procedures in the company. Due to the heavy reporting obligations imposed by the financial distressed parent HCS, there are high quality budgets in the firm aiming at frequent orientations of the industry by employees and middle management. All the strategic business units within NedGraphics are monitored from month to month, but there is room for mid term reviews if the arguments are correct. Even in the supervisory board are monthly budget talks with top management, indicating room for informality because of the companies size.

Competitors respond to actions of NedGraphics instead of the other way around as was usual in the past. We observe a major change in dealing with the competitors. The company operates with the style of "undue the competitor" and seeks not to avoid clashes with competitors. Nedgraphics is always first with substantial lowering of prices. To implement this policy the VCI assisted by a Flemish venture capitalist took part in the equity of the major competitor Sofis in Belgium.
### Figure 3: ENTREPRENEURIAL ORIENTATION NEDGRAPHICS

<table>
<thead>
<tr>
<th>PERIOD BEFORE THE MBO</th>
<th>PERIOD AFTER THE MBO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = totally disagree</td>
<td>1 = totally disagree</td>
</tr>
<tr>
<td>5 = totally agree</td>
<td>5 = totally agree</td>
</tr>
</tbody>
</table>

### 4. Entrepreneurial orientation

#### A. Autonomy
(Refers to the independent action of an individual or a team bringing forth an idea or vision and carrying it through completion):

**-Delegation of authority:**
To what extent has the chief executive delegated to others to make each of the following classes of decisions.

<table>
<thead>
<tr>
<th>Decision</th>
<th>Before MBO</th>
<th>After MBO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing strategy for a new product/service is <em>not</em> delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Changes in the strategy for existing products/services is <em>not</em> delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Hiring and firing of personnel is delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Raising of long term investments is <em>not</em> delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Pricing of new products is <em>not</em> delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>The magnitude and direction of research into new products is delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Significant price changes in existing products are <em>not</em> delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Bargaining with personnel or their unions about wages etc. is delegated</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
</tbody>
</table>

**-Formalization:**
- Formal policies and procedures guide most decisions
- Lines of authority are specified in a formal organization chart
- Plans tend to be formal and written
- Capital expenditures are planned well in advance
- Formal operating budgets guide day-to-day decisions
- Formal job descriptions are maintained for each position

#### B. Risk taking
(The degree to which managers are willing to make large and risky projects- i.e. those which have a reasonable chance of costly failures):

<table>
<thead>
<tr>
<th>Decision</th>
<th>Before MBO</th>
<th>After MBO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management has a strong emphasis on the marketing of tried and true products or services</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Top management has a strong proclivity for low-risk projects with normal and certain rates of return (e.g., virtually certain 10% R.O.I. after tax)</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>Policy of growth primarily through internally generated funds (retained earnings)</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
</tbody>
</table>

#### C. Innovativeness
(Creating and introducing original solutions for new or already identified needs):

<table>
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<tr>
<th>Decision</th>
<th>Before MBO</th>
<th>After MBO</th>
</tr>
</thead>
<tbody>
<tr>
<td>No changes in product lines in past 5 years</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>No new products in past 5 years</td>
<td>1.2.3.4.5</td>
<td>1.2.3.4.5</td>
</tr>
<tr>
<td>No very strong emphasis on R&amp;D, technological leadership, and innovations</td>
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<td>Much less successful introductions compared to industry’s average</td>
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D. **Proactiveness** (Processes aimed at anticipating and acting on future needs by seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of life cycle):

- No active search for big opportunities
- In dealing with competitors the company typically responds to actions which competitors initiate
- In dealing with competitors the company is very seldom first to business to introduce new products/services, etc.
- When confronted with decision-making situations involving uncertainty, the company typically adopts a cautious, 'wait-and-see' posture in order to minimize the probability of making costly decisions

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</tr>
<tr>
<td>5= totally agree</td>
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E. **Competitive aggressiveness** (The firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is to outperform industry rivals):

- Strong emphasis on marketing in attacking opportunities
- Marketing generates most new product ideas
- No use of marketing consultants by the company
- Customers are never source of new ideas
- No marketing research by the company
- In dealing with the competitors the company typically seeks to avoid competitive clashes, preferring a 'live-and-let-live' posture

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<tr>
<th>PERIOD BEFORE THE MBO</th>
<th>PERIOD AFTER THE MBO</th>
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<tr>
<td>1= totally disagree</td>
<td>1= totally disagree</td>
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<tr>
<td>5= totally agree</td>
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5. **Company results**

- Cash flows (profit after taxes + Δ working capital) have diminished in the course of the years
- Customer satisfaction has diminished in the course of the years
- EBIT has diminished in the course of the years
- Turnover (in personnel) has increased in the course of the years
- Absenteeism (among workers) has increased in the course of the years
- Turnover has decreased in the course of the years
- Labor productivity has diminished in the course of the years

<table>
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<th>PERIOD BEFORE THE MBO</th>
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<td>5= totally agree</td>
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The firm's strategic direction after the MBO is even stronger influenced by its marketing than before. NedGraphics’ clients in the Textile Cad/Cam industry are converters, fabric manufacturers and design studios. The company markets, sells and supports its products worldwide through a direct and indirect sales and support organisation. Directly through its own sales offices in the Netherlands, the United Kingdom, the United States and France. Indirectly in countries in which it has no sales office through agents world-wide in Europe, South Africa, the Far East, Asia, the Middle East, South America and Australia as well as through relations with major textile machinery manufacturers in Belgium, France and in the USA. Consequently marketing research is given higher priority but carried out by
NedGraphics own employees. Approximately 45 percent is repeat business from existing customers, that will broaden its product portfolio, offer more products on Windows95/NT and improve its account management systems. After the MBO in 1992 on Nedgraphics acquired several companies to expand into the carpet and the printed textile market, in the UK, the USA, France, Belgium and in its home market The Netherlands. The acquisitions renewed its know how of weaving or coloring techniques and thus provided chances for further growth in the markets. These investments tripled the firm's turnover within 3 years.

The company is increasing its investments in R&D and product development. Since the MBO in 1992 the number of software developers increased from 20 to 30 (25 percent of the total staff) and R&D as a percentage of annual revenue increased from 5 to 10 percent on average (approximately £3 million a year) in order to develop new business opportunities in existing Textile Cad/Cam and related markets. NedGraphics proactively develops new business opportunities in existing and related markets by developing new products and further diversification of the product line. Examples are: 3D mapping software, the shrink-wrapped fashion Flash software, the DesignCom software and the NedGeo Datawarehouse. A strong emphasis on R&D, Nedgraphics is leading in the niches of the niche market, has a strong market focus and sales strategy with an after the MBO enlarged product range. Also strong focus on control of costs, however the CFO is very eager to calculate the risk-return trade-off between certain decisions. One acquisition in the US was not successful, and that foreign activity is closed down.

We conclude from Figure 3 that the E.O.-dimensions show a coherent mutual interdependent structure and confirm therefore hypothesis 13 that the entrepreneurial orientation of the firm increases after the MBO.

6.2 External and Internal Contingency Variables

-Environment
NedGraphics operates before as well as after the buy-out in a constant dynamic environment. In the relatively young market, 10 to 15 years old, technology changes quickly. Most of the (international) competitors sell software solutions for specific parts of the textile manufacturing process. This implies for Nedgraphics as a provider of wholly functional integrated solutions facing severe price competition. Marketing practices must constantly be adapted to communicate better to the industrial customers in order to stay ahead of competition. Consumers tastes depend strongly from the technological possibilities in the industry. The company is well placed in its highly specialised markets to forecast demand and consumer tastes because of its status as a one-stop solution provider and its performance record in product development. Besides, the firm has tight relationships with textile machine manufacturers and is thus well informed.

Hypothesis H 1 is confirmed: *Dynamics in the environment of the MBO firm is positively associated with its entrepreneurial orientation.*

Despite the strong price competition on a world-wide basis and the dynamic environment, the CEO of NedGraphics perceives a decrease in threat to survival of the firm, because after the buy-out the company invests its own cash flow in its own future thus creating a better basis for acting proactively. Severe price competition leads in this case to an increase of competitive aggressiveness. A decrease in hostility in the eyes of the CEO is positively associated with setting own priorities as an owner of the company after the MBO instead of working for a financial troubled parent company HCS Technology. Therefore we support...
hypothesis 2: Hostility in the environment of the MBO firm is positively associated with its entrepreneurial orientation.

-Strategy
After the MBO decision-making processes have become more intuitive instead of being dominated by ponderous talkings with headquarter management, with little affinity for the industry of NedGraphics. If people in NedGraphics after the MBO become enthusiastic for a plan or a project, there are more chances of implementation than before the buy-out. The growth strategy by taking over selectively other business in the industry and thus market share in different European countries was characteristic for NedGraphics. The acquisitions are internally financed. Due to acquisitions sales revenues in the standard quality segment increased strongly. The content of the strategy did not change after the MBO. So we confirm hypothesis H 3:

Growth oriented strategies are positively associated with entrepreneurial orientation after the MBO.

The planning horizon after the buy-out became longer. Instead of short term profit orientation to investments, the longer term view on profitability became more prevalent thereby giving room for broadening the product-base. The firm aims at increasing sales revenue by emphasis on standard quality and low prices necessary to stay competitive. This did not change after the MBO. Quality of the software at NedGraphics is measured by its fitness for use of its customers which apply different computer systems. Therefore we confirm hypothesis H 4:

Emphasis on product quality is positively associated with entrepreneurial orientation after the MBO.

-Structure
After the buy-out the NedGraphics organisation had become more organic. Two major causes are responsible for this, e.g. the increased two-way-communication within the strategic business units and a lesser hierarchical organisation after the MBO. The 'top down' communication characteristic for the relationship parent company and subsidiary disappeared. The company organised itself after the MBO in two strategic business units, e.g. Geographical Information Systems and Textile. Work meetings between the sbu's were abolished after the buy-out and replaced by separate meetings with top management and if necessary sometimes with the supervisory board to evaluate the content of ideas. This description of structure is consistent with the findings on the formalisation aspect of the autonomy dimension. Therefore we confirm H 5 and H 6:

The extent to which decisions are centralized is negatively associated with entrepreneurial orientation after the MBO.

The extent of formalisation is negatively associated with entrepreneurial orientation after the MBO.

-Culture
The firm's customer focus did not change after the MBO in the eyes of the CEO. But after the buy-out employees were more encouraged to come up with new ideas. An example is the special software for the textile industry that can be sold without rendering further services. Especially in the marketing/sales department people are encouraged to observe needs of the (potential) customer. The acquisition proposal to take over a French firm with unique weaving knowledge for NedGraphics, is another example of an initiative coming from lower levels in the firm, e.g. the recently installed strategic business unit Textile, promoting high involvement and self development. The CEO acted before the buy-out like a police man to slow down the internal generated ideas, because he knew headquarters would not gave much room for new activities.
We confirm hypotheses 7 and 8:

H 7: *The extent to which culture values and supports the open expression of novel or radical ideas is positively related to entrepreneurial orientation after the MBO.*

H 8: *The extent to which the organisation culture values and supports the empowerment of middle- and lower level employees is positively associated with entrepreneurial orientation after the MBO.*

**-Resources and Competencies**

The firm is sold to its directors and VCI’s for an undisclosed sum, however in the case of NedGraphics it was not necessary to raise debt for the buy-out, because the CEO could buy the company from a parent in receivership for a relatively small amount of money. Of course Gilde investment was involved in raising credit account, loans and mortgages, but there was no need to attract debt for increase in capital expenditure. Gilde assisted the CEO with negotiations during the time the firm was in receivership about the contract that a part of the selling price should be paid from the day that NedGraphics made a certain level of profit. Lesser restrictions were imposed on financial resources after the buy-out thus leaving the firm with freedom of movement.

After the buy-out half of the employees of the sales department receive a refined performance related reward system and all employees of NedGraphics are given a result dependent bonus in their salary. Another way to intensify the relationship between performance and rewards was the decision to arrange on an individual basis incentives for those who show ambition to develop certain parts of the market abroad (e.g. Turkey). With regard to product development and the maintenance of systems the employees earn a bonus when they keep development and maintenance time within certain limits.

After the buy-out the R & D expenses are doubled (from 5 to 10 percent of the total sales revenues) in order to generate more product innovations in the user interfaces for complex business processes. One example is Carpet/NT which can make weaving patterns graphical for machines which can weave with eight colours.

With respect to the broadening of the product base, the speeding up of innovation time and the introduction and partly refining of performance related reward systems we confirm both hypothesis H 9, H 10 and H 11:

- *The ability to bring new products to market is in MBO firms positively associated with entrepreneurial orientation.*
- *The extent to which financial resources are spent on R&D activities is in MBO firms positively related to entrepreneurial orientation.*
- *Performance related reward systems are positively associated with entrepreneurial orientation of the MBO firm.*

**-Characteristics of Top Management Team**

Despite the fact that both top managers the CEO and the CFO have experience with all business functions, not all disciplines are represented in the board of management of NedGraphics. The sbu managers and the HRM e.g. manager are not formally part of the management board, but on an ad hoc basis callable. Characteristic qualities of the top management team remained the same as before the MBO. So we can not confirm hypothesis 12:

H 12: *The presence and experience with all of the important disciplines in top management team are positively associated with entrepreneurial orientation.*

Special attention to the board of management is given in our interviews with the venture capitalist. The reason was that synergy between R&D and distribution to other markets did
not develop satisfactorily. The chairman of the supervisory board admits that he has started too late action to broaden the scope of top management and making a team. According to a study of 3i in the UK about the relationship between failure rate of investments and the presence of management teams, the latter decreases sharply the chance that the investment will turn sour.

6.3 Economic Results Nedgraphics

We can observe from Table 6.3.1 a steady increase in sales revenue after the MBO in 1992 till now. The other Tables 6.3.2 and 6.3.3 show a sharp decrease in profits before taxes and cash flows in 1995, indicating that the firm has suffered a major loss making activity from which it seems to be wholly recovered after three years. From our interviews its shows that the reason can be found in an unsuccessful venture to set up an IT firm in the US in order to conquer the market for software products for the textile industry, design software and mapping software. The VCI from the very beginning of the MBO led a consortium of investors to realise that investment. NedGraphics has learned a lot of this failure and only selects future investments in Europe.

Table 6.3.1: Net Revenue NedGraphics (source: prospectus March 1998)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Revenue</th>
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<tbody>
<tr>
<td>1993</td>
<td>10.251</td>
</tr>
<tr>
<td>1994</td>
<td>14.510</td>
</tr>
<tr>
<td>1995</td>
<td>27.103</td>
</tr>
<tr>
<td>1996</td>
<td>27.618</td>
</tr>
<tr>
<td>1997</td>
<td>29.831</td>
</tr>
</tbody>
</table>

Table 6.3.2: Profit Before Taxes NedGraphics (source: annual reports)

<table>
<thead>
<tr>
<th>Years</th>
<th>Profit before taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>2.120</td>
</tr>
<tr>
<td>1994</td>
<td>3.974</td>
</tr>
<tr>
<td>1995</td>
<td>1.175</td>
</tr>
<tr>
<td>1996</td>
<td>2.729</td>
</tr>
<tr>
<td>1997</td>
<td>3.409</td>
</tr>
</tbody>
</table>

Table 6.3.3.: Gross Operational Cash Flows NedGraphics (source: annual reports)

<table>
<thead>
<tr>
<th>Years</th>
<th>Cash Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>2.709</td>
</tr>
<tr>
<td>1994</td>
<td>3.282</td>
</tr>
<tr>
<td>1995</td>
<td>1.559</td>
</tr>
<tr>
<td>1996</td>
<td>2.677</td>
</tr>
<tr>
<td>1997</td>
<td>3.257</td>
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</tbody>
</table>

Referring to the development of economic performance we can conclude that NedGraphics after the MBO shows improvement despite the failed investment in 1995 in the US.
6.4 Entrepreneurial Orientation And Performance

Hived off from its financially troubled parent HCS Technology, NedGraphics started to become an independent firm, carrying out its own strategy with its own resources without imposed financial limitations by its former parent. Apart from other cost saving, only its contribution to the overhead of HCS Technology saved the company approximately a half million Dfl (2% of its sales revenue). Another limitation which disappeared was the lack of specific knowledge of the industry at top management level of the holding, which had the authority to select investment decisions. Freed from these constraints, the released financial and personnel resources could be allocated according the priorities of NedGraphics’ management. As a consequence the management has to act more proactive then ever before and this goes hand in hand with the necessary innovations. Organisations which adapt to the new challenge of standing on their own feet, have structural flexibility to improve communication and decision-making internally. Growth was important to finance product innovation and to acquire selectively companies to build market share and to learn from its technology. Moreover the MBO introduced heavy financial obligations to pay off the debt necessary to finance the transaction and introduced the manager as (co-)owner of his company thus increasing the financial involvement of the buy-out management in the financial performance of the company. Referring to the Tables 6.3.1 to 6.3.3 also second case study supports hypothesis 14:

The development of the entrepreneurial orientation is positively associated with the firm’s economic performance after the MBO.

6.4 Assistance Venture Capital Investor

Here we will present the findings from our interviews with Gilde Investment’s representative in the supervisory board of NedGraphics about areas which this board member perceives as being of value for the company. We make a distinction between VCI services rendered during and after the buy-out process.

Gilde Investment is based in Utrecht and is one of the leading investment banks in the Netherlands. From its buy-out fund 74 percent is invested in MBOs for approximately f300 mn. NedGraphics is considered as a middle class investment with a target rate of return between 20-30%. Total amount of equity invested in NedGraphics amounts f 5 mn equity.

In the beginning every day and later on a half day per week is spend on meetings with the CEO of the buy-out firm. After 5 years this diminishes to levels of a half day per month. Personal understanding between CEO and the VCI is decisive for approval of the MBO deal. The characters must fit because there is a lot of coaching and counseling about what and how to tell to the banks, to the official receivers, to suppliers, to employees, etc. One of the other reasons to support the MBO decision by Gilde is the quality of information offered by the financial manager of NedGraphics.

Gilde had no active part in formulating the original strategy at the time of the MBO, because it was happy with the structure of the business plan. Therefore Gilde could concentrate on two major areas. Firstly on examining whether the business plan was based on realistic assumptions or not, and secondly on working out the financial structure of the deal, the extent of leverage, equity, loans, debt amortization, etc. Gilde Investment was involved in raising credit account, loans and mortgages and arranging the Rabo bank as he homebank of NedGraphics. In the very beginning of the MBO there was no need to attract debt for increase in capital expenditure.
Because the CEO could buy the company from a parent in receivership for a very small amount of money it was not necessary to raise debt for the buy-out.

One of the problems to be solved in this MBO was the price determination. Gilde assisted the CEO in negotiations with official receivers about the contract that a part of the selling price should be paid from the day that NedGraphics made a certain level of profit, thus creating favorable financial conditions for own investments.

Major areas on which advise was given after the buy-out were: acquisitions, counseling in stressful situation, reorganisation, selecting of key personnel, finance, stock exchange introduction, looking for selling to industrial buyer propositions, etc.

In the beginning the strategy was little coherent. On request of Gilde, a Fontainebleau professor was asked to join the Supervisory Board in order to advise the firm in strategy and how organisation had to adapt in order to implement the strategy successfully in the organisation of Nedgraphics.

As we have seen before, NedGraphics is always first with substantial lowering of prices. To implement this marketing aggressiveness Gilde, assisted by a Flemish venture capitalist, took part in the equity of the major competitor Sofis in Belgium. Interfacing with investors in case of potential acquisitions is an important area of assistance. Gilde’s Board member carried out 5 acquisitions in Europe.

Another example Gilde’s board member had to deal with was the executive search for a successor for the CEO (through a headhunter) and selection of key personnel. Because the CEO is a very dominant person, planning of a possible successor for him did not succeed. In the early days of the MBO Gilde’s board member had expected that from the ranks of middle management somebody would qualify as a general manager. On request of the supervisory board a head hunter has recently selected a heavy weight with respect to succession of the CEO.

Not long after the buy-out, the supervisory board assisted the CEO in his strategy to start an IT company in the USA and led a consortium of investors to realise that investment. This letting the company sideways was a very expensive lesson because this venture failed. From then on only investment opportunities were selected in Europe.

With respect to the existing carpet and cartography markets the VCI in the supervisory board confirms the development of entrepreneurial orientation of the CEO. Nedgraphics applies a successful focused market strategy, but the management team and the supervisory board did not succeed to realize diversification opportunities in the technology related markets, e.g. to supply their service, products and skills in designing and selling user interfaces for complex business processes to other markets. The supervisory board assessed the CEOs vision as too small in scope and tried to create awareness for the relatively small market size and the slow pace of long term growth and undertook effort to renew this strategy.

They appointed a specialist in strategic management in the supervisory board. The CEO and the supervisory board looked on it but did not find anything worthwhile to invest in. Synergy between R&D and distribution did not develop in broader market perspectives besides its own niche market. It turned out that the management was too risk avers with respect to that. Gilde’s board member admits that he was too late with his action to enlarge topmanagement team. Perhaps due to the fact that the first two years he was the only member in the board.

Against the background of defending the interests of all stakeholders of NedGraphics, the task of a member of the supervisory board is to create arousal, to provoke action to
promote dynamics and to convince others. Gilde’s supervisory board member also attributes as a shareholder to strategic decision-making and financial services in order to realize a flotation at the NMAX. From that point of view it is important to prevent an image of a one-sidedness board with only the venture capitalist on board when preparing for flotation. Just before flotation at the NMAX the supervisory board appointed a new chairman with a track record in product development and marketing of information technology related products.

By means of monitoring on the basis financial information the Supervisory Board keeps in touch with the operations of the firm. Budget review per country, per sector, costs, sales margins, etc. Normally the Board does not directly intervene in daily operations. Circumstances in which Gilde can effectuate certain interventions, e.g. like appointing interim managers are specified in the shareholder’s agreement with the Board of Management.

Because Nedgraphics was used to very heavy reporting obligations due to the financial distressed parent HCS Technology, its system of financial reporting was in good shape. The performance measurement information used by Nedgraphics was already good at the time of the buy-out and stayed good afterwards. They used analyses of turnover, of labor cost and of net profit. Regarding financial ratios, only the return on equity employed was changed into focus on equity and cash flow for debt payment, because leverage played an important role in this MBO.

Gilde told the chief financial officer what the structure of the monitoring reports had to look like, but the investee used it already. A few accounting information systems developments subsequent to VCI involvement were:
(1) the use of monthly monitoring reports was introduced on behalf of Gilde.
(2) financial budgets sets were in use before the MBO and reported yearly to Gilde;
(3) budget components: P&L account and cash flow were more detailed; balance sheet (unchanged), and capital expenditures was not an issue because expenditures were small; headcount already yearly internally used by the investee;
(4) other control information developed: sales per region and dividend policy (above 25-30 percent return on equity dividends had to paid out).

The monthly frequency with which P&L and cash flow reporting took place remained unchanged. This was also the case with annually reported balance sheet, capital expenditure and head count.

If we look at decision-making information used in NedGraphics, the operating decision-making information used internally and reported to VCI came from marketing & sales. Subsequent to VCI involvement operating decisions information was developed with regard to finance and personnel.
Since Gilde’s involvement with NedGraphics strategic decision-making information (acquisitions, product development, marketing actions, etc.) is more developed.

Our conclusion regarding the VCI policy towards accounting information system is that:
-reporting requirements extend beyond financial statements (see case study reported here),
-access to investee accounting information system of the MBO firm is required and that the accountant was asked by Gilde to deliver a “management letter”, in order to check whether planned improvements were implemented or not,
-no variation is allowed in information provided,
-the accounting information system is vetted,
-Gilde has influence on the decision which accountant is chosen.
7. CONCLUSIONS

1. Regarding the kind of relationship between the entrepreneurial dimensions and the external and internal contingency factors we draw the following conclusion. The entrepreneurial dimensions represent entrepreneurial practices which are released after the MBO by some fundamental changes in the contingency factors. After the MBO we observed changes in the contingency variables from the conceptual model of Lumpkin&Dess. Changes such as renewed strategic goals and re-allocation of financial and personnel resources, an entrepreneurial and results oriented culture, a reduction of bureaucratic complexity and an increase in decentralisation which release to our opinion the entrepreneurial practices and lead to improved economic performance. This improvement is not guaranteed for years after an MBO as we have observed in the case of NedGraphics. Entrepreneurial orientation are practices and systems that have the function to formulate and integrate strategy in the organisation. We think that some forces behind these changes are specific for the management buy-out setting. In an MBO e.g. buy-out management knows the market, has a track-record in an existing market and is rather good aware of the strengths and weaknesses, threats and opportunities of the firm. Besides its management quality is thoroughly examined by the VCI, before they approve the MBO transaction. Furthermore the management in contrast to the situation before the MBO has an equity stake in the firm and is financial backed by venture capital investors which are familiar with the industry and highly specialised in financial architecture. Most of the time debt level in the buy-out firm increases and together with increased management holdings, the managers/owners are eager to increase efficiency of the firms' operations and its strategic focus in order to grow and pay off debts in time and yield appropriate levels of dividend that increase the economic value of their firm. We recommend to extend the conceptual model used in this paper with the variables that represent the financial and personnel motivating mechanisms behind the MBO. In our case studies these characteristic MBO variables appear to play a crucial role in enabling the firm to increase its entrepreneurial orientation after the MBO which is worthwhile regarding the improved economic performance. Our case study results show an increased entrepreneurial orientation that is positively associated with the firm's economic performance after the MBO (H14).

2. As shown in Figure 1 interaction takes place between E.O. dimensions and internal and external contingency factors. In our opinion it could be also that in order to deal with the new situation of independency after the buy-out the E.O. dimensions in order to be able to increase, require corresponding changes in the integration of activities, thus increasing the adaptiveness of the organisation. Then the effect of relationship between E.O. and performance is mediated by a mediating variable integration of activities.

3. With respect to our hypotheses we make the following conclusions:

- Technology and with it the consumer tastes change quickly in both cases, but both CEOs claim their company can predict preferences of the consumers fairly well. However, actions of competitors vary from rather good to predict to increasingly more unpredictable. Marketing practices keep changing before as well after the MBO. Therefore we maintain that dynamism in the environment of the MBO firm is positively associated with its entrepreneurial orientation (H1).
-With regard to hostility in the environment after both CEOs of the firms perceive a decrease in threat to survival after the buy-out. One firm is able to avoid price competition by an higher segment strategy, while the other practices just the opposite style of "undue the competitor". Both enlarge their entrepreneurial orientation and as a result we can support the hypothesis that hostility in the environment is positively associated with an increase of entrepreneurial orientation of the firm after the MBO (H2).

-After the MBO we observe that both firms bring more focus to their growth and product strategies (top quality and high prices in petfood and standard quality and low prices in software), thereby giving more room for intuitive processes. Regarding the described increase in entrepreneurial orientation we confirm that growth and product quality oriented strategies are positively associated with entrepreneurial orientation after the MBO (H3, H4).

-Both firms report changes that promote 'bottom up' communication and a flatter and lesser hierarchical organizational structure. This is consistent to our opinion with the hypothesis that centralized decision-making is negatively associated with entrepreneurial orientation after the MBO (H5). With regard to H 6 however we found mixed results. Although in both companies the role of formal policies and procedures which guide most decisions has dimished, we found differences between the firms with regard to planning in advance of capital expenditures, the role of job descriptions and the influence of formal operating budgets. Both firms succeed to enlarge their E.O. despite the fact that Mervo Products shows an increase in formalisation in contrast to Nedgraphics. Therefore we confirm nor reject that the extent of formalisation is negatively associated with entrepreneurial orientation after the MBO (H6).

-Open expression of novel or radical ideas (H7) and (delegation) empowerment of middle- and lower level employees (H8) are perceived as important aspects to which after the buy-out more attention is paid. After the MBO employees are encouraged to observe needs of the customers and are encouraged to carry vision and plans through completion. In one case brainstorm sessions are held to generate new ideas; in the other case quality and costs are regular subjects to report on. These are indications that both hypotheses (H7 and H8) seem to fit with an increased entrepreneurial orientation.

-Time to market and broadening the product base are indications that confirm for both firms that the ability to bring new products to market is in MBO firms positively associated with entrepreneurial orientation (H9).

-The same can be claimed with regard to investments in product development in our two case studies. Efficiency improvement, optimizing production processes, divestment of unprofitable activities and allocating relatively higher parts of sales revenues in product development, are arguments which supports the hypothesis: The extent to which financial resources are spent on R&D activities is positively related to an increase in entrepreneurial orientation (H10).

-In Nedgraphics 20 key managers (including the CEO and CFO) have equity stakes and the rest of the employees have become more performance related rewards after the MBO. In the smaller company Mervo Products, only the CEO, the controller and the production manager have equity stakes in the firm. Its supervisory board has the authority to approve turnover related bonuses for them. Of course, if we interprete equity stakes of managers as a form of performance related reward system than the positively association with E.O. is not all too surprisingly regarding the very nature of MBOs (H11). But it takes quite a lot of time before management holdings pay off. Performance related reward systems which have directly impact on the amount of money people earn within a short period of time is only
observed with the employees of Nedgraphics. Software designing and selling can be characterised as people’s business indicating that individual networks determine the firm’s turnover, whereas this is probably not the case for the first case study the petfood producer Mervo Products.

-We notify for NedGraphics that the production discipline is not represented in the Management Board. Moreover this company lacks in the eyes of its investors a management team. In case of Mervo the marketing and nutrition managers are called in when necessary. So we conclude that not all important disciplines are present and reject $H_{12}$ that the presence and experience with all the important disciplines in top management team are positively associated with entrepreneurial orientation. There are indications from our interviews that we have to take into account the market situation and the related differing of opinions of the management and the supervisory boards to that situation. E.g. price competition in niche markets requires on the long run a broadening of the market base for the company in order to be able to grow. The presence of a management team then can be conditional to change in time the market vision of the top manager of the buy-out firm of the very first hour.

-The entrepreneurial orientation of the firm increases after the MBO. On the basis of the results of both case studies we confirm hypothesis 13. The former parent companies of both buy-out firms did not approve much of the proposals thus limiting entrepreneurial spirit in the firms of our case studies. After the MBO the firms are released from the ‘nay sayers’. The increase in entrepreneurial orientation starts with an increase in proactiveness, which effects the rest of the dimensions as innovativeness, risk-taking, marketing aggressiveness and autonomy.

4. Assistance VCI
The areas on which the VCI give advise and assistance are the testing of the quality of the incumbent management whether they are able to run a company or not. The VCI checks interpretations of the environment, verify and take corrective actions in strategy and organizational structure, as well as in selecting and controlling the financial and human resources of the MBO firm. Projected on the conceptual model of this paper the VCI focuses on the external and internal contingency factors thus specifying and ratifying the conditions under which entrepreneurial practices can develop in order to control the projected economic performance. Accounting information systems are rather well developed in our MBO firms due to the heavy reporting obligations of the parent company. Most important changes are: monthly reporting and more detailed on cash flow and return on equity.
The VCI’s interest as a shareholder in an MBO concentrates on cash in order to decrease debt levels at an appropriate time in order to create a sound leverage factor. Then there comes a time that the shareholder is relatively cheap in the company. That is the moment to sell to somebody else a well founded entrepreneurial oriented firm with a excellent track record, an efficient organization with profitable operations and a high P/E ratio. The difference between the selling price received from an exit through flotation or from an industrial buyer and the buying price is the internal rate of investment for the VCI. That explains why strategic decision-making as well as intensive monitoring receives much attention even in small and medium sized Dutch venture capital backed MBO firms.
Appendix 1

Case 1: Mervo Products B.V.

At the time of the f8.5 million buy-out in 1995, Mervo Products was a profitable subsidiary of the CEBECO-Handelsraad, a cooperative society for vegetables, flowers, breeding and food. In the beginning of the nineties, CEBECO-Handelsraad decided to concentrate on the aforementioned core activities and sold its life-cycle petfood subsidiary Mervo Products with a turnover of f60 mn and 50 employees to Mr. A. Hofstede, at that time works manager. He did the buy-out together with the controller and the production manager and bought 14 percent of the shares, the rest of the equity was provided by two Dutch venture capitalists NPM Capital and Alpinvest, each participating for 43%. In the years following the MBO profit before taxes rose substantial from f1.3 mn in 1994 to f5.2 mn in 1995 and 1996.

Assisted by the trend of humanizing animals which causes an increasing demand for a wide variety of healthy animal menus thereby shifting the attention of management from price to quality driven competition, Mervo Products exports 90 percent of its products to the expanding markets for petfood in Scandinavia, Germany, Belgium, Spain, Portugal and Greece. Following the buy-out important changes were made to become a more entrepreneurial company within the framework of strong and centralised control systems, especially cash management, quality and cost control which were inherited from their stay in CEBECO-Handelsraad. Mervo Products needed to improve constantly the health status of their products in order to keep in shape as a fast follower in the private label market where it is difficult to be first to business as a small company. After the MBO, management speeded up product improvement and has become market leader in cat food in Finland. The competitive aggressiveness in this market is characterised by a “live-and-let-live” attitude because ‘undo the competitor’ will harm all parties much more. Besides efforts to follow more fastly and trying to be at least as second to the market, significant improvements were reported in active search for new opportunities, thus increasing more than 50 percent expenditures for research and development. Mervo Products started developing new products on their own, e.g. several animal snacks, especially for the puppy segment and applies compared to European standards rather scarce but high technology to produce extreme high and low percentages of fat. After the MBO management has become more R&D oriented and takes more risks than before, but growth is always controlled by investing own cash flows. Investment proposals from marketing don’t make any chance to be implemented if they lack a thorough cost-benefit analysis. Top management acts more hands-on in order to control costs and enhance results than before the MBO, but in a two-way communication style promoting mutual consult. Despite the autocratic management style of the past, top management has become more receptive for specialised advise about nutrition and marketing from inside as well as outside specialists. Staying on their own feet renewed the processes of management development. This time with more financially involved and experienced managers than in former days. Under these circumstances most business measures appear to be easier and more natural to implement than before the buy-out. E.g. delegation processes by installing self managing teams which deal with matters such as gathering knowledge from exhibitions, product development, quality assurance, complaints of clients and the authority to determine prices within certain limits in order to justify higher margins in the higher price segments of the petfood market. The generally observed stronger proactive stance of top management after the MBO has visible influences on all the other entrepreneurial dimensions. Besides the aforementioned creative entrepreneurial forces restructuring activities also belong to the nature of the entrepreneurial work. The successful launch of the MBO was supported by investment in a non-stop production process, a small decrease in workforce (5 people) and divestment of the soya beans unit, thus rationalising production process in order to realise higher margins.
Case 2: NedGraphics

The management buy-out of NedGraphics from the financially troubled and finally bankrupt HCS Computer Graphics was realised in 1992. HCS went bankrupt in 1992 due to bad management and lack of control. Also thoughtless acquisitions played a role of importance in the bankruptcy. With about 60 employees in five companies and a turnover of f 13 mn the company was sold for a undisclosed price to its management. Gilde Investment invested approximately f 5 mn, owning a minority equity stake of 35%. The other part of the shares are held by about 20 employees, including top management of NedGraphics.

NedGraphics is a manufacturer of Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) systems and creates with these techniques one stop solutions for the carpet industry, printed textiles and woven fabrics industries. Famous brands in the fashion industry like Reebok and Oilily are customers of NedGraphics. In the carpet industry the company has customers like Lano (B), Shaw Rugs (USA), Beaulieu (USA, Canada and Belgium) and in the sector for woven fabrics Bertelsmann & Niemann (Germany), Lorenzo Rubelli (Italy) and Textil Serrano (Brazil) belong among many others to the business clients. Besides these systems NedGraphics is also a producer of Geographic Information Systems (GIS) for municipalities.

The company operates in a nichemarket, which exists for only 15 years and technology is changing very fast and price-competition is fierce. In order to increase marketshare, the firm has focused on delivering standard quality after the MBO. Increasing turnover is one of NedGraphics’ major goals. The company has grown to become a leader in the rapidly expanding textile CAD/CAM industry and is currently one of the strongest and most versatile suppliers of turnkey PC-based, integrated manufacturing solutions to textile industry; printed textiles, woven fabrics, fashion design and floor coverings. Nedgraphics develops, manufactures and markets dedicated software and services for textile design, colour matching, colour separation, fabric simulation, 3D presentation and production of textiles. Currently (1997) over a 1500 NedGraphics systems are utilised by more than 600 companies in 50 countries. With headquarters based in Utrecht, The Netherlands, offices in Manchester (UK) St. Just St. Rambert (F), New York and Chattanooga (USA) and a world-wide agent network Nedgraphics took a major effort to position itself to effectively market and sell its products on a world-wide scale. In this way Ned Graphics is trying to become the world-wide market leader in CAD/CAM-systems for the carpet industry. Also some restructuring activities were undertaken after the MBO. Contracts with suppliers were renegotiated and catering costs for example were decreased with about 60%.

After the MBO, NedGraphics could investment more money in projects which they thought were important for the future of the company. HCS had a lot of debts and her subsidiaries were 'stripped'. All of the profits were used for paying the debts of this parent. Furthermore HCS was specialised in the manufacturing of copiers, not CAD/CAM systems for the carpet industry. Due to a lack of feeling and knowledge of NedGraphics’ market and a lack of financial resources, many investment proposals were turned down. Approval time of NedGraphics proposals took months and during this time a lot of opportunities faded away. Nowdays investment decisions are taken very fast, compared to the situation before the MBO. More delegation helps to make decisions faster and more effectively. Formalisation has also decreased after the MBO. Management is less 'by the book'. Employees have more freedom in doing their jobs. More creativity and by doing so, more new products, is one of the results of the far less bureaucratic organisation.

One of NedGraphics' best-selling products is a Windows system for the carpet industry. It took two years of full research to create this product. Before the MBO, it wouldn’t be possible to develop such systems. HCS didn’t have much patience, especially because of the worse financial situation. After the MBO more money is spent on R&D. The Windows-system is one of the successfully introduced products. Growth through acquisitions is another opportunity which became possible after the MBO. In France NedGraphics acquired a company specialised in texture. Other acquisitions in for example Turkey are examined. The more innovative actions and acquisitions caused a three times increase in turnover within 5 years. In order to attract more capital for growth through acquisitions NedGraphics has recently got a quotation at the NMAX exchange. Innovation and standard quality are very important for NedGraphics. After the MBO no time is wasted by bureaucratic layers, lacking experience and knowledge of the carpet industry as was the case during their stay in the copier-company HCS. Furthermore NedGraphics is able to invest their
own cash-flows, instead of handing them over to HCS. In this way NedGraphics can act more proactively with innovative products. In short, after the MBO NedGraphics is no longer clogged by HCS.
Appendix 2: QUESTIONNAIRE ENTREPRENEURIAL ORIENTATION

- Name
- Age
- Position in firm
- Name of firm
- Year of MBO
- Nature of business
- Approximate sales of last year
- Total number of employees

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1. Environment

- **Dynamism**
  - Our company must rarely change its marketing practices to keep up with the market and competitors
  - The rate at which products/services are getting obsolete in the industry is very slow
  - Actions of competitors are quite easy to predict
  - Demand and consumer tastes are fairly easy to forecast

- **Hostility**
  - The environment causes a great deal of threat to the survival of our firm
  - Tough price competition

2. Strategy

- Strong tendency to integrate vertically
- Intuitive strategy-making process
- A-bird-in-the-hand emphasis on the immediate future in making management decisions
- Strong emphasis on growth through the building of new plants and facilities
- Standard quality, low or populair price orientation

3. A Structure

- Very specialized tasks
- Strong emphasis on ‘top down’ communication
- Tasks can only be changed by top management
- A strong hierarchic organisation
### 3. B Culture

- No emphasis on raising application and development of employees by delegation of power, information and control (= empowerment)
- No encouragement for new and/or radical ideas
- Strong emphasis on always getting personnel to follow the formally laid down procedures
- Strong customer focus
- Problems, career and training of personnel are very important

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### 3. C Resources en competences

- Personal resources are very scarce
- Financial resources are very scarce
- No use of outsourcing
- No use of merit rating
- Compared to industry’s average R&D spending is relatively low
- Compared with competitors time to market is much longer

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### 3. D Characteristics of top managementteam

- Presence of all important disciplines in top managementteam
- Little experience with production within top managementteam
- Little experience with human resources within top managementteam
- Little experience with financials/accounting within top managementteam
- Little experience with IT within top managementteam
- Little experience with marketing/sales within top managementteam
- Little experience with company’s industry within top managementteam
- Little experience with general management within top managementteam

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### 4. Entrepreneurial orientation

A. **Autonomy** (Refers to the independant action of an individual or a team bringing forth an idea or vision and carrying it through completion):

**Delegation of authority:**

To what extent has the chief executive delegated to others to mak each of the following classes of decisions.

- Marketing strategy for a new product/service is **not** delegated
- Changes in the strategy for existing products/services is **not** delegated
- Hiring and firing of personnel is delegated
- Raising of long term investments is **not** delegated
- Pricing of new products is **not** delegated
- The magnitude and direction of research into new products is delegated
- Significant price changes in existing products are **not** delegated
- Bargaining with personnel or their unions about wages etc. is **deleg**.
### Formulation:
- Formal policies and procedures guide most decisions
- Lines of authority are specified in a formal organization chart
- Plans tend to be formal and written
- Capital expenditures are planned well in advance
- Formal operating budgets guide day-to-day decisions
- Formal job descriptions are maintained for each position

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### Risk-taking  
(The degree to which managers are willing to make large and risky projects- i.e., those which have a reasonable chance of costly failures):
- Top management has a strong emphasis on the marketing of tried and true products or services
- Top management has a strong proclivity for low-risk projects with normal and certain rates of return (e.g., virtually certain 10% R.O.I., after tax)
- Policy of growth primarily through internally generated funds (retained earnings)

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### Innovativeness  
(Creating and introducing original solutions for new or already identified needs):
- No changes in product lines in past 5 years
- No new products in past 5 years
- No very strong emphasis on R&D, technological leadership, and innovations
- Much lower R&D expenditures compared to industry’s average
- Much less successful introductions compared to industry’s average

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### Proactiveness  
(Processes aimed at anticipating and acting on future needs by seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of life cycle):
- No active search for big opportunities
- In dealing with competitors, the company typically responds to actions which competitors initiate
- In dealing with competitors, the company is very seldom first to business to introduce new products/services, etc.
- When confronted with decision-making situations involving uncertainty, the company typically adopts a cautious, ‘wait-and-see’ posture in order to minimize the probability of making costly decisions

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E. Competitive aggressiveness

The firm’s propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is to outperform industry rivals:

- Strong emphasis on marketing in attacking opportunities
- Marketing generates most new product ideas
- No use of marketing consultants by the company
- Customers are never source of new ideas
- No marketing research by the company
- In dealing with the competitors the company typically seeks to avoid competitive clashes, preferring a ‘live-and-let-live’ posture

5. Company results

- Cash flows (profit after taxes + Δ working capital) have diminished in the course of the years
- Customer satisfaction has diminished in the course of the years
- EBIT has diminished in the course of the years
- Turnover (in personnel) has increased in the course of the years
- Absenteeism (among workers) has increased in the course of the years
- Turnover has decreased in the course of the years
- Labour productivity has diminished in the course of the years

Last page questionnaire: defensive business measures

If you think that the economic performances of the company have improved because of the MBO, please indicate for the features listed below the extent of their influence on the performance-improvement of the MBO company.

- 'fresh start', a new (own) policy
- influence of new stockholders (board of supervisors) on policy
- stockholdership of management
- pressure experienced by management to comply with redemption and interest payments
- flexibility-improvement and involvement of personal
- better adaptation to changes in the (market) environment
- improved organisation structure, communication and decision making
- restructuring, re-organisation, intensive cost reduction
- optimalisation of existing activities (cost control)
- growth of the company
Has attention been paid to the following measures for cost control after the MBO?
(Please list three measures in order of importance: 1 most important, 3 least important)

... reduction of prices of purchased materials
... reduction of wages
... reduction of overhead-costs
... reduction of expenses on Research and Development
... reduction of marketing expenses
... increasing flexibility of labour (temporary contracts, flexible working hours)
... relating rewards to performances
... limitation range of products

Has one or more of the following measures been taken (after the MBO) to reduce (for once)
the cost level? (Please list three measures in order of importance: 1 most important, 3 least important)

... dismissal of personal
... closing down/selling certain activities
... closure of sites
... rationalising production capacity
... other: ...........................................................
Appendix 3: Questionnaire Venture Capital Investors


A. Checking Areas Where Outside Board Members Have Been of Greatest Help:

1. serving as a sounding board to entrepreneur team
2. interfacing with investor group
3. monitoring operating performance (involved in the technical and business sides)
4. monitoring financial performance
5. recruitment and/or replacement of CEO
6. assistance on short-term crisis/problems
7. providing contacts with key customers and prospects (opening up business contacts)
8. development of new strategy to meet changing circumstances
9. obtaining sources of debt financing
10. obtaining sources of equity financing besides venture capital
11. recruitment/replacement of members of management team other than CEO
12. development of original strategy (helping formulating strategy)


13. Are you only investing in MBOs? or also in other stages: early stage deals, mid-later and later stage deals? Percentages
14. Target rate of return? Does the MBO belong to the top venture capital investments of your portfolio? Or to the “living dead”? 
15. How large are your funds invested in MBOs? (0-25 Dfl. mn; f26-f100 mn; f101-f300; and over f300 investments? Are there “living dead” under the MBOs? 
16. How much time you use for the MBO firm? What resources do you deploy? How many persons are doing monitoring activities? What does the monitoring cost? 
17. How did the investment appraisal in the business case look like from the beginning of the MBO? 
18. How much did you invest in this company in the very beginning? And On aggregate? 
19. Did you take any action regarding to help or replace the inadequate investee internal management? did you help with operational problems, if there were any? 

F. Mitchell, G.C. Reid and N.G. Terry (paper presented at the Conference “Private Equity into the Next Millennium, CMBOR, University of Nottingham, 1996)

20. Did you make changes in the accounting information system of the MBO firm? Examples? Did the change contribute to higher quality of information and thus to a better economic performance? (e.q. better allocation of resources ex-ante /ex-post) 

21. Did you have influence on the decisionmaking of the buy-out team? 

22. Did you experienced improvement in the efficiency of the contractual relationship between you and the MBO firm? (better sharing of information and risk) 

23. Which performance measurement information was used internally by investee at the time of the MBO? Which information was reported to VCI? And which information on performance measurement was developed since VCI involvement in the MBO firm?

P&L Components: turnover analysis; labour cost analysis; net profit 
Financial ratios: return on equity employed; return on assets; sales/assets invested 
Other aspects: cash flow; other as....
24. Which control information was used by the investee internally before the MBO, which was reported to VCI and which was produced since VCI’s involvement?
   (1) use of monitoring reports
   (2) financial budgets set
   (3) Budget components (P&L account; cash flow; balance sheet; capital expenditure; headcount; other:...)

25. Frequency of budgetary reporting by investee before VCI involvement and after VCI involvement? (see 1,2 and 3 above spread over: annual, bi-annual, quarterly, monthly, weekly, daily).

26. If you look at the decision types, such as operating decisions, strategic decisions and capital investment, which decision-making information was used internally, which was reported to VCI and what information developed only since VCI involvement?

27. VCI Policies

   Are your reporting requirements extending beyond financial statements?
   Is access to investee Accounting Information System required?
   Do you allow for variation in information required?
   Are vetted?
   Do you exert influence on investee audit?
   No cost deterrent in obtaining information?
Appendix 4: Operationalisation of the Entrepreneurial Dimensions

From literature it shows that many authors use Khandwalla (1977), Miller & Friesen (1982, 1983) and Covin & Slevin (1986) for operationalisations of the dimensions risk-taking, innovativeness and pro-activeness. For the dimension competitive aggressiveness most of the research articles make references to Morris & Paul (1987) and Miles & Arnold (1991) and finally with respect to operationalisations of the dimension autonomy Khandwalla (1977) and Hanks et al (1993) are frequently mentioned. Below we describe shortly the content of the five different dimensions. We refer the reader for operationalisation of each of the dimensions to the Appendix. The resulting questions were reformulated in the form of propositions for our questionnaire in order to create appropriate possibilities for answering on a five point Likert scale (see questionnaire in the Appendix).

-Innovativeness
Lumpkin & Dess describe innovativeness as the tendency of an organization to engage in and to support new ideas, novelty, experimentation and creative processes that result in new products, services or technological processes

-to what extent were changes made in the products and processes? (Khandwalla, 1977; Miller & Friesen, 1982; Naman & Slevin, 1983)
-are the R&D expenses relatively higher than the competitors in the industry? (Khandwalla, 1977; Zahra, 1995)
-to what degree is R&D and technological leadership emphasized in this firm? (Miller & Friesen, 1982; Naman & Slevin, 1993; Covin & Slevin, 1986, 1989; Shafer, 1990)
-is the number of succesfull product launches relatively higher than the industry? (Miller & Friesen, 1983; Zahra, 1993a, 1995).

-Proactiveness is a process aimed at anticipating and acting on future needs by seeking new opportunities which may not be related to the present line of operations, introduction of new products and brands ahead of competition, and strategically eliminating operations which are in the mature or declining stages of life cycle.

-to what extent is there an active search to new possibilities? (Khandwalla, 1977; Morris & Paul, 1987)
-does the company initiate actions to which the competitors has to respond? (Covin & Slevin, 1986; Covin & Slevinn, 1989; Shafer, 1990; Naman & Slevin, 1993)
-Is the company relatively frequent “first to business”? (Covin & Slevin, 1986; Stuart & Abetti, 1989; Covin & Slevin, 1988; Shafer, 1990; Naman & Slevin, 1993; Knight, 1997)
-when confronted with uncertainties of the outcome of decisions, does the company take an agressive stance to realize the opportunities? (Morris & Paul, 1987; Covin & Slevin, 1989; Naman & Slevin, 1993; Knight, 1997)

-Competitive aggressiveness refers to “a firms’s propensity to directly and intensely challenge its competitors to achieve entry or to improve position, that is, to outperform industry rivals in the marketplace” (Lumpkin & Dess, 1996).

-has the firm adopted a very competitive “undo the competitor” posture or do they prefer to “live-and-let-live”? (Khandwalla, 1977; Miller & Friesen, 1982; Covin & Slevin, 1986; Covin & Slevin, 1989; Naman & Slevin, 1993; Knight, 1997)
-how important is marketing for the strategic direction of the firm? (Stuart & Abetti, 1987)
-how important are the customers for the generation of ideas? (Morris & Paul, 1987; Miles & Arnold, 1991)
-does the firm intensively make use of marketing consultants? (Khandwalla, 1977; Morris & Paul, 1987; Miles & Arnold, 1991)
-does the firm frequently carry out marketing research? (Morris & Paul, 1987; Miles & Arnold, 1991)
-does marketing generate the most products? (Morris & Paul, 1987; Miles & Arnold, 1991)

-Risk taking is formulated as follows: to what degree are managers willing to make large and risky resource commitments, i.e., those which have reasonable chance of costly failures.

-does the firm stress the importance of R & D and technological leadership (Khandwalla, 1977; Covin & Slevin, 1986; Covin & Slevin, 1989)
-to what extent is growth financed by debt? (Khandwalla, 1977)
-to what extent does the management prefer projects with a high risk-return trade-off? (Miller & Friesen, 1982; Covin & Slevin, 1986; Covin & Slevin, 1989; Miles & Arnold, 1991; Naman & Slevin, 1993; Knight, 1997)

*Autonomy* the extent to which a team or an individual in the firm is free to bring forward a vision or an idea and the extent to which they have freedom to implement them on his/her own.

**Aspect delegation:**

-to what extent has the selecting of new personnel been delegated? (Khandwall 1977; Miller & Friesen, 1982; Hanks et al., 1993)
-to what extent is bringing changes in the marketing strategy delegated? (Khandwall 1977; Miller & Friesen, 1982)
-to what extent has the task been delegated to realise a marketing strategy for a new product/service (Khandwall 1977; Miller & Friesen, 1982)
-to what extent has the selection of new investments been delegated (Khandwall 1977; Miller & Friesen, 1982; Hanks et al., 1993)
-to what extent has price-fixing been delegated with regard to new products/services? (Khandwall 1977; Miller & Friesen, 1982)
-to what extent has been delegated the direction and the amount of R&D into new products/services? (Khandwall 1977)
-to what extent has been delegated the authority to make significant price changes of existing products/services? (Khandwall 1977)
-to what extent has been delegated the authority to negotiate about wages of employees (Khandwall 1977)

**Aspect formalization:**

-to what extent do formal rules and procedures rule most of the decisions? (Hanks et al., 1993)
-to what extent are line and staff functions specified in a formal organisation scheme? (Hanks et al., 1993)
-to what extent are plans putting down on paper? (Hanks et al., 1993)
-to what extent are expenses planned in advance? (Hanks et al., 1993; Miller & Friesen, 1982)
-to what extent do formal budgets rule the day-to-day decisions? (Hanks et al., 1993)
-to what extent are formal job description used for each position? (Hanks et al., 1993)
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