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Are they really more entrepreneurial?**

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ERIM REPORT SERIES <i>RESEARCH IN MANAGEMENT</i>	
ERIM Report Series reference number	ERS-2005-076-STR
Publication	November 2005
Number of pages	32
Persistent paper URL	
Email address corresponding author	jbruining@rsm.nl ; everwaal@rsm.nl
Address	Erasmus Research Institute of Management (ERIM) RSM Erasmus University / Erasmus School of Economics Erasmus Universiteit Rotterdam P.O.Box 1738 3000 DR Rotterdam, The Netherlands Phone: + 31 10 408 1182 Fax: + 31 10 408 9640 Email: info@erim.eur.nl Internet: www.erim.eur.nl

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REPORT SERIES
RESEARCH IN MANAGEMENT

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Free Keywords	Management Buyouts, Entrepreneurial Management, Financial Performance
Availability	The ERIM Report Series is distributed through the following platforms: Academic Repository at Erasmus University (DEAR), DEAR ERIM Series Portal Social Science Research Network (SSRN), SSRN ERIM Series Webpage Research Papers in Economics (REPEC), REPEC ERIM Series Webpage
Classifications	The electronic versions of the papers in the ERIM report Series contain bibliographic metadata by the following classification systems: Library of Congress Classification, (LCC) LCC Webpage Journal of Economic Literature, (JEL), JEL Webpage ACM Computing Classification System CCS Webpage Inspec Classification scheme (ICS), ICS Webpage

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Abstract

The paper explores the impact of entrepreneurial management dimensions on post-MBO financial performance. We use Stevenson's conceptualization of entrepreneurship (1983), empirically validated by Brown, Davidsson and Wiklund (2001), positing that entrepreneurial companies will be involved in recognizing and exploiting opportunity, regardless of the resources controlled. From the literature we hypothesize positive effects of entrepreneurial management dimensions on post-MBO financial performance. We find that successful buyout managers cannot be classified as entrepreneurs on all entrepreneurial dimensions. Instead they ambidextrously combine the pursuit of valuable opportunities with the exploitation and control of their resources. Implications for theory and managerial practice are discussed.

1. Executive summary

The objective of the paper is to further our understanding on the relationship between entrepreneurship and financial performance after a management buyout (MBO). The paper seeks an answer to the following research question: "To what extent are MBOs involved in the pursuit of entrepreneurial opportunities and how does this relate to post-MBO financial performance?" The paper draws upon Stevenson's conceptualization of opportunity-based firm behaviour as operationalized and validated by Brown, Davidsson and Wiklund (2001), positing that entrepreneurial companies will be involved in recognizing and exploiting opportunity, regardless of the resources controlled. This contrasts traditional administrative management which emphasizes efficient use of its resources required by fiduciary

responsibility. The study empirically tests whether entrepreneurial or administrative management predicts positive effects on financial performance post-MBO.

The relationships between entrepreneurial, administrative behaviour and financial performance are investigated using the six dimensions of entrepreneurial management: strategic orientation, resource orientation, management structure, reward philosophy, growth orientation and entrepreneurial culture (Brown et al. 2001). We link these dimensions with important changes that occur in MBOs after cutting the ties with the former parent company or after the former private owner have left. The documented changes in the buyout literature are respectively: a shift in strategy post-MBO to more growth orientation (Wright et al., 2001); more sensitivity to optimizing value creation (Bull 1988; Malone 1989 and Wright et al. 1992); improved flexibility and speed in decision-making (Bruining 1992); introduction of equity stakes by incumbent management to realign rewards, risks and change in governance (Wright 1985; Singh 1990; Phan and Hill 1995); responding more entrepreneurially to new opportunities post-MBO by lifting the investment restriction of former owners (Bruining 1992; Wright et al. 2001); and the stimulating of entrepreneurial initiatives (Green 1992; Zahra, 1995; Bruining, Bonnet and Wright 2004). Based on the extant literature, we hypothesize positive effects of entrepreneurial management dimensions on post-MBO financial performance.

Data from 52 MBOs in the period 1996-2000 were analyzed to identify which of the entrepreneurship or administrative dimensions impact operating income (EBIT) relative to competitors. We find that two entrepreneurial management dimensions, strategic orientation and reward philosophy, predict a positive EBIT development relative to competitors. These results signal that the management of the buyout companies is driven by the perception of valuable opportunities and compensate employees based on the value they add. Surprisingly, administrative management dimensions dominate the growth, resource orientation and the

culture of successful management buyouts. These results indicate that successful buyout managers cannot be classified as entrepreneurs on all entrepreneurial dimensions. Instead they ambidextrously combine the pursuit of valuable opportunities with the exploitation and control of their own resources. Paradoxically, to operate successful, opportunity perception should be reconciled by the need to exploit and control own resources. We argue therefore that growth is not an exclusive entrepreneurial issue. Managers need to excel in the incongruous demands of entrepreneurial and administrative management in order to increase their probability of success. The results also contribute to avoiding premature conclusions that entrepreneurial management is under all conditions superior to administrative management in creating financial performance. Further research could focus on the question how buyout managers successfully combine administrative and entrepreneurial management dimensions and how financiers could facilitate that process.

2. Introduction

A MBO involves members of the incumbent management team acquiring a significant equity stake as individuals with institutional support in order to control the company (Robbie and Wright 1996). Most important sources are divestments from domestic and foreign parent companies and succession of the founder/owners. We agree with Malone (1989) that the act of purchasing a business does not entitle one to the mantle of “entrepreneur”. Therefore we take a closer look on the factors that drive performance post-MBO.

Buyouts have traditionally been viewed as involving firms in mature sectors with few investment demands and low growth prospects (Jensen 1989). However, the main rationale for buyouts has shifted from cost reduction and strategic reorientation in mature sectors to

creating value in service and technology sectors through product development and innovation (Wright et al. 2000, 2001).

Traditionally, value creation post-MBO has been attributed to major efficiency improvement, the restructuring of assets, and tax savings through the substitution of equity by debt. Most researchers examine operational changes as the source of post-MBO financial improvements (Bull 1989; Lichtenberg and Siegel 1989, Wright et al. 1992 and Bruining 1992) or changes in efficiency (Wright 1985; Kaplan, 1989; Singh 1990; Smith 1990) without documenting post-MBO corporate entrepreneurship changes and corresponding changes in performance. However, MBOs are increasingly being recognized as involving entrepreneurial activities (Malone 1989; Long and Ravenscraft 1993; Zahra 1995; Robbie and Wright 1995; Wright et al. 2001; Bruining and Wright 2002). These activities after an MBO offer an additional explanation for performance improvement to the general argument of restructuring and efficiency generally found in the buyout literature. Therefore this paper is an effort to show if and how an MBO impacts the conceptual dimensions of entrepreneurial management in the eyes of the CEOs and how these are related to post-MBO financial performance.

Zahra (1995) found for 47 leveraged buyouts (LBOs)² in the US an increase in post-LBO commitment to corporate entrepreneurship, measured by innovation, commercializing technology, quality and size of research and development, which activities positively impact the firm's productivity and profitability. The author reports that previous LBO studies lack attention to the association between corporate entrepreneurship and performance. Apart from the study of Zahra, several other authors focus on the relationship between corporate entrepreneurship and performance. The study of Long and Ravenscraft (1993), for example,

² In a Leveraged Buyout (LBO) outside LBO associations are the main owners and apply a high debt to total asset ratio in the financial structure of the buyout firm.

found that LBOs spending more on research and development than other LBOs had higher performance levels. Malone (1989) also reports positive effects of financial leverage on cost control, investment selection and on firm performance by enhancing turnover and by new product and market development for 56 small and medium sized US firms. Other studies offer a snapshot of the effect of MBOs on corporate entrepreneurship. Robbie and Wright (1995), for example, focus on entrepreneurial skills of managers leading a proposed buyout or buy-in but do not document changes in entrepreneurship activities. Wright et al. (2001) develop a conceptual framework for buyouts that differentiates on the one hand between managerial and entrepreneurial mindsets and on the other hand between creating wealth through enhancing efficiencies and those creating wealth by innovation. The framework distinguishes buyout types varying from efficiency, revitalization and entrepreneurial to failure, but is not yet empirically tested. A study by Bruining and Wright (2002) documents the post-MBO changes in the firm's entrepreneurial orientation of CEOs and CFOs and the way venture capitalists contribute to it. Entrepreneurial orientation is measured by dimensions such as autonomy, risk taking, innovation, proactiveness and marketing aggressiveness (Lumpkin and Dess, 1996), which characterise and distinguish entrepreneurial processes. However, the study does not shed empirical light on the causal relationship between changes in the entrepreneurial process and corresponding changes in financial performance.

All the abovementioned studies attach strong importance to empirical research of post-MBO entrepreneurial behaviour, because they consider it as critical to the long-term vitality of our economy. However, none of the studies referred to above uses an empirically tested and validated construct of corporate entrepreneurship that measures the buyout manager's perception by a set of opportunity versus administrative based management practices linked to financial performance. This paper uses an empirical basis to explore the

quantity of entrepreneurship post-MBO by applying the operationalization of Stevenson's conceptualisation of entrepreneurship as opportunity-based firm behaviour by Brown, Davidsson and Wiklund (2001). The research question of this paper focuses on the extent to which MBOs are involved in recognizing and exploiting opportunities, or what Stevenson (1983) calls entrepreneurial value creation, and how this relates to post-MBO financial performance.

The remainder of this article consists of four sections. First we discuss Stevenson's conceptualisation and the empirical instrument to measure entrepreneurship as opportunity-based firm behaviour as developed by Brown, Davidsson and Wiklund (2001). Then we link the characteristics of MBOs, the financial performance post-MBO with entrepreneurial management to develop hypotheses. Next, we discuss the research method and present the results of the empirical analysis. The final section draws conclusions and discusses the implications of the study's findings for research and practice of buyouts.

3. Entrepreneurial management and MBOs

3.1 Stevenson's concept

The Stevenson's concept of corporate entrepreneurship as validated by Brown et al. (2001), enables us to measure corporate entrepreneurship in different contexts. As Brown et al. (2001) argue, contemporary definitions of entrepreneurship tend to centre around the pursuit of opportunity (e.g. Churchill and Muzyka, 1994; Venkataraman, 1997; Brazael, 1999; Shane and Venkataraman, 2000). Stevenson sees entrepreneurship also as the pursuit of opportunity. He defines it as a process by which individuals - either on their own or inside

organizations - pursue opportunities without regard for the resources they currently control (Stevenson, 1983). This means that he sees entrepreneurship irrespectively of the present organizational context as entrepreneurial management, a mode different from traditional management that propagates control and ownership of resources. His conceptualisation of entrepreneurship encompasses two extremes of the behavioural spectrum (Stevenson and Gumpert, 1985). On the one side firms are led by an entrepreneurial management that optimises pursuing and exploiting opportunities regardless of the resources controlled, and on the other side firms led by traditional administrative management making the most efficient use of its resources, required by fiduciary responsibility.

In Stevenson's conceptualisation of entrepreneurship there is a clear border between entrepreneurial and administrative modes of management (see Table 1). In Table 1 the entrepreneurial management focus is represented by the opposite of 6 administrative management characteristics: strategic orientation, resource orientation, management structure, reward philosophy, growth orientation and entrepreneurial culture (Brown et al. 2001). Both types of management can be classified along the same 6 dimensions which are operationalized by statements that are opposite in meaning and pair wise formulated (see Appendix 1).

Table 1

Stevenson's conceptualization of entrepreneurial management (adapted from Brown et al. 2001).

Entrepreneurial focus	Conceptual dimensions	Administrative focus
Driven by perception of opportunity	← Strategic orientation →	Driven by controlled resources
Many stages with minimal exposure at each stage Episodic use or rent of required resources	← Resource orientation →	A single stage with complete commitment out of decision Ownership or employment of required resources
Flat, with multiple informal networks	← Management structure →	Hierarchy
Based on value creation	← Reward philosophy →	Based on responsibility and seniority
Rapid growth is top priority; risk accepted to achieve growth	← Growth orientation →	Safe, slow, steady
Promoting broad search for opportunities	← Entrepreneurial culture →	Opportunity search restricted by resources controlled; failure punished

The point of reference for the first dimension *strategic orientation* of entrepreneurial management is a strategy that is motivated by the chances that exist in a certain business setting and not by the assets that may be essential to exploit them. In their search for opportunities existing assets do not restrict the entrepreneurial managers, while administrative managers are led by the principle that opportunities are carried out with the assistance of own resources.

The second dimension *resource orientation* for entrepreneurial managers is characterised by commitment of resources that maximizes value creation while minimizing firm resources. Entrepreneurial managers invest stage-wise in small amounts of resources after certain goals have been achieved, while administrative managers use capital allocation and formal planning systems that force them to carry out thorough analysis in advance with

large, but less reversible investments. This makes them less flexible than their entrepreneurial colleagues. Another difference between entrepreneurial and administrative management concerns the owning of resources. The former are skilled in using financial and human capital of others to extract value from them, instead of owning these resources, which is favoured by administrative management.

Entrepreneurial management implements organisational structures that are directed at coordinating the key non-controlled resources and tend to be made of multiple informal networks that enhance an organisations' flexibility. This third dimension of *management structures* contrasts the highly routinized work systems the administrative management led firm uses in a formal hierarchical way of organizing with clearly defined lines of authority and strong diagnostic control systems.

The fourth dimension *reward philosophy* of entrepreneurial management attaches high importance to creating value. Their employees are rewarded based on their contribution to value creation and challenges individuals to take independent action and accountability. Administrative management reward their employees on the basis of seniority and by measuring how much assets individuals control in the organisation.

The fifth dimension is *growth orientation*. Entrepreneurial managers opt for big and fast growth in their organization and accept risks to achieve this. They are the opposite of the administrative managers who attach the same level of importance to long time survival as to growth. Administrative management prefers safe, slow but steady growth, which is quite the opposite of what entrepreneurial managers want.

The last dimension of Stevenson's conceptualization of entrepreneurship is *entrepreneurial culture*. In entrepreneurial led firms culture encourages management and employees to develop creativity and a broad range of new ideas and organize experiments without setting prior limits on opportunity-seeking behaviour. Such culture stimulates

organizational learning and the emergence of new ideas and strategies (Simons 1995). Administrative management boost only those kinds of ideas and creativity that are related to the currently controlled resources in a pre-selected domain.

3.2 MBOs and entrepreneurship hypotheses

MBO firms are examples of organisations that pass a certain threshold during their life by changing ownership and offer researchers a special occasion to look into causes and effects of performance development that relate back to this event of ownership change. Thompson, Wright and Robbie (1992) and Phan and Hill (1995) discovered that managerial equity holding in MBOs are more significant drivers of buyout value than debt of which Jensen (1993) advocates the positive impact on cost reduction and improved investment selection. The authors don't link their findings explicitly to entrepreneurship or entrepreneurial actions. However, according to Davidsson (2003) ownership change as such does not constitute entrepreneurship. He argues that only in cases where the change in ownership leads to organizational change, such as for example the creation of strategic business units, the implementation of autonomous workgroups or quality improvement platforms, the MBO facilitates entrepreneurship. Internal reorganization by redeploying its resources, for example, can facilitate the offering of new products or services, or a new business concept or something that creates a new price-value relation. This changes the consumers' choice or influences competitor behaviour, which can be seen as a contribution to influence market forces that drive the market. Bruining and Wright (2002) support this view with evidence from case studies on the contribution of venture capitalists with their CEOs to the entrepreneurial orientation of the firm post-MBO. They found that the contribution is substantial if the venture capitalist represented in the Board of Supervisors tests the feasibility

of the business strategy, challenges the status quo, manages pro-actively, develops leadership and takes care of succession planning.

The CEOs of the MBOs cannot afford too high risks because, cut off from their parent companies, they have less opportunity to diversify the financial risk. However, their commitment to corporate entrepreneurship activities is crucial to achieving the growth objectives of the buyout. This is consistent with the literature. Bull (1989, p. 89) argues...”that the evidence is convincing that management does change significantly after an LBO. The management change is interpreted as one of becoming entrepreneurial, subject to the severe constraint that a high level of debt must be serviced”. According to Easterwood et al. (1989) this may be achieved by generating revenue from existing businesses and/or by venturing into new fields, such as modifying products, processes and organizational systems. Collectively, these changes spur post-MBO’ commitment to corporate entrepreneurship (Malone 1989; Wright et al. 1992).

Stevenson submits that firms with high scores on entrepreneurship exhibit more entrepreneurial behaviour than firms with high scores on administrative management. He explicitly states that entrepreneurial firms will show consistently prevailing scores at the entrepreneurial management end in contrast to the traditional firms that will prefer the managerial or administrative management mode. Whether the entrepreneurial management dimensions from the Brown et al. construct are generally positively related to post-MBO financial performance is not clear, although the literature suggests that entrepreneurship positively relates to improved performance. In general, knowledge about external and organisational factors that stimulate entrepreneurial management is crucial for understanding the dynamics of a firm. In the following paragraph we link external and organisational factors to the buyout firm that challenge or limit entrepreneurship post-MBO and formulate our hypotheses.

3.2. Buyouts and Entrepreneurship Hypotheses

In this paragraph we highlight important changes that occur in MBOs after cutting the ties with the parent company. In the first place a significant share of MBOs divested from parent companies face changes to a more growth-oriented strategy and in the process of strategy formulation, implementation and modification. Buyout managers undertake efforts to balance traditional diagnostic control systems with newer interactive control systems that stimulate opportunity seeking and learning (Bruining et al. 2004). Instead of obeying orders from headquarters that block innovation and investment in order to optimise the goals of the diversified parent company, the buyout managers have discretionary power to decide what is best for the business and how the business plan can be carried out most profitably for themselves as a firm (Wright, et al. 2001). Buyout managers are motivated by the market chances they see in the business setting and that they were unable to grasp as former directors of a subsidiary. Hence we formulate:

Hypothesis 1. Post-MBO financial performance is positively related to the strategic orientation of entrepreneurial management.

The buyout management team per definition takes a substantial equity stake in the firm and runs a higher financial risk than before the buyout where they had no stake in the equity of the firm, or very little. The pressure of the new shareholders and the new owner/manager on improving firm performance post-MBO within the new financial constraints as an independent firm will challenge return on investment post-MBO. However, the financial resources for internal growth and/or external expansion post-MBO mostly come from the

firm's own cash flows. Therefore they put effort in perceiving opportunities to re-deploy resources away from present, sub-optimal configurations to more promising opportunities. Empirical studies offer support for an entrepreneurial management perspective in situations of higher debt levels. With regard to U.S. post-MBO performance studies, for example, Bull (1989) find some support for the agency cost-reduction argument, but observes that the most influence came from the greater entrepreneurial alertness to opportunities to create value. Malone (1989) reports for 56 leveraged MBOs despite increased interest and principal payments no lay-offs in personnel or sale of assets. On the contrary the buyouts improve strongly their cost control and capital budgeting and show an increase in turnover through intensifying sales as well as product and market development. Wright et al. (1992) in a UK-based study find that 62.3 percent of the 182 buyouts surveyed introduce new products that they would not have done before the MBO. In a recent survey by the Dutch Association of Venture Capitalists (NVP 2004) in cooperation with CMBOR, 56 percent of the private equity backed Dutch buyout companies stated that they have developed faster as a result of the buyout. The study reveals that MBOs engage in strategic actions following the change in ownership. A majority report increase in the range of products (65 percent) and markets (52 percent), suggesting a highly beneficial effect of the buyout on growth by acting in a more entrepreneurial manner. Despite the higher interest and principal payments post-MBO, we expect more sensitivity to resources that maximizes value creation, also using resources from collaborative relationships with other firms, while minimizing the firm's own resources. Therefore we formulate the following hypothesis:

Hypothesis 2. Post-MBO financial performance is positively related to the resource orientation of entrepreneurial management.

The shift from maintaining the status quo pre-MBO to acting more efficiently and entrepreneurially post-MBO (Wright et al. 2001), requires more organisational flexibility than before the buyout. Dependent on the new owners' conception of the environment and perspective of the organisation-environment relationship, the firm has to develop flexibility. The capability, for example, for facilitating emergent, spontaneous strategies, terminating unprofitable existing activities and developing flexible resources for effective response to (un)anticipated changes (Volberda, 1998, p.43). Structures that enhance the high speed of decision-making and adapting are informal in nature, leaving room for job-behaviour of managers and workers to adapt freely to changing circumstances. Multiple informal networks between the buyout firm and other firms will develop to coordinate the non-controlled resources. These collaborative relationships with other firms were not possible during their stay in the parent company and very problematic in case the buyout firm was sold to an industrial partner, due to existing competitive relationships (Bruining 1992). Hence we formulate:

Hypothesis 3. Post-MBO financial performance is positively related to the management structure of entrepreneurial management.

“If entrepreneurship requires alertness and responsiveness there first has to be a structure of incentives which makes it worth the CEO’s time looking in the first place. The private equity suppliers require that the equity stake is held in the hands of a clearly identifiable group which has responsibility for running the company. This gives them a guarantee that the focus of the firm’s objectives is commercial and profit orientated (Wright 1985, pp.48 and 89)”. The incentive compensation for the MBO managers is dependent on achieving targets for profits and turnover. As new owners, they run the company at their own

risk and thus want to improve the firm's financial performance. To increase the value of the firm they need the cooperation from their key-personnel even more than before the buyout in order to streamline the established and develop new business. From an agency perspective the issue is to define in an entrepreneurial context who is the principal and who is the agent in order to provide the set of incentives for engaging in entrepreneurship. Balancing rewards and risks for key personnel in organisations can promote internal corporate entrepreneurship, the process by which firms notice opportunities and act to create surplus value. Companies that face strategic uncertainties challenge personal and organisational flexibility and adaptability (Jones and Butler, 1992). Singh (1990) shows empirically that firms after buyout have focused boards and higher stock ownership levels for managers and directors. Hence:

Hypothesis 4. Post-MBO financial performance is positively related to the reward philosophy of entrepreneurial management.

From the entrepreneurship literature (Miller 1983; Covin and Slevin 1991, 1993; Lumpkin and Dess 1996, 1999; Wiklund, 1999) we know that environmental variables moderate the entrepreneurship-firm performance relationship. This relationship, for example, is positively or negatively moderated by the extent of hostility, of dynamism and of heterogeneity in the firm's environment. It is well known that managers pre-MBO face investment restrictions from HQ because their firms are peripheral to the product line of the parent company (Wright et al. 2001). This may decrease the possibilities of responding entrepreneurially to these moderating factors: e.g. by avoiding or reacting aggressively to competitor's actions, by responding to changing customer's needs or by innovation in products and development of markets. After the buyout this situation is reversed. Pre-MBO buyout firms are not allowed to have growth-oriented strategies and organisations. This conflict between subsidiary

management and HQ is often an indication that a buyout may be appropriate (Bruining 1992, Wright et al. 2001). Once the MBO is a fact, top managers experience more immediate freedom and independence, which enable more flexible decision-making, more delegation, quicker action and easier consensus among manager/owners and shareholders (Bruining 1992). This creates greater room at the firm level for the autonomy dimension of corporate entrepreneurship. In a recent survey by the Dutch Association of Venture Capitalists (NVP) in cooperation with CMBOR (Nottingham, UK) and Erasmus University, 56 percent of the private equity backed Dutch buyout companies stated that they have developed faster as a result of the buyout. The study reveals that MBOs engage in strategic actions following the change in ownership. A majority report increase in the range of products (65 percent) and markets (52 percent), suggesting a highly beneficial effect of the buyout on growth by acting more entrepreneurial. Hence we formulate:

Hypothesis 5. Post-MBO financial performance is positively related to the growth orientation of entrepreneurial management.

In a buyout, distance between policy and implementation is likely to become significantly shorter, because of the remarriage of ownership and control (Alchian and Demsetz, 1972). The management layers between subsidiary and parent are taken away, which enables quicker decision-making and action. Jones (1992) found that chief executive officers/managing directors from buyout firms used existing management accounting techniques to communicate their managerial philosophies concerning the internal functioning of the firm that was reflected in increased importance of participation in budgeting. New owner-managers show higher levels of commitment to the implementation of a growth oriented strategy than before the MBO (Zahra, 1995; Wright, *et al.* 2001). They are no longer

frustrated by the bureaucratic organisation of the former parent company to get their decisions accepted, which fuels their strength of mind to carry out their own policy and plans. In turn, this is likely to change the organisational culture to one that is more entrepreneurially driven (Green, 1992), stimulating intrapreneurship, customer focus and quality orientation (Bruining et al. 2004). Therefore we formulate:

Hypothesis 6. Post-MBO financial performance is positively related to the entrepreneurial culture of entrepreneurial management.

4. Method

In addition to managing activities more efficiently post-MBO, it is our view that respondents are extra motivated to be aware of the relevant organisational and environmental conditions that foster entrepreneurship within the established business than without an ownership change. As a consequence we expect they can reflect better on the degree of entrepreneurship on firm-level shown post-MBO as compared to pre-MBO. This is most helpful for testing the empirical measure of Stevenson's corporate entrepreneurship. From 52 CEOs of Dutch firms that underwent a buyout during 1996-2000, information gathered by questionnaire is analysed on how post-MBO the firm's financial performance and financial leverage developed, and what views the CEOs held on entrepreneurship at firm level. All Dutch buyouts completed in between 1996-2000 are surveyed (response rate 18%) in 2002 and are supplied by the Centre for Management Buyout Research (CMBOR). We tested the representativeness of the sample with respect to the source of the MBO transaction and found

no significant differences. However, MBOs in the service industry seem to be slightly overrepresented in the total sample (n=26).

We use the operationalization of Stevenson's conceptual dimensions of entrepreneurship developed and validated by Brown, Davidson and Wiklund (2001). Next we validated the Stevenson's dimensions by using factor analyses using varimax rotation. The results confirmed the findings of Brown et al. (2001) and showed six independent dimensions with alphas above the .70 reliability threshold. Subsequently, we regressed the Stevenson's dimensions of entrepreneurship with the performance measure represented by Operating Profit (EBIT) relative to competitors. We choose for the measure EBIT or Operational Income, a rudimentary form of cash flow, because other yardsticks like Net Profit are heavily influenced by the firm's depreciation policies and financial leverage. By applying the operationalization of entrepreneurial management we can study the degree of entrepreneurship and its effect on financial performance in a sample of buyouts across different contexts. We use multiple regression analysis to examine how entrepreneurship dimensions impact perceived operating profit (EBIT) relative to competitors. We control for differences in financial leverage (measured as total debt related to total assets), deal price advantage (measured as the price paid relative to the market price) of the MBO firm as well as for firm size (measured as the natural logarithm of the number of full-time employees at the time of the MBO).

5. Results

5.1. Descriptive statistics and Pearson correlations

Table 2 presents the descriptive statistics and bivariate correlation coefficients for variables under study. Inspection of the Pearson correlations shows that there are relatively few significant correlations and none of these correlations have a value higher than .50. Furthermore, we calculated the VIF scores for all independent variables. The VIF values were all well below 3 which indicates that multicollinearity is not likely to be problem.

Table 2
Descriptive statistics and bivariate Pearson correlations

Study variables	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Strategic orientation	6.33	1.98	1								
2. Resource orientation	5.72	1.20	.04	1							
3. Management structure	5.50	1.37	.22	.34	1						
4. Reward philosophy	5.93	1.31	.03	.08	.42	1					
5. Growth orientation	5.49	2.05	.12	.25	.40	.31	1				
6. Entrepreneurial culture	5.23	1.78	-.18	-.03	-.03	-.10	-.03	1			
7. Debt Ratio	3.69	1.29	-.18	-.14	-.35	-.16	-.41	.30	1		
8. Deal price advantage	2.29	.75	.13	-.23	-.21	.03	.09	.06	-.01	1	
9. Log Size	1.68	.56	-.15	.11	-.27	-.16	-.19	.09	.41	-.10	1

Bold: correlation is significant at the 0.05 level (2-tailed)

5.2. Hypotheses testing

The model is estimated with ordinary least squares (OLS) regression and the estimation results are presented in Table 3.

Table 3

Regression of entrepreneurial dimensions on post buyout performance (EBIT relative to competitors)

Variables	B	Standard Deviation	β
Constant	2.88	.87	
Strategic Orientation	.10	.05	.25*
Resource Orientation	-.18	.08	-.28*
Management Structure	.10	.08	.17
Reward Philosophy	.17	.07	.30*
Growth Orientation	-.10	.05	-.26*
Entrepreneurial Culture	-.08	.05	-.20*
Debt Ratio	-.16	.08	-.27*
Deal Price Advantage	.25	.12	.25*
Log Size	.53	.17	.39**

Adjusted $R^2 = .38$ F-value = 4.42 $P < .0001$ N= 52

* $p < .05$; ** $p < .01$ (two sided)

The F-value of 4.42 is substantially higher than the 99% critical F-value. The regression equation is therefore statistically significant. The adjusted R^2 is .38 which indicates that the model - adjusted for the degrees of freedom - can explain 38% of variance of post-MBO financial performance, measured as EBIT relative to competitors. With regard to development of EBIT, in only 4 percent of the cases the CEOs report lagging figures, 21 percent perceive no change and 75 percent signal strong to very strong improvement.

The results of the OLS regression in Table 3 show that two entrepreneurial management dimensions namely strategic orientation ($\beta = .25$; $p < .05$) and reward philosophy ($\beta = .30$; $p < .05$) contribute positively to EBIT relative to competitors. These findings support hypotheses 1 and 4. However, these two dimensions of entrepreneurial management are combined with three administrative management dimensions represented by resource

orientation ($\beta=-.28$; $p<.05$), growth orientation ($\beta=-.26$; $p<.05$) and the entrepreneurial culture of the buyout firm ($\beta=-.20$; $p<.05$). Therefore, the results do not support hypotheses 2, 3 and 6. On the contrary, resource orientation, growth orientation and entrepreneurial culture are negatively related to post-MBO financial performance. Finally, table 3 shows that management structure is the only dimension from Stevenson's construct that is not a significant predictor for EBIT development. Hypothesis 3 is therefore not supported by the evidence. Overall, these results indicate that both entrepreneurial as well as administrative management are positively related to the dependent variable EBIT.

The control variables are all significant and show a substantial influence on EBIT development relative to the MBO firms' competitors. The control variables debt ratio, deal price advantage and buyout firm size are substantial and significant, indicating strong negative effect for the first and strong positive effects for the other control variables on the relationship between entrepreneurial/administrative management and EBIT post-MBO. Finally, we estimated the model including a dummy variable service to check if the overrepresentation of service firms may have biased the results. However, the variable proved to be insignificant and the parameter estimates did not change so we excluded the variable from the model.

6. Conclusions and discussion

In MBOs the positive development of EBIT relative to competitors depends on an entrepreneurial strategic orientation and reward philosophy combined with an administrative focus on resources, growth and entrepreneurial culture. The buyout management team has to excel in both extremes of Stevenson's concept of corporate entrepreneurship. These results

indicate that successful buyout managers ambidextrously combine the pursuit of valuable opportunities with the exploitation and control of their own resources. Paradoxically, to operate financially successful, opportunity perception should be reconciled by the need to exploit and control own resources. We argue therefore that growth is not an exclusive entrepreneurial issue. Buyout managers need to excel in the incongruous entrepreneurial and administrative dimensions of entrepreneurial management in order to increase their probability of success.

The results also contribute to avoiding premature conclusions that entrepreneurial management is under all conditions superior to administrative management in creating financial performance. Post-MBO the management balances administrative management promoting the use and control of own resources and the orientation in terms of opportunities in selected areas with entrepreneurial management facilitating change and growth driven by the perception of opportunity and rewarding value creation. It seems that the buyout is an opportunity representing simultaneously more leeway for its management under the condition of new (financial) resources constraints. Therefore we argue that post-MBO the CEOs don't want to take opportunities that do not fit the risk the company can afford. This supports Penrose (1959) view that established firms have critical resources embedded in the firm that can better focus on enduring resources. However, the size of the MBOs enables them to identify chances early and take decisions quickly with regard to developing new products or entering new markets. Obviously the perception of valuable opportunities is not blocked by heavy obligations of pay off principal and interest of increased debt. However, the perspective of big and fast growth as a top priority and having more promising ideas than time and resources to pursue is not attractive for successful buyout managers. Post-MBO the management has to use own cash flow for investment and this shortage of money for investment and the lack of risk diversification post-MBO contribute to the CEO's cautious

attitude towards resources and growth and thus to an entrepreneurial culture without an eye for resource limitations.

Further research must examine the effects of an increase or a decrease of financial leverage over time on the dimensions of Stevenson's construct in coherence with financial performance. Perhaps then we could find out if financial leverage will continue to have a negative effect in the eyes of the CEO on EBIT, or that this negative effect is compensated by better decisions to explore and exploit the upside potential of the buyout firm, thereby moving the resource dimension towards the entrepreneurial side of the continuum.

Furthermore, with respect to this effect of financial leverage on post-MBO financial performance, the role of the private equity suppliers have to be taken into account. Private equity suppliers may find an increasing risk profile of the company after the approved business plans and the complementary financial structure to be an unattractive idea. This by itself may be a cause of the success of an administrative attitude of buyout managers with regard to resources. A practical implication from this study may be that financiers should be more sensitive to balancing the gap between entrepreneurial and administrative management dimensions, for example by broadening the resource base that allows MBOs to develop a more entrepreneurial resource orientation and culture. This will require enhanced capabilities for targeting and monitoring with regard to their own portfolio, but also for screening high potentials among the small and medium sized buyouts.

Our sample consists of 31 percent small firms with less than 50 employees and 22 percent of firms with more than 50 and less than 100 employees, and 47 percent with more than 100 employees. We argue that the larger the firm the greater the chance that they use multiple informal networks and a flat hierarchy as the dominant management structure instead of hierarchy, that is mostly found in small and medium sized companies. This may

explain why the indicator management structure was not a significant predictor of a favourable EBIT post-MBO.

We must be careful in interpreting the findings for all types of buyouts. In our sample the insiders as the incumbent management and employees own a majority of 62 percent of the firm's equity, while a minority of 30 percent of the firm's equity is in the hands of outsiders like private equity suppliers and informal investors. It may be that in the case of outsider dominated buyouts the firms act more entrepreneurially and are larger because of investment preferences of the PE firms. Therefore we think that our results are in particular relevant for insider dominated management and or employee buyouts. It is justifiable given the considerable effect of the control variable size on financial performance post-MBO to examine further its moderating role.

Our survey was undertaken in a period of economic downturn, and this may be reflected in respondents' preferences for wording of growth orientation as long-term survival and sure and steady growth situated at the administrative management side of the entrepreneurship measures. During a recession the management of the firms can experience difficulties to find a sufficient number of promising ideas to utilize all their assets. The buyout managers may be more focused on valuable opportunities within the limits of their own resources. However, this may also extend the set of conditions which relate to our findings. For example, during a period of economic downturn even managers of financially balanced companies may find it difficult to gain access to external resources and need to excel simultaneously in the incongruous demands of entrepreneurial and administrative management in order to increase their probability of success.

Finally we make some concluding remarks about the control variables in Table 3. With regard to the control variable dealprice advantage, measuring the deal price paid relative to the marketprice, we propose further research. Given its significance in our regression

model and the absence of this factor in buyout literature as an important explanatory factor for performance improvement post-MBO, we did not expect this variable might perhaps be playing a significant moderating role in the entrepreneurial management and financial performance relationship.

Appendix A

(Source: Brown et al. 2001)

<p>1. As we define our strategies, our major concern is how to best utilize the resources we control.</p> <p>2. We limit the opportunities we pursue on the basis of our current resources.</p> <p>3. The resources we have significantly influence our business strategies.</p>	<p style="text-align: center;">Strategic Orientation</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p>	<p>As we define our strategies, we are driven by our perception of opportunity. We are not constrained by the resources at (or not at) hand. Our fundamental task is to pursue opportunities we perceive as valuable and then to acquire the resources to exploit them. Opportunities control our business strategies.</p>
<p>1. Since we do not need resources to commence the pursuit of an opportunity, our commitment of resources may be in stages.</p> <p>2. All we need from resources is the ability to use them.</p> <p>5. We like to employ resources that we borrow or rent.</p> <p>6. In exploiting opportunities, having the idea is more important than just having the money.</p>	<p style="text-align: center;">Resource Orientation</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p>	<p>Since our objective is to use our resources, we will usually invest heavily and rapidly. (R)</p> <p>We prefer to totally control and own the resources we use. (R)</p> <p>We prefer to only use our own resources in our ventures. (R)</p> <p>In exploiting opportunities, access to money is more important than just having the idea. (R)</p>
<p>1. We prefer tight control of funds and operations by means of sophisticated control and information systems.</p> <p>2. We strongly emphasize getting things done by following formal processes and procedures.</p> <p>3. We strongly emphasize holding to tried and true management principles and industry norms.</p> <p>4. There is a strong insistence on a uniform management style throughout the firm.</p>	<p style="text-align: center;">Management Structure</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p>	<p>We prefer loose, informal control. There is a dependence on informal relations.</p> <p>We strongly emphasize getting things done even if this means disregarding formal procedure.</p> <p>We strongly emphasize adapting freely to changing circumstances without much concern for past practices.</p> <p>Managers' operating styles are allowed to range freely from very formal to very</p>

<p>5. There is a strong emphasis on getting line and staff personnel to adhere closely to their formal job descriptions.</p>		<p>informal.</p> <p>There is a strong tendency to let the requirements of the situation and the personality of the individual dictate proper job behaviour.</p>
<p>1. Our employees are evaluated and compensated based on their responsibilities.</p> <p>2. Our employees are evaluated and compensated based on their responsibilities.</p> <p>3. An employee's standing is based on the amount of responsibility s/he has.</p>	<p style="text-align: center;">Reward Philosophy</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p>	<p>Our employees are evaluated and compensated based on the value they add to the firm.</p> <p>We try to compensate our employees by devising ways so they can benefit from the increased value of the firm.</p> <p>An employee's standing is based on the value s/he adds.</p>
<p>4. It is generally known throughout the firm that growth is our top objective.</p> <p>5. It is generally known throughout the firm that our intention is to grow as big and as fast as possible.</p>	<p style="text-align: center;">Growth orientation</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p>	<p>Growth is not necessarily our top objective. Long-term survival may be at least as important. (R)</p> <p>It is generally known throughout the firm that steady and sure growth is the best way to expand. (R)</p>
<p>1. We have many more promising ideas than we have time and the resources to pursue them.</p> <p>2. Changes in the society-at-large often give us ideas for new products and services.</p> <p>3. We never experience a lack of ideas that we can convert into profitable products/services.</p>	<p style="text-align: center;">Entrepreneurial Culture</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>1 2 3 4 5 6 7 8 9 10</p>	<p>We find it difficult to find a sufficient number of promising ideas to utilize all of our resources. (R)</p> <p>Changes in society-at-large seldom lead to commercially promising ideas for our firm. (R)</p> <p>It is difficult for our firm to find ideas that can be converted into profitable products/services. (R)</p>

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