



DOES THE CEO MATTER? AN EMPIRICAL STUDY OF SMALL SWEDISH FIRMS OPERATING IN TURBULENT ENVIRONMENTS

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Abstract — This paper develops and tests a framework for understanding the performance of small firms operating in highly turbulent environments. Performance is conceptualized as being multidimensional, taking into account both financial and market performance. The purpose was to delineate the importance of CEO characteristics (self-efficacy, tolerance for ambiguity and need for cognition) in relation to some aspects of firm orientation (Market vs. Internal and Planning vs. Implementation). The results showed that CEO characteristics tended to have a considerable impact on firm performance and on firm orientation, while no significant relationship between firm orientation and firm performance was found. © 1997 Elsevier Science Ltd

Key words: CEO characteristics, firm orientation, turbulent environment, multidimensional performance, small firms.

INTRODUCTION

After the “happy eighties”, marked by growing markets and profits, the beginning of the nineties punished most Swedish industries as markets fell into a downward spiral. Pessimism replaced optimism and most markets went into recession. To reduce government spending, major regulatory changes were adopted in 1991, making it less attractive for Swedes to invest in new housing. In turn, housing-related industries including the joinery and prefabricated housing industry, were severely affected by these regulatory changes. Consequently, the joinery and prefabricated housing industry have experienced a rapid decline in demand, with almost 25% of the firms going into bankruptcy between 1992 and 1994. In such cold environments the struggle for survival is not trivial. Coping simultaneously with recession in the economy and changing regulations has debilitated Swedish joinery and prefabricated housing firms. What kinds of firms cope with this abrupt change? What are the recipes for success, and conversely, for failure?

Moreover, in cold turbulent environments the significance of CEO leadership and action is greater, regardless of a firm’s size, since the margin of error is small. In many instances the very survival of a company — whether it sinks or swims in turbulent conditions — depends on the abilities of the CEO. Evidence of this assertion can be found readily in the popular press. A classic case, for instance, involves the transformation of SAS Airlines from a struggling, fragmented company into a cohesive, innovative world leader. Many observers attribute this transformation to a single individual, SAS’s CEO, Jan Carlzon.* The importance of the CEO in

*As most readers probably know, Jan Carlzon no longer heads SAS. He was replaced in 1993 after 4 years of losses. However, the impact he has had, as a person, on SAS is undisputed.

smaller companies is perhaps greater, since he or she is often the sole decision maker. But how much difference does the CEO make to the performance of the firm? How much can be attributed to a single person?

This study examines some of these questions. Compared with previous work reported in the management and marketing literature, our approach has four distinctive features. First, we use a multidimensional measure of firm performance. Specifically, we distinguish between *market* (e.g. customer satisfaction) and *financial* (e.g. profitability) performance. This distinction is useful in identifying the relative and disparate effects of different antecedents on the two dimensions of firm performance. For instance, in rapidly changing environments it is likely that a firm may be performing well as far as market performance is concerned, but its financial performance may be dismal, and vice versa. Second, we focus especially on the role of the CEO and seek to delineate his/her impact on firm performance. Previous studies in management have tended to focus only on structural and strategy variables, paying little attention to the CEO's influence. However, we do not study the CEO's role in isolation. Rather, we use a model that examines this influence relative to structural variables. Third, we study an industry that is dominated by small firms. This provides an interesting contrast to much marketing strategy research, which has tended to focus on large firms. Yet it is the small firms that are at once the most vulnerable and potentially flexible in dynamic market environments. Fourth, we examine an industry that is experiencing turbulence of a kind seldom seen before. This unique empirical material can help us to understand how firms cope in radically changing environments. We begin with a discussion of the conceptual framework.

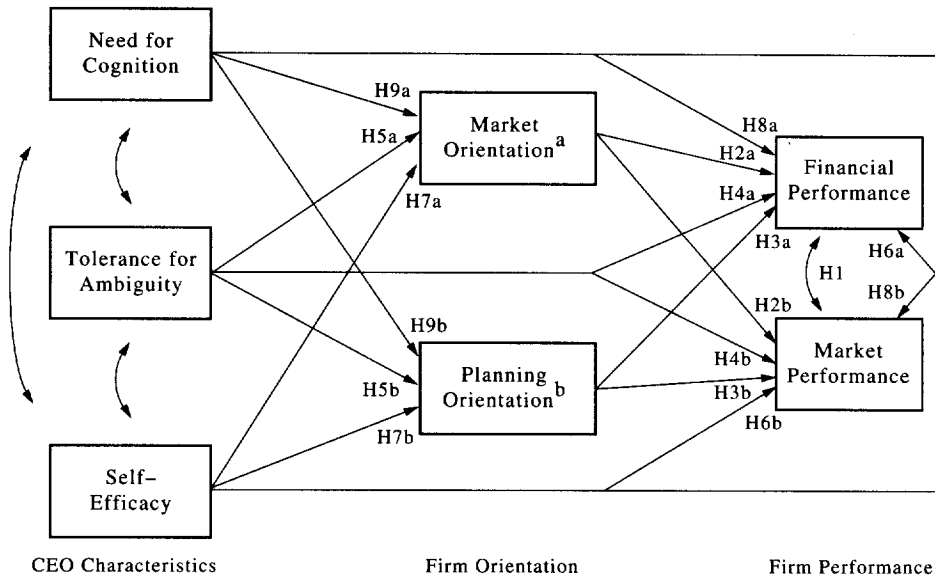
2. CONCEPTUAL FRAMEWORK

The conceptual framework used to help us understand the financial and market performance of firms in the focal industry is described in Fig. 1. The model hypothesizes interrelationships among CEO characteristics, firm orientation and firm performance. In the following sections we discuss the model and develop the hypotheses shown in the figure. In so doing, we briefly review the relevant literature in management and marketing. We first discuss the dependent variable, firm performance.

Firm performance

In this study we conceptualize firm performance as a multidimensional construct, consisting of financial and market performance. Market performance is defined as external performance, mirroring the effectiveness of the company in the market. In other words, it tells us how well the company succeeds in the marketplace. Growth in sales, growth in market share, and level of customer satisfaction are some indicators of market performance. Financial performance is indicated by the operating effectiveness of the firm, thus expressing how well the firm can translate the demands in the market into products that generate profits for the firm. The products and services that are demanded by the market can be procured in numerous ways and from different sources. In addition, the production task of transforming inputs (e.g. raw materials and labour) into outputs for markets, can be organized in many different ways. Financial performance informs us how effective the firm is in organizing this transformation. Profitability and productivity are some potential indicators for financial performance.

From a long-term perspective financial performance (profitability) is likely to be closely linked to market performance. That is, without high levels of market performance, a firm can't achieve high levels of financial performance. In the short-term, the relation between market and financial performance is less certain, since the market and financial performance of firms may



- a: This construct is a continuum that ranges from (full) internal orientation to (full) market orientation.
 b: This construct is a continuum that ranges from (full) implementation orientation to (full) planning orientation.

Fig. 1. The model and the hypotheses used for studying CEO characteristics and firm orientation as determinants of firm performance.

change significantly, sometimes independently of each other, from one year to the next. Moreover, in a turbulent situation, where changes are more likely to occur, the short-term perspective becomes even more interesting.

Although short-term financial and market performance indicators may be positively correlated, these performance dimensions are rarely perfectly correlated. This may be connected with the fact that in any given time period firms tend to be either profit- or growth-oriented, but rarely both. In other words, while some firms tend to focus on their financial performance, other firms tend to focus on their market performance. Constant growth is not a desire for all companies. In fact, in many small companies, managers do not see growth as the main goal (Gibb and Scott, 1985; Davidsson, 1989). Some even try to decelerate growth — something which can be attributed to a feeling that they lose control if the company grows too quickly (Bergström and Lumsden, 1993). Alternatively, there are firms which do see growth rather than profitability as the important goal. This is especially common among firms that tend to be entrepreneurial. Further, several empirical studies suggest that the two performance dimensions relate to other variables in quite different ways. For instance, Davis and Schul (1993) identified two groups of firms (A&B) in which group A outperformed group B in financial terms (Return on assets), while group B outperformed group A in market terms (Sales growth).

Moreover, in a rapidly changing environment, the correlation between short-term market and financial performance may be zero, or even negative. That is to say, some companies may do well in the marketplace (market share, customer satisfaction, etc.), but poorly in financial terms (return on investment, liquidity, etc.), or vice versa. In a rapidly declining market this can happen when firms slash their prices to perk up demand. Of course, these situations only occur for shorter

periods, since the longer run firms must have acceptable financial *and* market performance in order to survive. Thus, firms that are profit-oriented concentrate on improving their financial performance, subject to acceptable market performance. Likewise, firms that are growth-oriented concentrate on improving their market performance, given acceptable financial performance. Based on these arguments, we propose the following hypothesis:

H₁: Market performance and financial performance will be positively related, but constitute two distinct dimensions of firm performance.

Influence of firm orientation

Firm orientation captures the notion of the dispositional tendencies of firms. Just like individuals, firms tend to be favourably predisposed to attend to certain processes and outcomes (e.g. planning) and unfavourably predisposed toward other processes and outcomes (e.g. implementation). The notion of firm orientation is not new; it dates back to early work in management where firms were described as “production oriented” (cf. Taylor, 1947) and to more recent characterizations which include “market-oriented” or “customer-focus” (Ansoff, 1979).

We conceptualize firm orientation along two continua, namely internal-market and implementation-planning, which will be discussed below. Both as classic — albeit still debated — dimensions of firm orientation. Naturally other approaches to define firm orientations exist (see e.g. Hofstede *et al.*, 1990; Haathi, 1989), and could fruitfully be explored in future research.

Internal-market continuum. In a recent review article, Reed *et al.* (1996, p. 175) note that “the idea that firms can be oriented towards their internal operations or toward their customers and markets is firmly embedded in the management literature”. An internally oriented firm is favourably disposed toward internal factors, such as internal effectiveness, operational efficiency and the well-being of employees. Here, the emphasis is on process efficiency and cost-efficient production methods. Little attention is paid to boundary spanning and external monitoring systems. By keeping a tight control on operations, costs can be kept low. Market disposition or orientation has received considerable attention in the marketing literature. Narver and Slater (1990) define market orientation as composed of three behavioural components: customer orientation, competitor orientation, and interfunctional coordination. Kohli and Jawroski (1990, p. 6, their italics) define it to be “the organizationwide *generation* of market intelligence pertaining to current and future customer needs, *dissemination* of the intelligence across departments, and organizationwide *responsiveness* to it.”

Both Slater and Narver (1994) and Jaworski and Kohli (1993) report findings regarding the link between market orientation and firm performance. The underlying hypothesis is that market orientation and firm performance are positively related. However, consistent and significant positive relationships are more prominent for the market orientation to financial performance link. While Slater and Narver found the relation between market orientation and market performance to be highly significant, no such link was found in Jaworski and Kohli’s study. A plausible explanation lies in their chosen measure for market performance, namely market share. It is likely that firms can do well in the market without having the largest market share. A measure of growth in market share is perhaps more appropriate. Internal orientation has not received the same attention in the literature as market orientation. Nonetheless, it is grounded in classical management literature (e.g. Taylor, 1947) and can be related to Porter’s cost effectiveness strategy (Porter, 1980).

Especially in declining markets where survival can be an important issue, an internal orientation is likely to become more important in relation to total customer satisfaction. Perhaps the

remark in Slater and Narver (1994, p. 54) that “being market oriented can never be a negative” is true. However, the same can be said about internal orientation. Caring for the needs of employees and paying close attention to internal effectiveness are considered, by most managers, to be something positive for the firm at large. The problem occurs when a choice between the two orientations is inevitable. We believe this choice is related to the firm’s orientation towards profit or growth. While a firm that is growth-oriented will tend to be associated with the market end of the continuum, a profit-oriented firm will tend to emphasize internal orientation. Thus, we can expect financial performance to be better for firms emphasizing internal orientation and market performance to be better for firms emphasizing market orientation. We thus get two hypotheses:

H_{2a}: The higher a firm’s market orientation, the lower its financial performance.

H_{2b}: The higher a firm’s market orientation, the higher its market performance.

Implementation-planning continuum. The planning-oriented firm emphasizes the making of careful plans before any action is taken. In such a firm the disposition towards external monitoring is high. Management has considerable resources invested in collecting, organizing and analyzing information. The firm has the disposition to prepare for any contingency. In contrast, an implementation-oriented firm is favourably disposed toward the action itself, seeing plans as of relatively little importance, and paying comparatively little attention to information-gathering activities. Instead, resources are allocated mainly to management control. The management control systems help the firm to focus on tasks or on the way they are interrelated.

The role of formal planning in firm strategy and performance is well documented. Some researchers have argued that formal strategic planning is necessary only when the company is large. Small firms can manage with informal plans (Mintzberg, 1973; Miles and Snow, 1978; Fredrickson, 1984). Robinson and Pearce (1984) contend that most small firms don’t plan. Whether necessary or not, there are reasons why planning is less prevalent in small firms. The managers of smaller firms are generally short-term oriented because they can’t or won’t delegate the responsibility for day-to-day decisions to others (cf. Das, 1991). Therefore they have little or no time to consider the future, which can lead to problems such as low performance or bankruptcies (Chell and Haworth, 1991). Grinyer and Norburn (1975), however, found no relation between level of formal planning and performance. Yet other research (Bracker and Pearson, 1986) has shown that small firms which have structured strategic plans outperform those which do not have such plans, and that firms with long planning histories outperform firms with short planning histories. In a different setting Daft *et al.* (1988) found that only one aspect of planning behaviour (scanning for information), was positively related to firm performance (Return on assets). Thus, the findings in the literature are mixed and, at best, only provides weak support for the link between planning and better firm performance.

Moreover, most of the preceding studies have examined the impact of planning in relatively stable environments. In a highly turbulent environment the relation between planning and firm performance may be quite different. The uncertainty induced by turbulence could make planning less useful, or even render it dysfunctional. Many small companies attribute their success to adaptability, which could be impeded by excessive planning. “Paralysis by analysis” can occur when planning is over-emphasized, especially in dynamic situations (e.g. turbulent environments). In these situations, planning may consume too much time and become an end in itself (cf. Schoemaker, 1990). Further indications that planning may be dysfunctional are given by Hedberg and Jönsson (1978), who outline the potential problems arising from rigid plans in turbulent environments. However, it is not the mere absence of planning that tends to improve some firms’

performance in turbulent environments. Rather, the underlying idea is that such firms will invest their resources and energies in implementation instead of planning. Thus, we hypothesize:

H_{3a}: The higher a firm's planning orientation, the lower its financial performance.

H_{3b}: The higher a firm's planning orientation, the lower its market performance.

Influence of CEO characteristics

In most previous studies there has been little explicit recognition of the influence of CEO characteristics in models of firm performance. This is surprising, given that the CEO is often implicitly included in most empirical studies. For instance, the CEO is often the key informant in many studies. Moreover, the CEO often influences many other practices in a firm (Hofstede *et al.*, 1990). The importance of the CEO becomes intuitively more important when small firms are involved, as the CEO may often be the only person in a managerial position (Miller *et al.*, 1982; Miller and Toulouse, 1986). Finally, turbulence in the environment also tends to increase the importance of the CEO (Miller and Toulouse, 1986). Thus, it appears reasonable to explicitly model the influence of CEO characteristics.

CEO characteristics can be conceptualized in several ways. In this study, three dimensions of CEO characteristics are employed, namely tolerance for ambiguity, self-efficacy and need for cognition, all of which will be discussed below. They are all dispositional characteristics, i.e. they are relatively enduring preferences (i.e. stable over time) on a person's part for thinking or acting in a specific manner. Apart from being enduring, the reason for choosing these three dispositions is that we believe all three to be important dispositional characteristics of the CEO, especially when the firm is small and the environment turbulent. House, *et al.* (1996, p. 203) provide a review which in their view gives "a compelling argument for incorporating dispositional theory into explanations of behaviour in organizations."

Tolerance for ambiguity. Tolerance for ambiguity is defined as the extent to which an individual feels threatened by ambiguity or ambiguous situations, and the extent to which this affects the individual's level of confidence when making decisions (Dermer, 1973). Gul (1986) found that individuals who scored low on tolerance for ambiguity had less confidence in their decisions than individuals with high tolerance for ambiguity, when there was uncertainty involved.

(i) Relation to firm performance

We contend that, in turbulent environments, high tolerance for ambiguity on the part of the CEO is related to better firm performance, because the CEO may be better able to take advantage of opportunities that arise, instead of being overwhelmed by uncertainty. Implicit support for this is found in Gupta and Govindarajan (1984) which reported that managers (in Fortune 500 SBUs) with high tolerance for ambiguity were more successful in "build"-strategies, and that managers with low tolerance for ambiguity were more successful in "harvest"-strategies. Further, in a study of small manufacturing companies, Lefebvre and Lefebvre (1992), connect innovation with risk-tolerant or risk-seeking persons. Higher tolerance for ambiguity seems positive when the environment is uncertain, while it seems negative when stability prevails. The reason for this is perhaps that high tolerance for ambiguity causes people to take too many risks in a stable environment, when "playing it safe" may be more rewarding. Since our study concerns a turbulent industry, higher tolerance for ambiguity seems favourable, which leads to the following hypotheses:

H_{4a}: CEOs with higher perceived levels of tolerance for ambiguity will tend to be positively associated with firms that depict higher financial performance.

H_{4b}: CEOs with higher perceived levels of tolerance for ambiguity will tend to be positively associated with firms that depict higher market performance.

(ii) *Relation to firm orientation*

We posit that high tolerance for ambiguity on the part of the CEO is more likely to be related to planning and market orientation. High tolerance for ambiguity can simplify the planning process in uncertain environments, while CEOs with low tolerance for ambiguity are more likely to see planning as “a shot in the dark”. Having high tolerance for ambiguity simplifies the accomplishment of tasks that in themselves are ambiguous. Market orientation, compared to internal orientation, seems to be associated with more ambiguity. While the internal environment is more concrete and easier to manipulate, the market may be seen as a “black box” with unpredictable outcomes over which one has little control. Thus:

H_{5a}: CEOs with higher perceived levels of tolerance for ambiguity will tend to be positively associated with firms that emphasize market orientation.

H_{5b}: CEOs with higher perceived levels of tolerance for ambiguity will tend to be positively associated with firms that emphasize planning orientation.

Self-efficacy. According to Wood and Bandura (1989, p. 364), perceived self-efficacy concerns “an individual’s belief in his/her capabilities to mobilize the motivation, cognitive resources, and courses of action needed to control over events in his/her life.” In earlier studies, the locus of control has been widely used as a conceptualization of personality (e.g. Miller *et al.*, 1982; Miller and Toulouse, 1986; Lefebvre and Lefebvre, 1992 and Powell, 1992). Locus of control and self-efficacy are closely related. However, according to Gist (1987), there are two important differences between them. First, locus of control is a generalized construct, whereas self-efficacy is task-specific. Second, self-efficacy is purely a behavioural concept, while locus of control includes outcome expectancies as well. For our purposes self-efficacy is the more appropriate construct, because we want to examine the CEO’s capability *in the business area in which he or she operates* (i.e. it is task-specific).

Relation to firm performance

CEOs with higher perceived self-efficacy are likely to perform better than those with lower perceived self-efficacy. Studies have shown that both objective and subjective performance were significantly better for people with an internal locus of control (related to high self-efficacy) compared to people with an external locus of control (related to low self-efficacy) (Powell, 1992; Macintosh, 1985). Positive experiences tend to increase self-efficacy, while failures will do the opposite. People with high self-efficacy tend to engage more frequently in task-related activities and to persist longer in their coping efforts; this leads to more experiences of mastery, which in turn enhances self-efficacy. For people with low self-efficacy the opposite is true; they tend to engage in fewer coping efforts; they give up more often under adversity and experience less mastery, which in turn reinforces their low self-efficacy (Bandura, 1982). Hence, it appears that people with high self-efficacy are better at accomplishing their goals, and will thus succeed more frequently in whatever they decide to do. Since the major goal of competitive enterprises is assumed to be better firm performance, we hypothesize:

H_{6a}: CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that depict higher financial performance.

H_{6b}: CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that depict higher market performance.

Relation to firm orientation

We posit that CEO self-efficacy will be positively related to market and planning orientation. We argue that CEOs with higher perceived self-efficacy tend to be less threatened by ambiguous and dynamic situations. The market is usually a source of ambiguity and unpredictable dynamism, especially in turbulent situations. The internal operations of a firm are more predictable and relatively easier to keep under control. Consequently, when perceived self-efficacy is low, the CEO may be more likely to be internally oriented, since he or she can cope with internal factors better, and will probably orient the company towards efficiency in internal operations. Moreover, planning may be necessary to be able to address such problematic situations as may occur in the future. Since CEOs who perceive higher self-efficacy are more likely to be confident of themselves and in their abilities to set and reach difficult goals (Wood and Bandura, 1989), they are more likely to engage in planning. Thus:

H_{7a}: CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that emphasize market orientation.

H_{7b}: CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that emphasize planning orientation.

Need for cognition. Need for cognition is the tendency for an individual to engage in and enjoy thinking. High need for cognition correlates with high intelligence and being open-minded (Cacioppo and Petty, 1982). A person with low need for cognition is more likely to act without prior thought, while a person with high need for cognition is likely to take actions after much contemplation (Inman *et al.*, 1990). A person with high need for cognition is thus more likely to be (formally) rational in, and spend more time on their decisions.

Some researchers have coined the terms “heuristics” and “analytics” to distinguish between people who have low and high need for cognition. The concepts are not identical, but share the main properties. “Heuristics” rely on analogies and satisfactory solutions, whereas “analytics” seek to uncover causalities and find the optimum solution (Macintosh, 1985). “Heuristics” rely on the practical aspects of the situation, experience and common sense, whereas “analytics” rely on systematic processes and abstract models (Zmud, 1979).

(i) Relation to firm performance

We posit high need for cognition as being negatively related to firm performance in turbulent environments. We base this on a study by Mock *et al.* (1972) which used a business simulation game. It was found that “heuristics” (related to low need for cognition) outperformed “analytics” (related to high need for cognition) to begin with, and that they took less time to take the decisions. Over time, as the participants learned “the rules”, the “analytics” outperformed the “heuristics”. Hence, a heuristic style may be better when a task is unknown or unclear, while the analytical style seems better when the rules are known. Thus, if turbulence renders the firm’s situation unpredictable and ambiguous, “heuristics” could have the edge. The “analytics” need some stability to capitalize on their cognitive ability. In a turbulent situation, “the rules” may change at a pace that could render analytical skills obsolete. It is thus clear that “heuristics”, or people with low need for cognition, tend to be favoured by turbulence. Accordingly, regarding need for cognition we hypothesize:

H_{8a}: CEOs with higher perceived levels of need for cognition will tend to be negatively associated with firms that depict higher financial performance.

H_{8b}: CEOs with higher perceived levels of need for cognition will tend to be negatively associated with firms that depict higher market performance.

(ii) Relation to firm orientation

We posit that CEOs with high need for cognition are more prone to adopt a planning orientation, and less inclined to pursue a market orientation. Our rationale is that need for cognition is framed around thinking, which is an important aspect of planning. Compared with implementation, planning requires more cognitive and analytical ability. CEOs with high levels of need for cognition are more likely to find these demands consistent with their interests than CEOs with lower levels of need for cognition. Likewise, market analysis is less tangible and more ambiguous relative to analysis concerning internal aspects of the firm. An inclination toward internal effectiveness is thus more suited to traditional cognitive activity, including model building. A turbulent market situation upsets the possibilities of framing the market in models, which would turn CEOs with a higher need for cognition further towards an internal orientation. From the above discussion, the following hypotheses emerge:

H_{9a}: CEOs with higher perceived levels of need for cognition will tend to be negatively associated with firms that emphasize market orientation.

H_{9b}: CEOs with higher perceived levels of need for cognition will tend to be positively associated with firms that emphasize planning orientation.

RESEARCH METHOD

Research setting and constraints

Most of the Swedish prefab housing and joinery firms are medium-sized or small. All but a few have less than 500 employees, and most have less than 50. Due to government rules and heavy regulations which are liable to change from period to period, construction companies tend to be exposed to a turbulent environment. As there is no market leader, the industry is fragmented and includes a fairly large number of small companies. In a fragmented industry, companies tend to be vulnerable to changes in demand which hurt profitability during the depressed years of a business cycle, or when the market rules are changed for the worse.

Our choice of a single industry offers some distinct advantages, although it clearly restricts the generalizability of our findings. The significance of industry differences is widely recognized. See, for instance, studies by contingency theorists (e.g. Mintzberg, 1979). In the early stages of research it may be more fruitful to focus on single industries. Single-industry studies are embedded in a common environment resulting in less risk of noise in the data. We feel that once results from single industry studies have provided a systematic pattern, it may be possible to generalize results at a higher level by taking the impact of industry differences into consideration.

Data collection

Development of our survey instrument was based on the literature and on feedback from pre-tests conducted with CEOs in firms related to the focal industry, and with managers other than the CEO in the focal industry. Since we used the entire industry as our sample, we didn't want to use CEOs of the focal industry for the pre-testing. The pre-test phase lasted for a month. Each interview was conducted similarly. One of the researchers was present, and the respondent was asked to fill in the questionnaire while "thinking out loud". All potential ambiguities and other reasons for queries were noted. Before meeting the next respondent, the items that generated questions were examined and, in most cases, clarified and/or modified. This procedure was repeated five times until only minor comments about the items arose (cf. "saturation", Glaser and Strauss, 1967).

The questionnaire was then distributed to all companies in the chosen industry with more than 10 employees (recorded in 1992). Three waves were sent by mail (during May–June 1994). Each included: (i) A personalized cover letter addressed to the CEO of the individual firms, signed by the researchers and stating the purpose of the study and the anticipated gain in knowledge; a mail-in option to be informed of the results when they become public was also included. (ii) An endorsement letter from the CEO of the industry cooperation organization (SNIRI/STR). (iii) A business reply envelope. (iv) An 8-page survey booklet.* The second and third wave differed only in the composition of the cover letter. All the material was in Swedish. The questionnaire went through a process of translation and back-translation in order to assure that ambiguities between the Swedish and English version of the questionnaire could be kept to a minimum. We urged participation and stressed the importance of a high response rate. Considerable time was spent tracing firms which had “disappeared” between 1992 and the spring of 1994. In this process we found 28 firms which had gone through bankruptcy proceedings followed by reorganization, and 34 firms whose bankruptcy was final. Of the total 299 firms in the sample we obtained 187 responses (63%). In 30 firms the CEOs had been less than a year in their posts, which meant that they were not eligible to provide data concerning the key constructs. One questionnaire was not usable because of missing data. Another 17 responses concerned firms which had ceased to operate between 1992 and 1994. This left 139 usable questionnaires, with a usable response rate of 53%. In all cases the CEO answered the questionnaire. A demographic profile of the respondents is found in Appendix A.

Measures

Firm performance. Market performance is operationalized according to three items: market-share growth, sales growth and customer satisfaction. Financial performance comprises two items: profitability and productivity. Both market and financial performance are measured in relative terms, i.e. each firm (CEO) evaluated their current performance relative to other firms (competitors) in the industry. The lead question used for all items was: “Looking at the present and comparing with our present competitors our [performance measure] is . . .” on a 5-point Likert scale anchored at “much below average” and “much above average”.

Firm orientation. The internal-market orientation scale (two items) is measured by current behavioural dispositions (See Hofstede *et al.*, 1990). The two concepts form a continuum, with the centre implying a neutral stance. The implementation-planning orientation scale (three items) is similarly constructed. Both scales were measured on a 5-point Likert scale anchored at “never happens” and “happens all the time”. Information about the scales and the items can be found in Appendix B.

CEO characteristics. The self-efficacy scale (six items) was drawn from locus of control scales (Rotter, 1966; Paulhaus, 1983; Powell, 1992). The measures were modified to make them industry-specific, behaviourally anchored and not concerned with outcomes, so as to comply with the requirements of a self-efficacy measure. The need for cognition scale (7 items) was modified from known scales (Cacioppo and Petty, 1982 and Cacioppo *et al.*, 1984) to tap behavioural tendencies. Tolerance for ambiguity (four items) was also modified (from Lorsch and Morse, 1974) to make

*The questionnaires in full length (English and Swedish version) used to collect the empirical data can be obtained from the first author upon request. The actual items used for this paper is found in Appendix B.

it (i) specific to the context, and (ii) behaviourally anchored. All items were measured on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”. More information and the items used can be found in Appendix B.

Method of analysis

Hypothesis H₁ was tested in two ways. First the five performance items were subject to factor analysis using SPSS 6.1, determining the convergent and discriminant properties of the performance constructs. Second, we examined the empirical correlation between the two dimensions to further evaluate distinctiveness.

Next, to test the remaining hypotheses, a path model was examined. For this analysis the software EQS (Bentler, 1993), and, more specifically, the unstandardized regression estimates were used. The significance (a *t*-statistic) of the unstandardized estimates are supplied by EQS. We used the unstandardized estimates so that comparisons could be made between results from both dependent variables.

RESULTS

Figure 2 displays the resulting path model with all the significant paths and correlations inserted. The correlations among the CEO characteristics are also included. Self-efficacy and tolerance for ambiguity evidenced the highest correlation ($r = 0.33, p < 0.01$). Self-efficacy and need for cognition had a more moderate correlation ($r = 0.18, p < 0.05$), while the correlation between need for cognition and tolerance for ambiguity was insignificant ($r = 0.07, p > 0.1$). The significant paths and correlations are marked by thicker lines.

Relationship between market and financial performance

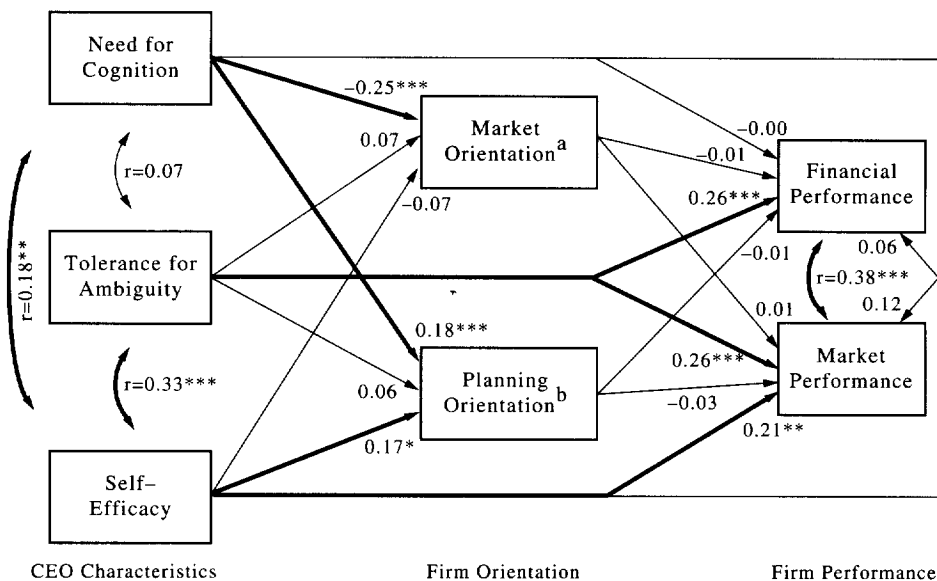
H₁ asserting that market and financial performance are positively correlated but distinct constructs, was confirmed. Both tests support the hypothesis. First, the factor analysis indicated that three factors existed among the five performance items. Relative profitability and relative productivity formed one factor, relative growth in sales and relative growth in market share the second, while relative level of customer satisfaction formed the third by itself. Although a two factor solution would have been more in line with our hypothesis, this is an indication that performance is not a unidimensional construct. Second, the correlation between the composite score for market and financial performance for the whole sample is 0.38, further indicating distinctiveness. The correlation indicates that financial and market performance share about 14% of the variance.

Model estimation

The path model of Fig. 2 evidenced good fit. Comparative fit index (CFI) reached 1.00, indicating a good fit. The χ^2 -test showed non-significance ($\chi^2 = 0.42, df = 1, p = 0.52$) indicating a fitting model. R² for financial and market performance reached 0.09 and 0.17, respectively, while R² for the two firm orientations (internal-market and implementation-planning) reached 0.07 and 0.09. Although not particularly high, this is an indication that the model is able to capture some variability in the dependent variables.

Hypotheses testing

Firm orientation and performance. Neither H_{2a}, suggesting that an emphasis on market orientation will be associated with lower financial performance nor H_{2b}, suggesting that an



*: $p < 0.1$, **: $p < 0.05$, ***: $p < 0.01$

a: This construct is a continuum that ranges from (full) internal orientation to (full) market orientation.

b: This construct is a continuum that ranges from (full) implementation orientation to (full) planning orientation.

Fig. 2. The examined model together with the path-coefficients and correlations. Significant paths and correlations shown in broader lines for clarity.

emphasis for market orientation will be associated with higher market performance, could be supported. Thus, there is no evidence of differences in performance between those who emphasize external factors compared to those who emphasize internal criteria.

Further, H_{3a} , regarding implementing-planning orientation and financial performance, hypothesizing that firms with a planning emphasis tend to have lower financial performance, received no support. The related hypothesis regarding market performance, H_{3b} , stating that firms emphasizing planning orientation tend to be related to lower market performance, did not reach significant level either. Consequently, neither implementation nor planning orientation evidenced a relation to firm performance.

CEO characteristics and performance. Regarding tolerance for ambiguity, hypotheses H_{4a} and H_{4b} were both strongly supported. Thus, CEOs with higher perceived tolerance for ambiguity were strongly related to firms that portrayed better financial performance ($b = 0.26$, $p < 0.01$) and better market performance ($b = 0.26$, $p < 0.01$).

As regards self-efficacy, H_{6a} , which linked CEOs with high perceived self-efficacy to firms with higher financial performance, was not supported. However, H_{6b} , which linked CEOs with higher perceived self-efficacy to firms with higher market performance, found some support. Higher self-efficacy was significantly related to better market performance ($b = 0.21$, $p < 0.05$).

Regarding need for cognition, H_{8a} hypothesized a negative relationship between CEOs' level of need for cognition and financial performance, while H_{8b} hypothesized a negative relationship between CEOs' level for need for cognition and market performance. The results do not indicate

the existence of such links for financial or market performance, although there was a relatively strong indication that high need for cognition may be related to better market performance.

CEO characteristics and firm orientation.

(i) *Internal-market orientation*

The first hypothesis, H_{5a} , suggesting that the CEOs' level of tolerance for ambiguity will tend to be positively related to the market orientation, was not supported. The second, H_{7a} , stating that CEOs with high levels of self-efficacy will tend to be associated with market orientation, was not supported either. As in the case of CEO's tolerance for ambiguity, self-efficacy showed no evidence of a relation to either market or internal orientation. Finally, the third hypothesis, H_{9a} , which stated that CEOs' level of need for cognition tends to be negatively related to the market orientation, was supported. High CEO need for cognition has a significant relation ($b = -0.25$, $p < 0.01$) to the market orientation of the firm. Thus, CEOs with high need for cognition tended to emphasize internal orientation.

(ii) *Implementation-planning orientation*

First, H_{5b} , which associated CEOs with a high level of tolerance for ambiguity to firms with a planning orientation, received no support. The second hypothesis, H_{7b} , received weak support. CEOs with higher self-efficacy tended to be weakly ($b = 0.17$, $p < 0.1$) related to firms emphasizing planning before implementation. Finally, H_{9b} , suggesting that CEOs with a high need for cognition tend to be associated with planning rather than implementation, was supported. The results indicated a strong link ($b = 0.18$, $p < 0.01$). Table 1 contains a summary of the results.

DISCUSSION

Although we addressed a whole industry and achieved a fairly high response rate, the relatively small sample size is a limitation in this study. The response rate is high, but still less than perfect. Hence a non-response bias may be present. However, as indicated in the methods section, several measures including follow-ups and repeated attempts were taken to reduce the influence of this bias. Another important limitation is that we have only examined linear and direct effects. Non-linear and moderating effects remain as unexplored possibilities. Further, some operationalizations are rather problematic. The measure of need for cognition tends to focus on formal aspects of thinking and less on informal aspects. Likewise, the operationalization of the planning orientation is perhaps too biased towards formal aspects of planning. One of the performance indicators, relative market share growth, may be very difficult to assess, especially in a changing market. Also, the mix of two industry segments — prefabricated and joinery — may obfuscate some differences, since the two segments are not experiencing exactly the same environment. Lastly, since this is not a longitudinal study, inferences regarding cause and effect cannot generally be drawn. Thus we regard this study as something of an initial attempt, and our results and conclusions are more tentative than definite. Our aim is to provide some interesting insights based on our empirical material, insights that perhaps can guide future studies which take a more confirmatory approach. Bearing these reservations in mind, we will now discuss our findings.

In the course of this discussion we will expand upon three results:

- (1) The impact of CEO characteristics on both firm orientation and firm performance.
- (2) The non-significant results regarding the impact of firm orientation on firm performance.
- (3) The differential effects on market and financial performance.

Table 1. Summary of results. Supported hypotheses in italics.

Hypothesis	Posited relationship	Estimated path coefficient
<i>H₁</i>	<i>Market performance and financial performance will be positively related, but constitute two distinct dimensions of firm performance</i>	<i>r=0.38 (supported)</i>
H _{2a}	The higher a firm's market orientation, the lower its financial performance.	-0.01 ^{n.s.}
H _{2b}	The higher a firm's market orientation, the higher its market performance.	-0.01 ^{n.s.}
H _{3a}	The higher a firm's planning orientation, the lower its financial performance.	-0.01 ^{n.s.}
H _{3b}	The higher a firm's planning orientation, the lower its market performance.	-0.03 ^{n.s.}
<i>H_{4a}</i>	<i>CEOs with higher perceived levels of tolerance for ambiguity will tend to be positively associated with firms that depict higher financial performance.</i>	<i>0.26***</i>
<i>H_{4b}</i>	<i>CEOs with higher perceived levels of tolerance for ambiguity will tend to be positively associated with firms that depict higher market performance.</i>	<i>0.26***</i>
H _{5a}	CEOs with higher perceived tolerance for ambiguity will tend to be positively associated with firms that emphasize market orientation.	0.07 ^{n.s.}
H _{5b}	CEOs with higher perceived tolerance for ambiguity will tend to be positively associated with firms that emphasize planning orientation.	0.06 ^{n.s.}
H _{6a}	CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that depict higher financial performance.	0.06 ^{n.s.}
<i>H_{6b}</i>	<i>CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that depict higher market performance.</i>	<i>0.21**</i>
H _{7a}	CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that emphasize market orientation.	-0.07 ^{n.s.}
<i>H_{7b}</i>	<i>CEOs with higher perceived levels of self-efficacy will tend to be positively associated with firms that emphasize planning orientation.</i>	<i>-0.17*</i>
H _{8a}	CEOs with higher perceived levels of need for cognition will tend to be negatively associated with firms that depict higher financial performance.	-0.00 ^{n.s.}
H _{8b}	CEOs with higher perceived levels of need for cognition will tend to be negatively associated with firms that depict higher market performance.	0.12 ^{n.s.}
<i>H_{9a}</i>	<i>CEOs with higher perceived levels of need for cognition will tend to be negatively associated with firms that emphasize market orientation.</i>	<i>-0.25***</i>
<i>H_{9b}</i>	<i>CEOs with higher perceived levels of need for cognition will tend to be positively associated with firms that emphasize planning orientation.</i>	<i>0.18***</i>

H₂-H₉* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, ^{n.s.} Not significant at $p < 0.1$.

CEO characteristics as potent factors

An interesting pattern of results emerges concerning the potent influence of CEO characteristics on firm performance. In order to discuss this pattern, it is important to understand the interrelationships among the three CEO characteristics. Tolerance for ambiguity is almost entirely focused on how external events affect the CEO. Self-efficacy focuses on both external as well as internal aspects, while need for cognition tends to focus on internal factors (cf. items in Appendix B). The correlations between the three CEO characteristics indicate that tolerance for ambiguity

and need for cognition are virtually independent, while self-efficacy is moderately and positively related to both of the other characteristics. This accords with the notion of an internal and an external facet to the CEO characteristics.

It appears that in turbulent situations external factors are more strongly related to firm performance than internal factors. When the firm's environment is constantly changing, the need for resources to cope with external problems become more apparent. The differences in firm performance may be mainly due to the way firms can take advantage of the opportunities and adapt to the uncertainties which the environment presents them with. In a stable environment the external facet is probably less important, since we can expect that the environment accounts for only a small share of the differences between firms' performances. Instead, internal factors, e.g. being able to control firm operations, become more important. Support for this argument is found in Reed *et al.* (1996).

Our study showed the externally oriented CEO characteristic, tolerance for ambiguity, to be the most vital. The high uncertainty induced by regulatory changes and a turbulent market leaves CEOs with low tolerance for ambiguity in a difficult situation. Their colleagues with higher tolerance for ambiguity appear to possess greater resources for coping with the uncertainty (Gul, 1986), resulting in better performance for their firms. Self-efficacy, although less externally focused, has a surprisingly weak relation to performance. After all, perceived self-efficacy should relate to people's confidence in being able to control events in their situation (Wood and Bandura, 1989). In the situation experienced by the industry, one would believe that those with better confidence in their ability to control events would have a clear edge. But, according to our results a more confident CEO (i.e. one with higher self-efficacy) tends to be much less influential in achieving firm performance than a CEO with more resources for coping with ambiguity (i.e. one with higher tolerance for ambiguity).

The pattern is reversed when it comes to firm orientation. Here the more internally focused CEO characteristics — especially need for cognition — were the most influential. Perhaps this is not so surprising, given that firm orientation deals with the way the firm is internally disposed to react in different situations. The CEO's perceived need for cognition evidenced a strong relation to firm orientation. As hypothesized, a perceived higher need for cognition tends to be related to planning and internal orientation. Thus, CEOs who are analytically orientated (i.e. have high need for cognition) are most likely to be found in a firm that emphasizes planning above implementation and internal criteria above market considerations. The CEO's perceived self-efficacy was only weakly related to firm orientation, where higher self-efficacy tended to be related to the planning orientation, as we had hypothesized. CEOs with greater confidence about managing their situation, tend accordingly to emphasize planning rather than implementation.

Non-significant impact of firm orientation

The apparent failure of our model to detect significant effects from firm orientations on firm performance, may suggest the presence of moderating effects. The four aspects of firm orientation considered here (i.e. implementation, planning, market and internal) seem to represent useful indicators to help our understanding of the way the firm is oriented, especially in a turbulent situation. The lack of significant results does not necessarily mean that there is no relation between the two variables. It only shows that we could not find a significant direct effect. On an overall level this result indicates that market orientation is not helping firms to achieve better performance, which is contrary to the results reported by Slater and Narver (1994) and Jaworski and Kohli (1993) — whose results referred to market orientation *per se*, and not to relative

market orientation. Nevertheless, our study does suggest that devoting energy to improve market orientation may not be positive in all market situations.

One potential moderating factor that could help us to untangle the relationship between firm orientation and firm performance is strategy choice. Using Porter's generic strategies (Porter, 1980), we can speculate on some anticipated moderating relationships. For instance, if a firm is using differentiation as its competitive advantage, a market orientation seems more appropriate than an internal orientation. Differentiation implies serving the customer better than competitors by catering to each customer's special needs. A market-oriented firm seems better equipped to handle the demands of customers with such needs. Thus, there may be a fit between a market orientation and a differentiation strategy. Likewise, there may be a fit between a cost-effectiveness strategy and an emphasis on internal orientation. The cost-effectiveness strategy demands cost-efficient operations, which are also emphasized by the internally oriented firm. Finally, if either of these strategies are combined with a focus strategy, then the planning-oriented firm will match better than its implementation-oriented counterpart, because the focused firm has to be able to meet the demands of the targeted segment more effectively. This probably necessitates planning in order to be successful. In light of the above discussion, we would welcome further explorations of the potential effects that strategy choice could have on the relationship between firm orientation and firm performance.

Differential antecedents of firm performance

Regarding the differential effects on market and financial performance, it seems evident that using only one performance dimension is likely to yield an incomplete understanding of firm performance and, consequently, should be discouraged in future research. In particular, our results show that self-efficacy evidenced a significant impact on market performance, while its impact on financial performance proved insignificant. The reason for this difference in impact is not clear. Why is CEO self-efficacy related to market performance, but not to financial performance? One possible reason is that most small businesses, especially in Sweden, are hesitant about laying off their employees. For the firms in this study it would certainly be necessary to make significant staff cuts in order to maintain a good financial performance. In contrast, improvements in market performance can be accomplished without the drawbacks accompanying a short-term increase in financial performance. Moreover, high self-efficacy seems to be a fitting trait for a task that requires sales skills. Possibly more than other groups, salespeople need to feel confident in their ability to succeed, in order to be successful. We argue that, like the salesperson, the CEO needs to feel confident in order to be able to succeed and improve a firm's market situation.

CONCLUSIONS

Does the CEO matter? Our study aimed to explore this question in the context of small Swedish prefab housing and joinery firms operating in a fairly turbulent market environment. Using a path-analytical framework with multidimensional performance dimensions as the key dependent variables, we sought to provide some initial insights into this question. Our results are clear, and have important implications for future research and managerial practice.

The CEO characteristics examined here play a dominant role in determining firm orientation and performance. The key factors contributing to market performance include the CEO's ability to tolerate ambiguity combined with a perceived sense of self-efficacy in controlling the firm's destiny and direction. In contrast, financial performance appears to be most influenced by the

CEO's capacity to tolerate ambiguity in the turbulent environment. In highly turbulent environments which threaten the very survival of small fragile firms, the critical resource that appears to enhance both market and financial performance clearly resides in the CEO, namely the ability to tolerate ambiguity. In addition to this powerful influence on firm performance, the CEO characteristics appear instrumental in shaping firm orientation as well. In this regard the CEO's need for cognition appears to play a central role. The CEOs with a greater need for cognitive activity tend to drive their firms toward more planning and internal orientation. From the perspective of firm performance this is neither good nor bad, since firm orientation has nonsignificant effects. However, it does influence the culture and climate within the firm. Thus, taken together, we seem to have enough evidence to conclude that CEO characteristics matter significantly, and warrant the serious attention of future researchers studying firm performance and processes.

At the same time, it would be incorrect to conclude from our study that, while the CEO does matter, it is a matter of trivial consequence for managerial practice because CEO characteristics are unchangeable and immutable. Rather, the correct conclusion is that our study helps to delineate the CEO knowledge, skills and abilities, or KSAs, that are associated with "high" performance in turbulent times. These KSAs can be acquired, learnt, developed and nourished — given the appropriate motivation. For instance, tolerance for ambiguity can be developed with the help of game-playing exercises and repeated exposure to ambiguous situations (hypothetical or otherwise), and/or by developing "coping" skills such as the acquisition and use of information (which reduces uncertainty) is decision making. Thus, CEOs, managers, public policy officials and academic researchers should resist the temptation to conclude that the future fate of firms, particularly small ones, is permanently sealed with the appointment of a CEO. Nothing is as permanent as that in today's turbulent times. Rather, the key implication of our research is that the CEO matters — not only in terms of firm performance and orientation but in terms of acquiring and developing KSAs that are crucial to a firm's success, especially in dynamic market environments. We have identified two such crucial KSAs — tolerance for ambiguity and self-efficacy. We urge future researchers to delineate other critical KSAs, and managers to explore and search for effective methods of learning and developing these KSAs. The payoffs from this pursuit appear substantial — higher levels of firm performance, lower probability of failure/bankruptcy, and a greater contribution to the economic health of the industry and of society at large.

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APPENDIX A

DEMOGRAPHIC PROFILE OF THE RESPONDING CEOs

<i>Gender</i>			<i>Age</i>		
Male	98.6%		–29	0.0%	
Female	1.4%		30–39	8.6%	
			40–44	14.4%	
	100.0%		45–49	30.9%	
			50–54	25.2%	
			55–	20.9%	
<i>Education</i>					
High School	18.7%				
High School	53.2%			100.0%	
College/Univ	28.1%				
	100.0%				
			<i>Main work experience</i>		
			Marketing	29.5%	
			Manufacturing, engineering and R & D	34.5%	
			Accounting and financing	12.9%	
			Other areas	23.0%	
	100.0%			100.0%	
<i>Field of education</i>					
Business	29.5%				
Engineering	53.2%				
Other areas	17.3%				
	100.0%				
			<i>CEO tenure</i>		
<i>Firm tenure</i>			–4	10.1%	
–4	10.1%		5–9	29.5%	
5–9	17.3%		10–14	22.3%	
10–14	17.3%		15–19	22.3%	
15–19	16.5%		20–	15.8%	
20–24	20.9%				
25–	18.8%				
	100.0%			100.0%	

N.B. Due to rounding-off errors the sum do not always add up to 100.0%

APPENDIX B

SCALE ITEMS USED FOR THE VARIOUS MEASURES OF THE STUDY

Dimension	Sub-dimension/operational item
Firm orientations	<p><i>Internal-market</i> Mean: 2.98 σ: 0.67 α:0.10 <i>In our company . . .</i> before adapting to the needs and desires of individual customers, we consider their impact on organizational efficiency when it comes down to it, we regard a satisfied customer as more important than a satisfied employee</p>
	<p><i>Implementation-planning</i> Mean: 2.90 σ: 0.34 α:0.38 <i>In our company . . .</i> we put much effort into the making of strategic plans we emphasize getting to the bottom of a problem and its cause more than implementing means for solving this problem we develop a carefully elaborated plan before taking any action</p>
CEO characteristics	<p><i>Self-efficacy</i> Mean: 3.98 σ: 0.32 α:0.63 <i>Regarding our industry and my firm, I generally feel that . . .</i> becoming successful is a matter of hard work; luck has little or nothing to do with it for the most part, my firm's success is controlled by forces too complex to understand or control* I have difficulty influencing what happens inside my firm* it is unwise to draw up strategic plans. Many things are beyond the firm's control any how* when I make plans for my firm, I am almost certain to make them work I can learn almost anything if I set my mind to it</p>
	<p><i>Need for cognition</i> Mean: 3.46 σ: 0.56 α:0.44 <i>In my work . . .</i> I think about small, daily projects rather than long-term ones* I often have tasks that involve coming up with new solutions to everyday problems I often indulge in abstract thinking I'm content if a job gets done; I don't care about the how's and why's* I usually end up deliberating about issues even when they do not affect me personally I ponder, even about routine tasks I let things happen rather than try to understand why they turned out that way*</p>
	<p><i>Tolerance for ambiguity</i> Mean: 3.37 σ: 0.20 α:0.54 <i>Regarding our industry and my firm, I generally feel that . . .</i> I enjoy working in rapidly changing market conditions uncertainty around my firm reduces my ability to do my best as CEO* I often get annoyed when unforeseen events upset my planning* I like challenges that come from uncertain market conditions</p>

*This item was reverse-scored before conducting the analysis.