Corporate strategy and shareholder value during decline and turnaround

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Abstract

Purpose – The paper aims to assess the impact of corporate strategy on shareholder value in decline and turnaround situations.

Design/methodology/approach – A sample of 45 turnaround firms was selected and matched against a control sample which did not face continuous decline over the time period studied. The impact of corporate strategy on shareholder value was tested using cumulative beta excess return measures to capture the long-term basis of corporate strategy.

Findings – The paper finds that the beta excess return measures captured the hypothesized relationships between strategy and shareholder value for the sample firms studied.

Practical implications – Beta excess return measures are superior to case studies or event studies for identifying the long-term effects of corporate strategy.

Originality/value – Relatively few studies have compared the strategies of turnaround firms with a matched sample of non-declining firms. The use of cumulative beta excess returns to assess long-term valuation of corporate strategy is original.

Keywords Corporate strategy, Shareholder value analysis, Turnarounds

Paper type Research paper

The aim of this paper is to assess empirically the impact of corporate strategy on shareholder value. Such an examination is of importance for several reasons: first, shareholders are undoubtedly the dominant stakeholders in a publicly quoted firm. They can affect the future of a firm by changing the management if the majority of shareholders are not convinced of the effectiveness of their strategies (Barker et al., 2001; Grinyer and Spender, 1979; Hedberg et al., 1976; Hofer, 1980; Nystrom and Starbuck, 1984; Ormerod, 2005; Pajunen, 2006; Slatter, 1984). Despite the increasing popularity of the shareholder value analysis (Rappaport, 1998; Doyle, 2000; McGee et al., 2005), there exists little empirical research supporting Rappaport’s conclusions. In fact, Woo (1984) concluded that the empirical findings did not provide support for the suggestion that basing strategic decisions on these models (e.g., constant growth model, two-stage model, etc.) would result in increased shareholder value. Woo felt that it was necessary to conduct more empirical tests of these models and to assess their validity in order to increase users’ (practicing managers’) confidence.
Rappaport and his colleagues have nevertheless provided a stream of research linking corporate strategy and the maximization of shareholder value (e.g., Blyth et al., 1986; Rappaport, 1998; Rappaport, 1981). However, much of this is case study based and difficult to generalize. Consequently, large sample studies based on multiple firms are essential to build users’ confidence. A further reason for conducting such empirical testing is that performance measurement is critical to the conduct of strategy research (Lubatkin and Shrieves, 1986). This has led strategic management researchers to examine the suitability of shareholder value and other financial market measures in assessing corporate performance. Most of these researchers have used event study methodology to examine the impact of corporate strategy on shareholder value (Chatterjee, 1986; Lubatkin, 1987; Woolridge, 1988; Woolridge and Snow, 1992; Chatterjee et al., 1992; Kelm et al., 1995). Such a methodology is adequate to study phenomena that occur in a narrow window (e.g., a few days at the most). However, in the case of measuring the impact of strategy, where the phenomenon has to be examined over a long period of time (a year to a few years), event studies are not suitable.

In this study, therefore, we examine the impact of strategy on shareholder value using a large sample of firms over a long period of time in decline and turnaround situations in order to overcome the problems mentioned above. Two important elements focus the study: first, beta excess returns (Fama et al., 1969; Van Horne, 2001; Brearley and Myers, 2002; Petkova and Zhang, 2005), which are better suited for long-term examination of strategy than the abnormal return measures used in event study methodologies, are used to measure changes in shareholder value. Second, firms in decline situations are compared to non-declining firms over time so that easily detectable differences in corporate strategy and shareholder value can be identified and measured during the period of study.

The paper is organized as follows: first, a brief review of empirical research on the impact of strategy on shareholder value and relevant literature on decline situations is provided. In the next section, hypotheses are developed about the link between corporate strategy and shareholder value. In the methodology section, the measurement issues related to capturing shareholder value over a long period of time and measuring strategy are presented and this is followed by a brief discussion of the sample and data sources. This is followed by an interpretation of the results. The implications of these results are also discussed, together with a review of the limitations of the present study. Suggestions of areas for future research are then proposed.

**Literature review**

**Empirical examination of the impact of strategy on shareholder value**

Rappaport (1981) argued for the use of shareholder value to guide strategic investments. Rappaport’s objections to the use of efficiency of capital utilization measures (e.g., return on assets (ROA), return on invested capital (ROIC), and return on equity (ROE)) for such strategic decisions stem from the fact that these measures are generally based on accounting information which accounts neither for time value of money nor for the investment risks faced by the shareholders. He called his preferred decision-making framework Shareholder Value Analysis (SVA) (Rappaport, 1998; Doyle, 2000). Rappaport and others (e.g., Blyth et al., 1986; Rappaport, 1983, 1998; Rappaport and Friskey, 1986) presented a number of case studies to demonstrate how to use SVA successfully.
However, it is difficult to generalize findings from such case studies. As a consequence, strategic management researchers directed their efforts to empirically test various theoretical hypotheses about the impact of strategy on shareholder value. For instance, Chatterjee (1986), Lubatkin (1987), and Chatterjee et al. (1992) examined mergers and acquisitions and how they created or destroyed shareholder value. This stream of research is an important part of work on diversification strategies where there are theoretical arguments that anticipate value creation due to synergy through mergers and acquisitions.

Another stream of research concerns a firm’s research and development (R&D) expenditures or R&D progress announcements and the impact of such announcements on stock prices (Chan et al., 1990; Kelm et al., 1995; Woolridge, 1988; Woolridge and Snow, 1992). In a similar vein, other researchers have examined announcements regarding new product developments (Eddy and Saunders, 1980), capital expenditures (McConnell and Muscarella, 1985), marketing activities (Chauvin and Hirschey, 1993), and international joint ventures (Merchant, 2000; Merchant and Schendel, 2000) and assessed the impact on stock price.

All these studies, however, used event study methodology and the measure of abnormal returns around the event (announcements) to test the relationship between corporate strategy and shareholder value. Findings from most studies were in a consistent and expected direction and confirmed that abnormal returns were positive (and statistically significant). This, in turn, suggested that investors took the actual strategies into account in valuing the firm.

Therefore, one of the major advantages in examining such public announcements from a research viewpoint is that the investors are aware of a strategic change (“intended strategic change” in the case of expenditure announcements and “realized strategic change” in the case of progress announcements) and can assess its likely impact on the firm. In practice, however, many significant firm level strategic changes are “kept under wraps” in order to gain competitive advantage (i.e. in order to surprise rivals, most strategic changes are kept a secret) and are not captured in public announcements.

The other drawback of these studies is that their findings tend to hold only for very short windows around the public announcement and when the window of examination is extended over ten days after the event, the stock price tends to fall (i.e. the abnormal return becomes negative) (e.g., Woolridge and Snow, 1992). Such a problem argues for the inadequacy of event study methodology for research related to longer-term corporate strategy.

Indeed, to overcome these limitations, new methodologies and approaches are needed, involving large samples and longitudinal designs. For example, Lubatkin and Chatterjee (1991) studied the strategy-shareholder value relationship across market cycles using MANCOVA and logistic analyses and, in a recent paper, St John et al. (2000) used neural networks to investigate the relationship between corporate strategy and wealth creation.

**Firm decline**

During firm decline, shareholder value is destroyed. Research on firm failure and turnaround situations has viewed firm decline as a problem in organizational decision making and resulting adaptation processes (Argenti, 1976; Grinyer and Spender, 1979;
Hedberg et al., 1976; Starbuck and Hedberg, 1977; Starbuck et al., 1978; Mellahi and Wilkinson, 2004; Sheppard and Chowdhury, 2005). The central thesis is that firm decline is the result of managers’ failure to maintain the alignment of a firm’s strategy, structure, and objectives with an evolving and changing environment. Such failure may result from organizational inertia (Hannan and Freeman, 1977, 1984; van Witteloosstuijn, 1998), which is reflected in behaviors such as the need to be reliable (Hannan and Freeman, 1984), escalating commitment by management (Staw, 1981), blinded perception (Zajac and Bazerman, 1991), strategic paralysis (D’Aveni, 1989, 1990), and threat-rigidity (Staw et al., 1981).

Other researchers (e.g., Grinyer et al., 1988; Hofer, 1980; Hofer and Schendel, 1978; Schendel et al., 1976; Schendel and Patton, 1976) have more objectively classified the causes of decline into either internal (or operational) problems or external (or strategic) problems. Indeed they found that management-related problems (or internal causes) outnumbered external environment-related problems (Bibeault, 1982; Slatter, 1984; Schendel et al., 1976; Grinyer et al., 1988; Lohrke et al., 2004; Filatotchev and Toms, 2006). They argue that the internal mechanisms of failing firms imply that their responses to environmental change are either too active or too passive: “Both inaction and hyperaction seem to typify firms in their years prior the failure” (Hambrick and D’Aveni, 1988, p. 15). Bankruptcy has been described as a “protracted process of decline” and a “downward spiral” (Hambrick and D’Aveni, 1988). Indeed, there is a considerable body of empirical evidence that shows significant differences between bankrupt and survivor firms as soon as five years prior to the bankruptcy filing itself (e.g., Aziz et al., 1988; Baldwin and Glezen, 1992; D’Aveni, 1990; D’Aveni and MacMillan, 1990; Hambrick and D’Aveni, 1992; Moulton and Thomas, 1993). These studies compared bankrupt firms with non-declining firms (e.g., Daily, 1996; Daily and Dalton, 1994a, b; D’Aveni, 1990; D’Aveni and MacMillan, 1990; Gales and Kesner, 1994; Hambrick and D’Aveni, 1988, 1992) with an emphasis on the bankrupt firms.

However, decline is not irreversible and bankruptcy is not the only outcome (Cameron et al., 1988; van Witteloostuijn, 1998). Successful turnarounds abound and are well documented. Early researchers on turnarounds (Grinyer et al., 1988; Hofer, 1980; Hofer and Schendel, 1978; Schendel et al., 1976; Schendel and Patton, 1976) suggested that to reverse a decline due to internal problems, a firm should focus on rectifying the internal causes. For example, if the cause of decline is inefficient operations, management should attempt to find ways of improving efficiency rather than trying to increase sales as long as the external environment has not changed. Such remedies are called operational remedies, whereas, if the decline is due to change in the external environment, then strategies should be changed/adapted. Accordingly, such remedies are called strategic remedies. That is, if the cause is internal, the solution should be operational and if the cause of decline is external, the action should be strategic.

An important stream of research on the role of strategic change in the turnaround process was principally based on case studies (e.g. Chowdhury, 2002; Grinyer et al., 1988; Hofer, 1980; Hofer and Schendel, 1978; Lamberg and Pajunen, 2005; Schendel et al., 1976; Schendel and Patton, 1976). Further research (Arogyaswamy, 1992; Hambrick and Schecter, 1983; Ramanujam, 1984; Robbins and Pearce, 1992; Schendel and Patton, 1976; Thietart, 1988) based on large samples attempted to test the important role of strategic change on turnarounds but, in fact, provided little concrete
evidence. This lack of evidence supporting “strategic turnaround” even led some researchers to question whether turnarounds can be accomplished through strategic reorientations (Pajunen, 2005; Pearce and Robbins, 1993; Robbins and Pearce, 1992).

It should be noted that the greater proportion of previous large-sample studies compared successful turnaround firms with unsuccessful turnaround firms (e.g., Hambrick and Schecter, 1983; O'Neill, 1986a, b; Schendel and Patton, 1976; Barker et al. 2001). And, the research studies reviewed above compare either bankrupt firms with non-declining firms, or turnaround firms with bankrupt firms. However, to the best of our knowledge, relatively few research studies have ever compared turnaround firms with a matched sample of non-declining firms. Such a comparison is of particular interest because, as it has been shown, decline may be of different types (D’Aveni, 1989; van Witteloosstuijn, 1998) and may not lead to bankruptcy. For example, during their decline, bankrupt firms have been shown to have severe pathologic strategic behavior such as inertia, hyperinitiative, or inconsistency (e.g., Hambrick and D’Aveni, 1988). Since the objective of this study is to investigate the relationship between strategy and shareholder value, not to focus on strategic failures or bankruptcy, these pathologic behaviors associated with bankruptcy are too extreme to be meaningfully compared with the strategies of non-declining firms. Therefore, we chose, in this study, to compare non-declining firms with declining firms that later successfully turnaround and avoid bankruptcy (in the rest of the paper, these latter firms are referred as turnaround firms).

Using Figure 1, we clarify the distinction made in this study between bankrupt, turnaround, and non-declining firms. When a turnaround firm goes through decline and turnaround, three phases can be identified. First, the growth phase in which no decline is evident. Then, at a particular point due to some unexpected event (external or
internal) performance starts to decline. If the management’s action(s) (strategic or operational) do not arrest the decline, the firm continues the process of decline (the decline phase). Eventually, once the firm’s management (old or new) takes some other action(s) which are more appropriate, then the decline is arrested and performance starts to recover (recovery phase). Note that comparable non-declining firms in the same industry face the identical unexpected event if it is caused by a change in the external environment. Although the turnaround firms decline, comparable non-declining firms do not except in the rare situation of a short-term adverse effect when the extent of change is large and unpredictable. Even in such extreme cases, non-declining firms typically face decline just for that particular year, recover the following year and maintain a continued pattern of increase in performance. However, when the unexpected event is an internal matter, the turnaround firms will decline, but the non-declining firms will not since their internal situations differ and are unique. The three phases are depicted in Figure 1.

Hypotheses
Shareholder value destruction during decline
Rappaport (1987, 1998) suggested that shareholder value should be measured as a product of the stock price and the number of shares outstanding. Since the number of shares outstanding rarely changes, shareholder value is directly related to the price of a stock. Since stock price movement is approximately a random walk, it is difficult even to imagine that there could be a link between strategy and such a measure of shareholder value. The random movement of stock prices confirms that the financial market is efficient. Cootner (1964) suggested that the random movements in stock price were around an “intrinsic value” (Graham et al., 1962). Graham et al. (1962) defined the “intrinsic value” of a firm as the net present value of the future stream of income. This is called the fundamental analysis model. Financial analysts who value stocks track a firm, its competition, the economy and other related factors which affect the future stream of income and then estimate its “intrinsic value”. If the price of a stock is beyond a given level above its “intrinsic value”, then the analyst would recommend a “sell” decision and vice versa. According to Cootner (1964), such profit-taking behavior combined with intense competition ensured that the random walk observed stays within a narrow band around the “intrinsic value”.

In the fundamental analysis model, the “intrinsic value” of a firm depends on many factors and a firm’s strategy is only one of them. If we wish to capture the impact of strategy on shareholder value, then the measure used to capture shareholder value should control for the impact of other extraneous factors. Neither the cumulative returns to the investor (dividend plus price increase) nor the abnormal return measure control for such extraneous variables. Cumulative returns are the cumulative value of returns to shareholders and this does not exclude shareholder gains due to favorable environmental changes. Since abnormal returns do not control for the impact of factors other than an event under study, it can only be used to capture the impact of that event over a narrow window[1]. Thus, cumulative and abnormal return measures of shareholder value are not very useful for the purpose of assessing the impact of strategy on shareholder value. Lubatkin (1987) recognized this issue and attempted to use prior performance to control for these extraneous variables. However, this is not appropriate for two reasons: First, the extraneous variables could change between the
period under study and the control period (when the abnormal returns prior to the event were estimated). Second, under the assumption of an efficient financial market, the abnormal returns over such long periods should be zero (or at least negligibly small) making such corrections useless. Therefore in this study, beta excess returns are used to capture changes in shareholder value attributable to firm specific factors (which could include dividend pay out, unexpected changes in income, retained earnings, and corporate strategy among many other firm specific factors).

The fundamental analysis model suggests that shareholder value is the net present value of the future stream of income (Rappaport, 1987, 1998). This implies that a drop in income in the near future will be valued, and weighted, higher than similar drops in a more distant future. Hence, firms facing a decline in their income stream will have a sharp drop in shareholder value and this in turn will result in negative beta excess returns. In a perfect financial market, this re-valuation would occur in the first year of decline. But, according to previous research findings (e.g., Fama et al., 1969), it appears that as new information on the continued decline reaches the market, firm value (i.e. its stock price) would be adjusted to account for this continued drop in income. Therefore, if one measures beta excess returns every year during decline, it would be negative for turnaround firms. Since, non-declining firms continue to grow and since the corporate strategy of these firms would normally not be changed, their beta excess returns will be negligibly small. Hence the following hypotheses:

H1. Cumulative beta excess returns over the decline phase for turnaround firms will be negative and will be less than those of non-declining firms.

H2. Cumulative beta excess returns over each year during decline for turnaround firms will be negative and will be less than those of non-declining firms.

In H1, we examined change in shareholder value over the complete decline phase whereas in H2, the same phenomenon is examined over each year during the decline phase to evaluate how the stock market adapts to new information.

Link between strategy and shareholder value
Shareholder value depends on the future stream of income and is affected by information on any factor that may affect the income stream. Such information may involve economic predictions, substitute technologies, movements in currency exchange rates, legal disputes, competitor’s moves, strategic investments, and so on. However, as long as such information affects all firms with similar risk to the same extent, the beta excess returns will not change but remain negligible. But, if the information affects one firm more adversely than the rest, the beta excess returns of such a firm will become negative. During decline, unanticipated changes coupled with inappropriate strategic conduct result in a decline in performance. Therefore, we examine the strategic conduct of such firms and compare them to those of non-declining firms, we can test the link between strategy and shareholder value, provided we control for changes in retained earnings or changes in income.

In order to specify clearly the direction of impact of each of the conduct variables on shareholder value (on cumulative beta excess returns), it is important to examine each variable separately. Following previous researchers in the turnaround literature (Grinyer et al., 1988; Hofer, 1980; Hofer and Schendel, 1978; Schendel et al., 1976;
Schendel and Patton, 1976), these variables are grouped into operations related (near-term oriented) or strategic (long-term oriented).

Operations-related variables invariably focus on improving efficiency and should have an immediate effect. Thus, if changes in operations related variables improve efficiency and hence improve profitability, then shareholder value will increase. That is, if efficiency improves, beta excess returns will be positive. Strategic variables focus on improving the competitiveness of a firm. They are long-term oriented and their effect on a firm profitability only accrues in the future. In this case, the improvement of a strategic variable will be discounted by the financial market and its impact on shareholder value will be smaller than that of operations-related variables.

Manufacturing cost, accounts receivable, and accounts payable are classified to be operations related whereas capital expenditure is considered strategic. Marketing costs are more difficult to classify as purely efficiency related or strategic since their impact could improve both short term profitability through increase in volume of sales and long-term profitability through market development (Harker, 1998; Robbins and Pearce, 1992, 1993). If manufacturing expenses are controlled and decrease, manufacturing efficiency increases and shareholder value increases. In the case of marketing costs, the relationship is more ambiguous, though reductions in marketing costs may improve marketing efficiency in the short term, the long-term effect could be reduced sales and reduced brand image. In a similar vein, an increase in marketing costs may improve sales in the near term up to a point beyond which the sales may stagnate. In the case of a decline, we hypothesize that the short-term effect is more important than the long-term effect and an increase in marketing costs will have a negative impact on shareholder value. Accounts payable should be positively related to shareholder value since they reflect how effectively a firm utilizes trade credit to its benefit. Whereas, accounts receivable should have the opposite effect since it increases the firm’s cost of capital. As far as strategic (long-term oriented) variables are concerned, they should have a positive impact on shareholder value. However, in the case of a turnaround situation, their impact may be more difficult to predict. According to retrenchment theory (Robbins and Pearce, 1992; Pearce and Robbins, 1993), retrenchment, defined as a reduction in firm assets and costs, is strongly associated with a successful turnaround. This implies that during the decline phase of a turnaround, strategic variables such as capital expenditures would have a negative effect on shareholder value. However, retrenchment theory has been challenged by Barker and Mone (1994) and in some cases a change in strategy is needed to turnaround. Overall, we think that capital expenditures are likely to have a negative effect on shareholder value at the beginning of the decline phase and a positive effect later on. During the beginning of the decline, the stock market may consider that the firm is spending too much (and hence negative beta excess returns), but later in the decline phase, it may consider an increase in capital expenditures as a needed attempt to turnaround (and hence lead to positive beta excess returns).

The following hypotheses are based on the above discussions:

**H3.** The impact of manufacturing cost, marketing expenditures and accounts receivable on beta excess returns is likely to be negative whereas, the impact of accounts payable is likely to be positive.
The impact of capital expenditures on beta excess returns is likely to be negative during the first year of decline and positive in the years there-after.

**Methodology**

**Sample**

Turnaround firms were selected on the basis of a survey of the business press from 1975 through 1985. Four business publications (*Wall Street Journal*, *Business Week*, *Fortune*, and *Forbes*) were searched for mention of decline or turnaround or any equivalent word. Firms that were covered in the business press as turnaround firms constitute the population of interest. This methodology for selecting the turnaround firms was selected because shareholder value was the focus of the study, and so it was important that information on turnaround firms was available to investors. From the firms identified by this phase, those publicly traded in manufacturing industries were retained in the sample because the nature of strategic change may be somewhat different then in service industries (Barker and Duhaime, 1997; O’Neill, 1981). Of these manufacturing firms, only firms that underwent at least three years of decline in operating cash flows were retained. Some previous studies (Barker and Mone, 1994; Robbins and Pearce, 1992) used a two-year decline as one of the criteria for their sample design. However, in this case because we wish to ensure that the need for strategic change is high (Barker and Duhaime, 1997), we think that a three-year period is more appropriate. Operating cash flows were used rather than the ROI or ROS measures, used by Barker and Mone (1994) and Robbins and Pearce (1992), because operating cash flows are directly related to shareholder value. In all, 58 turnaround firms satisfied all the requirements.

We constructed a control group which consisted of a sample of firms which did not face continuous decline[2]. These firms were selected from the same industry as each of the turnaround firms and were of approximately similar size during the peak year (the year before the first year of decline, see Figure 1). Since industry conditions could have a strong impact on the future stream of income, it is necessary to control for industry conditions (Hambrick and Schecter, 1983; Robbins and Pearce, 1992; Schendel and Patton, 1976). Size could help a firm to sustain its decline; it is also an indicator of the extent of the firm’s resources that are available to reorient its strategy (Barker and Duhaime, 1997). There were industries (Porter, 1980) (e.g., the steel industry, SIC 3312) where every firm had faced decline in operating cash flows for over three years during 1975-1985 and hence turnaround firms from these industries could not be included in the sample. The resultant control sample contains 45 firms.

**Variables and data sources**

**Measuring shareholder value.** As mentioned earlier, we used beta excess returns to estimate changes in shareholder value. Fama *et al.* (1969) used beta excess returns in their examination of stock splits and the process of stock price adjustment to new information. Though there have been suggestions that beta excess returns capture the overreaction of the market, Chopra *et al.* (1992) have shown that such overreaction is small for medium and large firms. Chopra *et al.* (1992) concluded that beta excess returns could be used to assess the impact of firm specific factors on stock price over a long period of time if the estimation controls for changes in beta (the issue of nonstationarity). This can be achieved by re-estimating beta at appropriate intervals.
The daily return data tapes on the security prices maintained by the Center for Research on Security Prices (CRSP) at the University of Chicago contain the information on beta excess returns for each stock that satisfies the minimum requirements on data availability, trading, etc. These beta excess returns are estimated every year by estimating the beta for each stock, using all the daily returns data available and then grouping all the stocks into ten portfolios of the approximately same beta level. Beta excess returns for a firm are then calculated as the difference between the actual return for the day less the estimated return for a portfolio of similar beta level. Beta excess returns remain negligibly small and around zero if there are no firm specific unanticipated events leading to very steep changes in the stock price. If there is a industry-wide or economy-wide unanticipated event, all the stocks in the industry or the economy will be affected to the same extent and hence the return to the portfolio of similar beta level will reflect it and hence the beta excess return should still remain very small. But, if the unanticipated event is firm specific, then only this firm’s stock price will be revised and hence the beta excess returns will be different from zero (positive if the event is favorable and negative if the event is unfavorable). Thus, beta excess returns are better suited for capturing changes in shareholder value that are closely linked to firm specific events and not due to the impact of events common to most stocks. To assess changes in shareholder value over any period, daily beta excess returns are summed over that period. Such a measure is called the cumulative beta excess return[3].

Measuring corporate strategy. Strategy may be defined as a pattern in a stream of resource allocation decisions (Hofer and Schendel, 1978; Mintzberg, 1978; Mintzberg and Waters, 1982; Venkatraman and Prescott, 1990). Since there are a large number of resource allocation decisions, it is important to choose the most appropriate ones to capture strategy (Arend, 2004). The measures used in this study are based on the research by Prescott (1983) who used a set of 16 variables to capture the strategy of a firm. In his study, Prescott examined business units and developed a set of 16 variables based on the Profit Impact of Marketing Strategies (PIMS) database. These variables were subsequently used for several studies using the PIMS database (e.g., Prescott, 1986; Prescott et al., 1986; Venkatraman and Prescott, 1990). In this study, we used the COMPUSTAT database maintained by the Standard & Poors Co. Since data in the COMPUSTAT database are not available on all the 16 variables, we used a subset of five variables. These strategic conduct variables used are:

1. manufacturing costs;
2. marketing costs;
3. accounts receivable;
4. accounts payable; and
5. capital expenditure.

Manufacturing costs, marketing costs, accounts receivable, and accounts payable are operations related variables (short-term oriented), and capital expenditures is a strategic variable (long-term oriented). Strategic conduct variables were calculated as the corresponding expenditure value divided by net sales so that all variables will be dimensionless and be within the range 0 and 1. The definition of these variables can be found in Table I.
Control variables. There is strong empirical evidence to suggest that shareholder value is directly affected by unanticipated changes in income (Ball and Brown, 1968). Moreover, there is a strong feeling that the financial markets react strongly to changes in income and hence American managers are more concerned about increasing short-term profits than increasing long-term performance. Since decline is associated with a drop in performance, which is highly correlated to income, it could be argued that a change in shareholder value can result from a change in income and not from a change in strategy. Hence, it is important to control for changes in income. Following Cootner’s (1964) model, since both income and retained earnings are strongly correlated, we used the change in retained earnings as the control variable in this study.

Results

First, correlation analyses were carried out to assess the correlations between strategy conduct variables for turnaround firms and non-declining firms combined as one group. Then, multivariate regression analyses were used to assess the impact of strategy conduct variables on shareholder value. Regression analyses were conducted for every year over the decline period. The control variable used was change in retained earnings, which should capture the change in the “intrinsic value”.

H1 has two parts: the first part related to the absolute value of cumulative beta excess returns of the turnaround firms whereas the second part related to comparing the beta excess returns of turnaround firms to those of non-declining firms during decline. The first part of H1 is tested by carrying out a t-test, while, the second part is performed by carrying out an analysis of variance (ANOVA). Both parts of the hypothesis are examined for the first year of decline, the first two years, and first three years. The results of the t-tests as well as those of ANOVA are found in panel A of Table II. Both parts of this hypothesis are strongly supported. The cumulative beta excess returns over the decline phase for the turnaround firms are negative and significantly smaller than those for non-declining firms. This means that, as hypothesized, turnaround firms faced a drop in their shareholder value and that non-declining firms did not.

H2 essentially suggests that the valuation mechanisms will adjust shareholder value every year rather than during the very first year of decline. If shareholder value gets adjusted during the first year, cumulative returns during the latter years of decline will not be different from zero. Just as for testing H1, t-tests were carried out to test whether or not beta excess returns over every year were negative and ANOVA was used to test whether beta excess returns for turnaround firms differed from those for non-declining firms for every year of decline. The results are presented in panel B of Table II. Cumulative beta excess returns over every year during the decline phase were negative and significantly different from zero. The results confirm that shareholder

<table>
<thead>
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<th>Strategic conduct variables</th>
<th>Definitions</th>
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<tr>
<td>1. Manufacturing cost</td>
<td>Manufacturing costs/net sales</td>
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<tr>
<td>2. Marketing cost</td>
<td>Marketing costs/net sales</td>
</tr>
<tr>
<td>3. Accounts receivable</td>
<td>Accounts receivable/net sales</td>
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<tr>
<td>4. Accounts payable</td>
<td>Accounts payable/net sales</td>
</tr>
<tr>
<td>5. Capital expenditure</td>
<td>Capital expenditure/net sales</td>
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*Table I.* List of strategic conduct variables

MD 45.3

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value gets adjusted as more and more information is made available and not on a single occasion. Also this evidence may be consistent with Ball and Brown's (1968) finding that income declines in every year of the study period.

The crux of the third hypothesis is that though shareholder value will depend on a large number of factors, there exists a direct link between strategic conduct and shareholder value. A series of regression analyses were carried out by regressing for every year the cumulative beta excess return against the yearly strategic conduct variables. This regression analysis was also carried out over a three-year period as well as a two-year period during the decline phase. The strategic conduct variables used were averaged over the corresponding period. The results are found in Table III.

The direction of the impact of all the strategic conduct variables on the beta excess returns was as hypothesized. Manufacturing cost and marketing cost had a significant

<table>
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<th>Years</th>
<th>No. of observations</th>
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<tr>
<td>A.</td>
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<td>One year of decline</td>
<td>−0.175</td>
<td>−0.033</td>
<td>0.142</td>
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<td>−4.221 ***</td>
<td>−0.832</td>
<td>6.191 **</td>
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<td>35</td>
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<td>Two years of decline</td>
<td>−0.371</td>
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<td>−9.897 ***</td>
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<td>17.180 ***</td>
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<td>0.190</td>
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<td>68</td>
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<tr>
<td>Three years of decline</td>
<td>−0.483</td>
<td>−0.121</td>
<td>0.362</td>
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<td>−12.24 ***</td>
<td>−1.789 *</td>
<td>20.660 ***</td>
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<tr>
<td>B.</td>
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<tr>
<td>1st year of decline</td>
<td>−0.175</td>
<td>−0.033</td>
<td>0.142</td>
</tr>
<tr>
<td></td>
<td>−4.221 ***</td>
<td>−0.832</td>
<td>6.191 **</td>
</tr>
<tr>
<td></td>
<td>0.000</td>
<td>0.411</td>
<td>0.015</td>
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<td>35</td>
<td>68</td>
</tr>
<tr>
<td>2nd year of decline</td>
<td>−0.224</td>
<td>−0.062</td>
<td>0.162</td>
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<td>−6.672 ***</td>
<td>−1.698 *</td>
<td>10.514 ***</td>
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<td>3rd year of decline</td>
<td>−0.188</td>
<td>−0.046</td>
<td>0.142</td>
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<td>−5.625 ***</td>
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<td>0.255</td>
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<td>35</td>
<td>68</td>
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</tbody>
</table>

Notes: Dependent variable: yearly beta excess return; Independent variable: turnaround = 0; non-declining = 1; * p < 0.10; ** p < 0.05; *** p < 0.01

Table II. Results of t-tests and ANOVA
<table>
<thead>
<tr>
<th>Independent variables</th>
<th>1 year after the peak year</th>
<th>2 years after the peak year</th>
<th>3 years after the peak year</th>
<th>2 years of decline</th>
<th>3 years of decline</th>
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<tr>
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<td>Without control</td>
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<td>Coefficient</td>
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<td>( t )-statistic</td>
<td>( t )-statistic</td>
<td>( t )-statistic</td>
<td>( t )-statistic</td>
<td>( t )-statistic</td>
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<tr>
<td>Intercept</td>
<td>1.990</td>
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<td>1.617</td>
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<td>2.780***</td>
<td>2.789***</td>
<td>3.406***</td>
<td>1.621</td>
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<td>0.007</td>
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<td>0.001</td>
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<td>Manufacturing cost</td>
<td>-2.247</td>
<td>-2.271</td>
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<td>-1.536</td>
<td>-0.970</td>
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<td>Marketing cost</td>
<td>-2.132</td>
<td>-2.158</td>
<td>-1.463</td>
<td>-0.720</td>
<td>-1.472</td>
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<td>0.015</td>
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<td>0.013</td>
<td>0.308</td>
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<td>Accounts receivable</td>
<td>-0.355</td>
<td>-0.393</td>
<td>-0.009</td>
<td>0.116</td>
<td>-0.206</td>
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<td>-0.775</td>
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<td>-0.026</td>
<td>0.346</td>
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<td>0.411</td>
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<td>0.413</td>
<td>0.730</td>
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<tr>
<td>Accounts payable</td>
<td>0.179</td>
<td>0.218</td>
<td>1.269</td>
<td>1.048</td>
<td>1.238</td>
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<td>0.109</td>
<td>0.132</td>
<td>1.050</td>
<td>0.878</td>
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<td>0.914</td>
<td>0.896</td>
<td>0.298</td>
<td>0.384</td>
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<tr>
<td>Capital expenditure</td>
<td>-1.365</td>
<td>-1.405</td>
<td>0.182</td>
<td>0.570</td>
<td>0.251</td>
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<tr>
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<td>-1.887*</td>
<td>-1.916*</td>
<td>1.650</td>
<td>1.158</td>
<td>0.229</td>
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<tr>
<td></td>
<td>0.064</td>
<td>0.060</td>
<td>0.298</td>
<td>0.251</td>
<td>0.399</td>
</tr>
</tbody>
</table>

Change in retained earnings
- 0.017
- 0.464
- 0.644
- 0.079
- 0.008
- 0.412
- 0.388

\( F \)-statistic
- 1.889
- 1.590
- 6.129***
- 5.822***
- 1.870
- 2.979***
- 5.347***
- 4.547***
- 3.887***
- 3.332***

Prob > \( F \)
- 0.109
- 0.165
- 0.000
- 0.000
- 0.113
- 0.013
- 0.000
- 0.001
- 0.004
- 0.006

Adj. \( R^2 \)
- 0.062
- 0.050
- 0.277
- 0.302
- 0.061
- 0.151
- 0.245
- 0.241
- 0.177
- 0.174

Sample size
- 68
- 68
- 68
- 68
- 68
- 68
- 68
- 68
- 68
- 68

**Notes:** Dependent variable: yearly beta excess return; \* \( p < 0.10 \); ** \( p < 0.05 \); *** \( p < 0.01 \).
impact in the hypothesized direction right through the decline phase (i.e. the higher the manufacturing (marketing) cost, lower the beta excess return). Accounts receivable and accounts payable did not have significant impact but their impact was in the predicted direction (i.e. the higher the accounts receivable (payable), lower (higher) the beta excess return). The impact of capital expenditures was in the same direction as hypothesized, though its impact was significant in only the first year of decline. The impact of capital expenditures was negative (the higher the capital expenditure, lower the beta excess return) in the first year of decline, which was statistically significant. It was positive (the higher the capital expenditure, higher the beta excess return) in the second and third year of decline (but not statistically significant).

Regression were also separately run using a control for change in retained earnings. The regression analysis' explanatory power increased but it did not affect the impact of strategic conduct variables. The impact change in retained earnings was significant and positive (i.e. as expected) in the second and third years of decline.

**Discussion**

In this study, our main aim was to empirically test the impact of strategic conduct on shareholder value in decline situations. Results of the hypothesis testing supported that value changes occurred incrementally – over the three years of decline under study. That is, investors adjusted the value of stocks as additional new information reached them. These findings are similar to those of Fama et al. (1969).

As far as the impacts of strategy conduct variables were concerned, the impact of these variables was in the hypothesized direction though not all were statistically significant. Variables that have immediate impact on profits and profitability had an immediate impact on shareholder value as well. On the other hand, the variable, capital expenditures (a strategic variable) had a significant impact on shareholder value only during the first year of decline. During this first year of decline, capital expenditures were negatively and significantly associated with beta excess returns. During the latter years of decline, capital expenditures were positively associated with beta excess returns but not significantly. This means that investors may value retrenchment strategies (which presumably have immediate effect) highly in comparison to long-term strategies. This supports Robbins and Pearce (1992) argument that retrenchment strategies are a prerequisite for successful turnarounds. This is consistent with the argument of Bibeault (1982) and others who consider that arresting the “bleeding” by the required “surgery” is an important first step for a firm to successfully turnaround. As pointed out earlier, as long as an action taken by the management improves efficiency, such an action should have positive impact on shareholder value. To that extent, the positive link between manufacturing efficiency and marketing efficiency is empirically supported. The results also confirmed that the impact of changes in retained earnings did not affect the impact of these strategy variables.

One interesting aspect of the findings is that the moderating variable included did increase the explanatory power of the model but did not in any way reduce the impact of the strategic conduct variables. Changes in retained earnings had a consistent positive impact on the beta excess returns as suggested by Cootner (1964).

The lack of significant impact of some of these variables on shareholder value should not be interpreted to mean that investors were not sensitive to changes in strategy conduct variables. It may be that the impact of some of these variables on the income
stream could be marginal and hence might not alter whether or not a firm successfully turns around. If a firm continued to operate inefficiently in manufacturing and marketing, it could fail to turnaround and hence investors weigh these strategy variables highly in comparison to accounts receivable and accounts payable. Also, contributions from savings in accounts receivable and accounts payable could be much less comparatively. In fact, it could also be argued that the relationship between these two variables (accounts receivable and accounts payable) and performance is not simple and direct. Because accounts receivable may lead to economies of scale, it could be used to increase sales and result in an improvement in manufacturing efficiency. Therefore, accounts receivable could be positively associated with shareholder value. However, if accounts receivable increase too much, it could be because of poor debt collection practices and hence, the impact of large accounts receivable could be negative. In the case of accounts payable, excessive use of trade credit could result in a strained relationship with suppliers and hence the transaction costs could increase reducing the efficiency. Also, firms performing poorly tend to fail to meet the credit terms of suppliers and hence may have higher accounts payable. Therefore, the higher the accounts payable, the lower the income stream and, hence, the lower the shareholder value.

Limitations and directions for further research
One of the major contributions of the results of this research is to empirically support the relationship between corporate strategy and shareholder value, as measured by beta excess returns. Our results also indirectly provide empirical support for Cootner’s (1964) model where stock price’s movements occur around the intrinsic value. In addition, the use of beta excess returns to measure shareholder value proved to be effective, suggesting that cumulative beta excess returns methods capture strategy changes very effectively. In future studies, it is possible that an excess return to an industry portfolio may prove to be a better measure, because it could highlight even more clearly the relationship between strategy and shareholder value.

The measurement of corporate strategy could also be improved in future research. While the measures used were acceptable and consistent in terms of previous research studies, they could have been further assessed relative to industry norms. However, this was not possible because of the multi-industry nature of the study. It should be noted that, although this study used only a subset of variables which Prescott (1983) developed, it could perhaps be enhanced through the use of survey or interview data with top management personnel in the study firms, as suggested by Barker and Duhaime (1997). This, in turn, might lead to a set of “fine-grained” measures of corporate strategy. The trade-off is obviously between the depth of survey-type case study research and the more quantitative analysis offered here.

It should also be stressed that, while the choice of decline situations as the area of study provided high-quality and easily detectable differences in strategy, it tended to limit the sample size of available firms and perhaps, to some extent, the quality of data. (This is because firms only report the minimum required information when they face situations of decline, crisis and constraints in resources.) An alternative sample design, perhaps involving random samples of firms, might have increased the sample size of firms studied but this would have been achieved at the expense of identifying a satisfactory number of changes in strategies and strategic postures taken by those firms.
Notes
1. That is, it is assumed that the extraneous variables do not change during that narrow window.
2. Some firms in this control group may, in some instances, have faced a one-year decline (the first year after the peak year) but were on the growth path the next year.
3. In this paper, we have used “beta excess returns” and “cumulative beta excess returns” interchangeably. When shareholder value changes over a period is under consideration, the measure used is “cumulative beta excess returns” over that period whatever the terminology used.

References


Further reading


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