

The Faster, the Better?: An Empirical Study on the Speed of Strategic Change and Firm Survival and Performance

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Abstract

This study questions the conventional wisdom that strategic change and a rapid pace of change are necessary for firm survival in a changing environment. Recognizing the potential costs of strategic change, we argue that conventional wisdom might be oversimplified. Drawing on the U.S. trucking industry and its deregulation, this paper concludes that mere change in strategy is insufficient to guarantee organizational survival and success, and hasty change may exert a negative impact on firm performance. Conclusions drawn from this study should be given appropriate caveats since we focus on conditions idiosyncratic to strategic change prompted by industry deregulation.

Introduction

Strategic change has long been emphasized as the critical antecedent to the survival and success of organizations facing significant environmental change. However, some empirical findings are at odds with this intuitively appealing assertion. For example, Kanter's (1983) study of International Harvester, Caterpillar Tractor, and AM International illustrates that strategic change by itself may not necessarily guarantee the firm's success. Zajac and Shortell (1989) find no performance difference between firms that changed strategy and those that did not. Kelly and Amburgey (1991) also report that strategic change is not related to an organization's chances of survival.

Furthermore, while conventional wisdom prescribes that firms facing significant environmental change may improve their chances of survival and subsequent high performance by quickly changing their strategy, this view considers neither the fact that strategic change is costly (Hambrick, 1983) nor the potential high costs of rapid change. For example, a significant environmental discontinuity such as industry deregulation often brings an entire-

ly new and uncertain environment which may escalate the costs of change. Consequently, reactive, ill-considered strategic change may result in negative consequences.

This study challenges the conventional wisdom regarding the value of quick strategic change and argues that it may be oversimplified because many scholars treat the phenomenon as unidimensional. Lundberg (1984), for example, argues that speed, scope and pace are important dimensions of strategic change. Similarly, Johnson (1987) recognizes the importance of the speed of change as well as the content of change itself. Hinings and Greenwood (1988), although using a different term, also discuss the speed of change as an important issue in organizational adaptation. Drawing on data from the U.S. trucking industry, this study examines the strategic change efforts firms made in response to industry deregulation. In addition to the change event, attention is paid to the speed with which firms undertake strategic change and the mitigating effects of variables such as an organization's size, age, and possession of slack.

Strategic Change, Speed, and its Costs

Management researchers have recognized that time is an important competitive weapon (Dumaine, 1989; Stalk and Hout, 1990), particularly in high velocity environments (Eisenhardt, 1989). Therefore, speed is an important component of strategic change. Smart and Vertinsky (1984) argue that the ability to appropriately adapt to environmental change is a critical organizational capability. Many researchers (Bourgeois and Eisenhardt, 1988; Eisenhardt, 1989; Judge and Miller, 1991) contend that the ability to respond quickly to environmental and competitive pressures places the firm in a relatively advantageous competitive position and thus leads to higher performance.

However, a simple association between the speed of change and a firm's survival and subsequent performance may be misleading because strategic change can be costly. Two factors are of importance. First, strategic change requires "a fundamental reshaping of the organization, its people, its asset mix, and its processes" (Hambrick, 1983: p.7) and therefore brings considerable consequences (Whipp et al, 1987). Second, strategic change results in a significant departure from previous strategic activities (Graham and Richards, 1979). A significant departure may fall outside the dominant logic/market knowledge of the top management team and therefore result in poor performance. This may occur because manager, who sometimes tend to recognize problems that are familiar and pursue solutions similar to those implemented in the past, may misread the new environment and take inappropriate action (Amit and Schoemaker, 1993). In addition, a large departure from previous business activities may require new capabilities that the firm cannot generate from its current resource. The necessity to acquire or develop new resources may, however, be hindered by the existence of assets which managers may be reluctant to discard. Furthermore, some firms may either lack the organizational skills necessary to develop new resources or they may do so only over a long period of time (Dierickx and Cool, 1989).

For the above reasons, organizations inherently try to avoid strategic change (Hannan and Freeman, 1984) and this inertial tendency becomes more pronounced in organizations that operate in stable environments. Meyer (1980) notes that even in the face of an unambiguous major environmental change, such as industry deregulation, inertial forces may cause organizations to maintain the *status quo* thereby reducing the speed of change.

Even researchers who argue for faster change acknowledge the costs of developing an maintaining

capabilities that either confer or enhance competitive speed. These include the costs of intensive information processing and alternative generation, lack of comprehensiveness, inability to include a variety of decision makers, and a lack of constructive conflict (Eisenhardt, 1989). Wernerfelt and Karnani (1987) recognize the potential pitfalls of premature decisions before uncertainty has been adequately resolved. Bigelow sums up the danger of rapid change:

An organization in immediate and drastic difficulties may require rapid changes in order to survive. Rapid change, however, is not without risk. It can commit an organization to large-scale organizational changes before their actual consequences are clear (1982, p.26).

Propositions

Considering the inertial nature of organizations and the costs of strategic change and the potentially high cost of rapid change, this study raises two fundamental questions: 1) When a major environmental shift occurs, does strategic change per se, or the speed at which change is made enhance the firm's probability of survival and subsequent performance? 2) How important to firm survival and subsequent success are resources which would permit careful analysis of the new environment and deliberate strategic change as opposed to hasty, reactive change? Such resources, in the form of organizational slack, can buffer firms from external environmental threats, and thus permit a slower, more deliberate rate of change (Bourgeois, 1981; Sharfman et al, 1988). This study makes the following propositions:

Proposition 1: A firm's survival and subsequent performance will not be significantly related solely to the strategic change event.

Proposition 2: A firm's survival and subsequent performance will not be significantly related solely to its speed of strategic change. However, the relationship will become significant when organizational variables such as amount of slack, age, and size are included.

Methodology

This study employs the U.S. trucking industry as a research setting. It was selected for two reasons. First, after several decades of regulation between 1935 and 1980, the industry experienced a major environmental shift in the form of the Motor Carrier Act of 1980. Business practices such as pricing, entry into the industry, geographical areas served, and types of commodities that may be transported, formerly governed by the Interstate

Commerce Commission (ICC), were virtually reversed and placed in the hands of individual firms. Second, this new legislation opened the industry to intense competition and forced many firms to undertake strategic change.

Accordingly, this study focuses on the period from 1979 to 1986. The year 1979 serves as the baseline year for measuring strategies prior to deregulation, while 1980 to 1986 serves as the period in which post-deregulation strategies are observed. Data for the years 1977 and 1978 are included to check for the presence of strategic changes prior to deregulation.

The sample includes Class I and Class II regulated common carriers which filed financial reports with the ICC. These large companies represent a major portion of the overall trucking activities in the United States (Johnson, 1973; LaMond, 1980). The study examines 126 firms that survived deregulation and 40 firms that went bankrupt between July 1980 and March 1987. Data were collected from *Motor Carrier Annual Reports* (published by the American Trucking Association (ATA)) and *National Highway and Airway Carriers and Routes* (published semi-annually by National Highway Carriers Directory, Inc.).

Operationalization of Speed of Change

To determine the speed of strategic change, firm data were cluster analyzed based on the following six strategic dimensions. Each dimension was operationalized by the variables listed in parentheses: 1) Scope (number of terminals, area(s) of service), 2) Service quality (pick up and delivery expenses, billing and collecting expenses), 3) Product dependability (insurance expenses), 4) Cost efficiency (wages and operating expenses per mile), 5) Pricing (freight revenue per mile), and 6) Marketing (traffic and sales expenses).

The above six variables were standardized into Z scores since computation of distances between clusters is affected by the scale and unit measurements of variables. Cluster analysis generated six significantly different clusters (or, strategy types) to which sample firms belonged in each year. Strategic change was denoted by movement from one cluster to another. Speed of strategic change was measured by the number of years required to change from a pre-deregulation strategy (cluster membership in 1979) to another strategy (first cluster membership after deregulation).

Operationalization of Other Variables

Performance was operationalized by operating ratio, ROE, and net income. Slack was operationalized by retained earnings/revenue, (current asset - current liabilities)/revenue, short-term debt/equity, accounts receivable/revenue, long-term debt/equity, and value of equipment/revenue. Age was operationalized as the number of years between a firm's year of incorporation and 1979. Size was operationalized by the number of employees at the end of 1979.

Research Findings

Unchanged Firms

Of the 126 firms that survived deregulation forty four did not undergo strategic change in the study period. Table 1 presents a profile of these firms. In addition, using changes in operating ratios, ROE, and net income between 1979 and 1986 as measures of performance, these firms exhibited better results. (Since operating ratio is measured as expenses/revenue, smaller numbers signify better performance.) The results demonstrate that contrary to conventional wisdom, strategic change by itself is not crucial to firm survival and performance.

Bankrupt Firms

Of the forty bankrupt firms, thirty two went out of business within three years of deregulation. Fifteen of these thirty two firms did not undergo strategic change and

Table 1
Profile of Unchanged and Changed Firms

| | <u>Changed firms</u> | <u>Unchanged firms</u> |
|------------------------------------|----------------------|------------------------|
| Average age (as of 1979): | 32.000 | 29.000 |
| Average size (# of employee): | 2,279.000 | 635.000 |
| Average Short-term debt/equity: | 0.682 | 0.844 |
| Average Working capital/revenue: | 0.056 | 0.038 |
| Average Retained earnings/revenue: | 0.236 | 0.206 |
| Average Receivable/revenue: | 0.092 | 0.112 |
| Average Long-term debt/equity: | 0.451 | 0.866 |
| Average Equipment/revenue: | 0.242 | 0.212 |
| Average Operating ratio (86-79): | 0.009 | 0.046 |
| Average ROE (86-79): | 0.015 | -0.083 |
| Average Net income (86-79)/Size: | 0.009 | -0.984 |

went bankrupt. It appears that those firms did not get the chance to change at all. Seventeen remaining firms did change strategy but also went bankrupt. Of the original forty firms, eight survived more than three years before going bankrupt and of these, seven undertook strategic change. Overall, the data on bankrupt firms does not appear to offer support for the assertion that strategic change exerts a positive impact on firm survival.

Changed Firms

Among the firms that undertook strategic change during the study period, the influence of speed on performance was examined at several points in time as presented in Table 2. When only speed of change was related to performance data, results were insignificant for all but one case (operating ratio three years after the change was made). However, when the slack variable was introduced, four relationships became significant. As stated in proposition two, speed of change alone is not a strong predictor of firm performance.

This study also shows that the relationship between speed and performance depends on the type of performance measure used and the time interval chosen for measurement. Overall, faster changes appear to lead to greater efficiency (lower operating ratio), with the relationship becoming significant by the third year of

strategic change. Faster change tends to exert a negative impact on profitability (ROE) which suggests that rapid strategic change is a burden to company profitability. Faster change exerts a negative impact on net income but manifests positive result, in this study, on average three years later.

Conclusion

This study asserted that conventional wisdom concerning the link between strategic change as a means of assuring firm survival and subsequent high performance in the face of a large environmental change places a rather naive emphasis on the sole importance of (fast) strategic change. The results support the argument forwarded by these authors that the mere occurrence of strategic change does not adequately explain firm survival and success. Indeed, in a totally new and highly uncertain environment, faster change may not necessarily improve either the firm's performance or its chances of survival.

Nevertheless, speed of change does enhance our understanding of the strategic change phenomenon when firm-specific factors such as slack, age and size are incorporated. Therefore, instead of asking the question "Does strategic change occur in a firm and how fast", the question should be "Is this strategic change something a particular firm can handle?"

Table 2
Speed of Change and Firm Performance

| | | |
|------------------------|-------|--|
| Faster change | ----> | Lower Operating Ratio (greater efficiency) in 1986 |
| Faster change | ----> | Lower Operating Ratio, 1 year after the change |
| Faster change | ----> | Lower Operating Ratio, 2 years after the change |
| Faster change (slack)* | ----> | Lower Operating Ratio, 3 years after the change* |
| Faster change (slack)* | ----> | Positive efficiency change between 1986 and 1979 |
| Faster change (slack)* | ----> | Lower ROE in 1986 |
| Faster change (slack)* | ----> | Lower ROE, 1 year after the change |
| Faster change | ----> | Lower ROE, 2 years after the change |
| Faster change | ----> | Lower ROE, 3 years after the change |
| Faster change | ----> | Negative ROE change between 1986 and 1979 |
| Faster change | ----> | Higher Net Income in 1986 |
| Faster change | ----> | Lower Net Income, 1 year after the change |
| Faster change | ----> | Lower Net Income, 2 years after the change |
| Faster change | ----> | Higher Net Income, 3 years after the change |
| Faster change | ----> | Positive Net Income change between 1986 and 1979 |

* indicates statistical significance.

Suggestions for Future Research

This study does not downplay the importance of strategic change. Instead it advances our understanding of the strategic change phenomenon by adding to previous research the dimension of speed as well as slack, age, and size. This study, however, sought to answer the question of whether there is significant relationship between strategic change and performance. Still the interplay with many other variables need to be examined. For example, what are performance implications of rapid/slow change in low/high slack firms? There may also be other dimensions of strategic change to which further research attention must be paid such as content, direction, and likelihood (e.g., Lundberg, 1984; Zajac and Shortell, 1989). Understanding all those elements of strategic change will greatly enhance the grasp of a holistic picture of the strategic change phenomenon. For example, the methodology employed in this study does not allow us to identify specific strategic change paths -- from which strategy to another -- which will enable future investigation of the relationship between the content of strategic change and firm performance. Further, more in-depth studies which examine the strategic change process in tandem with studies, such as this one, which utilizes secondary data promise to yield a richer picture of the phenomenon. ☞

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