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Executive attention patterns, environmental dynamism and corporate turnaround performance

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Abstract

Purpose – Despite an improved understanding of the role of top executives in declining firms, research is still needed to explore the role of environmental scanning and strategy formulation processes in an organizational decline context. Drawing from the attention-based view and the literature on environmental scanning, the purpose of this paper is to examine the relationship among executive attention patterns, industry dynamism and corporate turnaround performance in declining firms.

Design/methodology/approach – In order to test theoretically-driven hypotheses, data were collected from 70 US manufacturing firms that experienced serious performance decline and subsequent performance turnaround between 1990-2000. The hypothesized relationships among market-related, input-related environmental scanning, industry dynamism and corporate turnaround performance were tested using a moderated regression analysis.

Findings – The findings indicate that declining firms operating in dynamic industry environments tend to improve their turnaround performance when executives focus their attention more on market-related sectors (i.e. customer, competitor and technological sectors). Conversely, the findings also indicated that corporate turnaround performance of declining firms seems to be adversely affected by a disproportionate focus on input-related sectors of the task environment (i.e. suppliers and creditors).

Research limitations/implications — The paper's findings contribute to the ongoing corporate turnaround research by highlighting the important role executive attention patterns and selective perceptions play in improving the extent of corporate turnaround in declining firms. More importantly, the findings also indicate that environmental context (in this case dynamism) is a critical part of successful corporate turnaround since it dictates the impact of relevant external actors on the organization.

Practical implications – Executives of declining firms attempting turnaround may find it particularly useful, based on the paper's findings, to focus their attention and information search on specific aspects of the task environment in order to facilitate corporate turnaround. Such focus becomes especially necessary if the declining firm is operating in dynamic industries.

Originality/value – The paper contributes to the corporate turnaround literature by highlighting the importance of both executive attention patterns and environmental context in any successful turnaround attempt.

Keywords United States of America, Manufacturing industries, Organizational performance, Turnarounds, Corporate turnaround, Managerial attention, Organizational decline, Environmental dynamism

Paper type Research paper



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Introduction

One of the most enduring themes of strategic management research is the issue of organizational adaptation to a changing environment. At the center of such research is the strategic choice perspective and its assumptions that top executives of firms can effectively analyze their task environment, formulate as well as implement



the requisite business strategies to meet various environmental demands (Child, 1972). A number of scholars have examined managerial responses to organizational performance decline as part of the mainstream organizational adaptation research (McKinley, 1993; Lohrke *et al.*, 2004). While some scholars argue that executives experience cognitive rigidity and as a result restrict their information search in times of organizational performance decline (Staw *et al.*, 1981), considerable research evidence indicates that, consistent with the *Behavioral Theory of the Firm* (Cyert and March, 1963), top executives of declining firms engage in market-based turnaround strategies involving new product innovation and market expansion (e.g. Zimmerman, 1989; Barker and Duhaime, 1997; Lohrke and Bedeian, 1998; Ketchen and Palmer, 1999).

While the important role of executive environmental scanning and interpretation in an effective strategy formulation is well understood in the literature (Hambrick, 1982; Daft *et al.*, 1988; Thomas *et al.*, 1993), the relationship between executive attention patterns and turnaround performance in the context of organizational decline has largely remained an understudied area of inquiry. Most of the extant turnaround literature has focussed on understanding the effect of executive-level determinants of turnaround performance such as top management team demographic characteristics (Zimmerman, 1989; Mueller and Barker, 1997), turnover and replacement (Arogyaswamy *et al.*, 1995) as well as executive causal attribution (Barker and Patterson, 1996; Barker and Barr, 2002). Despite our improved understanding of the role of top executives in declining firms, empirical research is still needed to understand the environmental scanning and strategy formulation processes in an organizational decline context (Lohrke *et al.*, 2004). We believe that, to the extent that it provides a foundation for strategy formulation, the type, scope and frequency of environmental scanning emphasis can influence the effectiveness of turnaround attempt in declining firms.

In this study, we address this research gap by empirically examining two major research questions: first, is there a relationship between executive environmental attention patterns and corporate turnaround performance during organizational decline? and, second, does the degree of environmental dynamism moderates the relationship between executive environmental scanning emphasis and corporate turnaround performance? We particularly examine the level of environmental dynamism to explore the interaction effect between industry-level factor and executive attention patterns on corporate turnaround performance. Drawing from the attention-based view of the firm (Ocasio, 1997), we argue that the scope of executive environmental scanning emphasis plays an important role in predicting turnaround strategy formulation and corporate turnaround performance.

Theory and hypothesis development

Attention-based view of the firm

First introduced to the main stream strategy literature by Ocasio (1997), the attention-based view of the firm generally argues that organizational decisions, actions and ultimately firm performance are significantly influenced by the focus and distribution of managerial attention. The attention-based view of the firm is generally based on three premises. The first premise states that managerial actions are directly influenced by and originate from the attention patterns of decision makers (managers). Hence, in order to understand why particular decisions and actions are taken in organizations, we need to first examine the area of managerial attention. Ocasio (1997, p. 188) refers this premise as the "focus of attention" and posits that, in general, managerial attention to potential issues, problems and solutions determines the subsequent strategic

decision making in the organization. The second premise of attention-based view of the firm points to the fact that the particular issues, problems and solutions managers focus on and by extension the subsequent decisions they make is dependent to a large degree on the type of situation they are in. This premise is referred to as "situated attention."

The last premise of attention-based view of the firm emphasizes the unique role and position managers have in the organizational hierarchical structure and social relationships. Such hierarchical structure and social relationships have a great deal of influence on the particular situation managers find themselves in and their subsequent decision making because they dictate "[...] how the organization distributes, and controls the allocation of issues, answers and decision-makers within specific firm activities, communications, and procedures" (Ocasio, 1997, p. 191). This premise was termed "structural distribution of attention." In this study, we draw from the attention-based view of the firm to argue that executive attention patterns influence information-gathering behavior (i.e. environmental scanning) and the scope of executive environmental scanning emphasis affects the type of turnaround strategy the firm pursues and subsequently turnaround performance.

Scope of executive environmental scanning and turnaround performance

Consistent with past studies, we define environmental scanning in this study as "the managerial activity of learning about events and trends in the organization's environment" (Hambrick, 1981, p. 299). Scholars have so far examined both organizational and environmental factors affecting the type, magnitude and frequency of scanning. For instance, a number of empirical studies have shown that perceived environmental uncertainty tends to increase the level of environmental scanning activity among firms (e.g. Daft *et al.*, 1988; Boyd and Fulk, 1996). Other studies in the literature have also shown that the institutional context within which firms operate significantly influence environmental scanning behavior (Ebrahimi, 2000; May *et al.*, 2000). Still others have studied the effect of internal organizational processes and configurations on the extent of environmental scanning activities (e.g. Thomas *et al.*, 1993; Yasai-Ardekani and Nystrom, 1996). This study contributes to the on-going research on environmental scanning by focusing on a unique organizational context (i.e. declining firms attempting turnaround) and empirically testing the relationship between executive environmental scanning emphasis and the extent of turnaround performance.

The extant turnaround literature indicates that executives in declining firms attempting turnaround generally respond to performance deterioration either by formulating and implementing market-based turnaround strategies that involve new product introductions and market expansions – termed strategic turnarounds (Barker and Duhaime, 1997) or adopting a conservative, efficiency-based perspective that largely emphasize centralized decision making and limited information search. This perspective is known as the threat rigidity hypothesis (Staw et al., 1981). In cases of aggressive, market-based strategic responses to organizational decline, executives often involve in gathering and analyzing pertinent information about the environment (Lohrke et al., 2004). During such information search (environmental scanning) process, however, executives may not necessarily pay equal attention to the various sectors of the external environment (Daft et al., 1988; Garg et al., 2003). For instance, the task environment (that include customers, competitors, suppliers, creditors and technological sectors) has been identified in past studies to directly influence the firm's strategic decisions and overall performance than the general environment (that includes the economic, demographic, socio-cultural and political/legal sectors) (e.g. Bourgeois, 1980; Daft *et al.*, 1988; Garg *et al.*, 2003). Hence depending on the focus of executive attention and emphasis, some aspects of the task or general environment may influence the type of strategic formulation as well as level of corporate turnaround performance.

In this study, we argue that, in the specific context of organizational performance decline, the level of executive scanning emphasis on the task environment will have a positive impact on corporate turnaround performance than a more widely distributed environmental scanning that embrace both the task and general environment sectors. Accordingly, in declining organizations attempting successful turnaround, a heightened focus on the task environment sectors such as customers, competitors, suppliers and creditors will most likely assist in providing critical market and other stakeholder information that has a direct bearing on both the formulation of turnaround strategies and performance. In such situations, the scope of environmental scanning can be more effective if it is targeted to sectors of the external environment that contribute to the survival and growth of the declining firm in the short run. As such, a narrow scope of executive environmental scanning may actually be beneficial for declining firms attempting turnaround by concentrating information search effort and resources to sectors of the external environment that are relevant and play a critical role in reversing the survival-threatening organizational performance decline (Ketchen and Palmer, 1999):

H1. The proportion of environmental scanning emphasis on task environment is positively related to corporate turnaround performance in declining firms.

A firm's task environment generally comprises of its supplier, customer, competitor, creditor and technological sectors (Daft *et al.*, 1988; Garg *et al.*, 2003). While these entities collectively play an important role in shaping the constraints for managerial actions, they significantly differ in their specific demands and extent of threat they pose depending on various organizational contexts (Thompson, 1967). Consistent with their unique demands, past studies have categorized the components of the task environment into "input" (i.e. suppliers, creditors) and "output" (i.e. customer and economic) sectors (e.g. D'Aveni and MacMillan, 1990) and "critical success factors" (e.g. Hambrick and Lei, 1985). Building on past research, we focus on two groups of the task environment that, depending on the attention they receive from organizational decision makers, can influence strategic formulation and firm performance. We refer to them as "market-related" task environments-including customers, competitors and technological sectors and "input-related" task environments that involve suppliers and creditors of the firm.

Market-related environmental scanning and turnaround performance

The market-related task environment sectors defined here to include customer, competitor and technological sectors-play important roles in establishing the demands and constraints within which the firm delivers its value-added output (Thompson, 1967). Customer taste, for instance, influences the type and quantity of products produced while the technological sector dictates the prevalent processes and product configurations that are to be employed by the firm in the attempt to meet customers' demand. Similarly, the firm's direct competitors often pose a significant challenge by jockeying for the scarce factor market resources that are used in the manufacturing process as well as contending for the majority of market share. Given executives' limited information-processing cognitive capacity (March and Simon, 1958), not all sectors of the firm's task environment receive similar attention. As a result, sectors of

the task environment that attract a great deal of attention from key organizational decision makers tend to significantly influence the firm's strategy formulation and ultimately performance (Garg *et al.*, 2003). A number of empirical studies in the literature provide support for such selective scanning argument (e.g. Daft *et al.*, 1988; D'Aveni and MacMillan, 1990; Garg *et al.*, 2003).

Market-related task environment sectors (customers, competitors and technological sectors) are often closely related to firm's value creation and overall competitiveness. These sectors have also been identified in the literature as being sources of considerable environmental uncertainties for organizational decision makers (Boyd and Fulk, 1996; Ebrahimi, 2000). In this study, we argue that higher proportion of environmental scanning emphasis on market-related task environment sectors positively influences turnaround performance in declining firms and that this positive relationship tends to be strengthened by the level of environmental dynamism. Past studies have shown that selective executive environmental scanning that specifically focusses on customer and competitor and technological sectors tend to enhance firm performance (Daft *et al.*, 1988; Garg *et al.*, 2003). Daft *et al.* (1988), for example, found in their study of 50 manufacturing firms that specific sectors of the task environment (customer, competitor and economic sectors) generated higher strategic uncertainty and such uncertainty led to more selective environmental scanning in these sectors. The study also found that the frequency of such selective environmental scanning was found to be higher in high performing firms.

Environmental scanning emphasis in market-related task environment sectors is especially relevant in declining firms attempting turnaround due to a number of reasons: first, firms that experience organizational performance deterioration due to declining market position often seek to introduce new products and/or services as well as expand into new markets in an effort to boost their market share and competitiveness. Hence, a closer examination of the customer, competitor and technological sectors could provide executives with valuable information that could be used as an input in formulating and implementing a market-based turnaround strategy (Lohrke et al., 2004). Several studies in the corporate turnaround literature have found empirical evidence that declining firms that successfully turned around tend to go beyond retrenchment (i.e. cost cutting/asset reduction) into strategic (market-based) turnarounds (Barker and Duhaime, 1997; Barker et al., 2001). Second, environmental scanning emphasis on market-related task environment sectors is also critical in declining firms attempting turnaround because these particular sectors (i.e. customers and competitors) are part of the larger institutional environment that directly or indirectly assess the firm's overall viability and strength. Accordingly, the institutional environment serves as the firm's critical source of resource support and therefore needs to be reassured by various firm-induced signals that the declining firm is indeed paying attention to market-related factors in its decision making (Pfeffer and Salancik, 1978; Flynn and Staw, 2004).

Strategic (market-based) turnaround especially becomes critical if the declining firm operates in a dynamic environment. Firms in dynamic environments often face fluctuations in customer demand, rapid and discontinuous product innovations and substantially higher information-processing requirements (Dess and Beard, 1984; Haleblian and Finkelstein, 1993). In such type of environments, declining firms attempting turnaround could concentrate their environmental scanning activities to relevant task environmental sectors (such as customers, competitors and technological sectors) in order to both prioritize and efficiently utilize their limited cognitive information-processing capacity in order to focus on the elements of the external environment that are crucial to their turnaround attempt and formulate and implement

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H2. The degree of environmental dynamism positively moderates the relationship between market-related environmental scanning emphasis and corporate turnaround performance such that market-related environmental scanning emphasis will be more positively related corporate turnaround performance in dynamic environments.

Input-related environmental scanning and turnaround performance

Input-related sectors of the task environment generally comprise of the firm's suppliers and creditors. These sectors play a significant role by providing a constant flow of raw materials and financial resources to the firm's operations. In firms experiencing survival-threatening performance decline, executives often negotiate with and involve the firm's suppliers and creditors in an effort to facilitate a short-term stabilization of the firm's financial position (Slatter *et al.*, 2006). The primary goal of such an effort is to achieve a short-term relief to the declining firm and "stop the bleeding" (Bibeault, 1982) and not necessarily on long-term development of the firm. Past studies have noted that a "threat-rigidity" response to organizational performance decline often leads to restricted information search, centralized decision making and dominant focus on efficiency-generating activities that reverse the performance downturn (Staw *et al.*, 1981; D'Aveni and MacMillan, 1990; Ferrier *et al.*, 2002).

Depending on the particular environment they operate in and the severity of performance downturn, declining firms attempting turnaround may engage in not only short-term efficiency responses aimed at stabilizing the firm but also in long-term strategic turnarounds that involve target market expansion and new product introductions (Barker and Duhaime, 1997). Strategic turnarounds, as a number of past studies noted, require the firm to anticipate shifts in customer demand and proactively change the overall direction of the firm (Ketchen and Palmer, 1999). In such instances, greater level of input-related environmental scanning focus may fall short of what is actually needed in terms of gathering, analyzing and interpreting market-related information that in turn serves as a basis for strategic turnaround. Declining firms focussing on input-related task environment (i.e. suppliers and creditors) generally emphasize efficiency-centered solutions to the firm's poor performance and hence concentrate on improving existing products and markets (D'Aveni and MacMillan, 1990).

This disproportionate emphasis on input-related environmental scanning may be detrimental particularly for a declining firm operating in a dynamic industry. Dynamic industries are generally characterized by high level of customer demand fluctuations, rapid new product introductions and changing customer taste (Daft *et al.*, 1988; Garg *et al.*, 2003). Dynamic industries often require a substantial organizational commitment toward new process and product innovations. Consequently, firms operating in such environments could experience a competitive disadvantage and even survival-threatening organizational decline if they do not frequently and consistently engage in product and/or process innovation. Hence, declining firms attempting turnaround that operate within dynamic industries could benefit from a greater level of environmental scanning emphasis on market-related sectors instead of input-related sectors of the task environment:

H3. The degree of environmental dynamism negatively moderates the relationship between input-related environmental scanning emphasis and corporate turnaround



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performance such that input-related environmental scanning emphasis will be more negatively related to corporate turnaround performance in dynamic environments.

Method

Sample and data collection

In order to test the above hypotheses, we focussed on all US manufacturing firms (SIC Code 2000-3999) that experienced survival-threatening performance decline and turnaround during the period 1990-2000. Data were collected from Standard and Poor's COMPUSTAT database using the four-digit SIC codes listed below. We employed three specific criteria to select the sample firms from a large population of declining firms within the given time period:

- (1) All the firms must be US based in order to allow a more meaningful comparison with other similar turnaround studies.
- (2) All firms in the sample must be publicly traded companies. This criterion ensured that privately owned firms are excluded since such firms may have alternative objectives (e.g. social responsibility, family ownership) and it could be difficult to obtain complete and accurate data.
- (3) Firms in the sample must have low level of diversification. By ruling out highly diversified firms from the sample, we can make a more realistic linkage between strategy and performance outcomes.

Following previous studies on corporate turnaround, we adopted the following criteria for carefully screening out declining firms that successfully turned around (Barker and Patterson, 1996; Barker and Duhaime, 1997; Mueller and Barker, 1997):

- (1) At least three consecutive years of industry-adjusted return on asset (ROA) below the risk-free rate of return. This ensures that there is an extended performance decline. Consistent with the literature (Barker and Mone, 1994), industry-adjusted ROA is used in order to control for the industry effect. Industry-adjusted ROA is calculated by subtracting the industry average ROA (based on four-digit SIC Code) from the firm's ROA for each year of decline (Morrow *et al.*, 2004). The risk-free rate of return is chosen as a threshold because it indicates the minimum amount of economic return needed to remain as a viable business entity. Consistent with past studies (Barker and Patterson, 1996; Barker *et al.*, 2001), we used the six month US Treasury bills as a conservative indicator for the risk-free rate of return.
- (2) During this three-year decline period, the firm has to experience an Altman's (1983) bankruptcy prediction Z-score of less than 3.00 for at least one year in the decline period. This measure is widely used to assess a firm's financial health and predict the likelihood of bankruptcy. According to Altman (1983), lower values in general indicate higher risk of bankruptcy and that a score less than 3.0 suggest high likelihood of bankruptcy in the short term. This is consistent with previous suggestions in the literature (Barker and Mone, 1994; Barker and Duhaime, 1997) that the decline should be severe enough to threaten firm survival.
- (3) At least three consecutive years of increasing and positive industry-adjusted ROA above the risk-free rate of return as part of the performance recovery.

We applied the above three criteria to the Standard and Poor's COMPUSTAT database for the period 1990-2000, 100 firms were identified as meeting the sample selection criteria outlined above. Missing information on the predictor variables reduced the final sample to 70 US manufacturing firms that experienced serious performance decline and subsequent performance turnaround. Accordingly, the performance decline and performance turnaround periods for all sample firms were between 1990-1994 and 1995-2000, respectively.

Measures

Dependent variable. The dependent variable in this study is corporate turnaround performance. We used industry-adjusted ROA to measure corporate turnaround performance for all the sample firms between the periods 1995 and 2000. Consistent with the literature, we adopted a six-year window that includes three consecutive years of performance decline followed by three consecutive years of performance improvement. Hence, the sample firms experienced performance decline for three consecutive years during 1990-1994. Similarly, all the sample firms have experienced three consecutive years of performance improvement during 1995-2000.

Independent variables. The independent variables for this study are the proportion of environmental scanning emphasis of executives in declining firms attempting turnaround. More specifically, we focus on task-environment scanning emphasis, market-related environmental scanning emphasis and input-related environmental scanning emphasis. In calculating the proportion of environmental scanning emphases for the three independent variables, we used specialized Computer Assisted Text Analysis software, Concordia (Watts, 2004) to gather the frequency of words representing each environmental sector for the last year of decline period (1990-1994) and beginning of the turnaround period. Hence, the content analysis was conducted on each of the two vears and was averaged to generate a composite measure. In order to measure the emphasis (scope) on executive environmental scanning, we first identified sectors of both task and general environment that are studied in the literature (Bourgeois, 1980; Jackson and Dutton, 1988; Cho, 2006). Accordingly, the task environment includes customer, competitor, supplier and creditor sectors while the general (remote) environment is often represented by demographic, economic, political/legal, technological and social/cultural sectors. After we identified the major sectors of the firm's environment, we then used content analysis to count and calculate the number of words that were used in the sample firms' annual reports and letters to shareholders representing each of these sectors of the environment. Content analysis of a firm's official documents such as annual reports has been used in previous studies to examine managerial attention and cognitive patterns (D'Aveni and MacMillan, 1990; Cho, 2006). The underlying assumption of this method is that executive words and formal written communications can be used as indicators of their attention patterns (Abrahamson and Park, 1994; Nag et al., 2007).

We used the following formula to calculate the proportion of executive task environment scanning emphasis during the period of performance decline (i.e. 1990-1994):

Task environment scanning emphasis =
$$\sum_{tw=1} (f_{tw}) / \left[\sum_{tw=1} (f_{tw}) + \sum_{gw=1} (f_{gw}) \right]$$

where tw is the total number of words representing each of the task environment sectors in the annual report, gw the total number of words representing each of the general environment sectors in the annual report; f_{gw} the frequency of words corresponding to each of the five general environment sectors (i.e. demographic, economic, political/legal, social/cultural and technological); f_{tw} the frequency of words corresponding to each of the four task environment sectors (i.e. customers, competitors, suppliers and creditors).

To measure market-related environmental scanning emphasis, we first identified sectors in the firm's environment that closely associate with the firm's effort to deal with customer taste, overall product demand and immediate competitors. Hence, we identified customer, competitor and technological sectors of the environment and calculated the proportion of words in the annual report that represent these three sectors divided by the total number of words describing all the environmental sectors. Similarly, input-related environmental scanning emphasis was measured by calculating the proportion of words in the annual report that were devoted in explaining input-related environmental sectors such as suppliers (vendors) and creditors (D'Aveni and MacMillan, 1990).

Moderator variable. In this study, we used the level of industry dynamism as a moderator variable. Following past operationalizations (Dess and Beard, 1984; Carpenter and Fredrickson, 2001), industry dynamism was calculated as follows: first, we obtained value of shipment data at the four-digit SIC Code level for each industry in the sample. Value of shipment data was obtained from Statistics for Industry Groups and Industries, a publication of US Department of Commerce for a period of five years (1993-1997); second, we then regressed the value of shipment data over time to identify the standard error of the regression coefficient. The standard error of the coefficient for each industry was then divided by the mean value of shipment for each four-digit industry to determine the level of dynamism index.

Control variables. Based on previous empirical studies (e.g. D'Aveni and MacMillan, 1990; Mueller and Barker, 1997; Morrow et al., 2004), we identified firm size as an important predictor of corporate turnaround performance. Past research has found that firm size affects the capacity of organizations to make the necessary adjustments amid a changing (declining) environment (Tushman and Romanelli, 1985). Firm size was measured by the logarithm of number of employees of firms in the sample (Mueller and Barker, 1997). We also controlled for the average total words in the annual reports for the two years from which data were obtained for predictor variables. Each of the sample firms annually produces government mandated reports on the status of their overall operations. However, depending on the scope and complexity of their operations, their annual reports could significantly vary in size. Accordingly, this particular variable was included because our independent variables are proportion variables that can easily be affected by the length of the annual report. Total words in the annual report for each year, therefore, was summed and divided by two to get the average total words.

Results

Table I presents descriptive statistics and zero-order correlation values for the study variables. Number of employees was used to measure firm size and was log-transformed to correct for normal distribution. A hierarchical moderated regression analysis (MRA) was used to test the above three hypotheses. This analytical technique is particularly appropriate since we are interested in testing moderating (interaction) effects between environmental scanning emphases variables and the level of industry dynamism (Hair *et al.*, 2006). Following suggestion from Aiken and West (1991), we

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	Variables	Mean	SD	1	2	3	4	5	9	7
_	Firm size	1.22	1.44	П						
2	Total number of words in annual report	18,046.84	9,756.52	-0.04						
က	Task environment scanning emphasis	0.65	0.23	-0.15	-0.54***	П				
4	Market-related scanning emphasis	34.45	24.17	-0.015	0.55***	0.01	1			
2	Input-related scanning emphasis	3.15	1.30	-0.05	0.61***	-0.19	0.40***	-		
9	Industry dynamism	0.09	0.11	0.24**	-0.01	-0.17	-0.26**	-0.11	П	
2	Industry-adjusted ROA	16.66	16.18	-0.032	-0.17	0.17	0.05	-0.26**	-0.11	П
No	Notes: $n = 70$. *** p -value < 0.05; **** p -value < 0.01	-								

Table I.Means, standard deviations and correlations

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first mean centered the independent and moderator variables before creating the interaction term to minimize the effect of multicollinearity.

The first hypothesis proposed a positive relationship between executives' attention on the task environment and corporate turnaround performance. As can be seen from Model 2 (Table II), task environment scanning emphasis was not significantly related to corporate turnaround performance. Hence, we did not find support for the first hypothesis (B = 0.078, ns). Model 2 also shows a marginal support for the negative relationship between input-related environmental scanning and corporate turnaround performance.

The second hypothesis proposed a positive relationship between market-related environmental scanning emphasis and corporate turnaround performance in dynamic industry environments. The result in Model 3 (Table II) indicates a statistically significant positive relationship between market-related environmental scanning and corporate turnaround performance in dynamic industry environments (B = 0.319, p < 0.05). Hence, we found a strong support for the second hypothesis.

The third hypothesis argued for a negative relationship between executives' inputrelated environmental scanning emphasis and corporate turnaround performance under dynamic industry environments. As the results in Model 3 (Table II) indicate, there is a statistically significant negative relationship between input-related environmental scanning emphasis and corporate turnaround performance in dynamic industry environments (B = -0.336, p < 0.05). Consequently, the third hypothesis received strong empirical support indicating a negative effect of input-related scanning emphasis in dynamic environments. Overall, the third (full) model explained slightly more than 20 percent of the variance in the dependent variable (corporate turnaround performance).

Discussion

This study sought to empirically examine the relationship between executive attention patterns and corporate turnaround performance under environmental dynamism. More specifically, we hypothesized that, due to information-processing limitations, executives emphasize on particular sectors of the external environment and such selective attention patterns influence the extent of corporate turnaround performance

	Corporate turnaround performance (industry-adjusted ROA)		
Variables	Model 1	Model 2	Model 3
71			
Firm size	-0.038	0.009	-0.037
Total number of words in annual report	-0.167	-0.032	-0.057
Task environment scanning emphasis		0.078	0.086
Market-related scanning emphasis		0.159	0.133
Input-related scanning emphasis		-0.293*	-0.212
Industry dynamism		-0.086	-0.075
Market-related scanning × industry dynamism			0.319**
Input-related scanning × industry dynamism			-0.336**
Input-related scanning \times industry dynamism \mathbb{R}^2	0.03	0.11	0.203
ΔR^2		0.08	0.095**

Table II.Results of moderated regression analysis

Notes: n = 70. Standardized regression coefficients are reported; *p-value < 0.10; **p-value < 0.05



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under varying environmental contexts. The results of our empirical analysis support two of the three hypotheses we proposed. Consequently, the findings of this study showed that declining firms operating in dynamic industry environments tend to improve their turnaround performance when executives focus their attention more on market-related sectors (i.e. customer, competitor and technological sectors) (Figures 1, 2, 3 and Table III)

Conversely, the findings also indicated that corporate turnaround performance of declining firms seems to be adversely affected by a disproportionate focus on input-related sectors of the task environment (i.e. suppliers and creditors). Such findings are generally consistent with previous studies that observed performance differences among firms with differing executive environmental attention (e.g. Daft *et al.*, 1988; D'Aveni and MacMillan, 1990; Garg *et al.*, 2003).

Contrary to our prediction in H1, we did not find a significant statistical support for the relationship between executives' attention on the task environment and corporate turnaround performance. There could be a number of explanations for this result. One possible explanation, perhaps, could be the broad operationalization of the construct

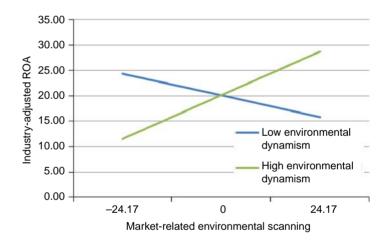


Figure 1.
Industry dynamism as a
moderator of marketrelated environmental
scanning-performance
relationship

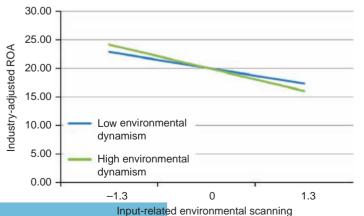
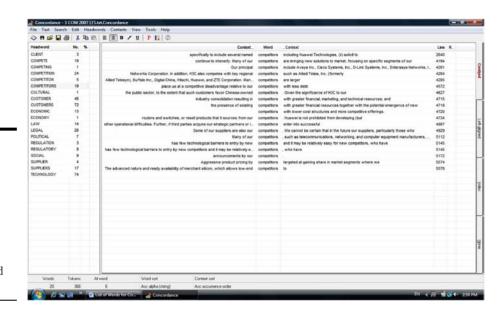


Figure 2. Industry dynamism as a moderator of input-related environmental scanning-performance relationship

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Figure 3. Sample result page for a computer-assisted content analysis



"task environment" as comprising of customers, competitors, suppliers and creditors. The empirical results in Table II actually show that a more specific categorization of the task environment into market and input-related scanning uncovers significant but opposite relationship with corporate turnaround performance.

The general thrust of this paper is that executives' attention patterns influence the type and scope of their environmental scanning which in turn affects firm performance. The findings of this study shed some light on the larger concept of executive attention patterns. Given the problem of bounded rationality (March and Simon, 1958) and the complexity of the external business environment, executives often engage in selective perception of external environmental stimuli in order to formulate the appropriate organizational action (Hambrick and Mason, 1984). Such selective perception and cognitive simplification (Daft *et al.*, 1988) has been linked to organizational problem identification (Jackson and Dutton, 1988; Sutcliffe, 1994), issue framing and interpretation (Dutton and Jackson, 1987; Thomas *et al.*, 1993) as well as competitor identification (Porac and Thomas, 1990). In this study, we examined executives' selective perception from the perspective of executive emphasis or lack thereof on the various sectors of the external environment. The study's focus on declining organizations also brings an interesting context to study the consequence of executive selective attention patterns on firm survival and recovery.

The findings of this study also shed some light on the important role of environmental conditions in shaping the formulation of organizational strategies. More specifically, this study empirically examined the moderating role of environmental dynamism in the relationship between executives' environmental scanning emphasis and corporate turnaround performance among declining firms. The strategic management literature has extensively examined the environment-strategy link (Bourgeois, 1980; Miller and Friesen, 1983; Prescott, 1986; Venkatraman and Prescott, 1990). A substantial number of empirical evidence suggests that firms operating in dynamic environments often emphasize aggressive, customer-focussed,

Word	Environmental category	Task (T) or general (G) environment	Corporate turnaround performance
Clients	Customer	T	
Consumer	Customer	T	
Customer	Customer	T	697
Customers	Customer	T	
Compete	Competitor	T	
Competing	Competitor	T	
Competitor	Competitor	T	
Rival	Competitor	T	
Competition	Competitor	T	
Supplier	Supplier	T	
Suppliers	Supplier	T	
Vendors	Supplier	T	
Economic	Economic	G	
Economy	Economic	G	
Inflation	Economic	G	
GDP	Economic	G	
Demographic	Demographic	G	
Population	Demographic	G	
Culture	Socio-cultural	G	
Cultural	Socio-cultural	G	
Social	Socio-cultural	G	
Trend	Socio-cultural	G G G	
Political	Political/legal	G	
Legal	Political/legal	Ğ	
Law	Political/legal	G G	
Technology	Technological	Ğ	Table III.
Technological	Technological	Ğ	List of words used
Innovation	Technological	Ğ	in the computer-assisted
Immigration	Socio-cultural	Ğ	content analysis

innovation- and market-based strategies (Miles and Snow, 1978; Garg *et al.*, 2003; Abebe *et al.*, 2011). Consistent with the established research evidence, this study has shown that, declining firms operating in dynamic environments increase their turnaround performance by disproportionately focussing on market-related segment of the business environment such as customers, competitors and technological conditions.

Implications and limitations of the study

The study has a number of theoretical and practical implications. In terms of theoretical implications, the findings of this study contribute to the ongoing corporate turnaround research by highlighting the important role executive attention patterns and selective perceptions play in improving the extent of corporate turnaround in declining firms. More importantly, the findings also indicate that environmental context (in this case dynamism) is a critical part of successful corporate turnaround since it dictates the impact of relevant external actors on the organization.

The study also has practical implications. Executives of declining firms attempting turnaround may find it particularly useful, based on our findings, to focus their



attention and information search on specific aspects of the task environment in order to facilitate corporate turnaround. Such focus becomes especially necessary if the declining firm is operating in dynamic industries. In crisis situation such as organizational performance decline, the "normal" tendency for many executives is to restrict information search and centralize decision making, a phenomenon referred to as the "threat-rigidity" hypothesis (Staw *et al.*, 1981). In this study, however, our major finding suggests that depending on the industry environment, selective but intensive executive information search contributes to corporate turnaround performance.

Conclusion

The primary goal of this paper was to empirically examine the assertion that executive attention patterns influence corporate turnaround performance in declining firms and that such relationship is significantly moderated by the nature of industry environment. The findings of this study provided strong support for the central argument that executive attention patterns indeed affect corporate turnaround performance differently depending on the particular industry environment the declining firm operates in. Hence, this study showed the role organization's environment plays in directing specific area of executive attention for a positive outcome.

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