The Role of CEO Statements of Aggressiveness and the Competitive Aggressiveness of Firms: What is the Impact on Performance?

Benjamin Blackford

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The Role of CEO Statements of Aggressiveness and the Competitive Aggressiveness of Firms: What is the Impact on Performance?

by

Benjamin John Blackford

A DISSERTATION

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THE ROLE OF CEO STATEMENTS OF AGGRESSIVENESS AND THE
COMPETITIVE AGGRESSIVENESS OF FIRMS: WHAT IS THE IMPACT ON
PERFORMANCE?

Benjamin John Blackford, Ph.D.
University of Nebraska, 2010

Adviser: Lester A. Digman

This research examines the impact of a CEO’s statements of aggressiveness on his or her organization’s competitive moves and subsequent performance. Hypotheses were developed based on previous work in Upper Echelon Theory and competitive dynamics. Based on this prior literature, it was hypothesized aggressive statements by CEOs will be associated with more aggressive organizations. It was also hypothesized these more aggressive organizations would display better performance than less aggressive organizations. A content analysis of letters to shareholders and trade publications was performed. This data was analyzed using multiple regression in SPSS 17 to test the hypotheses that aggressive statements by CEOs are associated with aggressive organizations and higher performance. Aggression scores for the content analysis were generated using the software package DICTION. The sample for the study was the organizations with the most revenue in two industries, automobile manufacturing and retailing. Data collection covered a five-year time span from 2003-2007, with performance data lagged one year. Control variables employed included CEO tenure,
CEO background, organization size, and organization age. The findings indicate that CEO statements of aggressiveness do not significantly impact the competitive aggressiveness or the performance of their organizations. The implications of these findings are discussed and potential avenues for future research in the area are outlined.
Dedication and Acknowledgements

I would like to acknowledge my dissertation committee, everyone I worked with at the University of Nebraska-Lincoln, and the friends and family that made this all possible.
## Table of Contents

<table>
<thead>
<tr>
<th>Chapter 1: Overview of the Study</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1 Upper Echelons and Top Management Teams</td>
<td>4</td>
</tr>
<tr>
<td>1.1.2 Managerial Discretion</td>
<td>5</td>
</tr>
<tr>
<td>1.1.3 Top Management and Organization Performance</td>
<td>6</td>
</tr>
<tr>
<td>1.1.4 Competitive Dynamics, Hypercompetition, and Competitive Aggressiveness</td>
<td>7</td>
</tr>
<tr>
<td>1.1.5 Competitive Aggressiveness</td>
<td>8</td>
</tr>
<tr>
<td>1.1.6 Organization Performance</td>
<td>10</td>
</tr>
<tr>
<td>1.2 Statement of the Primary Research Question</td>
<td>11</td>
</tr>
<tr>
<td>1.3 Additional Research Questions</td>
<td>12</td>
</tr>
<tr>
<td>1.4 Proposed Research Model</td>
<td>13</td>
</tr>
<tr>
<td>1.5 Methodology of the Study</td>
<td>14</td>
</tr>
<tr>
<td>1.6 Importance of the Study</td>
<td>15</td>
</tr>
<tr>
<td>1.7 Structure of the Dissertation</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 2: Literature Review and Hypotheses</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Literature Review</td>
<td>17</td>
</tr>
<tr>
<td>2.1.1 Upper Echelon Theory Overview</td>
<td>18</td>
</tr>
<tr>
<td>2.1.2 Initial Empirical Upper Echelon Theory Research</td>
<td>19</td>
</tr>
<tr>
<td>2.1.3 Impact of Managerial Characteristics</td>
<td>20</td>
</tr>
<tr>
<td>2.1.4 Performance Impact in Upper Echelons Research</td>
<td>23</td>
</tr>
<tr>
<td>2.2 Managerial Discretion</td>
<td>28</td>
</tr>
<tr>
<td>2.2.1 Determinants of Discretion</td>
<td>29</td>
</tr>
<tr>
<td>2.2.2 Assessing Managerial Discretion</td>
<td>32</td>
</tr>
<tr>
<td>2.2.3 Impact of CEOs with Discretion</td>
<td>34</td>
</tr>
<tr>
<td>2.3 Competitive Aggressiveness</td>
<td>42</td>
</tr>
<tr>
<td>2.3.1 Development of Competitive Aggressiveness</td>
<td>43</td>
</tr>
<tr>
<td>2.3.2 Dimensions of Competitive Aggressiveness</td>
<td>44</td>
</tr>
<tr>
<td>2.3.3 Factors Influencing Competitive Aggressiveness</td>
<td>46</td>
</tr>
<tr>
<td>2.3.4 Competitive Aggressiveness as an Independent Variable</td>
<td>49</td>
</tr>
<tr>
<td>2.4 Hypotheses</td>
<td>53</td>
</tr>
</tbody>
</table>
List of Multimedia Objects

Figure 1.1 Proposed Research Model \hspace{5cm} 14

Figure 2.1 Research Model with Hypotheses \hspace{5cm} 54

Table 3.1 Content Analysis Identifiers \hspace{5cm} 79

Table 4.1 Descriptive Statistics \hspace{5cm} 88

Table 4.2 Bivariate Correlations \hspace{5cm} 89

Table 4.3 Results of CEO and Organization Aggressiveness Regression \hspace{5cm} 92

Table 4.4 Results of Organization Aggressiveness and ROA Regression \hspace{5cm} 93

Table 4.5 Results of Organization Aggressiveness and ROI Regression \hspace{5cm} 94

Table 4.6 Results of CEO Aggressiveness and ROA Regression \hspace{5cm} 95

Table 4.7 Results of CEO Aggressiveness and ROI Regression \hspace{5cm} 96

Figure 4.1 Path Analysis Model for CEO Aggressiveness and ROA \hspace{5cm} 96

Figure 4.2 Path Analysis Model for CEO Aggressiveness and ROI \hspace{5cm} 96

Table 4.8 Results of Aggressiveness Interaction and ROA Regression \hspace{5cm} 97

Table 4.9 Results of Aggressiveness Interaction and ROI Regression \hspace{5cm} 98

Table 4.10 ROA ANOVA \hspace{5cm} 99

Table 4.11 ROI ANOVA \hspace{5cm} 99

Table 5.1 Comparison of Industries \hspace{5cm} 108
Chapter One:
Overview of the Study

1.1 Introduction

In these difficult times as the economy has shifted from a period of growth to one of the worst recessions in history, we are reminded of the responsibility that is ascribed to CEOs and their impact on their respective organizations. “Rock star” CEOs are showered with praise in the popular press for successfully leading organizations through these difficult times while others are vilified for their role in an organization’s collapse. For example, the impact of Steve Jobs was recently summed up in a *Washington Post* article with the quote “maybe no American chief executive is perceived as being more crucial to his company’s future than Jobs is to Apple’s” (Ahrens, 2009). On the other hand, Conger and Nadler (2004) provide a long list of recent high-profile CEOs who had short tenures, among them Richard McGinn at Lucent Technologies and Douglas Ivester at Coca-Cola. Conger and Nadler go on to note CEO failure after a short time with the organization often results in the blame falling on one individual, the CEO, regardless of other forces involved in the situation.

The impact that top management can have on their organizations is widely recognized in academic literature. As noted by Hambrick and Mason (1984), there was widespread anecdotal evidence of this influence long before their initial development of Upper Echelon theory, which now provides the basis for much of the research in the area.
This seminal work in the strategy literature outlined the potential for organizational outcomes to be studied as a reflection of the dominant coalition in the organization (top management). In doing so, Hambrick and Mason drew on prior work examining the behavioral factors that influence decisions (Cyert & March, 1963; March & Simon, 1958) and the strategic choice viewpoint (Child, 1972), which is important because, without choice, there would be no opportunity for top management to influence the eventual outcomes of their organizations (Hambrick & Finkelstein, 1987). They also addressed concerns with research of the time that attempted to show top management did not matter and that other factors, such as the environment, had more of an impact on the outcomes achieved by organizations.

The answers to the primary questions surrounding this topic – how much freedom do managers have to choose and to what extent do these choices impact the organization – have been a topic of discussion since the beginnings of the discipline. Flynn and Weiss (1987:160) identified this conversation as “one of the most heated debates” in the last 15 years of strategy and organization theory research. There are a number of alternative theories that present competing answers to these questions. Murray (1976) presented in his research that managers did not formulate strategy so much as they negotiated it with powerful external parties. The influence of and limitations resulting from the environment and actors in the environment is a common theme across many of the alternative explanations. Some of the most commonly cited include Resource Dependence (Pfeffer & Salancik, 1978), Population Ecology (Hannan & Freeman, 1984),
Institutional Theory (DiMaggio & Powell, 1983), and Contingency Theory (Lawrence & Lorsch, 1967). To add to the debate, both approaches can cite research that supports their view (Flynn & Weiss, 1987; Murray Jr, 1976). Bourgeois (1984) expressed concern that, while such deterministic theories may be useful for research purposes, their use would reduce the richness of the strategy process and possibly constrain future advancement within the discipline of strategic management.

If top management does have a choice and can influence the strategy an organization pursues, then what are the implications for the performance of the organization as a result of these choices? This is an area that has received a great deal of empirical attention in the literature across a variety of contexts and management characteristics, although it is also not without varying viewpoints and empirical outcomes. Mackey (2008), for example, found the effects of CEOs on firm performance to be greater than that of the industry or corporation. Research by Beatty and Zaja (1987) shows stock market participants believe CEOs matter, finding a relationship between stock price and the announcement of CEO succession. On the other hand, the results of a study by Murray (1989) revealed a significant difference across industries in the impact of top management teams on performance, with only one of the four characteristics identified having a relationship with performance for one of the industries in the study.

It is against this background that this study seeks to enrich the literature by examining how top management, specifically CEOs, can influence the actions and performance of their organizations by considering the aggressiveness of statements made
by CEOs. In order to properly address this issue, this work draws from research on Upper Echelon Theory, competitive dynamics, and organization performance.

**1.1.1 Upper Echelons and Top Management Teams**

Taking the approach prescribed by an Upper Echelon viewpoint provides three benefits, as outlined by Hambrick and Mason (1984a) in their initial article. The first of these is the potential for improved prediction of organization outcomes. The second is the possibility of providing practical advice on how to effectively develop and select executives. Finally, taking this approach may allow the results to be used by executives as a guide to help them predict what strategies and responses their competition will likely pursue. It is at this intersection between top management and competitive dynamics where this study is focused.

As mentioned earlier, Upper Echelon theory has been applied in a number of contexts as well as in studies utilizing a wide variety of variables and considering several important moderators. An example of one such moderator is executive job demands, which seeks to explain how the difficulty of a top management position influences strategic decisions (Hambrick, Finkelstein, & Mooney, 2005). Although there has not yet been a direct test of the propositions related to executive job demands, the theory is that those facing greater job demands will, in general, tend to rely on their own heuristics to help them deal with the high demands, allowing their personal characteristics to have a greater impact on the organization’s outcomes.
1.1.2 Managerial Discretion

Managerial discretion was introduced as a moderator that helped to bridge the gap between Upper Echelon Theory and Institutional Theory and Population Ecology (Hambrick et al., 1987). This moderator provides insight as to under what circumstances top management may or may not have an impact on the organization. When top managers are provided more discretion, they will have the opportunity to influence organization outcomes. In situations where top managers are not provided much discretion, their impact on the organization will be lessened or possibly eliminated.

It is also important to note here the inclusion of Upper Echelon theory in the larger context of strategic leadership. Strategic leadership has been defined as “focuses on the people who have overall responsibility for an organization – the characteristics of those people, what they do, and how they do it” (Hambrick, 1989:6). Strategic leaders must handle tasks that involve a wide range of activities within the organization (i.e. operations, finance, etc.) while considering the external and internal factors that may impact the organization (Hambrick, 1989). All of this is within a context of complexity, ambiguity, and information overload; a fact that is recognized in the Upper Echelon approach. The relationship between strategic leadership and Upper Echelons is most apparent in the study of how strategic leadership impacts the ultimate behaviors and outcomes of the organization (Hambrick, 1989). The importance of this area of study was noted by Schendel (1989), who stated that those individuals at the top level of organizations must be worthy of study because they are regarded as important and
unique, along with evidence suggesting that strategic leadership differs from leadership at other levels of the organization.

1.1.3 Top Management and Organization Performance

The connection between top management teams and the performance of organizations is an important link that has received a great deal of attention in the literature. A popular example from the literature is top management team heterogeneity (or the lack thereof). Heterogeneity has been found to have an impact on firm performance, although the magnitude of this impact may also depend on other factors, such as industry (Murray, 1989). Pegels, Song, and Yang (2000) went a step further and found performance implications for top management team characteristics regarding how well team heterogeneity matched with other teams in the firm’s competitive group.

In addition, this connection has been studied in firms of varying sizes and ages, not just large, multi-national organizations. Top management team size and heterogeneity have been considered along with the novelty of the organization in the context of new ventures (Amason, Shrader, & Tompson, 2006) in regards to performance. As for different sizes of organizations, Lubatkin, Simsek, Ling, and Veiga (2006) found a relationship between top management team behavioral integration and ambidextrous orientation, a relationship which was related to performance, in small- and medium-sized organizations.
1.1.4 Competitive Dynamics, Hypercompetition, and Competitive Aggressiveness

Another foundation of this research is the literature on competitive dynamics and, within the area, hypercompetition and competitive aggressiveness. The competitive dynamics literature focuses on how competitive advantages, competitors, and performance (of the firm and the industry) are impacted by the actions and reactions of those firms in competition (Smith, Ferrier, & Ndofor, 2001). Competitive dynamics research has been noted as focusing on the observable characteristics of market moves such as speed, simplicity, and, most applicable for this study, aggressiveness (Grimm, Lee, & Smith, 2005). Chen, Smith, and Grimm (1992) outlined the importance of responses to actions among competitors, developing four important characteristics of actions that will help identify the likely response: competitive impact, attack intensity, implementation requirement, and type of action.

Three primary characteristics of competitive dynamics research are laid out by Smith et al. (2001): a focus on the real behaviors and actions of firms, competitive interdependence, and connecting these actions and reactions to their performance consequences. Based on their review of competitive dynamics literature, Smith et al. (2001) state there is generally considered to be a strong connection between competitive actions/reactions and the top management of an organization, a connection important to this research that will be revisited later. They also note an important link in the literature between aggressive actions and improved performance – a link related to the expected outcome of one of the primary research questions in this study.
Empirical work in the area has addressed a variety of potential factors exerting an influence on the competitive dynamics of an industry. The number of responses and the speed of these responses have been associated with a number of factors including the number of competitors impacted by the action and the threat posed by such actions (Chen, Smith, & Grimm, 1992b). While Chen et al. (1992b) addressed only responses, Chen and MacMillian (1992) added to the research on competitive dynamics by including competitive situations in which there was no response. This allowed the authors to present insights into what may lead to a lack of response to a competitive action, including the irreversibility of the potential response and the competitor’s dependence on the market segment in which the action was taken.

1.1.5 Competitive Aggressiveness

Competitive aggressiveness has been associated with a wide range of dimensions (Covin & Covin, 1990), including Porter’s generic strategies (1985), first-mover advantages (Lieberman and Montgomery, 1988), and preemptive strategies (MacMillan, 1983). Ferrier (2001) outlined the dimensions of a competitive attack and how these could influence competitive aggressiveness. The four dimensions that are related to competitive aggressiveness are attack volume, duration, complexity, and unpredictability. Ferrier also found that top management team characteristics – in this case heterogeneity – could influence competitive aggressiveness through some of the dimensions mentioned above. These results also presented evidence of a relationship between competitive
aggressiveness and firm performance in the form of market share. In a related study, Ferrier and colleagues (2002) found current performance can also influence competitive aggressiveness, with firms that had been poor performers displaying less competitive aggressiveness. On the other hand, competitive aggressiveness, in combination with top management characteristics, has also been presented as a potential source of competitive advantage leading to improved performance (Lin, 2006).

The context in which the organization operates also influences competitive aggressiveness. Prior research suggests that poor performing firms in industries with high barriers to entry will actually compete more aggressively (Ferrier, Mac Fhionnlaoich, Smith, & Grimm, 2002b). Competitive aggressiveness has also been utilized in the Entrepreneurship literature through, among other applications, its inclusion in Lumpkins and Dess’s (1996) entrepreneurial orientation construct. Covin and Covin (1990), in their application of competitive aggressiveness in a small business context, suggest the technological sophistication and hostility present in an organization’s environment will influence the performance outcomes of competitive aggressiveness. This leads to the final foundation for this study – discussion of organization performance measures.

1.1.6 Organization Performance

A variety of methods for measuring organization performance have been presented. In the strategy literature, these measures take on an additional level of
importance given the need in the discipline to interpret performance data (Bowman, Singh, & Thomas, 2002) and the traditional focus on those factors that influence performance (Hoskisson, Hitt, Wan, & Yiu, 1999). This emphasis on performance is also mentioned by Rumelt, Schendel, and Teece (1991), who note the strategy discipline’s focus on strategic processes and the performance consequences of these processes. Finally, inclusion and appropriate measurement of performance is important because of the practical suggestions that may be made available to practicing managers (Venkatraman & Ramanujam, 1987). To this end, the search for and identification of effective measures of performance are often discussed in the literature.

Venkatraman and Ramanujam (1986) call the difficulty measuring performance in organization settings one of the “thorniest” issues that an academic researcher must face. Their overview of performance measures views such measures in strategy as a subset of organization effectiveness that includes financial and operational performance measures. A follow-up article by Venkatraman and Ramanujam (1987) classified measures of performance by data source (primary or secondary) and mode of assessment (objective or perceptual). The results of a convergence analysis in the article provided evidence that there is not necessarily one superior method of analyzing organization performance.

Within the other areas that serve as the foundation for this research, a wide variety of performance measures have been utilized. For the Upper Echelon stream, one study utilized sales growth, profitability, and stock market returns (Amason et al., 2006), while another focused on CEO self-report of market share growth, sales growth, return on
equity, and return on assets relative to competitors (Lubatkin, Simsek, Ling, & Veiga, 2006). The competitive dynamics stream provided performance measures such as abnormal stock returns (Ferrier & Hun, 2002a) and a 5-point Likert scale considering respondent satisfaction with current organization performance on nine items, including cash flow, net profit, and return on investment (Covin et al., 1990) that had been adapted from a prior study (Gupta & Govindarajan, 1984). It should be noted the sample of some of the cited studies were small businesses, while others included large corporations.

1.2 Statement of the Primary Research Questions

The preceding discussion has examined the Upper Echelons literature regarding the potential for CEO characteristics to influence the outcomes of organizations. However, in spite of the research in the area, questions still remain regarding how the top management team influences the decision process (Papadakis, 2006; Papadakis & Barwise, 2002) and what the eventual outcomes of these processes are (Rajagopalan, Rasheed, & Datta, 1993). If we assume that organizations do become a reflection of their top managers, then what happens when a CEO makes statements of aggressiveness? This leads to the first primary research question, “Are organizations with aggressive CEOs more likely to undertake aggressive competitive actions?”

An important characteristic of Strategy research is the focus on the performance impacts of the various factors examined (Venkatraman et al., 1987). Various studies have examined the link between managerial characteristics and the outcomes for which
the manager is responsible (i.e. Gupta and Govindarajan, 1984; Gupta, 1984). Thus, this study would be ignoring one of the founding tenants of strategy research if the impact on performance was not included. This leads to the second primary research question, “Do organizations whose strategic actions are in alignment with the aggressiveness of their CEOs perform better?”

1.3 Additional Research Questions

Gupta (1984) noted that the important question when studying the impact of top management is no longer if they matter, but how much they matter. Gupta calls for research to take into account various aspects of the environment when examining the impact of management on strategy. In a related study on the impact of CEOs on the decision process itself, Papadakis (2006) suggested that context variables have a greater impact than the CEOs themselves. In order to address this concern, the following additional research questions are presented.

- “Is the relationship between CEO aggressiveness, aggressive strategic moves, and organization performance affected by CEO tenure or functional expertise?”
- “Is the relationship between CEO aggressiveness, aggressive strategic moves, and organization performance affected by firm age or size?”
- “Is the relationship between CEO aggressiveness, aggressive strategic moves, and organization performance affected by industry?”
1.4 Proposed Research Model

It is proposed by this research model that CEO statements of aggressiveness will influence the competitive aggressiveness of the organizations they lead, as well as the performance of the organization. The competitive aggressiveness of the organizations is proposed to also impact firm performance. The model also considers the possibility that it is the interaction of CEO statements of aggressiveness and organization competitive aggressiveness that influences organization performance. These relationships are discussed in greater detail and formal hypotheses developed in Chapter Two.

![Figure 1.1 Proposed Research Model](image-url)
1.5 Methodology of the Study

In order to answer these research questions, a sample of the 20 largest organizations in two different industries (automobile manufacturers and retailers) was pursued, providing a potential sample of 40 organizations. The selection of the largest companies helps ensure that sufficient data points will be available, while the selection of two different industries allows for identification of industry effects. DICTION software was utilized to perform a content analysis of various sources such as letters to shareholders and trade publications in order to gather data regarding the aggressiveness of CEOs and their organizations. This information was combined with publicly available performance data to test the hypotheses utilizing multiple regression in SPSS 17. Data was collected for the period from 2003-2007 and performance was lagged one year in order to provide time for strategic moves to have an impact.

1.6 Importance of the Study

In order to understand the reasons organizations take the actions that they do, it is important to know the various characteristics of top management and how these characteristics affect firm performance (Cannella Jr, 2001). The strategic actions of organizations do not take place unless top management makes the decision to do so (Smith et al., 2001). These characteristics of top management have regularly been identified as an important area for continued research in the strategy literature (Hambrick and Mason, 1984) and as having an impact on the performance of the firm (Patzelt, zu
Knyphausen-Aufse, & Nikol, 2008; Pegels, Song, & Baik, 2000). The present study also answers calls in the literature seeking increased attention to the psychological aspects influencing strategy (Hodgkinson & Sparrow, 2002). Another area of research whose understanding would be expanded by the results of this study is that of competitive dynamics. As noted by Smith, Ferrier, and Ndofor (2001), there is a need for research that seeks to include facets from within the organization in the study of actions and reactions in the competitive dynamic between organizations.

As previously noted, research on Upper Echelons can provide an opportunity to improve prediction of organization outcomes for both researchers and practicing executives (Hambrick and Mason, 1984). While Hambrick and Mason’s original work called for the use of background characteristics to predict behavior (due to the difficulty examining psychological characteristics), this research seeks to add another facet. More recently, Hambrick (2007) called for more research examining the actual psychological processes at work in the theory.

1.7 Structure of the Dissertation

This initial chapter has presented the topic for this study, examined the importance of this research to the field of strategy, and outlined the research questions to be addressed by the study. The following chapter provides a more detailed review of the literature in the area of Upper Echelon theory and the implications of a CEO’s impact on firm performance. The review also includes an overview of the literature on competitive
aggressiveness. Immediately following the literature review in Chapter 2, hypotheses are
developed with regard to the relationships outlined above and the research model. The
research design, measures, sample, and methodology are the focus of Chapter Three.
Chapter Four will present the results of the data analysis and discussion of individual
hypotheses. Finally, Chapter Five includes a discussion of the study results, implications
for researchers and practitioners, limitations of the study, and suggestions for future
research.
Chapter Two:

Literature Review and Hypotheses

As was discussed in Chapter One, this research seeks to study the relationships between CEO statements of aggressiveness, aggressive competitive moves, and organization performance. This chapter presents development of hypotheses related to these relationships and a discussion of the related literature. It also discusses where this study fits in the literature and provides support for the importance of studying these relationships. This chapter is divided into three sections. The initial section of the chapter provides an overview of extant research in the area of Upper Echelon Theory. The next section presents the empirical and theoretical work in the area of management discretion, a subset of Upper Echelon Theory, which provides the basis for the assertion that characteristics of top management, in this case CEOs’, impact organization performance. Third, research in the area of competitive dynamics and, more specifically competitive aggressiveness, is examined with regards to how such behaviors may influence firm performance.

The literature review is followed by development of hypotheses and presentation of the research model. The first relationship considered is that of CEO aggressiveness and the firm’s eventual aggressive competitive moves or lack thereof. This relationship is developed by utilizing the theoretical foundation of management discretion (Hambrick et al., 1987). Next, the link between aggressive competitive moves and organization
performance is developed based on the literature on competitive aggressiveness and competitive dynamics. The third association considered is that of CEO aggressiveness and organization performance. Finally, prior research from the above areas is integrated to develop hypotheses with regards to how the interaction of CEO aggressiveness and the aggressiveness of organizations may influence organization performance.

2.1 Literature Review

This section of Chapter Two provides an overview of the work in Upper Echelon Theory. While the primary focus is on management discretion as a theoretical underpinning for why CEO aggressiveness will impact organization aggressiveness, it is important to place it in the proper context. In this case, management discretion was developed from and has its basis in Upper Echelon Theory. Following the overview of Upper Echelon Theory, extant research examining management discretion is reviewed. This review of the area will include discussion of factors such as what influences the amount of discretion a top manager may have and what are the consequences of varying levels of discretion. The final section of the literature review focuses on competitive aggressiveness, what competitive moves are generally considered aggressive, and the performance implications of these actions for firms.
2.1.1 Upper Echelon Theory Overview

Upper Echelon Theory was initially developed by Hambrick and Mason in 1984. Their approach was to go beyond the anecdotal evidence supporting the view that organization outcomes are a reflection of the cognitions and values of top management and develop an approach that would allow for empirical tests of the hypothesis. They also outlined three benefits of using an Upper Echelons perspective: better opportunity for scholars to predict organization outcomes, better selection of executives, and prediction of competitive moves by practicing managers.

The theory is based on the belief that managers cannot possibly interpret everything occurring in their environment. This process is limited even more by the manager perceiving only some of the factors that remain. Those factors that are identified in this selective perception process will then be interpreted by the top manager in a manner consistent with their personal biases and cognitions. In order to help identify how managers may impact strategic decisions through these processes, Hambrick and Mason suggested a focus on characteristics of managers that could be readily observed, such as demographics. This was done in order to address the difficulties that arise in collecting psychological data from top managers, the need to obtain easily observable measures, and to take advantage of characteristics that may not have a related psychological counterpart. This supports the approach that is taken in this study, using public statements as an observable proxy for the managerial characteristic of aggressiveness. Hambrick and Mason outlined a number of characteristics and their
potential influences including age, functional track, formal education, socioeconomic background, and financial position. Many of these characteristics have been empirically studied in order to test Hambrick and Mason’s propositions and several of these studies are presented later in this literature review.

2.1.2 Initial Empirical Upper Echelon Theory Research

One of the first studies to offer an empirical test related to Upper Echelon Theory was that of Chaganti and Sambharya (1987). Their study considered the relationship of top management functional backgrounds and career histories with regards to how prevalent they would be in organizations displaying specific approaches from Miles and Snow’s (1978) typology of strategies. They did find support for their hypothesis that having more individuals hired from outside the organization as part of the top management team would be true of firms pursuing an analyzer approach. However, they also suggest the importance of examining the link between environmental characteristics and top management characteristics when examining inter-industry situations. Although the sample of organizations was somewhat limited, their research did present a relationship between management characteristics and the strategy pursued by these organizations. Kerr and Jackofsky (1989) also considered links between management characteristics and other factors; selection versus development of top management in relation to matching management skills and organization strategy in this case. They
propose that organizations with top managers whose characteristics align with the strategy will be more effective.

While Kerr and Jackofsky considered matching top management to strategies, Noel (1989) examined the effect CEOs have on the formulation of strategies. Noel observed CEOs for a month to develop propositions regarding the impact that they have on strategy formulation. One important proposition was that the CEO will determine a strategic core, which will influence what strategic issues receive attention within the organization. Noel also presents CEOs as providing continuity within the organization and that their obsessions will have a major influence on the organization’s strategy and how the CEOs operate. The overall result of this research was that strategies in the organizations studied developed from the CEOs transforming their intentions into daily actions.

One of the first attempts to understand the psychological processes explaining how observed characteristics of top management influence organization outcomes was undertaken by Hambrick, Geletkanycz, and Fredrickson (1993). In order to do so, they focused on the top manager’s commitment to the status quo as the psychological factor. Their work provided a number of factors, such as tenure and current organization performance, which could lead to an increased commitment to the status quo. The results present a number of factors that are positively related to commitment to the status quo including industry tenure (which was not simply a proxy for age and was stronger than organization tenure) and, to a point, current organization performance. It is interesting to
note that the amount of perceived managerial discretion, the subject of the next section of
the literature review, moderated how current organization performance impacted
commitment to the status quo. As for the impact on potential organization outcomes,
factors such as industry tenure and current firm performance influenced commitment to
the status quo with regards to the organization’s strategy and future leadership.

In line with discussion of the organization’s future leadership, Miller’s (1993)
research, while not specifically mentioning an Upper Echelon approach, provides
additional support for the impact of CEOs on their organizations by studying the
organization consequences of a CEO succession. One impact on the organization that
resulted from changing CEOs was a wider distribution of power within the organization.
The results also showed that CEO successions were related to changes in strategies and
structures for the organizations. Another study on succession that provides similar
insights is that by Wiersema (1992). In this study, Wiersema ties different types of
succession events (new CEO is an insider or an outsider) to the changes in organization
strategy that follow. The hypothesis, based on factors such as promotion of similar
individuals in the case of internal succession and escalation of commitment, which stated
that external succession would lead to greater strategic changes following the succession,
was supported. This supports the assertion that the characteristics of those promoted in
the succession event had an impact on the strategic choices that followed, a finding in
line with the importance and uniqueness of succession events as outlined by Kesner and
Sebora (1994).
2.1.3 Impact of Managerial Characteristics

Researchers have also addressed specific areas of strategy differences based on top management characteristics. One such study was that by Sambharya (1996), which sought to determine the relationship between the top management team backgrounds and international diversification strategies of their organizations. This was one of the first studies to consider Upper Echelon theory in an international context. The study considered a number of top management team characteristics that could be related with higher amounts of international diversification including mean years of international experience, heterogeneity of international experience, and proportion with international experience among the top management team. In general, the results showed a positive relationship between the aforementioned factors and the amount of international diversification in a firm. However, it is noted that it may be possible the top management teams might have gained that international experience because they worked for an organization that was already diversified in such a way.

A different approach to studying Upper Echelons in an international context was taken by Wiersema and Bird (1996). They hypothesized that two fundamental assumptions would hold across cultures, the United States and Japan in this case. One such assumption was that the competencies needed to successfully pursue a strategy would vary depending upon the strategy pursued. The other assumption was that the skills and cognitions of managers will differ. Their findings supported the two previously mentioned assumptions. However, there were some relationships found in research
performed in the United States that did not generalize to the Japanese sample. Functional backgrounds of top management did not have the same impact in Japan as in the United States. This was suggested as being due to Japanese managers obtaining a broader understanding of their organizations regardless of functional background. They also found that the diversity in traits among top management was more important than the traits themselves.

Diversity was also at the center of the approach taken by Miller, Burke, and Glick (1998). This research considered the diversity in cognitions among the top management team, suggesting that previous mixed results with regards to executive diversity was due to a focus on demographic diversity or not considering process variables. Diversity among top management has been identified with both positive and negative effects. Some arguments that support positive effects include diversity leading to awareness of more issues and the need to resolve disagreements leading to additional resources being made available. Disagreements over deeply-ingrained opinions that will not be compromised and difficulty communicating among those with different cognitions are cited as supporting arguments for the position that diversity has a negative effect. The main focus of the article was to identify which position is correct with regards to the comprehensiveness of strategic planning and decision-making. In general, the results supported the view that the downsides of cognitive diversity overcome the positive benefits from such diversity.
Returning to the topic of managerial discretion across national boundaries, Crossland and Hambrick (2007), Crossland (2007), and Crossland (2009) provide additional insights into how the environment within different countries affects managerial discretion. Each study considered different antecedents stemming from national differences that would impact the discretion of managers within countries. Crossland (2007) included labor market flexibility, ownership structures, cultural values, and legal traditions. Crossland and Hambrick (2007) also considered values and ownership structures, but added board governance as their third antecedent. The two studies also varied in the number of countries included in the analysis and the approach to identifying impacts on managerial discretion. Crossland (2007) included 24 countries and utilized the four variables already mentioned to develop a taxonomy of discretion groups: high-discretion, norm-constrained, rule-constrained, and low-discretion.

On the other hand, Crossland and Hambrick (2007) included only three countries in their study and developed a foundation for their hypothesis that CEOs in the U.S. have greater discretion and, thus, greater impact on firm performance, than CEOs in Japan or Germany. CEOs from the U.S. accounted for more performance variance than their Japanese counterparts for all of the dependent performance variables (return on assets, return on sales, sales growth, and market-to-book value). The results were not as consistent when comparing U.S. and German CEOs, but overall still supported the hypothesis that U.S. CEOs have a greater impact. Utilizing strategic choice variables such as total assets divided by number of employees, Crossland and Hambrick (2007)
also provided insights as to how the level of discretion available impacts changes in such variables. Although other variables such as industry explained more variance in the analysis, they still found some support for the hypothesis that those CEOs with greater discretion could have more influence on such variables.

Crossland (2009) considered 15 countries and 746 organizations over a ten-year timeframe in order to examine the construct validity of discretion at a national level of analysis. This study included many of the same variables mentioned in the prior two studies including legal traditions and cultural norms related to autonomy and tolerance of unpredictability. Once again, the results supported the hypothesis that greater managerial discretion is associated with a larger impact of CEOs on firm performance. Specifically, this relationship held true for return on assets, return on invested capital, return on sales, and market-to-book ratios.

While Miller and colleagues examined the differences in cognitions, several studies have addressed the issue of what causes these differences. Chattopadhyay et al (1999) sought to determine the process by which executives come to have these differing cognitions. They attempted to do so by comparing two competing theories: executive beliefs are shaped by their functional background and executive beliefs are formed based on the beliefs of other members of the Upper Echelon. While their results did not allow for a determination of causality, the results did generally support the theory that the beliefs of the top management of an organization are more closely related to the beliefs of other top managers as opposed to the top manager’s functional background. Their
suggestion based on the findings is that further examination of functional backgrounds may not be a good area for future research. Overall, their study provides important insights into an antecedent of one aspect of top managers that may influence organization outcomes.

The innovation of an organization was identified by Bantel and Jackson (1989) as the dependent variable of interest for their Upper Echelon research. Top management characteristics explained more variance in innovation than either the size of the organization or the location. This research provided good support for the Upper Echelon perspective by looking at another potential organization outcome (innovation) and considering a wide range of top management characteristics.

A unique approach in Upper Echelon literature was taken by Hambrick and Cannella (2004) and Marcel (2009). Combined, these two articles provide insights into various factors that may lead to the top management team including a COO and the performance implications thereof. One interesting finding from these studies was that CEO characteristics such as functional background (Hambrick & Cannella Jr, 2004) were related to the likelihood of having a COO. With regards to performance, the two studies varied in their findings. While Marcel’s research found a positive relationship between having a COO and firm performance, having a COO was identified with lower firm performance in the study by Hambrick and Cannella. Marcel suggests this may be due to the different industries used in the samples and the data collection approach (cross-
sectional for Marcel and longitudinally over the CEO’s tenure for Hambrick and Cannella).

2.1.4 Performance Impact in Upper Echelons Research

As mentioned previously, the focus on performance impact is common in the strategy literature in general and also within Upper Echelons research. CEOs have been found to exert a significant effect on firm performance. For example, CEOs accounted for 29.2% of the variance in firm performance, a much larger portion than either firm (7.9%) or industry (6.2%) in a study by Mackey (2008). Mackey’s study found that CEOs accounted for the largest portion of variance in segment performance as well when compared to the same two alternatives. Mackey also mentions limitations that may coincide with the amount of managerial discretion a CEO has, a topic that is reviewed in the next section.

Combining management backgrounds with performance (stock price in IPOs) is suggested by Zhang and Wiersema (2009), who take a different approach to the impact of CEOs on firm performance. Their study considers how CEO backgrounds, a common Upper Echelon component, signals firm quality and influences IPO valuation; although variables such as CEO age were also included in the analysis. In this case, the background characteristic examined was CEO certification under SEC regulations in which CEOs must sign off on financial reports that could later lead to legal action if such reports are found to be incorrect. Their findings suggest that there is indeed a
relationship between CEO characteristics, CEO certification, and abnormal returns in an IPO.

The performance impact in Upper Echelons research has also considered competitive dynamics and strategic human resource management (SHRM) (Lin & Shih, 2008). The unique contribution of Lin and Shih (2008) was the use of Upper Echelons and competitive aggressiveness to explain how SHRM systems can impact firm performance as a potential competitive advantage. Overall, it appears that SHRM systems can impact top management characteristics, which in turn influence firm aggressiveness, leading to improved performance. However, it should be noted that the mediation effect was only partial, suggesting that there are other important factors.

As can be seen from the review, a number of CEO characteristics have been shown to impact a variety of aspects related to their organizations. However, personality has not been heavily researched. While the literature suggests that CEO personality may have an impact, few studies have addressed this empirically. This is an area in the research the present study seeks to address.

2.2 Managerial Discretion

The Upper Echelon view was initially at odds with other approaches such as population ecology (Hannan et al., 1984) and the inertial view (Hall, 1977) that organizations are, to a point, at the mercy of external events. While these views posited that managers matter very little if at all in the ultimate outcomes of the organization,
Upper Echelon Theory was based on the Strategic Choice (Child, 1972) approach that top managers do matter and their decisions can influence the organization. Some have suggested that rather than asking if top management matters, research should focus on how much top management matters (Papadakis et al., 2002). In order to help bridge these two views, Hambrick developed managerial discretion, which presents to what extent managers will be able to influence organization outcomes.

Managerial discretion, while previously mentioned in the management literature (Montanari, 1978), was first defined in the academic management literature by Hambrick and Finkelstein (1987) with the aforementioned intention of providing a connection between deterministic and choice theories. While the term has also been utilized in the economic literature in regards to the freedom to pursue self-interest (Shen & Cho, 2005), the primary focus here will be on Hambrick and Finkelstein’s approach.

Managerial discretion has also been utilized to connect the resource dependence approach and stakeholder theory (Berman, Phillips, & Wicks, 2005). Managerial discretion was utilized because it had been previously used to discuss competing theories when one provides a great deal of credit to management and the other does not. Berman et al.’s (2005) hypotheses all took a resource dependence approach and were not supported. Support was found for the moderating effect of managerial discretion with regards to resource dependence and the relationship with stakeholders.

Contingency Theory has also been the subject of research that utilized managerial discretion to address theoretical disagreements. Peteraf and Reed (2007) addressed
charges of determinism leveled against Contingency Theory by providing discretion as the mechanism through which managers actively attempt to adapt to various constraints. The research utilized the airline industry surrounding the time of deregulation to take advantage of the opportunity provided by the change in discretion; low discretion under regulation and higher discretion following deregulation. The results show that external factors such as regulation do impact the discretion of managers both directly (operational options that are available) and indirectly (administrative practices). When applied to Contingency Theory, the results support the view that fit with the environment outperforms a “best practice”. At the intersection of Contingency Theory and managerial discretion, they found that managers used their new discretion to change the approach of the organization to better fit the new environment and to take actions in higher discretion areas in an attempt to address lower discretion areas.

The use of the airline industry as a sample has been popular due to the ability to examine the effects of regulation and deregulation. Goll, Brown-Johnson, and Rasheed (2008) examined the airline industry from 1972 to 1995, utilizing regulation and deregulation as proxies for the amount of managerial discretion. Their results showed that various characteristics of top management were related to organization outcomes and strategies; however, the relationship was affected by firm context, industry regulation in this instance.

When applied to Stakeholder Theory, managerial discretion has been proposed as addressing the gap between determinism and managerialism (Phillips, Berman, Johnson-
Cramer, & Elms, 2007). As utilized before, managerial discretion provides an explanation for how managerial choices may vary in the impact they can have. As Phillips et al. point out, this is a unique case where managerial discretion may influence the stakeholder orientation while, at the same time, stakeholders themselves are influencing the amount of managerial discretion available. Several propositions are offered for the relationship between amount of managerial discretion (high vs. low) and stakeholder orientation (narrow vs. broad) with respect to stakeholder performance. These propositions also take into account how these relationships might change over time. The greatest amount of value across all stakeholders is proposed to result from a broad orientation among managers with higher discretion. This same combination (broad orientation, high discretion environment) is also proposed to lead to an increase in discretion over time.

2.2.1 Determinants of Discretion

Hambrick and Finkelstein’s (1987) seminal work presented managerial discretion as the latitude of action a top manager has. Two facets of managerial discretion were identified. The first facet is that which is determined by the manager through their cognitive bases, political ability, and other characteristics. On the other hand, the context in which the manager operates will also impact discretion through what is considered acceptable by powerful stakeholders. These limitations will be enforced by the possible loss of influence by the manager. While these are two facets of managerial discretion,
three determinants of the amount of discretion available have been identified: managerial, organization, and environmental characteristics. Hambrick and Finkelstein also outline the two extremes on the managerial discretion continuum; the titular figurehead (all three determinants limit discretion) and the unconstrained manager (all three determinants give the manager discretion). Overall, they sum up managerial discretion by saying “a chief executive who is aware of multiple courses of action that lie within the zone of acceptance of powerful parties is said to have discretion” and noting that future research will depend upon effectively measuring such discretion (Hambrick and Finkelstein, 1987: 378).

Managerial activities were proposed as a fourth determinant of managerial discretion by Finkelstein and Peteraf (2007). They defined activities as “a discrete managerial function or task, involving a course of action that could be configured in a variety of ways” (Finkelstein and Peteraf, 2007:239). Three characteristics, based on agency theory and transaction costs, were proposed as determining how the activities would affect discretion: degree of complexity, observability, and uncertainty. Finkelstein and Peteraf posit that activities higher in each of these characteristics will allow for greater discretion. They also suggest that managers with high levels of discretion are then free to choose between a variety of activities, both those requiring high discretion and those requiring low discretion.
2.2.2 Assessing Managerial Discretion

The challenge of assessing managerial discretion was undertaken by Hambrick and Abrahamson (1995). The focus was on the seven factors in an industry, suggested by Hambrick and Finkelstein (1987), which would impact managerial discretion: outside forces, quasi-legal constraints, demand instability, market growth, industry structure, product differentiability, and capital intensity. The method used for developing a valid measure of managerial discretion as impacted by industry factors was to obtain ratings of industries from a panel of academics in Strategy and Organizational Theory and compare their responses to those of a panel of security analysts. These ratings were then compared with industry averages where appropriate to determine the correlation between the two approaches. Differentiability, capital intensity, and market growth showed a high correlation among the different ratings. Overall, Hambrick and Abrahamson (1995) suggest that it is possible to develop effective measures of managerial discretion.

These industry factors were also the focus of another study by Abrahamson and Hambrick (1997) linking managerial discretion to the homogeneity of attention patterns in an industry. They hypothesized that the latitude provided by greater discretion would lead to more heterogeneous attention patterns among managers in the same industry. The study made use of the industry measures discussed in the previous Hambrick and Abrahamson research to classify the discretion in the industry and the common use of words in shareholder letters to measure attentional homogeneity. Through the use of
these methods, it was determined that there is greater attentional homogeneity in industries with less managerial discretion.

Keegan and Kabanoff (2008) sought to expand on and extend Abrahamson and Hambrick’s (1997) work on attentional homogeneity and industry-level discretion. They used a similar method in that they examined the use of words in public communications. Keegan and Kabanoff hypothesized that industry-level discretion would have a negative relationship with the use of debt in an industry and that additional discretion would provide the freedom to make accounting changes more often. Both hypotheses were supported, with the first hypothesis displaying a nonlinear relationship. Their results also suggested that deviation from industry average on certain characteristics (debt, in this case) can decrease managerial discretion.

Aspects of managerial discretion in addition to those mentioned above were developed by Shen and Cho (2005) in their work on involuntary executive turnover. They sought to consider both the economic and managerial approaches to discretion, identifying the additional aspects of latitude of objectives and latitude of actions. Latitude of actions focuses on the Hambrick and Finkelstein definition of discretion through examination of the range of strategic options that are available to managers in their pursuit of desirable outcomes. The economic approach is represented by latitude of objectives, the amount of freedom that top management has to pursue their own goals. Both approaches consider corporate control and address similar antecedents such as organization form (Finkelstein & Peteraf, 2007). Finkelstein and Peteraf suggest that the
focus on opportunism in the economic perspective has led to the lack of work attempting to integrate the two approaches and that the two perspectives have much to offer each other. While Hambrick and Finkelstein offer no empirical test of the relationship between these two approaches to discretion and involuntary turnover, several propositions are developed. Some of these propositions include lower-level executives being more likely to face involuntary turnover when both aspects of discretion are present and that poor performance will be the cause of involuntary turnover when both aspects are absent.

A theoretical work by Offstein et al. (2007) considered the limits on the discretion of top management teams. Interestingly, their work does not specifically address or build on the prior stream started by Hambrick and Finkelstein (1987), drawing mainly on leadership literature and specifically House and Aditya’s (1997) leadership effect. This effect is proposed to be highest when top management has higher discretion both within the firm and in the environment with regards to making decisions and implementing the chosen action. They develop propositions regarding a number of organization and environmental variables that could influence discretion. Some of the internal variables include the level of support the top management team members have when they assume their positions and how the prior management team performed and was viewed by members of the organization. The level of competition (or hypercompetition) and the labor market for executives are two of the external factors considered.
One of the first empirical tests of managerial discretion was undertaken by Finkelstein and Hambrick (1990). Their goal was to identify how managerial discretion may moderate the effect of top management characteristics on organization outcomes within an Upper Echelon perspective, an approach that has been common in the literature. In order to do so, their research hypothesized and then tested that top management tenure would be more closely related to organization performance and strategies in high discretion organizations and industries in comparison to low discretion situations. Their sample of 100 firms came from low-, medium-, and high-discretion industries and the overall results included findings such as long-tenured management teams being associated with persistence in strategies. In regards to the moderating role of discretion, the inclusion of discretion in their models accounted for additional variance in all cases. As expected, top management characteristics were more strongly related to outcomes in industries that provided greater discretion. This pattern also held at another level of analysis, that of discretion within the organization. It is also interesting to note that CEOs were, not unsurprisingly, more committed to keeping the leadership of the organization consistent than to maintaining the current strategy.

Hambrick et al. (1993) examined a similar outcome, commitment to the status quo in place of strategic persistence, while also utilizing managerial discretion as a moderator. They defined commitment to the status quo as “a belief in the enduring correctness of current organization strategies and profiles” and hypothesized that factors such as industry tenure and organization tenure would be positively related to their commitment,
moderated by the discretion associated with the industry (Hambrick et al., 1993:402). Industry tenure of CEOs was found to have the most significant impact on commitment to the status quo. The relationship was moderated by managerial discretion as hypothesized, with industry tenure being a stronger predictor for commitment to the strategy in the high-discretion industry when compared to the low-discretion industry.

Managerial discretion as a moderator was the approach taken by Magnan and St-Onge (1997) as well. Their study sampled large commercial banks in the United States over a four year period. The contingency of executive compensation with regards to organization performance was the relationship suggested to be moderated by managerial discretion. High discretion was expected to lead compensation to be more dependent upon firm performance in contrast to low discretion situations. When performance was measured by return on assets and stock price, this contingency is moderated by the amount of managerial discretion, suggesting that boards of directors take this relationship into account when making compensation decisions. Interviews conducted by St-Onge et al. (2001) present that executives themselves also identify the relationship between discretion and compensation, noting that stock ownership programs are more effective for managers that have the discretion to actually impact the price of that stock.

Environmental commitment was the dependent variable considered by Aragon-Correa et al. (2004) in their study of managerial discretion. In their study, they wanted to compare the managerial view to the inertial view in the context of the organization’s actions in regard to environmental responsibility. For managerial discretion, the focus
was on the additional latitude that was suggested to come from being a member of the
dominant coalition within the organization. When discretion was measured in this way,
organizations with someone in the dominant coalition responsible for environmental
matters displayed greater environmental commitment. Their findings also add to the
literature supporting the position that top managers do influence the actions of their
organizations.

The concentration of ownership from an agency theory and corporate governance
approach was examined by Gedajlovic and Shapiro (1998) as one of the outside forces
that would limit discretion. In their work, they considered how concentration of
ownership would constrain managerial discretion and what the performance implications
of this were for the organization. The underlying theory was that higher ownership
concentration reduces the governance costs involved in creating a majority coalition
among ownership that can then be better suited to addressing agency issues. Their
hypotheses were tested across five countries to consider how the differences in corporate
governance in these countries would affect the relationships. This allowed the authors to
address how the institutional features of varying countries impact discretion. Several
important findings are suggested by their results. First, managerial discretion in the
United States seems to be targeted at discouraging the padding of costs by managers
rather than preventing strategizing in their own self-interest, in this case excessive
diversification. Another result from this study was additional support for the varying
dimensions that can impact discretion given that the institutional context and ownership concentration both influenced discretion.

2.2.3 Impact of CEOs with Discretion

What can CEOs with discretion impact within the organization was a question addressed by Peterson et al. (2003). This study considered discretion in terms of what influence a CEO’s personality will have on the TMT interactions within their organization. They utilized the Five-Factor personality model and hypothesized how these personality traits of the CEO would influence various group processes among the TMT. Their results provide strong support overall for the discretion managers have to influence aspects of their organization. Some specific relationships identified by their results include CEO emotional stability positively influencing team cohesion and openness positively influencing team risk-taking.

Another area that managers with discretion can impact is that of strategic renewal via internal or external methods (Sahaym & Steensma, 2007). The amount of managerial discretion available in an industry will affect a number of relationships with regards to strategic renewal. Sahaym and Steensma (2007), in their study of manufacturing firms, found higher levels of managerial discretion to be positively associated with both internal and external approaches to strategic renewal. Managerial discretion also moderated the relationship of technological change positively impacting strategic renewal, with the
relationship being stronger in instances of greater managerial discretion. A similar outcome resulted from an analysis of industry standards and strategic renewal.

Top managers other than the CEO were the sample for a study by Preston, Chen, and Leidner (2008), which chose to focus on the discretion of the CIO of organizations. They developed several possible antecedents to the amount of decision-making authority that CIOs would have including organization support for IT and the organization climate. Utilizing managerial discretion as a foundation, they then hypothesized that the amount of CIO authority would determine the contribution of IT to firm performance. This hypothesis was supported by the results of the study. They also found that top management support of IT and organization climate would positively influence the amount of authority the CIOs have.

Managerial discretion was also the foundation of work by Quigley and Hambrick (2009) seeking to explain how a former CEO remaining with the organization as the chairman of the board can affect the organization following a CEO succession. Their discussion leads to the hypothesis that the CEO remaining as chairman of the board will be negatively associated with strategic change and variations in firm performance following a succession event. Overall, their hypotheses were supported. The retention of the prior CEO was negatively associated with a number of variables including changes in the top management team and reallocation of strategic resources. The previous CEO remaining as chairman also reduced the amount of variation in performance following succession. Finally, the results provide a test of and support the aforementioned impact
that powerful parties can have through their “zone of acceptance”, the prior CEO in this case.

Overall, the literature regarding Upper Echelon Theory and managerial discretion supports the influence a CEO or top management can have on their organizations when provided the discretion to do so. This takes place through a number of different processes, such as determining the strategic core of the organization and identifying what issues will receive attention in the strategy process (Noel, 1989). As this review shows, one area that has received little attention in the literature is the impact of the personality of CEOs. This study seeks to address this by examining the aggressiveness of CEOs.

2.3 Competitive Aggressiveness

Competitive dynamics has been defined by Smith, Ferrier, and Ndofor (2001:315) as “a series of actions (moves) and reactions (countermoves) among firms in an industry”. Within this diverse stream of research that addresses a variety of interrelated areas including competitive responses, multi-market competition, and the impact of a firm’s prior performance, we also find work on competitive aggressiveness (Smith et al., 2001). Given the very diverse nature of the area, this portion of the literature review will focus primarily on the stream of research directly related to the term competitive aggressiveness, although it is important to note that many researchers in the area draw on related topics in the competitive dynamics literature for additional support in their research (i.e. Ferrier, 2001).
2.3.1 Development of Competitive Aggressiveness

Competitive aggressiveness has recently been noted as an underdeveloped area (Stambaugh et al., 2009). One of the earliest uses of the term was by Covin and Covin (1990) in their study regarding the performance of small firms. Their development of competitive aggressiveness cited work ranging from Porter’s offensive strategies (1985) to Lambkin’s (1988) entry order effects. Covin and Covin (1990:36) considered firms pursuing an aggressive competitive approach to be those who “initiate actions to which competitors then respond; are often first to introduce new products, administrative techniques, operating technologies, etc.; and typically adopt a very competitive, ‘undo-the competitors’ posture.’” Among the small firms in their sample, successful firms were more likely to initiate competitive interactions than their poorer performing counterparts. The results of the study also suggest that a more aggressive competitive posture has a positive impact for small firms of at least 30 employees. The authors also present the importance of managers in small firms pursuing the appropriate level of competitive aggressiveness as suggested by the technological sophistication and hostility present in the environment.

The discussion of competitive aggressiveness in small firms also fits well with its inclusion in work by Lumpkin and Dess (1996) on entrepreneurial orientation, although this is not to suggest that entrepreneurial orientation is applicable to only small firms. Their focus is on new entry into markets, regardless of the type of firm or method employed. To coincide with this new entry, firms often need to display competitive
aggressiveness as they deal with the existing firms in the market. They also propose that competitive aggressiveness includes the willingness to take unconventional approaches to competition as part of an entrepreneurial orientation. However, they did not provide empirical tests of their propositions.

Dean et al. (1993) did empirically test competitive aggressiveness in regard to entrepreneurship within the context of corporations. This research included a number of variables in addition to competitive aggressiveness including differentiation and initial success. Interestingly, in a sample that included companies from a wide range of countries, competitive aggressiveness was the common thread with regard to corporate entrepreneurship. Across all of the different groupings of companies in the sample, competitive aggressiveness had the highest or second highest correlation with corporate entrepreneurship among all of the independent variables.

2.3.2 Dimensions of Competitive Aggressiveness

In another approach to examining competitive aggressiveness, the construct was proposed to consist of four dimensions: volume, duration, complexity, and unpredictability of competitive attacks (Ferrier, 2001). Ferrier drew on work such as Kirzner’s firm rivalry (1973) and Schumpeter’s (1950) creative destruction when developing this four-dimension view of competitive aggressiveness. Ferrier sought to examine how patterns develop in competitive interactions and how these patterns will affect the performance of the organizations involved. Past firm performance, TMT
heterogeneity, organization slack, and the type of competition faced were all hypothesized to impact each of the four dimensions of competitive aggressiveness in different ways. All four dimensions were also hypothesized to be positively related to firm performance. Some of the important pertinent conclusions included a relationship between some of the dimensions of competitive aggressiveness and top management heterogeneity, slack, and industry characteristics. As for performance, greater attack volume and longer duration of the attacks were associated with an increase in market share.

Three sub-dimensions of competitive aggressiveness were proposed by Stambaugh et al. (2009): outperform motivation, action capability, and rival awareness. Their stance is that all three of these dimensions will lead to greater competitive aggressiveness and that this increased aggressiveness will be related to improved financial performance. They also suggest that competitive aggressiveness will result in additional competitive actions; a point that is echoed by studies discussed later that utilize number of competitive moves as a proxy for aggressiveness. Their hypothesis that competitive aggressiveness would be positively associated with performance was supported in regards to market share. However, the relationship was not significant when profitability, ROA, and ROE were utilized as the dependent variable. Market density did moderate the relationship, with competitive aggressiveness being positively related to profitability in metropolitan areas.
2.3.3 Factors Influencing Competitive Aggressiveness

The factors that may influence competitive aggressiveness have received some attention in the literature. One such factor has been that of mutual forbearance and multimarket contact. It is suggested in the literature that firms competing in several of the same markets as their rivals will compete with less intensity due to the greater possibility of retaliation (Chen, 1996). However, retaliation is also more likely in such situations. To empirically examine the hypothesis that greater multi-market contact would be associated with less competitive aggressiveness, Yu and Subramaniam (2005) utilized structural content analysis of competitive actions in the automobile industry. Their findings supported this hypothesis, showing lower levels of competitive aggressiveness in situations of greater multi-market contact. The amount of ownership that parent corporations had with regards to subsidiaries was also found to be a moderator, with greater ownership leading to a greater effect of multi-market contact. The study also considered the impact of the multinational nature of automobile companies, finding greater cultural distance across markets lessened the impact of multi-market competition and greater constraints in host markets increased the impact of multi-market contact.

Similar results were obtained by Young et al. (2000), who examined the frequency and speed of competitive moves towards rivals, hypothesizing that greater multimarket contact would result in fewer actions, but that the actions that did occur would happen more quickly. Both of these relationships were supported by the results.
Thus, multimarket contact can reduce competitive aggressiveness, but, can also lead to an increased need to signal competitive intentions to other firms, a topic that will be discussed later. These findings suggest important contingencies that can influence the development of competitive aggressiveness.

Yu and Canella, Jr. (2005) also studied the impact of country and market variations on competitive aggressiveness. They concentrated on the characteristics of the country (i.e. government power and constraints) and the firm (i.e. degree of control and amount of multi-market contact) and how these would influence competitive aggressiveness. Once again, the sample was from the automotive industry. In this case, competitive aggressiveness was measured by the variety of competitive actions and the number of actions undertaken. This study found that government constraints are associated with lower levels of competitive aggression for foreign-based companies and higher levels of competitive aggression for companies in their home market. As for the firm characteristics, multi-market contact was associated with lower levels of competitive aggressiveness, as was the amount of control the firm has over its subsidiaries.

Another firm characteristic that has been posited to affect competitive aggressiveness is capital structure. Utilizing a sample from the airline industry, Zhang (2005) sought to identify the relationships between how a firm is financed and the competitive actions undertaken. Zhang hypothesized that greater equity and lower earnings pressure would lead to more aggressive competitive behavior. Cash flow and equity were also moderators for the impact earnings pressure would have, with higher
levels of either leading to less of an impact. All of the aforementioned hypotheses were supported by the results of the study.

While the study focused on only one organization, work by Gresov et al. (1993) provided valuable insights into how organization design, environmental pressures, and inertia can influence competitive aggressiveness, specifically in regards to competitive responses. Their work provides a potential approach for modeling responses based on catastrophe models. One observation they made based on the research was that two organizations facing the same environmental pressures and organization inertia may respond with different levels of aggressiveness. Another important observation was that when aggressive organizations face less inertia they are more likely to become less aggressive, while the opposite applies to less aggressive organizations.

Competitive responses and aggressiveness were one of the areas Smith et al. (1992) considered in their research, in this case focusing on how the reputation of organizations as being aggressive (in terms of cutting prices) would impact the imitators of actions, the speed of response to their actions, and the number of reactions that would result. They found the reputation for being aggressive in regards to pricing was associated with faster responses to competitive actions from rivals. A reputation for aggressiveness also resulted in less imitation by competitors. The number of firms reacting to an action overall was not associated with a prior reputation for aggressiveness.

Competitive aggressiveness has previously been studied in conjunction with Upper Echelons as well. The prior study taking this approach that is most closely related
to the current research is that of Lin (2006). Lin’s study brought together research on competitive dynamics and Upper Echelons to examine competitive advantages. This study considered the relationship between top management team characteristics, the aggressiveness of the organization, and firm performance. Top management characteristics (CEO power dominance) were related to two types of firm aggressiveness (action and response) and firm performance.

2.3.4 Competitive Aggressiveness as an Independent Variable

Competitive aggressiveness has also been studied as an independent variable. For example, the competitive aggressiveness of incumbent firms has been found to deter entry into a new market (Clark & Montgomery, 1998). Clark and Montgomery (1998) hypothesized that incumbents who were viewed as aggressive would cause a potential entrant to consider the market unattractive and risky. In keeping with the aforementioned findings on mutual forebearance, this relationship was expected to be stronger in cases with greater multimarket contact. Among the sample of students, all of the above relationships received support.

Hsieh and Vermeulen (2008) also considered the impact of competitive aggressiveness on market entry. Their addition to the literature was to consider possible market entry as a result of following a competitor. Hsieh and Vermeulen considered that a larger number of competitors entering the market, greater multimarket contact, identifying with a strategic group, and less competitive aggressiveness by competitors
would all lead to a greater likelihood of following a competitor’s entry into a new market. All four of these hypotheses were supported by the results of the study.

Another result of competitive aggressiveness that has received attention in the literature is output quantity. Drawing on work by Amit et al. (1988) that considered the reputations of competitors in terms of how aggressively they would respond to competitive moves (i.e. changes in production or price), Mas-Ruiz et al. (2005) studied the Spanish banking industry to determine how perceptions of aggressiveness across strategic groups would influence the quantity of output, in this case deposit quantities. Mas-Ruiz et al. found that the results were in line with work by Reger and Huff (1993), in that strategic groups of small companies will respond more aggressively to the competitive actions of larger companies because they subscribe greater importance to these actions. On the other hand, larger companies will respond less aggressively to the moves of smaller competitors. Mas-Ruiz et al. also state that these findings suggest the size of a competitor as one factor that can assist in determining what their reaction will be to a competitive move.

How such moves will be interpreted as competitive signals was the focus of Prabhu and Stewart’s (2001) study using a computer simulation game with upper-level undergraduate and MBA students. Consistent with attribution theory, competitors whose moves were the result of internal factors were seen as more competitive than those whose moves were the result of external factors. Senders of signals who faced external factors were not perceived differently with regards to competitiveness, regardless of the strength
of the competitive signal. The aggressiveness of senders was also perceived differently with regards to bluffing and the cost of information. Finally, bluffs and costs of information also affected how aggressive the respondents were when asked if they would enter the sender’s market. Heil and Walters (1993) also considered signaling, but in the context of actual firms. Their primary finding was a supported positive relationship between the hostility of the signal perceived in a product introduction and the strength of the competitive reaction, with greater hostility provoking a stronger response. A similar relationship was found for how much of an impact the competitor thought the other firm’s new product would have on their own organization. These findings suggest that the reaction to and perception of competitive aggressiveness will be interpreted differently depending on the context, possibly affecting how aggressive the response to such moves are.

Offstein and Gnyawali (2005) drew on aggressiveness literature to develop their hypotheses on how short- and long-term CEO compensation would impact the competitive moves of pharmaceutical companies. Their focus on competitive activity was mainly in regards to the number of competitive moves, which has been shown to be positively associated with firm performance (Young et al., 1996). The results of the study did show a relationship between CEO compensation and the competitive moves of organizations. Short-term CEO bonuses were related to the number of competitive moves undertaken by their respective organizations. They also found long-term
compensation to be related to competitive moves, but not to the same extent as short-term compensation.

Vroom (2006) took compensation packages combined with organization structure to examine the effects on competitive aggressiveness. Vroom’s concern was that these two variables had previously only been studied in isolation so a model and simulation was developed to examine the combination of the two. The model suggests that firms come to a mutually detrimental outcome from increased aggressive behavior because both organizations will change their organization structure at the same time, resulting in decreased profits. Overall, the model also suggests that structure of the organization has a greater impact on aggressiveness than does the compensation system of top management.

Competitive aggressiveness is also found in the practitioner literature. One such example is that of Stalk and Lachenauer (2004), who discussed the importance of what they called “playing hardball” with the competition, analogous to being competitively aggressive. Their suggestion is that organizations should be willing to “play rough and don’t apologize for it” in regards to the competition (Stalk and Lachenauer, 2004:63). They cite several examples of organizations that do so, such as Toyota, Southwest Airlines, and Wal-Mart. Several of their suggestions for being aggressive line up well with approaches discussed in the academic literature, including smartly attacking competitors in indirect ways and destroying what they called profit sanctuaries, those areas where competitors make the greatest profits.
As can be seen from the literature reviewed here, a number of antecedents and outcomes related to competitive aggressiveness have been examined. However, none have examined the aggressiveness of the CEO in conjunction with the competitive aggressiveness of their organization and the impact on performance. This study seeks to extend the literature by combining Upper Echelon Theory with competitive aggressiveness to examine these relationships. The following section outlines the hypothesized relationships between these variables.

2.4 Hypotheses

Based on prior research, several hypotheses were developed in regards to the expected relationships between organization performance, CEO aggressiveness, and competitive aggressiveness of the organization. Those hypotheses are noted in the research model presented below, Figure 2.1. The model is followed by the four hypotheses and supporting literature.
2.4.1 CEO Aggressiveness and Organization Aggressiveness

In the initial article outlining Upper Echelon Theory, Hambrick and Mason (1984) stated, even in the title, that organizations will be a reflection of their top managers. They suggested that this impact of top management will include not only the performance of the organization, but also the strategies the organization will pursue. While Hambrick and Mason focused on demographic characteristics of top management, psychological characteristics were also discussed as influencing organization outcomes. Another aspect that is specifically mentioned is an individual valuing alternatives and consequences differently. Selective perception of events occurring in the environment will also impact
how a top manager guides the organization. It is suggested here that if this top manager is more aggressive, they may be more likely to remember the aggressive actions of competitors and interpret actions as aggressive. They may also value aggressive alternatives more highly, leading to a greater likelihood of the organization pursuing aggressive strategies. In addition, the characteristics of top managers have generally been supported in the literature as having an impact on the competitive actions that an organization will pursue (Smith et al., 2001).

While empirical research examining the impact of CEO personality and traits outside of demographic variables is somewhat rare, the research that has been done is promising and suggests that CEO aggressiveness will impact the organization’s strategy. Peterson et al. (2003) considered the impact of CEO personality on the organization as one process through which leadership influences organization performance. They examined the personality of CEOs using the five factor model (agreeableness, conscientiousness, extraversion, neuroticism, and openness) and hypothesized an impact on organization performance through the influence that CEO personality would have on top management team dynamics. Several of these factors of personality were related to the functioning of the top management team. Examples include relationships for CEO agreeableness with top management team cohesion and CEO openness with top management team intellectual flexibility. Furthermore, these characteristics of the top management team (such as optimism and flexibility) were positively associated with the measure of organization performance (income growth). Narcissism and core self-
evaluations are additional CEO personality characteristics that have also been found to impact organization outcomes through their influence on leadership styles (Resick, Weingarden, Whitman, & Hiller, 2009). On the whole, this research suggests that the personality of CEOs can affect the outcomes of their organizations through an influence on specific areas of the organization.

CEO personal characteristics such as attitudes have also been proposed to impact their organizations. Lewin and Stephens (1994) presented numerous propositions based on prior research in regards to how CEO attitudes such as tolerance for ambiguity, risk propensity, and egalitarianism would influence the design of their organizations. In addition, research by Smith et al. (1991) showed less experienced management teams to be more likely to behave aggressively based on how likely their firms were to respond to competitive actions. A relationship between CEO characteristics such as education, tenure, and functional background and two of the four strategies from the Miles and Snow typology (1978) has also been found (Thomas & Ramaswamy, 1989; Thomas, Litschert, & Ramaswamy, 1991; Thomas & Ramaswamy, 1996).

Aggressiveness of CEOs was specifically mentioned by Miller et al. (1982) in their discussion of the impact of personality on organization strategies and structures, even though their chosen personality characteristic for study was locus of control. Not only did their findings identify a relationship between this personality variable and strategy outcomes such as risk taking, proactiveness, and innovation, but this relationship was strongest when considering the top executive in the organization rather than the
entire senior management team. In addition, proactiveness was defined in the study as pursuing strategies that were out in front of the competition, suggesting a more aggressive approach. Offstein and Gnyawali (2005) did specifically consider how differences among CEOs could impact the aggressiveness of their firms. While the difference among CEOs that they considered was the pay and incentive structure, their results do show that some portion of the variance in competitive aggressiveness among firms can be associated with differences among their CEOs.

CEO personality has also been found to be associated with the specific strategies being pursued. Miller and Toulouse (1986) discovered a number of relationships between the strategies of organizations and CEO flexibility, need for achievement, and locus of control. Most applicable to the discussion here is that CEO need for achievement was associated with greater strategic aggressiveness for their organizations, which seems to imply that CEOs who display such personality characteristics may desire to aggressively pursue such goals, resulting in more aggressive actions by their organizations. Miller and Toulouse suggest that these CEOs will pursue such strategies to satisfy a need to expand and build market share. It should be noted, however, that the sample consisted of primarily smaller organizations (the mean number of employees was 382).

Need for achievement was also utilized by Miller and Droge (1986) and was the CEO personality variable most associated with outcomes in another example of how CEO personality impacts the structure of their organizations. They hypothesized that
those CEOs high in need for achievement would be more likely to have organizations high in centralization, formalization, and integration in order to provide the control and feedback they desire. This was the case as need for achievement was associated with all three structure variables. Once again, while this was the case in the overall sample, the effect is strongest among smaller organizations. These studies by Miller and colleagues provide evidence of a linkage between the personality of an organization’s CEO and the strategies that the organization will be more likely to pursue.

Lin (2006) indirectly tied CEO characteristics into the aggressiveness of their organizations. Lin’s research proposed that CEO power dominance would have a negative relationship with top management team social integration and that TMT social integration would then display a positive relationship with competitive aggressiveness. However, when the direct effects were considered, CEO power dominance displayed a negative relationship with both action and response aggressiveness for the organization. Power dominance as defined by Lin was the degree of influence other top managers had in regard to important decisions made by the CEO. While not necessarily a personal characteristic of the CEO, these results provide an instance in which variables related to the CEO were associated with a change in the aggressiveness of their organizations’ actions.

While there has been almost no work done in regards to how the aggressiveness of the CEO impacts the organization, the above studies all provide support for the impact that CEOs and top management can have on their organizations based on their personal
characteristics. Given the variety of CEO characteristics previously studied in this relationship, it seems logical to assume that CEO aggressiveness would also be capable of producing a similar effect within organizations. As noted by Hambrick and Mason (1984), organizations will tend to be reflections of their top managers, suggesting that aggressive CEOs will tend to lead more aggressive organizations. Based on this and the preceding research cited above, the following hypothesis is presented:

**H1: The competitive aggressiveness of an organization will be positively associated with the aggressiveness of its CEO.**

### 2.4.2 Organization Aggressiveness and Organization Performance

The second hypothesis considers how the aggressiveness of the competitive behaviors of organizations impacts performance. Considerable work exists in the literature pertaining to this relationship, providing a good foundation for hypothesizing the expected outcome. Ferrier et al. (1999) provide insight into this relationship by suggesting quicker competitive responses and a greater quantity of competitive moves were consistent with a more aggressive organization among industry leaders. In regards to both the number of competitive moves and the timing of responses, being more aggressive was associated with market leaders who performed better, maintaining their position as leader and their market share relative to challengers. This can also be tied to profitability, as greater market share has been shown to have a positive relationship with profitability (Szymanski, Bharadwaj, & Varadarajan, 1993).
The approach to competitive aggressiveness utilizing three facets (rival awareness, outperform motivation, and action capability) discussed earlier has also been associated with market share performance (Stambaugh, Lumpkin, Brigham, & Cogliser, 2009). Those firms that displayed a higher level of competitive aggressiveness tended to show gains in market share, in this case, for both loans and deposits, as the sample consisted of banks. Profitability was also positively affected by competitive aggressiveness for those banks in metropolitan areas.

Competitive aggressiveness has also been shown to impact stock market returns for organizations. Ferrier and Hun (2002) stated that the main finding from their study was that organizations will outperform their competitors by initiating and sustaining sequences of aggressive competitive moves. They also suggest this relationship will hold above and beyond industry growth and economic conditions.

An important distinction applicable to this research is made by Young, Smith, and Grimm (1996) when they examine the differences in competitive behaviors across levels, as what can increase performance for an individual organization can lead to a decrease in performance when applied to the entire industry. They hypothesize, and their results support, that higher levels of competition at an industry level (i.e. industry rivalry) will be associated with lower levels of firm performance. On the other hand, higher levels of competitive activity for a single firm, which was utilized in several of the studies above as a sign of competitive aggressiveness, are associated with higher levels of firm performance. Similar results were obtained by Smith et al. (1991), who considered the
likelihood of competitive responses and the impact on profitability. Another important finding of Young et al. (1996) is that the increased aggressiveness by the organization seems to lead to positive performance implications for the individual firm that prevail over the negative consequences of increased industry rivalry.

As mentioned earlier, being the first to introduce a product is often considered to be a sign of competitive aggressiveness (Covin et al., 1990), making the implications for performance from the benefits of being the first mover an important consideration for the impact of competitive aggressiveness (Lieberman & Montgomery, 1988). Several studies have supported the positive performance implications of being an early mover. Lee et al. (2000) found that first and second movers achieved higher abnormal profits from their position as early mover and that this effect was greater the faster the product was introduced, i.e. being more aggressive. It is noted that this effect can be negatively impacted by rapid imitation. However, more aggressive firms may increase the time before imitation occurs by acting sooner, allowing them to enjoy the performance benefits for a longer period of time.

Lambkin’s (1988) research also supported the performance benefits of being a first mover in a market, although fast followers did not fare as well in this sample. Being the first was associated with greater market share, higher return on sales, and higher ROI, although it took some time for these benefits to outweigh the expenses associated with being a first mover. In addition, other variables that could be construed as a display of more competitive aggressiveness (Lambkin utilizes the term intensity), such as the scale
of the market entry and marketing expenditures, were also included in the analysis. These variables were also generally found to be associated with greater market share, more so than order of entry in most cases. Based on prior research in the area, it is expected that firms that take a more competitive stance will display better performance.

*H2: Organization performance will be positively associated with an organization’s competitive aggressiveness.*

### 2.4.3 CEO Aggressiveness, Organization Aggressiveness, and Organization Performance

If it is hypothesized that more aggressive CEOs will be associated with more aggressive organizations and that more aggressive organizations will perform better, then the interactions among these three variables are also important areas for study. Following this path, can we assume aggressive CEOs will, through their impact on the aggressiveness of the organization, be associated with improved performance? Can we assume the combination of aggressive CEOs and aggressive organizations will lead to better performance than situations in which the aggressiveness of the CEO and organization do not match? Fortunately, past work in the literature provides some potential insights into these questions, leading to the development of the last two hypotheses. In fact, discussion of this relationship within Upper Echelons Theory goes back to Hambrick and Mason’s (1984) original article, in which they note managers being selected because their background fits the actions the board hopes will be implemented.
Little work specifically tying the CEOs personal aggressiveness to the organization has been performed. Due to this, the hypotheses developed here could be considered exploratory. This also results in the support and development of the hypotheses focusing on similar relationships considering characteristics other than aggressiveness. However, this approach is not unheard of when studying CEO characteristics and fit with strategy (Reed & Reed, 1989). As noted earlier, CEOs have been shown to have an association with competitive aggressiveness in prior studies. Offstein and Gnyawali's (2005) study, for example, found the type of CEO compensation was associated with competitive aggressiveness, which provides support for the proposition that differences among CEOs can impact the aggressiveness of their organizations. As another example of top management in general impacting competitive aggressiveness, two aspects of competitive aggressiveness have been associated with the heterogeneity of the top management team (Offstein & Gnyawali, 2005).

Various studies have considered how the fit between manager and strategy will impact the organization and, in general, the dominant view is that there are performance benefits when the manager matches the strategy (Drazin & Van De Ven, 1985; Gupta, 1986; Van Clieaf, 1992). The majority of these studies utilize contingency theory as the basis for their discussion of fit between management and strategy (Drazin et al., 1985; Lawrence et al., 1967; Van de Ven & Drazin, 1985). Gupta (1986) notes three underlying arguments for the importance of having managers and strategies that match: improved performance, differences in the skills and personalities that managers bring to
their positions, and the difference in the usefulness of skills across strategies. For specific examples, consider the relationship between general managers and the difference when business units pursue a build versus a harvest strategy. In this instance, business units pursuing a build strategy were more effective when led by a manager with more tolerance for ambiguity, more willingness to take risks, and more marketing experience (Gupta et al., 1984). When managers with these characteristics lead a unit pursuing a harvest strategy, performance suffers.

Utilizing the Miles and Snow (1978) typology to identify general strategies, Thomas and Ramaswamy (1989) examined the fit of CEOs with their organizations’ strategies and how this influences performance. Age and tenure of the CEOs were considered, along with ROA, ROS, and ROE for performance. When the two CEO characteristics matched with the general strategy being pursued, organization performance was higher as measured by all three outcomes. Thomas and colleagues expanded upon this research with several follow-up studies. Thomas et al. (1991) considered the profile of CEOs of organizations pursuing Prospector and Defender strategies and studied the impact of the fit between the CEO profile and selected strategy. They found that organizations with CEOs who fit the Prospector profile performed better than organizations pursuing a Prospector strategy with a CEO that did not fit the profile. They did not find a significant relationship among organizations pursuing a Defender strategy, but attributed this to the characteristics of the industry in which the study was conducted (electronic computing equipment). Thomas and Ramaswamy (1996)
continued this line of research by expanding the sample to three industries. In this case, better performance was associated with CEO/strategy fit across both strategies and all three industries. This study also provides support for the importance of this fit as it accounted for more of the variance in performance than industry, size of the organization, or age of the organization.

Appropriate fit between the choice of manager and strategy has also been found to impact performance in regards to the diversification strategy pursued by organizations (Reed et al., 1989). This is probably the most popular strategic variable studied in the literature in regards to the fit between CEOs and their organization’s strategies. Support for this relationship was found when considering the prior experience of the CEO with the diversification strategy being pursued by their current organization (Reed et al., 1989). In other words, an organization whose diversification strategy fit with the prior experience of its CEO performed better than those that lacked fit.

As to how the CEO impact on the organization will affect performance, we must turn to different CEO characteristics that have been studied to guide the research. Gupta (1984) considered the characteristics of general managers and their organizations being vertically integrated or unrelated diversified, providing several propositions as to how characteristics such as attitude towards risk and prior experience would impact performance in a number of situations. While no empirical tests were provided, Gupta suggests there are characteristics of top managers that combine with the approach of the organization to impact organization performance.
In a different approach to the relationship, Herbert and Deresky (1987) interviewed the top management of a number of organizations and business units to determine the strategy pursued and how this fit with the attributes and skills of the general managers responsible for these units. They propose that the attributes of the top manager will greatly influence the successful implementation of one of the four generic strategies developed in the research. Most applicable to the discussion here is the identification of personal factors that can assist in the implementation of the identified strategy. Aggressiveness is one such characteristic specifically identified and suggested as important when pursuing a strategy of market growth. While there is no empirical examination of the performance relationship in their research, Herbert and Deresky also suggest, based on theirs and prior research, that the organization will benefit from a performance standpoint when there is a match between the manager and the strategy pursued.

While their focus was on the top management team as a whole, the results of Marlin et al. (2004) related to strategy also provide support for the impact of top management fit with the strategy pursued. They found a number of relationships between various characteristics of the top management team (i.e. homogeneity, tenure) and performance. However, these performance relationships varied depending upon the approach to diversification being taken by the organization, suggesting that a match between top management and the strategy of the organization will be associated with improved performance. Empirical evidence linking a CEO’s personal characteristics to
organization performance includes work such as that by Miller and Toulouse (1986). In their study of the CEOs of smaller organizations, a number of CEO characteristics were associated with firm performance, most of them negatively. Some of the characteristics that had a significant relationship included tenure with the organization, having an external locus of control, and being rigid.

Based on the above research, it is proposed that aggressive CEOs will lead aggressive organizations, which has been shown to be associated with improved performance. In keeping with prior work on the fit between CEOs and the strategies of their organizations, it is also proposed that a fit between aggressive CEOs and aggressive organizations will result in improved performance as well. Thus, the following formal hypotheses are presented:

\( H3a: \) Organization performance will be positively associated with CEO aggressiveness.

\( H3b: \) Organization performance will be positively associated with the alignment between CEO characteristics and organization competitive aggressiveness (i.e. aggressive CEOs leading aggressive organizations).

2.4.4 Summary of Hypotheses

The hypotheses presented above outline the expected relationships between the primary variables of interest in this study: CEO aggressiveness, organization aggressiveness, and organization performance. It is expected, as presented by Upper
Echelon Theory, that the organizations studied will be reflections of their top manager, the CEO. If this holds true, organizations led by aggressive CEOs should display a greater degree of competitive aggressiveness in their observed competitive moves. In addition, there should be several implications for organization performance. Research, as presented above, has shown that aggressive organizations tend to perform better than their less aggressive counterparts. This, combined with the hypothesized relationship between CEO aggressiveness and organization competitive aggressiveness, suggests that the impact of having an aggressive CEO will be an improvement in organization performance through the influence on the competitive aggressiveness of the organization. Finally, as is suggested by the above literature and contingency theory, organizations who act with a higher level of competitive aggressiveness should perform better when an aggressive CEO is leading the organization. The tests of these hypotheses will provide important insights into the relationship between CEO personal characteristics, the actions of their organizations, and the performance implications of both.

2.4.5 Discussion of Control Variables

In addition to the variables represented by the relationships outlined in the hypotheses, several control variables are also posited to influence the relationships in this research. These variables were all related to the CEO or the organizations involved. The organization variables considered were age and size. For the CEO’s, functional background and tenure are suggested to be important for the relationships studied here.
The competitive aggressiveness of organizations has been shown to be influenced by the size of the organization (Lin, 2006). In addition, size has been shown to be associated with the competitive behavior of organizations (Chen & Hambrick, 1995). In addition to the size of organizations, the age of organizations is commonly included as a control variable in the literature (Smith et al., 2001).

While both CEO age and tenure are often utilized in Upper Echelons research, Finkelstein and Hambrick (1990) found tenure to be a better predictor than age in general. Henderson et al. (2006) found CEO tenure to have a non-linear relationship with organization performance. As presented in the literature review, CEO background has been associated with a variety of organization outcomes, including CEOs through a variety of processes, such as how they perceive various factors (Hambrick & Mason, 1984; Porter, 1980; Waller, Huber, & Glick, 1995).

2.5 Chapter Summary

This chapter provided an overview of prior research relevant to the study undertaken here and presented the foundation of the underlying theoretical viewpoints utilized. Hypotheses outlining the predicted relationships between the variables of interest were also presented, along with prior research and theory supporting the development of these hypotheses. Control variables that are expected to impact the hypothesized relationships were presented as well.
The following chapter provides an overview of the methodology used to analyze these hypotheses, including the sample, measures, and statistical methods. Presentation of the methods is followed in Chapter 4 by an overview of the findings of the study, as well as the results of the tests of the hypotheses. The paper concludes in the final chapter with a discussion of the implications and limitations of the study and avenues for future research.
Chapter Three:

Measures and Methodology

While the preceding chapter outlined the hypothesized relationships, this chapter provides details of the methodology utilized to empirically examine those relationships. This chapter begins with a general discussion of the methodology, followed by outlining the specifics of the sample chosen. Next, the variables are discussed and the data collection procedure described. The chapter concludes with presentation of the analysis methods employed.

As this research focuses on the impact of CEOs on their organization’s strategies and, ultimately, the performance implications of both of these items of interest, it is necessary to select a sample that provides access to the necessary data. In order to address this and help account for industry effects, public companies in two different industries comprise the sample. The variables are drawn from and defined based on prior work in the literature, including suggested demographic variables for the CEO and various organization control variables. The use of public companies provides access to a number of measures invaluable to this research, including performance and top management information. In addition, Diction software was utilized to collect content analysis data from public statements contained in the popular press and communication with stockholders. The data collected was analyzed through multiple regression utilizing SPSS 17. All of these areas are discussed in greater detail below.
3.1 Sample

Due to the nature of the data needed to complete the analysis, public companies were identified as most appropriate for the sample. A number of reasons for this can be cited. Access to data on personal characteristics of CEOs was necessary and is often not available for smaller, private organizations (Finkelstein & Hambrick, 1990). In addition, the use of public companies allows for access to standardized performance data. Letters to shareholders from public filings, as discussed later, have been a valuable resource in prior studies of this nature. Finally, large public companies are more likely to be featured in the popular press, providing data points for the content analysis.

Two different industries were chosen for the sample in order to facilitate identification of industry effects in the results and provide additional context. Hambrick and Mason (1984) discussed the importance of considering different industries and noted a number of important factors including who may be considered for top management positions in certain industries and how characteristics such as industry vitality will impact research in the area. There is also the continuing debate in the literature regarding how much variance in performance can be attributed to the organization and how much is due to the industry in which they operate. Schmalensee (1985) was one of the first to address this and stated that the evidence from the study showed there were no organization effects on performance, while industry accounted for 75% of the variance. Rumelt (1991) countered with research that showed business unit was the most important factor in performance variance. This examination was taken further by McGahan and Porter
(1997), who returned the focus to the impact of the industry. Most recently, Hawawini et al. (2003) suggest that the industry is the dominant factor for average performers and individual firm effects are only more significant for the best and worst performers in an industry. In order to address the concerns regarding business unit versus corporate outcomes expressed in much of this research (McGahan & Porter, 1997; Rumelt, 1991), industries were chosen in which the organizations tend to focus on one primary offering.

The first industry selected was the world-wide automotive industry (SIC code 3711). The second industry selected was United States retailers (SIC codes beginning with 5). These two industries provide a comparison of one international sample and one US domestic sample, as well as a wide variety of large organizations. The top 20 public independent companies in each industry according to 2008 sales were chosen as the sample, following the suggestion by Fombrun and Shanley (1990) that the largest firms will receive the most public scrutiny and thus there will be more information available on those organizations. For the retail industry, the ranking by Stores.org was utilized to identify the top 20. The rankings in the automotive industry were determined by the Ward’s Automotive listing of market share, which resulted in only 13 companies that met the criteria of being publicly owned, independent organizations, as some of the top 20 nameplates were wholly owned subsidiaries of others on the list. For each organization, the CEO was identified as the person of interest.
3.2 Variables

In order to effectively examine the hypothesized relationships, a number of independent, dependent, and control variables were identified in the extant literature. The primary independent variables identified were CEO aggressiveness and organization competitive aggressiveness, although organization competitive aggressiveness was a dependent variable in one of the analyses. The primary dependent variable was organization performance. Control variables included characteristics of the CEO (tenure and functional background) and characteristics of the organization (age and size). In addition, each organization was coded for industry as a dichotomous variable. Each of these variables is discussed in greater detail below.

3.2.1 Organization Performance

Numerous issues have been raised with using accounting measures of performance (Fisher & McGowan, 1983). One example of a shortcoming of financial performance measures from secondary sources include the data being aggregated to the organizational level as opposed to the business-unit level (Venkatraman & Ramanujam, 1986). In this study, the focus is on industries with a dominant product, which helps to limit the impact of this shortcoming. Given that these measures are still very popular in the literature, they were utilized despite their shortcomings in order to make the results comparable to other research and due to the availability of the data (Mackey, 2008). The first measure utilized was Return on Assets (ROA) (Fombrun & Ginsberg, 1990b;
Stambaugh et al., 2009; Young, Smith, & Grimm, 1996). The second performance measure utilized was Return on Investment (ROI) (Armstrong & Collopy, 1996; Smith et al., 1994). Both performance measures were lagged one year, as suggested by prior research in the area (Goll, Brown Johnson, & Rasheed, 2008; Henderson, Miller, & Hambrick, 2006; Nadkarni & Narayanan, 2007). This is often done to allow time for changes in strategy and CEO action to impact organization performance (Smith, Grimm, & Gannon, 1992).

3.2.2 CEO Aggressiveness

Kets de Vries (1984), in a section of the book “The Irrational Executive”, develops a number of different patterns of behavior in the workplace that can result from the way in which the individual handles and targets their aggression. While individual aggressiveness is somewhat limited in the Strategy literature, it has been found in the psychology literature to contain a trait component that will be consistent for that individual (Anderson, Buckley, & Carnagey, 2008; Blickle, Habsch, & Senft, 1998). This portion of individual aggressiveness has been studied extensively due to its consistency across situations and its stability over time (Coie et al., 1999). In addition, research has shown that those individuals who possess higher levels of trait aggressiveness will often become involved in more hostile situations, sometimes due to their effect on others through dyadic interactions (Anderson et al., 2008). Verbal aggressiveness has been shown to be a stable personality trait as well (Blickle et al.,
Aggression is one of the aspects of communication specifically measured by the DICTION software utilized in the study and discussed in more detail later. The value for CEO aggressiveness was obtained as the standardized DICTION score for aggressiveness from all the CEO statements combined within a given year. The same value was computed for shareholder letters. DICTION also provides different approaches to this calculation depending upon the context in which the comments were made. CEO statements were analyzed as corporate public relations. Shareholder letters were analyzed as corporate financial reports.

3.2.3 Organization Competitive Aggressiveness

Following the approach taken by previous studies examining similar constructs (Stambaugh et al., 2009; Yu & Cannella Jr, 2005a), competitive aggressiveness is defined here as put forth by Lumpkin and Dess (1996:148) as “a firm’s propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace.” Another important component of competitive aggressiveness mentioned by Lumpkin and Dess (1996) as prevalent in aggressive organizations is their willingness to eschew more traditional forms of competitive moves and try new tactics. This aggressiveness has been shown to impact a
number of areas of the organization, including corporate entrepreneurship (Dean, Thibodeaux, Beyerlein, Ebrahimi, & Molina, 1993)

A number of different actions were identified based on the prior research in order to provide organization actions that would be considered in the content analysis. In keeping with the aforementioned definition provided by Lumpkin and Dess (1996), the focus in this study is on actions that organizations take in order to compete for demand. Lumpkin and Dess make the distinction between proactiveness (performing a competitive action first) and aggressiveness (competing for demand), although it is noted that some actions could include aspects of both (i.e. first to introduce a product that will take demand from a competitor). They also suggest that competitively aggressive moves will be those that challenge competitors and aim to outperform rivals in the marketplace. Given this, actions identified in this study as competitively aggressive had to be related to the competition and increasing market share. Thus, actions that could be considered aggressive or proactive in general (such as suddenly closing locations) were not considered competitively aggressive as they were not generally viewed as an act taken in pursuit of additional demand or in the interest of challenging a competitor, who may actually have their position improved by such an action.

Covin and Covin (1990) cite a number of prior studies in their development of tactics that could be considered aggressive. They note the importance of being a first mover (Lieberman et al., 1988) and surprise as a sign of competitive aggressiveness. The definition of competitive aggressiveness utilized in their study specifically mentions
being the first organization to introduce a product. Grimm et al. (2005) note innovation and the development of such new products as an example of an aggressive competitive move, as well as a sign of disruptive competition, along with price cuts.

Covin and Covin (1990) also include taking actions that competitors respond to as a sign of competitive aggressiveness. Smith, Grimm, and Gannon (1992), in their study of competitive interactions, found price cuts and new product introductions to be the most common competitive moves that would prompt a reaction from competitors. Price cuts were also identified by Chen and MacMillan (1992) as a special case of competitive action. Their study found that price moves of more than 10% were more likely to be met with a response and the response was quicker. Stambaugh et al. (2009) also suggest that the combination of an aggressive competitive stance with an emphasis on cost leadership leads to higher performance. Several examples of price cuts as an aggressive competitive move can be found in recent decisions made by organizations (Grimm et al., 2005).

Entry into new markets is another competitive move that is often identified with aggressiveness in the literature. Dean et al. (1993) examined entry into new markets in their study of corporate entrepreneurship and found competitive aggressiveness to be the variable most associated with such actions. Fombrun and Ginsberg (1990) used market development as one of the factors in determining the aggressiveness of organizations as well. Grimm et al. (2005) provide Holiday Inn’s entry into a variety of new market segments as an innovative and aggressive move on that organization’s part, along with other examples. Several studies by Ferrier and colleagues (Ferrier, 2001; Ferrier et al.,
2002b; Ferrier, Smith, & Grimm, 1999) also suggest that lack of aggressiveness by those firms that are market share leaders allows challengers and new entrants that are more aggressive to gain a significant amount of market share.

It is noted here that new product introductions and new market entry will be identified as similar by the data collection method, discussed in greater detail later. However, the value of the competitive aggressiveness variable in the analysis is calculated as the combined instances of the above actions, in keeping with the attack volume component of competitive aggressiveness previously used in the literature (Ferrier, 2001; Smith, Grimm, Wally, & Young, 1997; Young et al., 1996). Due to this, any issues with classifying an action as a new product or entry into a new market are limited as the action will still be counted as a contributor to competitive aggressiveness. Table 3.1 provides the words included in the content analysis as representative of each competitive action. The majority of the terms were adapted from prior work in the area (Ferrier & Lyon, 2004; Ferrier et al., 2002b).

<table>
<thead>
<tr>
<th>Terms</th>
<th>Price</th>
<th>Product</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>price (cut), rate, discount, rebate</td>
<td>introduce, launch, unveil, roll out</td>
<td>enter, expanded</td>
</tr>
</tbody>
</table>
3.2.4 Control Variables

Several control variables were identified based on prior research that considered similar relationships. These variables consist mainly of characteristics of the CEO and the organization. For CEO characteristics, tenure and functional background were identified. As for the organization, age and size were considered.

While Hambrick and Mason (1984) hypothesized a number of relationships with the age of top managers, including organizations with younger managers achieving greater growth and pursuing riskier strategies than organizations with older managers, age was not included due to concerns regarding multicollinearity between age and tenure (Goll et al., 2008). Based on the findings of Finkelstein and Hambrick (1990), in which tenure was found to be a predictor in more cases than age, tenure was selected. CEO tenure has also been found to be associated with organization performance, in a generally inverted U-shape in which performance increases early in a CEO’s tenure, only to decline later (Henderson et al., 2006). Papadakis and Barwise (2002) found CEO tenure to have the greatest impact among six CEO and top management team characteristics on strategic decision-making, finding longer-tenured CEOs tend to lead organizations that made more rational decisions and display better communication. Tenure was measured as the number of years a CEO held the position (Henderson et al., 2006).

The functional background of top managers has also been suggested to impact a number of firm behaviors such as diversification and administrative complexity (Hambrick et al., 1984; Porter, 1980). An executive’s background can also influence
how they perceive aspects of the organization, such as performance (Waller et al., 1995). The majority of the work in this area focuses on the heterogeneity of background experiences among top management teams (Hambrick, Cho, & Chen, 1996). However, these studies do provide suggestions for appropriate categories. Following the work of Chattopadhyay et al. (1999), CEOs in this study were identified as having a background in one of eight categories: sales, marketing, accounting, finance, R&D, general administration, personnel, and production/operations.

As for control variables related to the organizations themselves, firm age and firm size were also obtained (Smith et al., 2001). The size of organizations has been shown to have a number of impacts on competitive behavior such as the speed and visibility of their competitive moves (Chen & Hambrick, 1995), as well as competitive aggressiveness (Baum & Korn, 1996; Lin, 2006). Goll et al (2008) also included organization size, in this case due to the proposition that size, when measured as total assets, could influence profitability. A similar approach, using total assets, is often utilized in the literature (Ferrier et al., 2004; Magnan & St-Onge, 1997; Peterson, Martorana, Smith, & Owens, 2003). Age of the organization was simply the number of years since the organization was founded (Henderson et al., 2006; Lubatkin et al., 2006; Nadkarni et al., 2007; Thomas et al., 1996).
3.3 Data Collection

Performance data (ROI and ROA), industry ranking, CEO control variables, and organization control variables were obtained from a combination of LexisNexis Company Dossier, COMPUSTAT, Morningstar, and company websites. Functional background was coded as the category in which the CEO was most experienced (Hambrick et al., 1996).

In order to obtain data on the aggressiveness of CEOs, computer-aided text analysis was employed (Kabanoff, 1997) to perform a structured content analysis. Structured content analysis has been identified as dramatically improving the study of competitive dynamics due to access to larger samples over longer periods of time (Smith et al., 2001). This is a method that has been utilized repeatedly in strategy and other organizational research domains (Abrahamson & Hambrick, 1997; Ferrier, 2001; Ferrier et al., 2002a; Kabanoff, 1997; Morris, 1994; Short & Palmer, 2008; Smith et al., 2001). Computer-aided text analysis can be undertaken to obtain data on a number of topics of interest, such as the sentiments and intentions of top managers, that would normally be difficult to obtain (Morris, 1994). In addition, computerized coding of content provides several advantages over human coding of content including perfect reliability (Weber, 1988), easy manipulation of coding rules, and the ability to code larger data sets (Morris, 1994). The analysis for aggressiveness was performed utilizing DICTION software, which is discussed next.
3.4 Use of DICTION Software

A specific software package that has been recommended for use in Strategy research to complete computer-aided text analysis is DICTION (Short et al., 2008). Short et al. recommend DICTION because of its use of artificial intelligence elements and basis in linguistic theory, along with consideration of business texts during the software’s development. DICTION is also noted for allowing research to consider the tone of statements made in the text (Ketchen Jr, Boyd, & Bergh, 2008). DICTION software also specifically identifies language related to aggressiveness, among other linguistic characteristics, which is especially applicable to this research. DICTION has also been used in related studies such as charismatic leadership (Bligh, Kohles, & Meindl, 2004) and communication of financial results (Yuthas, Rogers, & Dillard, 2002). Short et al. (2008:729) draw on prior research to present “content analysis of text offers considerable potential to gain key insights into the thinking of top managers and, in following, the choices they make”. In addition, content analysis has been suggested as providing insight into the cognitions of managers due to the words they use based on the Whorf-Sapir hypothesis (Abrahamson et al., 1997) and providing an idea of the perspective taken by top management (Porter, 1980).

DICTION was utilized to analyze letters to shareholders for each company in the sample over the five-year period covered by identifying the number of times the concepts identified in the discussion of variables above occurred. The years 2003-2007 were selected to avoid the confounds of the recent change in the economic environment.
Content analysis of letters to shareholders is a common practice in the strategy literature and has several benefits, such as being one of the few methods that allows for comparison of cognitions across and within various industries (Abrahamson et al., 1997). In addition to analysis of letters to shareholders, publications were identified for each industry and analyzed for the same concepts. Trade publications are another popular source for content analysis in the literature and have been used in a variety of studies (Chen & MacMillan, 1992a; Chen et al., 1992b; Smith, Grimm, Gannon, & Chen, 1991). For the automobile industry, Automotive News was selected. In the absence of available access to a more focused trade publication for the retailing industry, Business Week was selected. Business Week was chosen because it provides profiles of numerous individuals, companies, and industries, as well as providing significantly expanded online content (Katz & Katz, 2010). As previously mentioned, DICTION includes several different contexts that can be used when analyzing the text. In this research, letters to the shareholders were analyzed as “corporate financial reports”, while “corporate public relations” was the context used for CEO statements.

3.5 Analysis Methods

All of the hypotheses were tested utilizing SPSS 17. SPSS was chosen because it provided all of the tools necessary to test the hypotheses and is commonly utilized in the literature (Keegan & Kabanoff, 2008; Resick et al., 2009; Smith, Young, Becerra, & Grimm, 1996). To test Hypothesis 1, that CEO aggressiveness would be positively
related to the aggressiveness of their organizations, the measures for CEO aggressiveness and the control variables were entered into a multiple regression analysis as independent variables with organization aggressiveness as the dependent variable. Hypothesis 2, that competitive aggressiveness of organizations will be positively related to organization performance, was tested in a similar manner. Competitive aggressiveness of the organizations was an independent variable, along with the control variables, and the performance measures were the dependent variables. A separate regression was performed for each measure of performance.

The hypothesis that more aggressive CEOs would be associated with better company performance was also analyzed in a similar manner. However, it is noted that any effects could be due to the impact of CEO aggressiveness on organization aggressiveness. As is suggested by Hypothesis 2, it is possible that CEO aggressiveness only impacts organization performance through the association with organization aggressiveness. This would imply that organization aggressiveness is a mediator of the relationship. Stated another way, aggressive CEOs are associated with aggressive organizations, which tend to perform better. In order to test this hypothesis, a path analysis model was constructed. For the final hypothesis, that the alignment of CEO aggressiveness and organization aggressiveness would be associated with higher performance, another regression was performed with the interaction of the two variables included. In addition, CEOs and organizations were divided into low, medium, and high levels of aggressiveness. This produced nine groups (i.e. low-low, medium-medium,
etc.), which were then analyzed with an ANOVA to determine if there were significant differences in the mean performance across groups for either performance variable.

3.6 Chapter Summary

The methodology for the study has been outlined in this chapter. The sample of major retailers and the largest organizations in the automobile industry was discussed, along with the definition and measures for the variables of interest. The next chapter provides an overview of the findings and results of the hypothesis tests. The final chapter discusses the implications of the findings, limitations of the research, and potential avenues for future research.
Chapter Four:

Results

This chapter outlines the results of the analysis outlined in Chapter Three. First, descriptive statistics for the aforementioned variables are presented. This is followed by an overview of the bivariate correlations among the variables and discussion of important relationships that emerged. The chapter concludes with presentation of the hypothesis tests.

4.1 Descriptive Statistics

The descriptive statistics for the variables in the study are presented in Table 4.1 below. The CEO Aggressiveness and Letter Aggressiveness values were the standardized values for aggressiveness reported by DICTION. Average Aggressiveness is the average of the CEO and Letter Aggression values for each year for each organization. Price, Product, and Market Aggressiveness represent the number of aggressive moves identified in the periodicals for each organization by year, while Organization Aggressiveness is the sum of all these acts for that year.

Some interesting notes regarding the data emerge from these statistics. Due to 18 succession events during the sample timeframe, a number of CEOs had tenure of one year or less for several of the observations. Also, CEO backgrounds in the sample were heavily biased, with general administration the most popular followed by
production/operations. This can be seen in the high mean value for CEO Background, as well as the small standard deviation.

### Table 4.1 Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>-25.72</td>
<td>20.61</td>
<td>6.9894</td>
<td>6.66504</td>
</tr>
<tr>
<td>ROI</td>
<td>-203.73</td>
<td>57.61</td>
<td>14.1205</td>
<td>24.48952</td>
</tr>
<tr>
<td>Industry</td>
<td>0</td>
<td>1</td>
<td>.39</td>
<td>.450</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>0</td>
<td>22</td>
<td>4.39</td>
<td>4.474</td>
</tr>
<tr>
<td>CEO Background</td>
<td>0</td>
<td>8</td>
<td>6.28</td>
<td>.995</td>
</tr>
<tr>
<td>Organization Age</td>
<td>17</td>
<td>149</td>
<td>76.12</td>
<td>34.737</td>
</tr>
<tr>
<td>Organization Size</td>
<td>2241</td>
<td>479603</td>
<td>65066.93</td>
<td>95053.356</td>
</tr>
<tr>
<td>Quote Aggressiveness</td>
<td>.00</td>
<td>7.96</td>
<td>1.1595</td>
<td>1.26235</td>
</tr>
<tr>
<td>Letter Aggressiveness</td>
<td>.00</td>
<td>5.34</td>
<td>1.4065</td>
<td>.98757</td>
</tr>
<tr>
<td>CEO Aggressiveness</td>
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<td>1.3054</td>
<td>.97690</td>
</tr>
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<td>Price Aggressiveness</td>
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<td>Product Aggressiveness</td>
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<td>1.594</td>
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<tr>
<td>Market Aggressiveness</td>
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<td>.677</td>
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<tr>
<td>Organization Aggressiveness</td>
<td>0</td>
<td>22</td>
<td>2.01</td>
<td>2.951</td>
</tr>
</tbody>
</table>

### 4.2 Bivariate Correlations

The bivariate correlations between variables are presented in Table 4.2. This table includes the individual components of aggressiveness (statements and shareholder letters for CEOs and product, market, and price for organizations), as well as the combined scores. Significant correlations are shaded in the table. While no relationships were specifically hypothesized for the correlations, some interesting relationships are present. These are discussed following the table.
Table 4.2 Bivariate Correlations

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>ROI</th>
<th>Year</th>
<th>Succession</th>
<th>Industry</th>
<th>CEO Tenure</th>
<th>CEO Back</th>
<th>Org Age</th>
<th>Org Size</th>
<th>Quote Age</th>
<th>Letter Age</th>
<th>CEO Age</th>
<th>Price Age</th>
<th>Prod Age</th>
<th>Market Age</th>
<th>Org Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1</td>
<td>-571</td>
<td>-0.106</td>
<td>-0.214</td>
<td>-0.304</td>
<td>-0.282</td>
<td>-0.222</td>
<td>-0.119</td>
<td>-0.367</td>
<td>-0.315</td>
<td>-0.081</td>
<td>-0.307</td>
<td>-0.165</td>
<td>0.068</td>
<td>-0.375</td>
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</tr>
<tr>
<td>ROI</td>
<td>-571</td>
<td>1</td>
<td>-0.143</td>
<td>-0.289</td>
<td>-0.359</td>
<td>-0.302</td>
<td>-0.301</td>
<td>-0.011</td>
<td>-0.073</td>
<td>-0.077</td>
<td>-0.067</td>
<td>-0.165</td>
<td>0.068</td>
<td>-0.375</td>
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<td></td>
</tr>
<tr>
<td>Year</td>
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<td>-0.217</td>
<td>-0.300</td>
<td>-0.158</td>
<td>-0.044</td>
<td>0.004</td>
<td>-0.160</td>
<td>0.048</td>
<td>-0.334</td>
<td>-0.109</td>
<td>-0.008</td>
<td>-0.368</td>
<td></td>
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<tr>
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<td>0.17</td>
<td>1</td>
<td>0.083</td>
<td>-0.104</td>
<td>-0.003</td>
<td>0.009</td>
<td>0.043</td>
<td>0.261</td>
<td>0.071</td>
<td>0.208</td>
<td>-0.006</td>
<td>0.086</td>
<td>-0.375</td>
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<tr>
<td>Industry</td>
<td>0.94</td>
<td>-1.50</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.174</td>
<td>0.693</td>
<td>-0.236</td>
<td>-0.701</td>
<td>0.148</td>
<td>0.246</td>
<td>0.234</td>
<td>0.332</td>
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<tr>
<td>CEO Tenure</td>
<td>-0.08</td>
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<td>0.18</td>
<td>-0.104</td>
<td>1</td>
<td>0.080</td>
<td>-0.146</td>
<td>-0.224</td>
<td>0.006</td>
<td>0.046</td>
<td>0.100</td>
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<tr>
<td>CEO Back</td>
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<td>0.04</td>
<td>0.003</td>
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<td>1</td>
<td>0.189</td>
<td>-0.057</td>
<td>0.165</td>
<td>0.172</td>
<td>0.277</td>
<td>0.159</td>
<td>0.064</td>
<td>0.565</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org Age</td>
<td>0.42</td>
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<td>0.04</td>
<td>0.004</td>
<td>0.043</td>
<td>-0.701</td>
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<td>0.159</td>
<td>0.106</td>
<td>1</td>
<td>0.863</td>
<td>0.188</td>
<td>0.716</td>
<td>0.660</td>
<td>0.857</td>
<td>0.683</td>
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<tr>
<td>Org Size</td>
<td>0.42</td>
<td>0.33</td>
<td>0.04</td>
<td>0.004</td>
<td>0.043</td>
<td>-0.701</td>
<td>-0.146</td>
<td>0.159</td>
<td>0.106</td>
<td>1</td>
<td>0.863</td>
<td>0.188</td>
<td>0.716</td>
<td>0.660</td>
<td>0.857</td>
<td>0.683</td>
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<tr>
<td>Quote Age</td>
<td>-0.02</td>
<td>0.01</td>
<td>-0.19</td>
<td>0.25</td>
<td>-0.14</td>
<td>0.067</td>
<td>0.035</td>
<td>0.080</td>
<td>1</td>
<td>0.387</td>
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<td>-0.139</td>
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<tr>
<td>Letter Age</td>
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<td>0.065</td>
<td>-0.250</td>
<td>-0.387</td>
<td>1</td>
<td>0.560</td>
<td>0.132</td>
<td>0.045</td>
<td>0.118</td>
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</tr>
<tr>
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<td>-0.172</td>
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<td>0.188</td>
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<td>1</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>0.06</td>
<td>0.10</td>
<td>-0.277</td>
<td>0.071</td>
<td>0.715</td>
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<td>0.103</td>
<td>0.073</td>
<td>1</td>
<td>0.555</td>
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<td>0.159</td>
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<td>0.003</td>
<td>0.465</td>
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<td></td>
</tr>
<tr>
<td>Market Age</td>
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<td>-0.06</td>
<td>0.08</td>
<td>0.08</td>
<td>-0.139</td>
<td>0.082</td>
<td>0.159</td>
<td>-0.045</td>
<td>0.560</td>
<td>0.055</td>
<td>1</td>
<td>0.003</td>
<td>0.465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org Age</td>
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<td>-0.277</td>
<td>-0.06</td>
<td>-0.07</td>
<td>0.260</td>
<td>-0.122</td>
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<td>-0.032</td>
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<td>0.318</td>
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<td>0.370</td>
<td>0.465</td>
<td>0.279</td>
<td>1</td>
</tr>
</tbody>
</table>

* Correlation significant at the 0.05 level
** Correlation significant at the 0.01 level
In regards to the variables that are the primary focus of this research, it is interesting to note the significant correlations between Organization Aggressiveness and both performance measures (ROA and ROI). However, contrary to what is expected based on our hypotheses, this relationship is negative for both ROA ($r=-.302, p<.01$) and ROI ($r=-.275, p<.01$), suggesting that Organization Aggressiveness is associated with poorer performance for the organizations in the sample. The measures for CEO Aggressiveness were significantly correlated with each other ($r=.387, p<.01$), suggesting a consistency of message across letters to the shareholders and statements CEOs make to the press. CEO Quote Aggressiveness was found to be significantly correlated with a dichotomous variable to identify CEOs that only held the position for a portion of the year ($r=.261, p<.05$). In conjunction with the significant negative correlation this variable has with CEO Tenure ($r=-.224, p<.05$), it is possible that CEOs who have recently entered the position or know they are on their way out are more willing to make aggressive statements in public. Finally, CEO Aggressiveness was positively and significantly correlated with Organization Size ($r=.188, p<.01$), which is posited here to possibly be due to CEOs of larger organizations believing they are in a position to be more aggressive, especially in letters to shareholders.

As for the control variables, both organizational variables (Age and Size) displayed significant correlations with a number of other variables. Older organizations were associated with poorer performance on both ROA ($r=-.482, p<.01$) and ROI ($r=-.282, p<.01$). In addition to the relationship between size and CEO Aggressiveness
mentioned previously, size was also associated with several other variables, including a negative relationship with both ROI (\(r=-.331, p<.01\)) and ROA (\(r=-.427, p<.01\)). Size also displayed a significant large positive association with Price Aggressiveness (\(r=.715, p<.01\)), which may be due to larger organizations having the resources to engage in price cuts, perhaps due to the pressure they can exert on suppliers (i.e. Wal-Mart).

Finally, industry played a very significant role in the correlation analysis, as it was significantly associated with all but three of the other variables. Overall, the correlations suggest more aggressiveness is present in the automotive industry, both from a CEO standpoint (\(r=.234, p<.01\)) and the organization (\(r=.380, P<.01\)). The automotive industry was also a poorer performer by either measure (ROA, \(r=-.394, p<.01\) and ROI, \(r=-.256, p<.01\)). Several suggestions for the prevalence of correlations with industry are addressed later in conjunction with the discussion of limitations and suggestions for future research.

4.3 Tests of the Hypotheses

In order to test the hypotheses that were developed, a number of regression analyses were performed. In order to test Hypothesis 1, aggressive organizations would be involved with aggressive CEOs, the overall measure of CEO Aggressiveness was entered as an independent variable along with the control variables and industry. The total measure for Organization Aggressiveness was entered as the independent variable. The results of the regression are presented in Table 4.3.
Table 4.3 Results of CEO and Organization Aggressiveness Regression

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.507</td>
<td>1.437</td>
<td>-1.049</td>
<td>0.297</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>-.653</td>
<td>.605</td>
<td>-0.100</td>
<td>-1.080</td>
<td>.283</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>-.029</td>
<td>.050</td>
<td>-.040</td>
<td>-0.587</td>
<td>.559</td>
</tr>
<tr>
<td>CEO Background</td>
<td>.576</td>
<td>.221</td>
<td>.178</td>
<td>2.611</td>
<td>.010</td>
</tr>
<tr>
<td>Organization Age</td>
<td>-.011</td>
<td>.006</td>
<td>-.130</td>
<td>-1.832</td>
<td>.070</td>
</tr>
<tr>
<td>Organization Size</td>
<td>.00002</td>
<td>.000</td>
<td>.743</td>
<td>8.081</td>
<td>.000</td>
</tr>
<tr>
<td>CEO Aggressiveness</td>
<td>-.194</td>
<td>.215</td>
<td>-.062</td>
<td>-.905</td>
<td>.368</td>
</tr>
</tbody>
</table>

Overall, the model is significant ($F(6, 112) = 19.37, p=0.0$) and accounts for almost 51% of the variance in Organization Aggressiveness ($R^2=.509$). When considering the first hypothesis, that CEO Aggressiveness would have a significant relationship with Organization Aggressiveness, the results suggest this is not the case. CEO Aggressiveness was not significant in the regression ($p=.368$). Further evidence is provided by the earlier correlation analysis, in which CEO Aggressiveness and Organization Aggressiveness were not significantly correlated ($r=.065$, $p>.05$). Based on this evidence, Hypothesis 1 is not supported. CEO Background and Organization Size were the significant predictors of Organization Aggressiveness in the model ($\beta=.178$, $p=.10$ and $\beta=.743$, $p=.00$, respectively). While CEO Background will be discussed in greater detail later, the strong significant results for Organization Size suggest that larger organizations tend to be more aggressive. Industry and CEO Tenure were not significant, while Organization Age could be considered to be marginally significant ($\beta=-.130$, $p<.1$).
Hypothesis 2 posited that better performance would be displayed by more aggressive organizations. To test this hypothesis, Organization Aggressiveness was entered into the regression as an independent variable, along with the control variables (including Industry). Two regressions were performed, one with each of the performance measures, ROA and ROI, as the dependent variable. The results of these regressions are provided in Tables 4.4 and 4.5, followed by discussion of each regression individually.

**Table 4.4 Results of Organization Aggressiveness and ROA Regression**

<table>
<thead>
<tr>
<th>ROA</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>19.009</td>
<td>3.336</td>
<td>5.698</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>-1.584</td>
<td>1.389</td>
<td>-.112</td>
<td>-1.140</td>
<td>.257</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>-.371</td>
<td>.116</td>
<td>-.232</td>
<td>-3.211</td>
<td>.002</td>
</tr>
<tr>
<td>CEO Background</td>
<td>-.325</td>
<td>.523</td>
<td>-.046</td>
<td>-6.622</td>
<td>.535</td>
</tr>
<tr>
<td>Organization Age</td>
<td>-.092</td>
<td>.014</td>
<td>-.489</td>
<td>-6.408</td>
<td>.000</td>
</tr>
<tr>
<td>Organization Size</td>
<td>.000</td>
<td>.000</td>
<td>-.138</td>
<td>-1.132</td>
<td>.260</td>
</tr>
<tr>
<td>Organization Aggressiveness</td>
<td>-.403</td>
<td>.220</td>
<td>-.183</td>
<td>-1.835</td>
<td>.069</td>
</tr>
</tbody>
</table>

The model from the regression examining Organization Aggressiveness and ROA is significant (F(6, 118) = 14.43, p=0.0) and explains a good amount of the variance in ROA (R²=.423). In regards to the hypothesis that aggressive organizations will be associated with greater performance, the results do not support this conclusion. Organization Aggressiveness is, at best, marginally significant in the regression and the relationship is in the opposite direction of that hypothesized (β=-.183, p<.1). The only significant predictors in the model were CEO Tenure (β=-.232, p<.01) and Organization
Age ($\beta = -.489$, $p = 0.0$) and presented that younger organizations or those with newer CEOs would tend to perform better as measured by ROA.

**Table 4.5 Results of Organization Aggressiveness and ROI Regression**

<table>
<thead>
<tr>
<th>ROI</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>37.656</td>
<td>15.032</td>
<td></td>
<td>2.505</td>
<td>.014</td>
</tr>
<tr>
<td>Industry</td>
<td>.278</td>
<td>7.341</td>
<td>.005</td>
<td>.038</td>
<td>.970</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>-.608</td>
<td>.526</td>
<td>-.107</td>
<td>-1.156</td>
<td>.250</td>
</tr>
<tr>
<td>CEO Background</td>
<td>-.850</td>
<td>2.354</td>
<td>-.034</td>
<td>-.361</td>
<td>.719</td>
</tr>
<tr>
<td>Organization Age</td>
<td>-.164</td>
<td>.067</td>
<td>-.235</td>
<td>-2.443</td>
<td>.016</td>
</tr>
<tr>
<td>Organization Size</td>
<td>.000</td>
<td>.000</td>
<td>-.185</td>
<td>-1.120</td>
<td>.265</td>
</tr>
<tr>
<td>Organization Aggressiveness</td>
<td>-.999</td>
<td>1.008</td>
<td>-.128</td>
<td>-.991</td>
<td>.324</td>
</tr>
</tbody>
</table>

A significant model was also obtained from the regression that utilized ROI as the performance outcome ($F(6, 104) = 3.23, p < .01$). However, this model did not account for as much variance in the dependent variable as the prior models, explaining almost 16% of the variance ($R^2 = .157$). Once again, Organization Aggressiveness was not significant in the regression, leading to the conclusion that the hypothesis is not supported for the second measure of performance, ROI ($\beta = -.991$, $p > .05$). The only significant predictor that emerged from this analysis was Organization Age ($\beta = -.235$, $p < .05$), once again suggesting that younger organizations performed better.

Hypothesis 3a stated that improved organization performance would be associated with aggressive CEOs. In order to effectively address this hypothesis, the relationship must also take Hypothesis 2 into account and make a determination if this is a direct relationship or due to the impact on Organization Aggressiveness. Based on the results
from the test of Hypothesis 2, it is logical to conclude that this is not the case. In fact, the most likely assumption would be that such a relationship would actually lead to decreased performance given the prior results. In order to fully address this, a path analysis was performed through the use of several regressions in SPSS.

The results of the test for the first hypothesis provide one analysis needed for the path analysis, as it provides the relationship between CEO Aggressiveness and Organization Aggressiveness. The second hypothesis test also provides information that is useful for completing the path analysis, the relationship between Organization Aggressiveness and the two measures of performance. The additional regression needed to complete the path analysis is one in which CEO Aggressiveness is the independent variable and the two measures of performance are the dependent variables. All analyses were performed with the control variables included. The results of these analyses are presented in Tables 4.6 and 4.7 below, followed by the completed path analysis models, one for each measure of performance, in Figures 4.1 and 4.2.

**Table 4.6 Results of CEO Aggressiveness and ROA Regression**

<table>
<thead>
<tr>
<th>ROA</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>19.378</td>
<td>3.496</td>
<td>.543</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>-1.137</td>
<td>1.472</td>
<td>-.772</td>
<td>.442</td>
<td></td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>-.351</td>
<td>.121</td>
<td>-.220</td>
<td>-2.911</td>
<td>.004</td>
</tr>
<tr>
<td>CEO Background</td>
<td>-.563</td>
<td>.537</td>
<td>-.272</td>
<td>-1.047</td>
<td>.297</td>
</tr>
<tr>
<td>Organization Age</td>
<td>-.088</td>
<td>.015</td>
<td>-.454</td>
<td>-5.809</td>
<td>.000</td>
</tr>
<tr>
<td>Organization Size</td>
<td>.000</td>
<td>.000</td>
<td>-.280</td>
<td>-2.755</td>
<td>.007</td>
</tr>
<tr>
<td>CEO Aggressiveness</td>
<td>.253</td>
<td>.523</td>
<td>.037</td>
<td>.483</td>
<td>.630</td>
</tr>
</tbody>
</table>
Table 4.7 Results of CEO Aggressiveness and ROI Regression

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>38.623</td>
<td>15.426</td>
<td>2.504</td>
<td>.014</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>.207</td>
<td>7.518</td>
<td>.004</td>
<td>.028</td>
<td>.978</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>-.496</td>
<td>.537</td>
<td>-.087</td>
<td>-.924</td>
<td>.358</td>
</tr>
<tr>
<td>CEO Background</td>
<td>-1.663</td>
<td>2.364</td>
<td>-.067</td>
<td>-.704</td>
<td>.483</td>
</tr>
<tr>
<td>Organization Age</td>
<td>-.142</td>
<td>.069</td>
<td>-.200</td>
<td>-2.058</td>
<td>.042</td>
</tr>
<tr>
<td>Organization Size</td>
<td>.000</td>
<td>.000</td>
<td>-.279</td>
<td>-2.022</td>
<td>.046</td>
</tr>
<tr>
<td>CEO Aggressiveness</td>
<td>1.021</td>
<td>2.507</td>
<td>.039</td>
<td>.407</td>
<td>.685</td>
</tr>
</tbody>
</table>

Figure 4.1 Path Analysis Model for CEO Aggressiveness and ROA

Figure 4.2 Path Analysis Model for CEO Aggressiveness and ROI
The path analysis provides no support for Hypothesis 3a. CEO Aggressiveness has neither a direct nor indirect impact on the performance of the organization. As can be seen in the path analysis models, none of the hypothesized relationships are significant. This is the case for both measures of performance.

The final hypothesis, 3b, was that performance would be better for organizations that had alignment between the aggressiveness of their actions and the CEO. This was tested in two ways. First, an interaction term between CEO Aggressiveness and Organization Aggressiveness was calculated and entered as an independent variable, along with the control variables, in two regressions, one for each performance measure. The results of these analyses are presented in Tables 4.8 and 4.9.

Table 4.8 Results of Aggressiveness Interaction and ROA Regression

<table>
<thead>
<tr>
<th>ROA</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>28.361</td>
<td>4.616</td>
<td></td>
<td>6.144</td>
<td>.000</td>
</tr>
<tr>
<td>Industry</td>
<td>-1.752</td>
<td>1.356</td>
<td>-.131</td>
<td>-1.292</td>
<td>.200</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>-.397</td>
<td>.119</td>
<td>-.275</td>
<td>-3.332</td>
<td>.001</td>
</tr>
<tr>
<td>CEO Background</td>
<td>-1.916</td>
<td>.761</td>
<td>-.216</td>
<td>-2.519</td>
<td>.014</td>
</tr>
<tr>
<td>Organization Age</td>
<td>-.086</td>
<td>.016</td>
<td>-.467</td>
<td>-5.530</td>
<td>.000</td>
</tr>
<tr>
<td>Organization Size</td>
<td>.000</td>
<td>.000</td>
<td>-.219</td>
<td>-1.774</td>
<td>.080</td>
</tr>
<tr>
<td>Aggressiveness Interaction</td>
<td>-.109</td>
<td>.153</td>
<td>-.077</td>
<td>-7.12</td>
<td>.479</td>
</tr>
</tbody>
</table>
Table 4.9 Results of Aggressiveness Interaction and ROI Regression

<table>
<thead>
<tr>
<th></th>
<th>ROI</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>57.220</td>
<td>24.498</td>
<td></td>
<td>2.336</td>
<td>.022</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>-1.550</td>
<td>8.274</td>
<td></td>
<td>-.027</td>
<td>-.187</td>
<td>.852</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>-.785</td>
<td>.638</td>
<td></td>
<td>-.136</td>
<td>-.230</td>
<td>.223</td>
</tr>
<tr>
<td>CEO Background</td>
<td>-3.241</td>
<td>4.045</td>
<td></td>
<td>-.093</td>
<td>-.801</td>
<td>.426</td>
</tr>
<tr>
<td>Organization Age</td>
<td>-.196</td>
<td>.087</td>
<td></td>
<td>-.254</td>
<td>-.225</td>
<td>.027</td>
</tr>
<tr>
<td>Organization Size</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td>-.170</td>
<td>-.961</td>
<td>.340</td>
</tr>
<tr>
<td>Aggressiveness Interaction</td>
<td>-.798</td>
<td>.859</td>
<td></td>
<td>-.140</td>
<td>-.929</td>
<td>.356</td>
</tr>
</tbody>
</table>

As can been seen in the tables, the interaction term was not significant in the regression for either performance variable (β=-.077, p>.02 and β=-.140, p>.05, respectively). This provides no support for Hypothesis 3b. Once again, Organization Age was significant in both regressions (β=-.467, p=.0 and β=-.254, p<.05). In order to further test this hypothesis, an ANOVA was also completed to determine if there were significant differences in performance across aggressiveness categories. CEOs and organizations were divided into high, medium, and low levels of aggressiveness and the mean performance measures analyzed. Tables 4.10 and 4.11 present the aggressiveness categories and means for each performance measure.
Table 4.10 ROA ANOVA

<table>
<thead>
<tr>
<th>CEO Aggressiveness</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>7.88</td>
<td>8.62</td>
<td>7.53</td>
</tr>
<tr>
<td>Medium</td>
<td>9.38</td>
<td>8.03</td>
<td>4.71</td>
</tr>
<tr>
<td>High</td>
<td>4.78</td>
<td>8.47</td>
<td>4.22</td>
</tr>
</tbody>
</table>

Table 4.11 ROI ANOVA

<table>
<thead>
<tr>
<th>CEO Aggressiveness</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>22.16</td>
<td>14.5</td>
<td>18.38</td>
</tr>
<tr>
<td>Medium</td>
<td>19.58</td>
<td>16.04</td>
<td>0.42</td>
</tr>
<tr>
<td>High</td>
<td>17.36</td>
<td>14.98</td>
<td>8.46</td>
</tr>
</tbody>
</table>

Significant mean differences were not reported in the overall ANOVA for either performance outcome (F(8,138) = 1.51, Mse = 44.21, p>.05 and F(8,116) = 1.36, Mse = 591.71, p>.05). In order to compare the means across categories for potential significant
pairwise differences, the least significant difference (LSD) was calculated for each ANOVA. For the ROA ANOVA, the LSD was 4.61. Only one pairwise comparison including a hypothesized alignment category was significant. This pair consisted of high aggressiveness CEOs/high aggressiveness organizations and low aggressiveness CEOs/medium aggressiveness organizations. The LSD for the ROI ANOVA was 18.46. Only two pairwise comparisons displayed a significant mean difference in this ANOVA and both involved high aggressiveness CEOs/medium aggressiveness organizations. A significant mean difference was found when comparing this aggressiveness category with the low aggressiveness CEOs/low aggressiveness organizations and low aggressiveness CEOs/medium aggressiveness organization categories. These results also suggest no support for Hypothesis 3b.

4.4 Chapter Summary

In summary, none of the hypothesized relationships suggested in this research were supported by the findings. CEO Aggressiveness was not associated with the aggressiveness of the organizations they lead. In addition, CEO Aggressiveness had no significant relationship with organization performance, directly or indirectly. A marginally significant relationship emerged between Organization Aggressiveness and performance, but was not in the direction hypothesized. Finally, alignment between the aggressiveness of CEOs and their organizations was not associated with performance.
Only three total pairwise comparisons were significant and only one of these included a category in which CEO and organization aggressiveness were aligned.

The following chapter presents discussion of the findings. First, the general findings are discussed. This is followed by presentation of some implications of the findings. The chapter concludes with discussion of the limitations and potential avenues for future research.
Chapter Five:

Discussion and Recommendations

This chapter discusses the results just presented, identifies potential implications of these results, and provides limitations of this research and possible directions that could be taken by future research. While none of the hypothesized relationships were supported, the information gained is still beneficial to the discipline. In addition, several additional significant and interesting relationships were observed in the course of this research.

5.1 General Discussion

The first hypothesis, that CEO Aggressiveness would be associated with the competitive aggressiveness of their firms, was not supported. This suggests that simply having a CEO with aggressive tendencies will not necessarily translate into a more aggressive strategy for the organization. While prior research suggests that CEO personality and personal characteristics can impact strategies (Boone & Brabander, 1997; Lewin & Stephens, 1994; Miller & Toulouse, 1986b; Thomas et al., 1989), this was not the case in this research.

Several possible explanations could be posited for this finding. Perhaps CEOs in their communication to outsiders via comments to the press and letters to shareholders were simply attempting to “psych out” their competition by sounding more aggressive
but not actually intending to take action. It may be an attempt on their part to signal potential actions in order to alter the future actions of others (Heil & Robertson, 1991). It may also be possible the CEOs intended to act in an aggressive manner, but were unable to do so due to resource limitations, changes in the environment, or other unexpected developments. Perhaps aggression does not translate well to the use of content analysis, even though content analysis is an often-used and well-received method in strategic management research (Morris, 1994; Short et al., 2008). A final explanation is that CEOs are able to separate their personal aggressiveness that they display in their communications from the decision-making process, allowing them to make decisions that are not impacted by their aggressiveness.

Along with the finding that CEO Aggressiveness was not associated with Organization Aggressiveness, the test for Hypothesis 1 did provide two significant predictors. Organization Size was significantly and positively associated with aggressiveness, providing evidence that larger organizations are more aggressive, which supports prior work in the literature (Baum et al., 1996; Lin, 2006). This could be due to larger organizations having the resources necessary to take aggressive actions, such as introducing new products. Another explanation is that larger organizations must be aggressive in order to defend themselves, as they have become a larger target for competitors. The other significant predictor was CEO Background. While this is an interesting finding, it is viewed as somewhat tentative due to the range restriction that was present in the CEO Background variable, as can be seen in the summary statistics.
presented in Chapter 4. Almost all of the CEOs with identifiable backgrounds were identified as having a general administration background.

Hypothesis 2 was also not supported. While a marginally significant relationship was identified between Organization Aggressiveness and performance (ROA), the relationship was in the opposite direction hypothesized. In this instance, the findings indicate that organizations that are more aggressive tended to perform poorer than those organizations that were less aggressive. When ROI was utilized as the performance outcome, aggressiveness was not a significant predictor. This is an interesting finding as prior research has found a positive relationship between aggressiveness and performance, above and beyond the possible negative consequences to a firm’s industry as a whole (Smith et al., 1991; Young et al., 1996).

The analysis of Organization Aggressiveness and performance was another that provided interesting findings in regards to the control variables. Organization Age was a significant, negative predictor in both analyses. This leads to the conclusion that younger organizations performed better on both measures of organization performance. Perhaps these younger organizations are not subject to the same level of inertia (Gresov, Haveman, & Oliva, 1993; Hannan et al., 1984), allowing them to react more quickly and thus perform better.

Hypothesis 3a provided two possible underlying processes for the impact of CEO Aggressiveness on the performance of their organizations. The first possibility was a direct relationship in which CEOs that were more aggressive lead organizations that
perform better. An indirect relationship, in which CEO Aggressiveness impacted organization performance through its effect on Organization Aggressiveness, was the second possibility. Neither of these proved to be the case in this research, leading to a lack of support for Hypotheses 3a. In fact, none of the hypothesized paths in the analysis were significant.

Given the results for Hypothesis 1 and Hypothesis 2, this finding is not surprising, as those hypotheses were instrumental in one possible path that could have explained the hypothesized relationship. However, based on prior research, there is little doubt that CEOs impact their organizations and subsequent performance (Hambrick, 2007; Mackey, 2008; Sanders & Hambrick, 2007). Some potential underlying factors that could explain this finding are provided in the limitations section.

The final hypothesis examined the suggestion of fit between a CEO and their organization’s strategy (Drazin et al., 1985; Gupta, 1986; Hambrick et al., 1987; Van Clieaf, 1992). The posited relationship was the combination of CEOs with relative aggressiveness similar to their organizations’ would result in improved performance. Both the interaction of these two measures of aggressiveness and an ANOVA examining various classifications based on the fit between CEOs and their organization failed to produce evidence supporting the posited relationship.

As mentioned earlier, these findings may suggest that CEOs are able to adapt, or at least control, their personal aggression when it comes to the decisions they make and the actions they take in regards to the organizations they lead. Gupta et al. (1986)
identified specific characteristics of CEOs that would apply to certain strategies, leading to improved performance. Based on these findings, it may be that an aggressive CEO is not necessary for organizations pursuing an aggressive strategy.

Outside of the hypothesized relationships, some additional relationships were present that bear mentioning. These relationships were identified as part of the initial correlation analysis. A variable was included in the analysis to indicate if a CEO succession event took place during that year, as CEO succession has been shown to have a number of effects on organizations (Kesner & Sebora, 1994; Miller, 1993). This variable was significantly correlated with the aggressiveness of quotes made by the CEO during the year and their aggressiveness overall, but not with the aggressiveness of the shareholder letters. One explanation for this is that the CEO may be more aggressive when they are first on the job or right before they know they are on their way out. There would most likely not be an opportunity for them to have displayed this higher level of aggressiveness when the letters to the shareholders were written, as they were either not with the organization or not aware they were going to be removed at that time. In addition to this, the aggressiveness of CEO quotes displayed a significant negative correlation with tenure. This may be due to new CEOs being more aggressive, possibly as a signal to either their organization or the competition. Another explanation is that as CEOs gain more experience or age they tend to be less aggressive or at least display their aggressiveness less often.
Another correlation that is worthy of mention is the correlation between the aggressiveness of CEO quotes and the aggressiveness of letters to the shareholders. This positive and significant relationship contributes to the research on text analysis and its application. The relationship here can be viewed as support for the contention that CEOs are actively involved in the development of letters to shareholders (Barr, Stimpert, & Huff, 1992), as it presents that there is a somewhat consistent message, at least as far as aggressiveness, across letters to the shareholders and comments CEOs make in public.

Finally, the significant correlations related to industry are intriguing. While industry was included as a control variable and this study did not collect the data necessary to significantly add to the discussion of industry effects in the literature (McGahan et al., 1997; Rumelt, 1991; Schmalensee, 1985), the findings are overwhelming enough to merit mention. In short, industry was correlated with almost every variable in the study. To better present this information, Table 5.1 provides a quick comparison of the relationships. The table provides a general idea of how the two industries in the sample differed on a few of the variables where a significant correlation was reported.
Table 5.1 Comparison of Industries

<table>
<thead>
<tr>
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<th>Automotive</th>
<th>Retail</th>
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<tbody>
<tr>
<td>CEO Aggressiveness</td>
<td>More Aggressive</td>
<td>Less Aggressive</td>
</tr>
<tr>
<td>Organization Aggressiveness</td>
<td>More Aggressive</td>
<td>Less Aggressive</td>
</tr>
<tr>
<td>CEO Tenure</td>
<td>Shorter Tenure</td>
<td>Longer Tenure</td>
</tr>
<tr>
<td>Organization Age</td>
<td>Older Organizations</td>
<td>Younger Organizations</td>
</tr>
<tr>
<td>Organization Size</td>
<td>Larger Organizations</td>
<td>Smaller Organizations</td>
</tr>
<tr>
<td>ROA</td>
<td>Poorer Performance</td>
<td>Better Performance</td>
</tr>
<tr>
<td>ROI</td>
<td>Poorer Performance</td>
<td>Better Performance</td>
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</table>

While both industries had a similar number of succession events, the retail industry had multiple CEOs with double-digit tenures, while the automotive industry only had one. The retail industry displayed significantly better performance during the years of the study, but the automotive industry was negatively impacted by the decline of two major organizations, General Motors and Ford. The automotive industry was more aggressive overall, which since both industries have been known to be competitive, may represent an interesting characteristic of the industry as a whole (need to be more aggressive to become CEO, automotive companies look for more aggressive CEOs, etc.). This finding receives additional attention in the limitations section.

The next two sections discuss the implications of the findings for this study. The first section provides some implications for researchers. This is followed by discussion of implications for practitioners. After presentation of the implications, limitations as well as avenues for future research are provided. Following the suggestions for future research, general conclusions are discussed.
5.2 Implications for Research

This section provides a number of implications for research that result from the findings of the study. Some of these implications are also related to suggestions for future research and are thus discussed further in the fourth section of this chapter as well. Several implications for practice also result from these findings and are discussed in the following section.

One finding from this study that provides implications for research is the lack of a significant relationship between CEO Aggressiveness and Organization Aggressiveness. If these results are replicated and hold true, one implication for research is that some personality characteristics of top management may not have an impact on the actions of their firms. If this is the case, research will need to identify what CEO characteristics translate into an impact on organization performance and actions. Perhaps categories of characteristics can be developed based on underlying factors that determine whether they will impact the organization. However, it is important to not overlook the wide range of ways in which CEO characteristics could influence the CEO’s impact on the organization, as Hambrick and Mason (1984) outlined a number of processes, such as top management characteristics influencing perceptions. So while CEO Aggressiveness was not directly related to the aggressive actions of organizations, their aggressiveness, and other characteristics, may be influencing organization actions in other ways.

Some of the possible explanations for the lack of a significant relationship also provide implications for research. One aspect to take into account is the suggestion that
aggressive comments are signaling actions that a CEO may not actually intend to pursue. This could lead to identifying CEOs as more aggressive than they actually are. However, another consideration is that the perception of a CEO’s aggressiveness by competitors in such a circumstance may be just as interesting as the actual aggressiveness. The other implication for researchers is to consider what may have prevented CEOs from fulfilling intended aggressive actions, which could also lead to differences in intended and actual aggressiveness.

A related implication stems from the lack of a relationship when examining the fit between CEOs and their organizations’ strategies. In this study, performance was not found to be affected by a match between CEO Aggressiveness and Organization Aggressiveness. This leads to the implication for research that when studying fit between CEOs and strategies that the most appropriate match may not occur when the CEO personally displays a characteristic that seems associated with the preferred strategy.

The marginally significant negative relationship between the aggressiveness of organizations and their performance (ROA) also has research implications. While a positive relationship between aggressiveness and performance is generally found in the literature (Smith et al., 1991; Young et al., 1996), this finding suggests that additional consideration could be given to the potential for an inverse relationship. Research could identify under what conditions each of these relationships may occur.

The correlations of CEO Aggressiveness with CEO succession events and the aggressiveness of CEO quotes with the aggressiveness of letters to shareholders both
provide research implications. The second correlation implies that prior research suggesting CEOs are involved in the formulation of letters to shareholders (Barr et al., 1992) is correct and could continue to be utilized in research in the area. The first strengthens the findings on the various impacts of succession (Kesner et al., 1994) by adding another aspect that is influenced by such events.

5.3 Implications for Practice

One of the first implications for practitioners that can be provided from this research concerns the aggressiveness of organizations and their performance. In this study, increased Organization Aggressiveness displayed a marginally significant negative association with the performance of organizations. The implication of this finding for practicing managers is that firms who compete less aggressively may have the opportunity to perform better. Perhaps, given that both outcomes were based on returns, those organizations that compete more aggressively do not efficiently utilize their assets. Aggressively cutting prices, for example, may have reduced margins for retailers and automotive manufacturers alike, leading to reduced performance on these measures. These findings may run counter to those of Young et al. (1996) and present that in the industries studied the negative impact of aggressiveness on the industry did eventually overcome the benefits of acting aggressively. On the other hand, there were organizations in both industries that displayed good performance, suggesting that this may not be the case.
Organizations in the study that seemingly had a good match between the aggressiveness of their CEO and the aggressiveness of the organization did not display significantly improved performance in regards to either measure (ROA or ROI). Based on these findings, it may be that an aggressive CEO is not necessary for organizations pursuing an aggressive strategy; a finding that provides a practical implication for organizations selecting CEOs. These findings might also suggest when organizations are selecting top management that the personality displayed by potential CEOs may not translate into action once they are in control of the organization. In addition, those selecting new CEOs will want to carefully consider what characteristics may or may not have the desired impact on the organization that they seek to obtain through a succession event.

As previously mentioned, younger organizations tended to perform better among those in this study. One suggested explanation for this was older organizations suffering from inertia and being unable to adjust quickly enough to changing conditions, which may have been an issue towards the end of the time frame considered in this study. While practitioners cannot turn back the clock and make their organization suddenly younger in the pursuit of improved performance, it may carry the implication that being aware of inertia that is developing and attempting to minimize the impact will have positive performance implications.

There are implications for practitioners outside of the focal firm as well. For those involved in making investment decisions, deciding to extend credit, and others,
these findings suggest that aggressive organizations and possibly aggressive CEOs can be a factor in reduced performance. Practitioners can also apply these findings to competitive analysis of others in their industry. They may consider allowing other organizations to take a more aggressive approach without responding in kind, as this approach could lead to improved performance.

Possibly the most important overall implication for practice regards the selection of aggressive individuals as CEO in general. While there may be a common perception of CEOs as aggressive individuals, selection of such individuals for the position may not be warranted. One such example is Robert Nardelli, who held the position with Home Depot. While he was often cited as an aggressive individual, his strategies ultimately failed to provide the expected results (Grow, Brady, & Arndt, 2006; Grow et al., 2007). This research implies that the personal aggressiveness of the CEO most likely has little impact on the strategies the organization will pursue and the eventual performance outcomes from those strategies. The results suggest that if an impact of aggressive CEOs was posited, the implications for performance would most likely be negative and those selecting a CEO on this basis may not obtain the outcome they expected.

5.4 Limitations of the Study and Directions for Future Research

This study represents an exploratory look into the connections between CEO personality, competitive aggressiveness, and organization performance. With this, come several limitations. However, it is hoped that this research will provide the basis for
future studies to explore similar research and expand on the relationships discussed here. In order to facilitate this, the limitations of the study are presented in conjunction with suggestions for future research.

First, the nature of the study and the data collection does not allow for any statements regarding causality. While the data was collected over a five-year period, each company year was treated as a separate observation and not tracked across time. Future research should examine these research questions in a longitudinal manner.

Related to this topic is the choice of years for which data was collected. The timeframe 2003-2007 was chosen to somewhat limit the impact of recent changes in the business environment. The hope was to avoid a major shift occurring in the middle of the data collection timeframe, although the automotive industry had started to experience a shift already. However, this is not to say that this is not an important area for future study. These relationships are likely to be even more important under the current circumstances and should be investigated when a suitable timeframe is available.

One aspect that this research did not measure that could have influenced the relationships is managerial discretion (Finkelstein & Boyd, 1998; Finkelstein et al., 1990; Finkelstein et al., 2007; Hambrick & Abrahamson, 1995; Hambrick et al., 1987). As is noted in the research on managerial discretion, CEOs who lack discretion will have less of an impact on their organization. This can be influenced by a number of factors, including the industry (Hambrick et al., 1987). It is possible that the lack of a relationship between the primary variables of interest is due to a lack of managerial
discretion in the industries selected. This would make it possible to have very aggressive CEOs who are unable to impact the aggressiveness of their organizations. Future research in the area should include discretion measures in order to identify if a lack of discretion is influencing the results. Perhaps there is a different impact for discretion when personality is considered. In order to help facilitate the analysis in a study such as this one, development of discretion as an individual manager-level variable would be useful and could provide valuable insights as well (Finkelstein, 1998).

Another limitation of this research that could be addressed in future studies is the level of aggression. This study considered the number of aggressive actions across three categories. However, the intensity of these acts was not considered on either an act-by-act basis or a category basis. Obviously, some acts in the same category would convey different levels of aggressiveness. For example, a 5% price cut on a major category of products would be considered aggressive, but a 10% price cut across the board would be much more aggressive. Future research could integrate different levels of aggressiveness for the acts considered.

A related limitation concerning the measure of competitive aggressiveness is the aspect of competitive aggressiveness considered. Only one aspect of competitive action was considered in this research, attack volume (Ferrier, 2001). Future research could address this by including one or more of the remaining aspects: unpredictability, duration, and complexity. The addition of these aspects would allow for a finer measure of competitive aggressiveness and also help address the intensity of competitive
aggressiveness previously mentioned. Improving these measures could also improve the
differentiation utilized for the analysis of fit among CEO aggressiveness and organization
aggressiveness. While the ANOVA utilized the relative levels of these two variables as
high, medium, and low, it is recognized that the differences among organizations close to
the cutoffs may have confounded the results. A more varied measure of aggressiveness
may have allowed for better delineation of these categories.

Another option for future research would be to further the research on relational
and dyadic aggression between organizations. While the methodology of this could be
difficult, the potential insights gained could be very informative. An interdisciplinary
approach, drawing on the psychology literature, would assist with this research. For
example, dyads and the impact of proactive versus reactive aggression could be studied
(Coie et al., 1999) in conjunction with competitive responses (Chen et al., 1992a; Lin,
2006)

Another limitation of this research is the choice of industries. First off, this limits
the generalizeability somewhat. Future research should sample from additional industries
so that we can determine if the relationships are consistent in different contexts. Also,
while the automotive industry had a trade publication readily available, access could not
be gained to a comparable publication for the retail industry. *Business Week* was utilized
as it covers a wide range of industries and the retail industry is a major industry often
included in their publication. However, since *Business Week* does not focus solely on the
retail industry like *Automotive News* does with the automotive industry, it is likely that
the automotive CEOs and organizations are relatively overrepresented in the sample, with more quotes and reports on competitive actions available. Future research should continue to integrate the most comparable publications possible.

However, at least two fruitful suggestions for future research emerge from this aspect. One suggestion is to align two more similar potential publications, perhaps using Aviation Daily and the airline industry, as utilized by Smith et al. (1991), for the second industry and trade publication combination. Another suggestion for future research that could address this methodological concern in the future is to perform the analysis using a general business publication and a trade publication within the same industry. This would allow for comparisons of how such analyses differ across types of publications, providing important insights for future content analyses.

The industries selected also impacted the types of competitive actions that could be observed. For example, “new” products in the retail industry are somewhat limited as the retailers only sell the products and do not usually develop the products themselves. While there were a few product introductions, the possibilities were limited by the choice of industry. Also, there was most likely a reduced opportunity for major innovations as compared to other industries, such as some of the more technological fields. The aforementioned greater variety of industries in future research would help address this, as would including a wider variety of potential aggressive competitive actions.

A greater variety and number of industries in future research could provide other benefits as well. This would improve the generalizeability across industries. It would
also allow for greater understanding of how other variables impact the relationships studied. For example, the impact of differences in managerial discretion across a greater number of industries could be examined. The increased number and variety of industries could provide the opportunity to identify a number of different industry effects ranging from competitive intensity to stages in the Product-Market Lifecycle.

Future research could also contribute to the literature by obtaining primary data on the aggressiveness of the CEOs. While the use of secondary sources is well-supported in the literature (Abrahamson et al., 1997), it may prove beneficial, although difficult, to obtain more direct measures. Along with the use of primary data, the research could examine the whole top management team, which is suggested to be a more effective approach (Hambrick, 2007; Hambrick et al., 1984).

In general, Upper Echelon research has focused on the dominant coalition – the top management team (TMT) of an organization – rather than just the CEO. This is in keeping with the suggestion, from the initial article establishing the theory, that consideration of the entire team will provide more insights than simply focusing on the CEO alone (Hambrick, 2007), although insights can still be obtained through the study of individuals. While this study followed the suggestion that CEOs can substitute as proxies for the top management team in research (Hambrick, 2007), future research could utilize a design in which the characteristics of all of the top management for an organization is considered.
Finally, this research considered only one aspect of personality, aggressiveness. Some personality variables have already entered into the literature, among them the Five-Factor Model (Peterson et al., 2003), narcissism (Resick et al., 2009), and risk propensity (Lewin et al., 1994). However, many options still remain. An interdisciplinary approach would provide endless options for additional aspects of personality that could be included in future research.

5.5 Conclusion

This study sought to explore the relationships between CEO aggressiveness, competitive aggressiveness of organizations, and organization performance. The focus was on two primary research questions: “Are organizations with aggressive CEOs more likely to undertake aggressive actions?” and “Do organizations whose strategic actions are in alignment with the aggressiveness of their CEO perform better?”. For now, the answer to both appears to be “no”. While the primary hypotheses were not supported, several important relationships were identified and many important implications emerged from the findings.

Those who are responsible for selecting CEOs for organizations should not select an individual based on the aggressiveness they have displayed, even in the case of organizations seeking to pursue an aggressive strategy. Furthermore, pursuit of an aggressive strategy itself may not be the best course of action for improving organization performance. While the importance of CEOs in their organizations is not in doubt, there
is the possibility that not all of a CEO’s characteristics will impact the organization, at least not directly. These results will hopefully provide the foundation for future research to increase knowledge in the field of strategy in regards to CEO personalities and the impact these personalities can have.
References


