THE EFFECT OF MARKETING STRATEGY ON
FIRM FINANCIAL PERFORMANCE

By

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the dissertation of BRETT WILLIAM JOSEPHSON find it satisfactory and recommend that it be accept.

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THE EFFECT OF MARKETING STRATEGY ON FIRM FINANCIAL PERFORMANCE

Abstract

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This dissertation explores the effect of marketing strategy to influence firm financial performance. Specifically, I demonstrate through three related essays that different strategic marketing actions taken by a firm produce unique and novel financial performance implications. These findings contribute to marketing theory, by extending the fields understanding on how marketing influences firm financial performance, and marketing practice, by providing managers with useful decision tools to guide their own strategic decisions. Essay One explores the antecedents and financial consequences of strategic marketing ambidexterity. I was particularly interested in studying the shifting emphasis a firm places on either exploiting existing resources or exploring future market opportunities through the marketing function. Using longitudinal data from 2000-2011 on 1261 publically traded firms, I show that firm maturity and resource slack are critical determinants of strategic marketing ambidexterity, and that these effects are moderated by market turbulence and industry competitiveness. In terms of performance, I find
that different orientations in strategic marketing ambidexterity, either more exploitative-focused or more exploratory-focused, have a significant influence on firm financial risk as well as return. Essay Two explores the combinative effect of a firm’s political management capability with its traditional market-facing capabilities, R&D, sales, and resource flexibility, on performance. Using longitudinal data from 2006 – 2011 on 83 firms in the pharmaceutical industry, I demonstrate that political management capability should only be used as when a firm has weak traditional market-facing capabilities. Political management capability can act as a substitute in these instances and improve the financial performance of the firm, decreasing firm risk and increasing return. Essay Three investigates the effect of the government as a customer on supplier firm financial performance. Specifically, I explored the financial effect when the government becomes a more central component of a firm’s customer basket. I find that the government has a negative effect on firm financial performance in both the short- and the long-term. However, this negative effect can be buffered by the presence and magnitude of critical firm contextual factors, R&D intensity and resource slack.
# TABLE OF CONTENTS

ACKNOWLEDGEMENT ........................................................................................................ iii

ABSTRACT .......................................................................................................................... v

LIST OF TABLES .................................................................................................................. x

LIST OF FIGURES ................................................................................................................ xi

CHAPTER ONE ..................................................................................................................... 1

GENERAL INTRODUCTION ............................................................................................... 1

CHAPTER TWO .................................................................................................................... 7

ESSAY ONE: STRATEGIC MARKETING AMBIDEXTERTY: ............................................... 7

ANTECEDENTS AND FINANCIAL CONSEQUENCES ....................................................... 7

Abstract .............................................................................................................................. 7

Introduction ....................................................................................................................... 8

Strategic Marketing Ambidexterity and Its Firm-Level Determinants ................................ 12

Industry Context and the Determinants of Strategic Marketing Ambidexterity .................. 18

Financial Outcomes of Strategic Marketing Ambidexterity .............................................. 22

Research Methodology .................................................................................................... 24

Results ............................................................................................................................... 31

Discussion and Implications .............................................................................................. 39

References ......................................................................................................................... 44

CHAPTER THREE ............................................................................................................... 56
ESSAY TWO: COMBINATIVE AFFECTS OF POLITICAL MANAGEMENT CAPABILITY AND MARKETING CAPABILITIES IN THE PHARMACEUTICAL INDUSTRY: A GOOD PROGNOSIS?

Abstract ........................................................................................................................................ 56

Introduction .................................................................................................................................. 57

Conceptual Framework and Background ......................................................................................... 61

Hypotheses Development .................................................................................................................. 63

Research Methodology .................................................................................................................... 74

Results ........................................................................................................................................... 80

Discussion and Implications ............................................................................................................ 87

References ..................................................................................................................................... 95

CHAPTER FOUR .............................................................................................................................. 108

ESSAY THREE: UNCLE SAM RISING: THE IMPACT OF THE GOVERNMENT AS A CUSTOMER ON FIRM FINANCIAL PERFORMANCE ................................................................. 108

Abstract ........................................................................................................................................ 108

Introduction .................................................................................................................................... 109

Conceptual Development ................................................................................................................ 113

The Influence of R&D Intensity and Resource Slack on the Relationship between the Government as a Customer and Firm Value .................................................................................. 122

Research Methodology .................................................................................................................. 126

Results ........................................................................................................................................... 132
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2.1</td>
<td>28</td>
</tr>
<tr>
<td>Table 2.2</td>
<td>29</td>
</tr>
<tr>
<td>Table 2.3</td>
<td>34</td>
</tr>
<tr>
<td>Table 3.1</td>
<td>78</td>
</tr>
<tr>
<td>Table 3.2</td>
<td>82</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>116</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>129</td>
</tr>
<tr>
<td>Table 4.3</td>
<td>130</td>
</tr>
<tr>
<td>Table 4.4</td>
<td>133</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2.1</td>
<td>11</td>
</tr>
<tr>
<td>Figure 2.2</td>
<td>33</td>
</tr>
<tr>
<td>Figure 2.3</td>
<td>36-37</td>
</tr>
<tr>
<td>Figure 3.1</td>
<td>60</td>
</tr>
<tr>
<td>Figure 3.2</td>
<td>84</td>
</tr>
<tr>
<td>Figure 3.3</td>
<td>85</td>
</tr>
<tr>
<td>Figure 3.4</td>
<td>86-87</td>
</tr>
<tr>
<td>Figure 4.1</td>
<td>112</td>
</tr>
<tr>
<td>Figure 4.2</td>
<td>135-136</td>
</tr>
</tbody>
</table>
CHAPTER ONE

GENERAL INTRODUCTION

Marketing entails the exchange of goods or services that represent value between participants (e.g., Kotler 2011). This process takes numerous forms, from organizations to consumers to social institutions, but regardless of form, at its heart, marketing is concerned with the creation, communication, and deliver of value. A critical component of the exchange concerns the transference of financial aspects between participants (e.g., Anderson 1982). Indeed, from a firm’s perspective, the marketing function is tasked with acquiring and harvesting financial resources from the environment in order to fuel firm growth and ensure continued firm operations (e.g., Anderson 1982). This task has become even more crucial in recent years due to the increasing dynamic and competitive nature of almost every industry. In light of these environment pressures, the marketing function has become even more essential for a firm to achieve a success and ensure survivability. As such, the ability for marketing strategies and actions to influence or dictate financial performance has become an extremely important topic for marketing researchers and practitioners (e.g., see Srinivasan and Hanssens 2009 for a review).

The critical review into the impact of marketing strategy on firm performance has taken a varied and divergent path over the years (e.g., McAlister et al. 2006). Early works were often focused on the short-term outcomes of primary core marketing functions, embodied through price, promotion, product, and place (e.g., Mela, Gupta, and Lehman 1997). These consisted of academic work concerned primarily with sales and market share studies (e.g., McAlister et al. 2006). Unfortunately, the investigation of these variables is often viewed as containing biases, as short-term measures fail to capture the long-term implications of marketing actions and...
strategies (e.g., Srinivasan and Hanssens 2009). This fact made it difficult for marketing’s findings to resonate with the financial planning objectives of most firms (e.g., Chakravarti and Grewal 2011). Therefore, marketing has recently take a more long-term outlook in regards to how their variables impact performance, with special attention paid to stock market and accounting based measures of performance (e.g., Jacobson and Aaker 1985). The stock market presented marketing researchers with an intriguing avenue to explore the financial implications of strategic marketing actions. A firm’s stock price on a given day reflects new information to the market place that is expected to impact its current and future cash flows (e.g., Fama and French 1992). Thus, embedded in the changing nature of a firm’s stock price is a key to investigating the long-term implications of marketing action. Marketing researchers seized upon this opportunity and have recently begun exploring how marketing actions impact the stock market with significant vigor. Focusing on primary marketing activities, extant research has shown how brands (e.g., Lane and Jacobson 1995; Mizik and Jacobson 2008; Rego, Billett, and Morgan 2009), customer satisfaction (e.g., Anderson, Fornell, and Mazvancheryl 2004; Luo and Bhattacharya 2006; Mittal et al. 2005), and advertising (e.g., Joshi and Hanssens 2009, 2010; Srinivasan et al. 2009), among others (e.g., Markovitch and Golder 2008), all have a significant influence on a firm’s stock price. This emerging stream has helped strengthen marketing’s voice into its own relevance and importance in the firm (e.g., Verhoef and Leeflang 2009), and given marketing managers a powerful blueprint to follow in regards to their primary marketing actions. While research into how marketing impacts performance has seen a significant growth in recent years, significant gaps in the literature remain. The goal of this dissertation is to fill some of these gaps and provide a novel contribution to marketing theory and practice.
It’s clear from the review of previous literature that marketing has recognized the limitations in some of its early work and expanded upon them to take a more long-term perspective, but in so doing, marketing researchers continued to investigate the same primary questions regarding the core marketing functions. Researchers have frequently failed to investigate higher-level strategic issues of a firm (e.g., Anderson 1982). A significant gap remains in terms of determining the effectiveness of larger strategic actions and decision. Moreover, in its pursuit of long-term reach, marketing researchers have primarily investigated magnitude-based measures of performance from the stock market (e.g., Markovitch and Golder 2008), ignoring financial theory’s concern over the variance, or risk, surrounding those cash flows (e.g., Amit and Wernerfelt 1990). Determining the size, or magnitude, of cash flows without an investigation into their variance can lead to biased results and dangerous financial planning (e.g., Aaker and Jacobson 1987). As such, this dissertation attempts to fill these two primary holes in the marketing literature by (1) exploring the financial implications of strategic-level marketing issues and (2) exploring risk as well as return. To accomplish this task, this dissertation consists of three related, but distinct, essays that explore a unique strategic marketing action on firm financial performance.

Essay One explores the antecedents and financial consequences of a firm’s capability orchestration. A critical component of marketing strategy is the decision on how capabilities should be positioned into either exploitation-based activities, such as sales and advertising, or exploratory-based activities, such as R&D (e.g., Vorhies, Orr, and Bush 2011). Previous research has generally taken an either-or approach, where firms engage in either exploitation or exploration (e.g., Atuahene-Gima 2005). However, firms exist on a capability continuum, where they shift and move their capabilities more strongly toward one orientation over the other (e.g.,
Both elements of exploitation and exploration are present at the same time, but one is generally emphasized more strongly than the other, depending on certain contexts and conditions. This process is referred to as strategic marketing ambidexterity. Building from capabilities theories (e.g., Day 1994; Teece, Pisano, and Shuen 1997), this essay explores firm conditions that predict how a firm decides on its orientation and then explores how these different orientations impact financial performance in terms of risk and return.

Essay Two explores the effect of indirect, nonmarket facing, marketing strategies on firm financial performance. Traditional research has generally focused on the impact of market-facing activities, those firm practices specifically tailored toward creating value to the consumer (R&D, sales, advertising, etc.), while ignoring divergent avenues a firm may pursue to influence its environment. In highly regulated environments, like pharmaceuticals, firms routinely utilize their capabilities to influence their environment and gain a competitive advantage (Ahuja and Yayavaram 2011). Especially prevalent in this industry is to try and gain political influence, through contributions to political parties, campaigns, and lobbying groups. These contributions entail a political management capability (PMC) designed at gaining an advantage in the marketplace through indirect means, such as gaining faster drug approval, additional intellectual property protection, etc. (Ahuja and Yayavaram 2011). Essay Two investigates how PMC affects the financial performance of the firm in terms of risk as well as return, while also looking at how PMC interacts with traditional market-facing capabilities (R&D, sales, and advertising) to influence performance.

Essay Three investigates the financial impact of the United States government as a customer. The US government is the single largest force in the domestic market. Each year, it issues more than 3 million primary contacts, worth more than 400 billion dollars to supplier
firms. These contracts call for thousands of different types of products and services ranging from toilet paper, office suppliers, to nuclear submarines. While its size makes the government appear to be a desirable customer segment, it also contains characteristics that might diminish its overall appeal. The government is embodied with significant oversight and regulatory concerns that are not as prevalent in traditional business settings. These create significant bureaucracy concerns that can be very expensive for a firm to navigate. Therefore, the overall impact of the government as a customer on firm financial performance is murky and lacks clear understanding. Building from theory regarding customer portfolio management (e.g., Johnson and Selnes 2004), Essay Three explores the financial impact of increasing the government in terms of the overall customer hierarchy, and the ability of certain internal contextual factors, resource slack and R&D capability, to moderate this effect.

Overall, this dissertation makes several important contributions to the marketing discipline. First, the dissertation extends marketing’s understanding of how unique strategic level issues and strategies result in different financial outcomes for the firm. This extends marketing’s theory to a higher-level analysis of the firm hierarchy and uncovers novel linkages and relationships not previously identified. Second, the dissertation highlights the importance of understanding risk as well as return when studying the financial effect of marketing variables. Risk helps to uncover unique attributes about marketing actions that significantly impact their success over time. These results fill an important gap in the marketing literature and extend the field’s core understanding on how marketing’s variables impact a firm’s long-term performance. Lastly, the dissertation provides marketing managers with a useful blueprint they can follow when determining strategic marketing decisions and actions. The results of the dissertation show that certain strategies, when specific internal and external conditions are present, yield
significantly more positive financial performance than others. Additionally, marketing managers can use the results of the dissertation to benchmark their firm compared to their completion. This provides marketing managers with a very useful competitive tool to analysis their current position in the marketplace compared to their competitors.
CHAPTER TWO

ESSAY ONE: STRATEGIC MARKETING AMBIDEXTERITY:
ANTECEDENTS AND FINANCIAL CONSEQUENCES

Abstract

Strategic marketing ambidexterity (SMA), the simultaneous exploitation of existing competencies (sales and advertising) and exploration of future capabilities (R&D), represents a vital dynamic capability for improved competitive advantage and superior performance. Given its critical importance, and building from research into dynamic capabilities, I examine how firm antecedents and industry contexts affect the orchestration of SMA (exploitation-dominant vs. exploration-dominant). In addition, I examine SMA’s influence on firm financial outcomes, i.e., risk and return. Using data from 2000-2011 on publically traded firms, I show that firm maturity and flexibility are key determinants of SMA, and that market turbulence and industry competitiveness moderate these effects. Additionally, I also show that SMA orchestration, either exploitation-dominant or exploration-dominant, has a significant effect on firm risk and return. I conclude with implications for theory and managerial practice.
Introduction

In contemporary competitive landscapes, the dynamic capabilities by which firms integrate, build, and reconfigure resources are integral to sustained advantage (e.g., Day 1994; 2011; Eisenhardt and Martin 2000). Arguably, one critical instantiation of a dynamic capability is ambidexterity (e.g., Tushman and O’Reilly 1996). Specific to marketing, ambidexterity involves the ability to extract value from existing offerings and solutions, thus *exploiting* existing market opportunities, while simultaneously anticipating future market needs and developing offerings and solutions to meet potential needs, thus *exploring* new value opportunities (e.g., Atuahene-Gima 2005; March 1991; Mizik and Jacobson 2003). I cast this simultaneous exploitation of and exploration for value through the marketing function as strategic marketing ambidexterity (SMA). Because of its critical role in the firm, SMA represents a vital domain for the marketing discipline (e.g., Atuahene-Gima 2005, Rapp et al. 2013, Lee 2011). However thus far, little is known about firm determinants that drive the search, selection, and orchestration of capabilities and resources into SMA. Likewise, although unarguably a critical issue, understanding of the performance implications of SMA is still quite limited.

I attempt to fill this gap by addressing two primary research questions. (1) How do firm level factors work to determine SMA (i.e., the orchestration of exploitation and exploration)? Because I expect these factors to work differently across industries, I consider the role of industry context in my question. (2) How does SMA affect firm financial performance? To address these research questions, I draw on dynamic capabilities theory (Teece et al.1997) as my constructive lens because it allow me to identify firm specific factors that act as critical determinants of SMA and specify the financial performance implications of SMA. The theory suggests two factors that influence SMA, organizational life cycle, or more specifically, firm maturity, and flexibility (i.e., resource slack) (e.g., Teece et al.1997; Tushman and O’Reilly
1996). In addition, it informs my expectations of how SMA affects two critical dimensions of financial performance, risk and return. Risk involves the projected financial stability resulting from the strategic action of the firm (e.g., Chakravarty and Grewal 2011), while return shows the magnitude of earnings (e.g., Srinivasan and Hanssens 2009). Together, these demonstrate the overall financial health of the institution.

This research provides several contributions to marketing theory and practice. First, based on general notions of ambidexterity, I conceptualize a refined form, strategic marketing ambidexterity, that hones in specifically on the configuration of strategic marketing action in terms of exploitation and exploration. Second, I extend understanding of SMA by investigating key firm-level antecedents driving its creation. This, in turn, provides managers and researchers with valuable insights into the formation of a critical dynamic capability and a deeper understanding of a firm’s design, allocation, and utilization of resources and capabilities. Third, I advance understanding of the impact of SMA on a firm’s financial outcomes by explicating its role in generating both risk and returns. This research provides managers with logical foundation and justification for firm strategic decision-making. As such, my findings enable a stronger voice for marketing managers regarding the financial impact of marketing actions (e.g., Srinivasan and Hanssens 2009).

I organize the remainder of this essay in the following manner. First, I theorize SMA as based in exploratory and exploitative marketing action and then introduce firm-level factors influencing it and specify hypotheses accordingly. Given that these relationships vary by industry, I advance arguments and hypotheses regarding industry context moderation. Next, I develop and articulate hypotheses for how SMA affects firm financial performance in terms
of risk and return. I test the hypotheses using panel estimation techniques on twelve years of longitudinal data on publicly traded firms gathered from the NYSE. Figure 2.1 depicts my conceptual model. In the latter sections of the essay, I discuss theoretical and managerial implications of these findings.
Figure 2.1: Conceptual Model of Critical Antecedents and Financial Outcomes of SMA

Firm Antecedents
- Firm Maturity
- Flexibility

Industry Effects
- Market Turbulence
- Industry Competitiveness

Control Variables
- Firm Size
- Firm Capital Intensity

Strategic Marketing Ambidexterity
- Sales-based Exploitation/Exploration
- Advertising-Based Exploitation/Exploration

Financial
- Firm Risk
- Firm Return

Industry Effects

Institutional Effects
Strategic Marketing Ambidexterity and Its Firm-Level Determinants

Ambidexterity represents how a firm configures its capabilities to capitalize on its current resources and competencies (exploitation-focused practices), while also developing options for development of future capabilities via the accumulation of unique knowledge stores in anticipation of future situations and environmental dynamics (exploration-focused practices) (e.g., Ireland et al. 2003; March 1991; Tushman and O’Reilly 1996). In this way, a firm capitalizes on current value extraction while also planting the seeds for future value creation. Therefore, ambidexterity involves the building, modifying, and reconfiguration of resources and competencies to accommodate the two distinct processes, exploitation and exploration.

Strategic Marketing Ambidexterity

In the marketing strategy domain, SMA involves exploitation and exploration focused specifically on value extraction and creation, respectively, through the marketing function and marketing action (e.g., Voss and Voss 2013). Specifically, marketing-based exploitation involves the current exploitation of existing marketing competences to extract value or economic rents currently available from the environment (e.g., Vorhies, Orr, and Bush. 2011; Voss and Voss 2013). In addition to value extraction, exploitation activities also serve to create stronger competitive positions in the current environmental climate (e.g., Han et al. 2001). Firms’ marketing-based exploitation activities largely involve sales and advertising (e.g., McAlister et al. 2007, Mizik and Jacobson 2003; Reinartz et al. 2005). Sales is a primary activity by which a firm makes exchanges with the environment (e.g., Anderson 1982; Homburg and Jensen 2007), and thus has been found to influence successful value extraction (e.g., Ahearne et al. 2010; Reinartz et al. 2005). Likewise, advertising is an exploitation-based practice focused on creating
and facilitating exchange with a firm’s current market, and thus extracting value (Mizik and Jacobson 2003).

Marketing-based exploration is concerned with the search, experimentation, and development of new opportunities and knowledge through marketing activities for radical new products (e.g., Andriopoulos and Lewis 2009; Vorhies, Orr, and Bush 2011; Voss et al. 2008). This typically involves a firm’s R&D capability, as that is the basis for radical and discontinuous product innovations (e.g., Gupta et al. 2006; He and Wong 2004; Tushman and O’Reilly 1996). Exploration works to keep a firm ahead of competitors and environmental forces through impactful innovation (e.g., Atuahene-Gima 2005; Vorhies, Orr, and Bush 2011). Thus, I theorize SMA, the orchestration of exploitation and exploration in strategic marketing action, from the dual perspective of the combination of 1) sales (exploitation) and R&D (exploration), and 2) the combination of advertising (exploitation) and R&D (exploration).

The fundamentals underpinning SMA give rise to questions regarding the appropriate orchestration of exploitation versus exploration. Some scholars have viewed exploitative and exploratory marketing action as mutually exclusive (e.g., Mizik and Jacobson 2003). Scarce resources require tradeoffs resulting in the exclusive focus on exploitation or exploration so that the rise of exploitation means the demise of exploration, and vice versa. However, recent research (e.g., Andriopoulos and Lewis 2009; Gupta et al. 2006, Voss and Voss 2013) suggests that the two can, and do, coexist to the benefit of the firm (e.g., Gupta et al. 2006). Indeed, recent perspectives suggest that a balanced alignment of exploitation versus exploration (a relatively equal emphasis on both) is preferred as it allows a firm to be both forward looking and present oriented where; a firm is able to satisfy current marketplace demands while simultaneously attending to its long-term position (e.g., He and Wong 2004). Despite apparent the benefits of
symmetry in ambidexterity (e.g., Mom et al. 2009), research indicates that firms rarely achieve it (e.g., Raisch et al. 2009). Thus, both exploitation and exploration elements are present in SMA but with one typically favored more than the other (e.g., Verhoef and Leeflang 2009).

An exploitation-dominant SMA means stressing greater efficiency and refinement of existing competencies for the optimization of short-term results. The prevalent concern is the pursuit of short-term improvements more so than long-term positions (e.g., Gupta et al. 2006). In contrast, a firm with an exploration-dominant SMA promotes experimentation, creative thinking, and adaptability through the accumulation and search for unique stores of new knowledge more so than the refinement of existing competencies (e.g., Day 2011). Exploration dominated SMA can be considered a long-term orientation, with the short-term outcomes deemphasized in favor of creating future opportunities (e.g., Andriopoulos and Lewis 2009). Importantly, firms may be compelled to shift their focus in SMA (e.g., Gupta et al. 2006), as clinging to an exploration or exploitation dominant SMA for too long can make a firm vulnerable. For example, focusing on value extraction often yields early financial success (e.g., Mizik and Jacobson 2003), reinforcing an exploitation-based leaning in SMA. This “success trap,” however, results in the eventual depletion of resources and market positions due to over-extraction with limited ability to generate future value. Likewise, exploration is high risk and fails more often than it succeeds, which in turn requires even more search to generate any successes. This “failure trap” of ever searching for new capabilities can come at the expense of harvesting existing opportunities.

Given that the configuration of exploitation and exploration elements in SMA can vary, questions arise as to what factors determine that configuration. Building from theories of dynamic capabilities (e.g., Day 2011; Teece et al. 1997), I posit that firm maturity and flexibility are two firm-level determinants that help explain the orchestration of SMA.
Firm-Level Determinants of SMA: Maturity and Flexibility

A firm’s historical evolution, its organizational life cycle, is marked by unique periods of development, growth, and maturity (Chandler 1962; Lillis et al. 1976). As a firm matures, internal and external complexities require idiosyncratic investments in assets, resources, and capabilities to navigate the process and ensure firm survival (e.g., Jawahar and McLaughlin 2001; Miller and Friesen 1984). Extant literature notes the importance of firm maturity levels, i.e., the organizational life cycle, with regard to stakeholder perspectives (e.g., Jawahar and McLaughlin 2001), performance and effectiveness (e.g., Quinn and Cameron 1983), and strategic decision-making (e.g., Anderson and Ziehtaml 1984). While scholars have acknowledged the importance of issues related to organizational life cycle (e.g., Helfat and Peteraf 2003; Jap and Ganesan 2000), and have investigated their moderating impact on ambidexterity outcomes (e.g., Voss and Voss 2013), I could find no substantive empirical studies investigating firm maturity as a determinant of SMA. This is surprising given theory’s suggestion of the potential ramifications of firm maturity regarding resources, capabilities, and dynamic capability orchestration (e.g., Tushman and O’Reilly 1996).

For instance, younger, less mature firms are often more adaptable and less complex, but operate under significant resource constraints as they struggle to create a market presence, gain legitimacy from stakeholders, and secure a significant market foothold (e.g., Jarillo 1989; Yli-Renko and Janakiraman 2008). Once they accomplish significant growth, younger firms gain marketplace legitimacy and acceptance (e.g., Agarwal and Audretsch 2001). This happens with an emphasis on sales growth and resource accumulation practices (e.g., Miller and Friesen 1984). Young firms cultivate additional capabilities and in the process, accumulate significant debt or seek external equity or partnerships to fuel expansion (e.g., Sirmon et al. 2011). Also, formal
structures begin to develop and become more refined, improving the ability to deal with complex processes and organizational change (e.g., Cyert and March 1963; Voss and Voss 2013).

On the other hand, more mature firms have secured a reliable stream of resources to pursue opportunities via a stable market position and established legitimacy. This provides opportunity to build and create additional capabilities to support innovation efforts, which become increasingly necessary as market forces eventually compromise initial competitive advantages (e.g., Agarwal and Gort 2002). However, more mature firms tend to be more rigid, suffer from inertia, be encumbered by complex structures, and can lack an innovative orientation (e.g., Chandy and Tellis 1998; Miller and Friesen 1984). If a mature firm fails to revitalize, it may face stagnation and perhaps eventual mortality (e.g., Miller and Friesen 1984). Overall, extant research suggests that the improper orchestration of resources and capabilities during maturation produces firm distress, resulting in potential failure and demise (e.g., Sirmon et al. 2011).

Therefore, I posit that younger, less mature firms, endowed with flexibility, but faced with significant resource constraints and legitimacy concerns, will be compelled to orchestrate their SMA toward exploitation. First, younger, less mature firms often accumulate significant debt as they attempt to grow and gain market position (e.g., Agarwal and Audretsch 2001), making exploitation a near necessity to ensure payment of debt obligations. Second, in the face of legitimacy concerns, these firms are compelled to justify themselves to stakeholders through focused exploitative activities that generate improvements in sales figures and sizeable short-term profits (e.g., Jawahar and McLaughlin 2001; Mizik 2010). Third, in light of the resource constraints younger firms often face, harvesting value from existing assets and opportunities becomes vital to ensure survivability and longevity (e.g., Agarwal and Audretsch 2001). A focus
on exploitative activities allows the establishment of sufficient resource inflows. Lastly, younger firms rarely possess organization routines advanced enough to strengthen exploration and exploitation processes simultaneously (e.g., Voss and Voss 2013).

In contrast, more mature firms have achieved more secure resource positions, and gained market legitimacy and a market presence; however, they struggle with organizational inertia and innovation dilemmas (e.g., Sirmon et al. 2011). In addition, growth deceleration and saturation of competencies often characterizes mature firms (e.g., Chandler 1962; Miller and Friesen 1984), who may suffer obsolescence and market disconnect. For mature firms, an exploration-dominant SMA demonstrates responsiveness and commitment to sustained advantage (e.g., Day 2011), as well as an ability to continue innovation and develop of additional knowledge stores (e.g., Gatignon and Xuereb 1997; Johnson et al. 2004). Firm maturity facilitates the ability to reconfigure and build capabilities through an established array of organizational routines and resources (e.g., Voss and Voss 2013). Thus, because of a mature firm’s need for renewal, SMA will emphasize exploration more so than exploitation (e.g., Ireland et al. 2003). Stated formally, 

\[ H_1: \text{Less mature firms associate with exploitation-dominant SMA, and more mature firms associate with exploration-dominant SMA.} \]

Flexibility, that is resource slack (e.g., Lee and Grewal 2004), denotes the extent to which a firm’s resources remain available for redeployment and repositioning as the need arises (e.g., Cyert and March 1963). It represents a reservoir of actual as well as potential resources that provide a buffer against internal or external forces (e.g., Bourgeois 1981). A firm can use this reservoir to reposition assets and other resources across varied and critical areas, given specific conditions (e.g., Voss et al. 2008). As such, flexibility provides a useful capability for a firm to respond to market fluctuations in a speedy and effective manner (e.g., Kurt and Hulland 2013).
Flexibility increases the range of options regarding its strategies and operations (e.g., Johnson et al. 2003), thus enabling a firm to change to its structure, invest in risky projects, explore new market opportunities, all while not endangering its current operations or generating internal strife and conflict (e.g., George 2005; Tan and Peng 2003). Indeed, previous research has found that flexibility enables market growth and product expansion (e.g., Mishina et al. 2004), as well as R&D for innovation (e.g., Argote and Greve 2007).

Because flexibility allows a firm to explore additional market opportunities and capabilities without fear of hindering current operations, threatening existing capabilities, or causing internal tension (e.g., Argote and Greve 2007), consistent with past research (e.g., Voss et al. 2008), I expect it to relate to an exploration-dominant SMA. Importantly, in contrast to previous research (e.g., Voss et al. 2008), I theorize SMA as involving the simultaneous balance of exploration and exploitation. This means that even though I posit an exploration-dominant ambidexterity in the presence of higher flexibility, exploitation does not necessarily diminish. The orchestration of capabilities simply begins to stress exploration-dominant SMA rather than an exploitation-dominant SMA, while exploitation practices continue in the firm. Stated formally:

H2: Greater flexibility associates with an exploration-dominant SMA.

Industry Context and the Determinants of Strategic Marketing Ambidexterity

I expect that firm maturity and flexibility will affect SMA differently across various industry contexts (e.g., Mizik and Jacobson 2003; Voss et al. 2008). As such, I investigate how the industry characteristics, market turbulence and industry competitiveness, moderate the relationship between firm maturity and SMA, and flexibility and SMA.

Market Turbulence, Firm Maturity, and Flexibility
High market turbulence exacerbates the resource constraints, debt obligations, and legitimacy concerns faced by younger firms (e.g., Agarwal and Audretsch 2001). High market turbulence involves customers who have dynamic preferences and demands (e.g., Jaworski and Kohli 1993) making it difficult for a firm to plan effectively and ensure a stable inflow of resources. In addition, achieving legitimacy is more difficult in turbulent environments as customer wants and needs emerge and disappear quickly. Likewise, customers are risk averse toward offerings they may not trust or see as authentic (e.g., Plambeck 2012). In terms of SMA, this requires younger firms to focus even more attention on quickly harvesting and refining existing capabilities to ensure survival as the market vacillates. For example, strong sales and advertising activities can assuage customer concerns, help gain acceptance, and build legitimacy.

Under high market turbulence, mature firms do not face the same resource and legitimacy concerns as younger firms, but they can face innovation problems from inertia and competitive pressure. In such situations, dynamic customer demands require innovative product offerings (e.g., Hauser et al. 2007), further pressing mature firms toward an exploration-dominant SMA. Older firms may see saturation in their existing competencies and changing customer preferences that render their existing offering less desirable. Exploratory-dominant SMA may become necessary to develop future market value. In contrast, mature firms in stable industries (forest products, steel, cotton, etc.) will not need to spend as much energy and resources pursuing exploration-focused activities given that customer demand stays relatively stable. Therefore,

H₃: Market turbulence moderates the impact of firm maturity on SMA such that under high market turbulence (compared to low market turbulence), the association between firm maturity and exploration-dominant SMA is strengthened.
Under high market turbulence, firms require significant resources and pliability to develop strategic options that meet anticipated market needs and to develop future capabilities that match changes (e.g., Chandy et al. 2006). While flexibility, i.e., resource slack, enables market growth and product expansion (e.g., Mishina et al. 2004), as well as R&D for innovation (e.g., Argote and Greve 2007), an environment of high market turbulence adds urgency to the scenario. Since high turbulent market environments are characterized by rapidly changing consumer wants and needs, firms must be able to offer a constant stream of new and innovative products; that is, they must increase the focus on exploration to keep up with the churn and meet the constantly changing customer wants and needs. Moreover, market turbulence suggests the decline of some markets and emergence of other new ones. Therefore, in the face of high market turbulence, firms tend to leverage their flexibility to engage in increased range of strategic options through exploration, thus enabling the firms to shift and act as needed. Alternatively, under less market turbulence, firms can direct flexibility toward enhancing exploitation-dominant SMA, ensuring that they are better able to meet current requirements and capitalize on existing competencies.

Stated formally,

H4: Market turbulence moderates the relationship between flexibility and SMA such that in the face of high market turbulence (compared to low market turbulence), the association between flexibility and exploration-dominant SMA is strengthened.

Industry Competitiveness, Firm Maturity, and Flexibility

Industry competitiveness means that there are many choices for consumers offered by a large number of firms (e.g., Kohli and Jaworski 1990). A less mature firm’s fight for market position, legitimacy, and acceptance is more difficult in industries with greater competition. Less
mature firms especially have to fight through the thicket of competitors to establish their own market presence and gain market share. This requires strong exploitive activities where existing competencies and capabilities, such as advertising and sales promotions, are leveraged to harvest for advantage. For less mature firms, competitive pressures increase the need for exploitation-dominant SMA.

However, mature firms in highly competitive industries must maintain their innovativeness to stave off competitive threats. Mature firms generally face more threats due to their incumbency (e.g., Chandy and Tellis 2000). Mature firms are compelled to create strong entry barriers as competitive threats emerge around them and innovation provides a viable avenue for doing so (e.g., Han et al. 2001). This requires a strong exploration element in SMA for mature firms. However, because it builds strong loyalty and customer franchise, advertising, an exploitation-oriented activity can serve to build effective entry barriers. Accordingly, in highly competitive industries, more mature firms also benefit from a strong exploitation element in their SMA. As an example, consider the highly competitive context of mature soft drink companies (i.e., PepsiCo and Coca-Cola). These mature firms constantly strive to innovate distinctive new offerings but also draw on strong advertising efforts to build and strengthen customer loyalty. In less competitive industries, there are fewer firms fighting over scarce market resources, making it easier to gain a market foothold. As such, less mature firms in less competitive industries may not feel quite the urgency to exploit and harvest, and therefore still lean toward exploitation in their SMA, but in a relatively less pronounced way. Thus:

H₅: Industry competitiveness moderates the effect of firm maturity on SMA such that in highly competitive industries, less mature firms associate even more strongly with
exploitation-dominant SMA and in highly competitive industries, more mature firms increase exploitation and thus associate with a more balanced SMA.

In terms of flexibility, I expect a similar moderation pattern for industry competitiveness. Greater flexibility allows for improved range of motion for investment in innovation and exploration of potential market opportunities. Innovation (exploration) allows a firm to maintain advantage in the face of tough industry competition (e.g., Hauser et al. 2007). However, in highly competitive industries, firms also must maintain current market position and stave off competitors. Advertising and sales (exploitive activities) build and protect customer loyalty and accomplish this. Loyalty, and a strong customer franchise, built through sales and advertising serve as effective entry barriers (e.g., Veliaht and Ferris 1997) and protection against intense competition. Firms deploying flexibility too strongly toward exploration at the expense value extracting exploitive activities that, importantly, also serve as protective mechanisms, may find themselves vulnerable in highly competitive industries. Thus, I argue that, in competitive industries, greater flexibility results in an SMA characterized by strong exploration elements, but also strong exploitative elements. Stated formally,

\[ H_6: \text{Industry competitiveness moderates the effect of flexibility on SMA such that in highly competitive industries, the association between flexibility and exploration-dominant SMA is weakened.} \]

**Financial Outcomes of Strategic Marketing Ambidexterity**

To provide a more holistic picture of SMA’s impact on the firm, I include both risk and return (e.g., Srinivasan and Hanssens 2009). Risk involves turbulence and disruption in cash flows (e.g., Fama and French 1992), and greatly influences firm survivability and vitality (e.g., Amit and Wernerfelt 1990). Risk influences firm attractiveness to investors (e.g., Chakravarty
and Grewal 2011), and limits the marketing function’s ability to insure sufficient cash flows (e.g., Anderson 1982). Risk consists of two components, systematic (i.e., stock-market specific) and idiosyncratic (i.e., firm specific) (e.g., Luo and Bhattacharya 2009). Because SMA involves firm specific action and consequences, I focus on idiosyncratic risk, and refer to it simply as risk. For returns, I include profitability via return on assets (ROA). Research indicates that ROA is a robust measure of performance and provides a reliable picture of financial health (e.g., Rego et al. 2009).

The potential hazards and benefits inherent to exploitation and exploration suggest that an exploration-dominant SMA would generate different performance benefits than an exploitation-dominant SMA. Specifically, with regard to risk, an exploration-dominant SMA should generate an enhanced outcome (i.e., reduced risk). The forward-looking nature of exploration-dominant SMA insulates the firm from market fluctuations through its improvements in adaptability and responsiveness to market changes (e.g., Tushman and O’Reilly 1996). Moreover, the creation of value promotes firm health and prosperity. Financial markets will see exploration-dominant SMA as a positive signal of a firm’s commitment to ensuring continual returns and retaining competitive advantage. Such positive signals reduce risk, as the market responds with more confidence in predicting future earnings outcomes (e.g., Luo and Bhattacharya 2009).

Additionally, an exploration-dominant SMA improves a firm’s ability to differentiate itself from competitors and erect competitive barriers (e.g., Porter 1985).

In terms of exploitation-dominant SMA, a focus on harvesting current opportunities over the development of future capabilities can lead to myopic management tendencies (Mizik 2010), lackluster innovation outcomes (e.g., Atuahene-Gima 2005), and over harvesting of resources from the environment (Raisch et al. 2009). These can generate market apprehension and doubts
concerning the predictability and stability of future revenue generating activities (e.g., Luo and Bhattacharya 2009). Therefore,

\[ H_7: \text{An exploration-dominant SMA associates with reduced risk, while an exploitation-dominant SMA associates with increased risk.} \]

In terms of the ROA element of financial performance, research suggests that exploitation provides positive initial returns (e.g., Mizik and Jacobson 2003). Appropriating value from existing opportunities indicates that the firm is garnering pay out from investments committed. In contrast, an exploration-dominant SMA jeopardizes the extraction of economic rents and value from current opportunities and market positions (e.g., Mizik and Jacobson 2003). Opportunities created from investments fail to yield and are lost. Thus,

\[ H_8: \text{An exploration-dominant SMA associates with reduced ROA, while an exploitation-dominant SMA associates with increased ROA.} \]

**Research Methodology**

**Data**

This dataset consists of a sample of US publically traded firms operating in 2000-2011. The goal was to capture firms that engaged in both exploitation and exploration, and as such, it included both B2B and B2C firms, but excluded financial service organizations. I collected and integrated specific data for these firms from a variety of secondary sources, such as: CRSP, COMPUSTAT, and French’s personal Web site (http://mba.tuck.dartmouth.edu/-pages/faculty/ken.french/data_library.html). After removing those who did not meet my inclusion criteria, I finished with 1261 firms.

**Measures**
Due to differences in how researchers view exploitation-focused practices (e.g., Mizik and Jacobson 2003; Reinartz et al. 2005; Srinivasan et al. 2009), I operationalized the exploitation component of marketing ambidexterity in two different ways: sales- and advertising-based. R&D is a well-known proxy for exploration in previous research (e.g., Mizik and Jacobson 2003), so I used it in both SMA measures.

First, I measured sales-based marketing ambidexterity as the ratio of selling, general, and administrative expenses (SGA) for firm i in year t minus R&D expenses for firm i in year t divided by the total assets for the firm in year t. Thus:

\[
1 = \frac{(SGA_{it} - R&D_{it})}{Assets_{it}}.
\]

This represents the strategic orientation of a firm regarding their marketing ambidexterity using sales as the primary lens of exploitation-focused practices (e.g., Reinartz et al. 2005).

Second, I used Mizik and Jacobson’s (2003) measure of value creation and value appropriation as my guide for advertising-based SMA, operationalized as advertising expenditures subtracted from R&D expenses for firm i in year t, divided by total firm assets. Thus,

\[
2 = \frac{(Ad_{it} - R&D_{it})}{Assets_{it}}.
\]

This measures the strategic orientation of the firm regarding their marketing ambidexterity using advertising as its proxy for exploitation-focused practices.

For both measures, a positive score indicates stronger exploitation-dominant SMA, whereas a negative score emphasizes exploration-dominant SMA. Changes in the value of marketing ambidexterity over time indicate changes in the strategic emphasis and orientation of the firm regarding their SMA (Ittner et al. 1997).
Based on previous research (McAlister et al. 2007), I operationalized a firm’s maturity as its age in years, which was calculated as the number of years since IPO. For example, if the year was 2005 and the firm had its IPO in 2000, the firm’s maturity (age) would be five. I then operationalized flexibility using resource slack, calculated as the financial ratio of retained earnings to total assets in the corresponding year (Lee and Grewal 2004).

My measures for industry moderators are consistent with previous marketing research (e.g., Fang et al. 2008). I calculated market turbulence as the standard deviation of total revenue in each firm’s industry, based on four-digit SIC codes, for the prior four years, divided by the mean revenue over the same time period. Also based on previous research (e.g., Fang et al. 2008), I used the Herfindahl index to determine industry competitiveness. Each firm had its market share value in its primary industry squared. I summed the values over all firms in that industry and subtracted this value from 1 to determine the level of industry competitiveness. I used four-digit SIC codes to determine primary firm industry.

Based on previous marketing research (e.g., Luo and Bhattacharya 2009), I measured idiosyncratic risk using daily stock prices for each firm in the sample that were then matched with daily FF4 factor data. I used the FF4 model because it provides better estimates than other financial models (e.g., Carhart 1997; Fama and French 1992). As modeled in previous financial/accounting research (e.g., Ang et al. 2006; Cao et al. 2008), an individual stock return for each day is a function of the FF4 factors, plus residual excess. As such, the FF4 model’s residual ($u_{i,d}$) measures firm-idiosyncratic excess return, given as:

$$r_{i,d} = \alpha_i + \beta_{d}^{MKT} r_{d}^{MKT} + \beta_{i}^{SMB} r_{d}^{SMB} + \beta_{i}^{HML} r_{d}^{HML} + \beta_{i}^{UMD} r_{d}^{UMD} + u_{i,d},$$

where, $r_{i,d}$ is the daily stock return for firm $i$, $\alpha_i$ is the intercept for the FF4 model, MKT/SMB/HML/UMD are the Fama and French (1992) three factors with the additional Carhart
fourth factor of momentum (e.g., Carhart 1997), and \( u_{i,d} \) is the models residual which equals \( \rho u_{i,d} - 1 + \delta_{i,d} \). \( \delta_{i,d} \) is assumed to be a normal random variable with mean 0 and variance of \( \sigma^2_\delta \), which allows Equation 1 to control for serial correlation through its error term (e.g., Ang et al. 2006).

From Equation 3, I calculated idiosyncratic risk by measuring the variance surrounding the residuals \( \frac{1}{n} \times (\Sigma_{d=1}^n u_{i,d}^2) \), where \( n \) denotes the number of trading days in a calendar year (252) for each firm. I then scaled the resulting residual variance term relative to total firm risk. It then equals \( 1 - R_{it}^2 \), where \( R_{it}^2 \) is the coefficient of determination from the regression analysis of equation 1. A benefit of scaling idiosyncratic risk by total risk is that it helps control for industry differences, and allows for comparison of idiosyncratic risk across industries (Luo and Bhattacharya 2009). Consistent with previous research (e.g., Luo and Bhattacharya 2009), I conducted a logistic transformation, to obtain the final measure of firm-idiosyncratic risk, as follows:

\[
(4) \quad v_{it} = \ln \left( \frac{1-R_{it}^2}{R_{it}^2} \right).
\]

Return on assets was operationalized as the ratio of firm net income to total assets (Fang et al. 2008).

I also included two primary control variables to strengthen the robustness of the results. First, SMA could be simply due to firm size. Therefore, I control for firm size, measured as the natural log of total employees. Second, I control for a firm’s capital structure, in that highly capitalized firms have made significant investments into their manufacturing facilities and current operations (e.g., Castrogiovanni 1991). I measured this as the ratio of a firm plant, property, and other assets to yearly revenue. Table 2.1 provides the equations of the measures and Table 2.2 summarizes the descriptive statistics and correlations for those measures, accounting for panel effects.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition/Equation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic Marketing Ambidexterity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales-based</td>
<td>1. Ratio of SGA minus R&amp;D expenditures divided by total assets</td>
<td>COMPUSTAT</td>
</tr>
<tr>
<td>Advertising-based</td>
<td>2. Ratio of Advertising minus R&amp;D expenditures divided by total assets</td>
<td>COMPUSTAT</td>
</tr>
<tr>
<td><strong>Firm Antecedents</strong></td>
<td></td>
<td></td>
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<tr>
<td>Firm maturity</td>
<td>Years since IPO</td>
<td>COMPUSTAT</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Ratio of retained earnings to total assets</td>
<td></td>
</tr>
<tr>
<td><strong>Industry Contexts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market turbulence</td>
<td>Standard deviation of sales divided by mean of industry sales for prior four years</td>
<td>COMPUSTAT</td>
</tr>
<tr>
<td>Industry competitiveness</td>
<td>One minus the summated market share squared for each firm</td>
<td>COMPUSTAT</td>
</tr>
<tr>
<td><strong>Financial Performance</strong></td>
<td></td>
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<tr>
<td>Firm-Idiosyncratic Risk via stock returns</td>
<td>( v_t = \ln\left(1 - \frac{R_t^2}{\bar{R}_t^2}\right) )</td>
<td>CRSP and French Data</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>Net income divided by total assets</td>
<td>COMPUSTAT</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
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</tr>
<tr>
<td>Firm Size</td>
<td>Number of employees (log transformed)</td>
<td>COMPUSTAT</td>
</tr>
<tr>
<td>Firm Capital Intensity</td>
<td>Plant, Property, Other assets over revenue</td>
<td>COMPUSTAT</td>
</tr>
</tbody>
</table>
Table 2.2 Descriptive Statistics and Correlation Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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</thead>
<tbody>
<tr>
<td>1. Strategic Marketing Ambidexterity (sales)</td>
<td>.26</td>
<td>.25</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Strategic Marketing Ambidexterity (Ads)</td>
<td>-.07</td>
<td>.12</td>
<td>-.04*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Firm maturity</td>
<td>15.96</td>
<td>15.11</td>
<td>-.16*</td>
<td>.19*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Flexibility</td>
<td>-1.27</td>
<td>10.31</td>
<td>-.42*</td>
<td>.33*</td>
<td>.07*</td>
<td>1.00</td>
<td></td>
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<tr>
<td>5. Market turbulence</td>
<td>2.49</td>
<td>1.22</td>
<td>.08*</td>
<td>-.36*</td>
<td>-.40*</td>
<td>-.19*</td>
<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>6. Industry</td>
<td>.64</td>
<td>.24</td>
<td>.04*</td>
<td>-.23*</td>
<td>-.31*</td>
<td>-.06*</td>
<td>.61*</td>
<td>1.00</td>
<td></td>
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<td>7. Idiosyncratic risk</td>
<td>1.73</td>
<td>1.47</td>
<td>.32*</td>
<td>-.07*</td>
<td>-.27*</td>
<td>-.19*</td>
<td>.05*</td>
<td>-.01*</td>
<td>1.00</td>
<td></td>
<td></td>
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<tr>
<td>8. ROA</td>
<td>-.11</td>
<td>.72</td>
<td>-.39*</td>
<td>.38*</td>
<td>.13*</td>
<td>.67</td>
<td>-.18*</td>
<td>-.07*</td>
<td>-.20*</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Firm size</td>
<td>-.19</td>
<td>2.16</td>
<td>-.32*</td>
<td>.29*</td>
<td>.56*</td>
<td>.16*</td>
<td>-.32*</td>
<td>-.25*</td>
<td>-.54*</td>
<td>.24*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>10. Firm capital intensity</td>
<td>3.39</td>
<td>169.81</td>
<td>-.01</td>
<td>-.12*</td>
<td>-.01</td>
<td>-.00</td>
<td>.02*</td>
<td>.01</td>
<td>-.00</td>
<td>-.02</td>
<td>-.01</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Notes: * $p < .05$. All $p$-values are two-tailed.
Model Development

The nature of the data (multiple firms, multiple observations, and multiple years) requires the utilization of panel methods over traditional time series approaches. Panel techniques allow for the appropriate analysis of primarily cross-sectional data over a series of years (e.g., Wooldridge 2009). As such, it has several advantages over traditional OLS and time series approaches: (1) it controls for individual effects, (2) it models heterogeneity across observations, and (3) models dynamic behavior of observations (e.g., Wooldridge 2009). However, I addressed the following three issues before estimation:

First, to address issues regarding stationarity that could bias the measures of SMA and financial performance, I conducted a Fisher-type unit root test. The results (SMA (sga): inverse $\chi^2 = 7535.94, p < .01$; SMA (advertising): inverse $\chi^2 = 4036.17, p < .01$; risk: inverse $\chi^2 = 8973.77, p < .01$; ROA: inverse $\chi^2 = 6492.42, p < .01$) suggest that stationarity is not a concern. Second, I control for issues of serial correlation and cross-sectional dependence that could result in biased parameter estimates with Driscoll and Kraay’s (1998) robust standard error treatment of the panel regressors. Lastly, I determined whether running a fixed- or random-effects model was appropriate for the dependent variables, using Hausman’s (1978) specification test to check if a random-effects treatment was tenable. Significant test results indicated that a random-effects treatment was not advisable (e.g., Fang et al. 2008; Wooldridge 2009). All variables were mean centered and standardized before calculation to help aid interpretability.
Results

Table 2.3 shows the results of the analysis of antecedents and context effects of SMA. I begin with a discussion on the main effects of firm maturity and flexibility on both measures of SMA. Then, I proceed to discuss the moderation effects.

First, when using sales-based SMA, I find that firm maturity (b = -0.25, \( p < .01 \)) and flexibility (b = -1.46, \( p < .01 \)) have significant negative effects. I feel it is useful to interpret these results in relation to their means. Sales-based SMA has a mean of 0.26. This means that, on average, SMA favors exploitation more so than exploration. Therefore, increasing firm maturity is associated with a stronger emphasis toward exploration as witnessed by the negative effect, i.e., moving the mean closer to balance. The same effect holds true for flexibility. Higher slack sees an increase in exploration emphasis. These findings support H1 and H2. Next, when using advertising-based SMA, I find that firm maturity (b = 0.09, \( p < .05 \)) and flexibility (b = 1.06, \( p < .01 \)) have significant positive effects. Once again, I interpret these results in relation to their means. Advertising-based SMA has a mean of -0.07, meaning that on average, firms R&D efforts are stronger than their advertising efforts. Therefore, increasing firm maturity and increasing flexibility both result in advertising (exploitation-based SMA) increasing in emphasis. These findings, while significant, move in the opposite hypothesized direction of H1 and H2. I discuss possible reasons and implications of this affect in the discussion section.

My first set of moderation hypotheses concern the impact of market turbulence on the relationship between firm maturity/flexibility and SMA. H3 states a moderation effect of market turbulence on the relationship between firm maturity and SMA, such that under high turbulence, older firms increase their association with exploration-dominant SMA, while younger firms increase their association with exploitation-dominant SMA. I find a significant interaction for
both sales-based SMA (b = -.04, p < .01) and advertising-based SMA (b = .11, p < .01), providing initial support for H3. To help aid in the understanding of these findings, I provided a graph at plus/minus one standard deviation from the mean. Figure 2.2 panel A shows the interaction of firm maturity and market turbulence on selling-based SMA. The graph shows that older firms in high market turbulence have a stronger emphasis on exploration than in less turbulent industries. Additionally, younger firms have a stronger emphasis on exploitation in highly turbulent industries than in less turbulent industries. These findings demonstrate support for H3.

Figure 2.2 panel B shows that older firms place a stronger emphasis on advertising-based exploitation in highly turbulent industries than in less turbulent industries. The graphs display advertising and sales acting in opposite to one another. Once again, the effects of advertising-based SMA are counter to my predictions. H4 predicts that market turbulence enhances the effect of resource flexibility on SMA. I failed to find support for the moderation of slack and market turbulence for either selling-based or advertising-based SMA.
Figure 2.2: Moderation of Market turbulence on the Relationship between Firm Maturity and SMA

Panel A

Panel B
### Table 2.3: Results of Panel Regression Analysis on the Antecedents of SMA

<table>
<thead>
<tr>
<th>Variable</th>
<th>SMA (Selling vs. R&amp;D)</th>
<th></th>
<th></th>
<th>SMA (Advertising vs. R&amp;D)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main Effect</td>
<td>Moderation</td>
<td></td>
<td>Main Effect</td>
<td>Moderation</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>.07 (.01)**</td>
<td>.06 (.01)**</td>
<td></td>
<td>-.06 (.02)*</td>
<td>-.04 (.03)</td>
<td></td>
</tr>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm maturity</td>
<td>-.25 (.04)**</td>
<td>-.25 (.04)**</td>
<td></td>
<td>.09 (.04)*</td>
<td>.09 (.04)*</td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td>-1.46 (.08)**</td>
<td>-1.48 (.09)**</td>
<td></td>
<td>1.06 (.21)**</td>
<td>1.38 (.09)**</td>
<td></td>
</tr>
<tr>
<td><strong>Moderating Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm maturity X Market turbulence</td>
<td></td>
<td></td>
<td></td>
<td>-.04 (.00)**</td>
<td></td>
<td>.11 (.01)**</td>
</tr>
<tr>
<td>Flexibility X Market turbulence</td>
<td></td>
<td></td>
<td></td>
<td>-.03 (.08)</td>
<td></td>
<td>-.06 (.06)</td>
</tr>
<tr>
<td>Firm maturity X Industry competitiveness</td>
<td></td>
<td></td>
<td></td>
<td>-.02 (.01)**</td>
<td></td>
<td>.03 (.01)</td>
</tr>
<tr>
<td>Flexibility X Industry competitiveness</td>
<td></td>
<td></td>
<td></td>
<td>.17 (.03)**</td>
<td></td>
<td>-.39 (.12)**</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market turbulence</td>
<td>.01 (.01)</td>
<td>.00 (.01)</td>
<td></td>
<td>-.01 (.03)</td>
<td>.01 (.00)</td>
<td></td>
</tr>
<tr>
<td>Industry competitiveness</td>
<td>.09 (.01)*</td>
<td>.08 (.01)**</td>
<td></td>
<td>-.05 (.03)</td>
<td>.00 (.01)</td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>.08 (.03)*</td>
<td>.08 (.03)*</td>
<td></td>
<td>-.06 (.05)</td>
<td>-.03 (.00)*</td>
<td></td>
</tr>
<tr>
<td>Firm capital intensity</td>
<td>-.06 (.02)*</td>
<td>-.06 (.02)**</td>
<td></td>
<td>-1.84 (.93)</td>
<td>-1.62 (.00)*</td>
<td></td>
</tr>
<tr>
<td><strong>F-Ratio</strong></td>
<td>260.91**</td>
<td>2466.01**</td>
<td></td>
<td>170.66**</td>
<td>747.37**</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.29</td>
<td>.30</td>
<td></td>
<td>.10</td>
<td>.12</td>
<td></td>
</tr>
</tbody>
</table>

Notes: *p < .05, **p < .01. All p-values are two-tailed.
H₅ involves the moderation of industry competitiveness on the relationship between firm maturity and SMA. I found partial support for this hypothesis as the interaction between firm maturity and industry competitiveness was statistically significant in the case of selling-based SMA (b = -.02, p < .01), but not advertising-based SMA. Figure 2.3, panel A shows that under high industry competitiveness conditions, younger firms strongly favor exploitation-based SMA, compared to low industry competitiveness conditions. Older firms appear to be moving in a direction consistent with my general prediction, strengthening their exploratory focus in general. But in high industry competitiveness conditions, they appear to lean closer to balance than in low industry competitiveness.

H₆ followed a similar pattern. The results showed a statistically significant interaction between flexibility and industry competitiveness in terms of selling-based SMA (b = .17, p < .01) and advertising-based SMA (b = -.39, p < .01). Figure 2.3, panel B shows that firm exploration grows in influence with more flexibility, however, the effect is not as strong in highly competitive industries as in less competitive industries. Firms balance their SMA more evenly in highly competitive industries. In terms of advertising-based SMA, highly competitive industries produce more balance in SMA, as advertising grows in emphasis, but at less of a rate than in less competitive industries. Therefore, I find support for H₆.
Figure 2.3: Moderation of Industry competitiveness on the Relationship between Firm Maturity/ Flexibility and SMA

Panel A

Panel B
Table 2.4 summarizes my results for the hypotheses involving the financial consequences of SMA. The significant positive effect of sales-based SMA (b = .10, $p < .01$) on firm risk supports $H_7$. However, the negative effect of sales-based SMA (b = -.29, $p < .01$) on ROA was counter to my expectation. In terms of advertising-based SMA, the significant negative effect on firm risk (b = -.06, $p < .01$) was counter to my expected effect for $H_7$, whereas the significant positive effect on return (b = .25, $p < .01$) supported $H_8$. Therefore, I have partial support for $H_7$ and $H_8$ for advertising, but the effects flip with regard to sales.
Table 2.4: Results of the Panel Regression Analysis for Financial Outcomes of SMA

<table>
<thead>
<tr>
<th>Variable</th>
<th>SMA (Selling vs. R&amp;D)</th>
<th></th>
<th>SMA (Advertising vs. R&amp;D)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Idiosyncratic Risk</td>
<td>ROA</td>
<td>Idiosyncratic Risk</td>
<td>ROA</td>
</tr>
<tr>
<td>Intercept</td>
<td>.17 (.05)**</td>
<td>.06 (.01)**</td>
<td>.10 (.05)</td>
<td>.08 (.02)**</td>
</tr>
<tr>
<td>SMA</td>
<td>.10 (.02)**</td>
<td>-.29 (.03)**</td>
<td>-.06 (.01)**</td>
<td>.25 (.03)**</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm maturity</td>
<td>-1.02 (.23)**</td>
<td>.19 (.03)**</td>
<td>-1.04 (.25)**</td>
<td>.24 (.06)**</td>
</tr>
<tr>
<td>Flexibility</td>
<td>-.41 (.07)**</td>
<td>.16 (.13)</td>
<td>-1.04 (.25)**</td>
<td>.27 (.05)**</td>
</tr>
<tr>
<td>Market turbulence</td>
<td>-.12 (.03)**</td>
<td>-.03 (.01)</td>
<td>-.04 (.03)</td>
<td>-.03 (.01)</td>
</tr>
<tr>
<td>Industry competitiveness</td>
<td>-.01 (.02)</td>
<td>-.01 (.01)</td>
<td>-.06 (.02)*</td>
<td>-.06 (.03)</td>
</tr>
<tr>
<td>Firm size</td>
<td>-.49 (.02)**</td>
<td>-.07 (.02)**</td>
<td>-.34 (.04)**</td>
<td>-.09 (.01)**</td>
</tr>
<tr>
<td>Firm capital intensity</td>
<td>.02 (.03)</td>
<td>-.03 (.01)*</td>
<td>-.01 (.55)</td>
<td>-1.57 (.66)*</td>
</tr>
<tr>
<td><strong>F ratio</strong></td>
<td>1390.70**</td>
<td>1545.60**</td>
<td>2423.17**</td>
<td>101.39**</td>
</tr>
<tr>
<td><strong>R^2</strong></td>
<td>.22</td>
<td>.20</td>
<td>.21</td>
<td>.17</td>
</tr>
</tbody>
</table>

Notes:*p < .05, **p < .01. All p-values are two-tailed.
**Discussion and Implications**

In contrast to extant literature, which primarily uses survey data (e.g., Vorhies, Orr, and Bush 2011; Voss and Voss 2013), I offer a novel broad based, multi-industry, longitudinal examination of SMA using secondary data. Further, in contrast to extant literature, I offer a rare investigation into critical firm determinants of SMA. Building from dynamic capability research (e.g., Day 2011, Teece et al. 1997), I proposed and empirically demonstrate that firm maturity and flexibility are two critical antecedents to the orchestration of the SMA, but that their effect hinges on the presence and magnitude of industry factors. In addition, how a firm orchestrates its SMA, either exploitation- or exploration-dominant, significantly impacts their financial performance.

Increasing firm maturity and greater flexibility promote exploration-dominant SMA more so than sales-based exploitation. More mature firms focus more strongly on the development and cultivation of future capabilities to ensure continued survival and competitive advantage than on the exploitation of existing competencies (e.g., Sirmon et al. 2011). In the same way, more flexibility shifts emphasis toward expanding exploration activities. These results highlight the dynamic nature of how a firm orchestrates its capabilities and, importantly, how they operate in various industry contexts.

Increasing firm maturity and flexibility led to more exploration-dominant SMA in highly turbulent industries. Dynamic changes to customer needs and requirements compel firms to respond with stronger exploration-focused activities. This increases the likelihood of a firm remaining competitive by possessing the requisite capabilities and competencies to respond to market changes and fluctuations. However, when a firm faces stiff competition, it must fight its battles now as well as in the future. This necessitates a slight shift back toward balance for
mature firms. A focus on exploration is necessary, but mature firms must also use resources to fight existing competition and harvest. A firm cannot focus too heavily on future outcomes and ignore present circumstances (e.g., Han et al. 2001). Flexibility promotes the repositioning of resources to both the development of future capabilities, as well as to exploitation-focused activities that can help defend against competition.

Interestingly, however, the use of advertising versus sales-based exploitation presents a series of contradictions. While both have precedent in the literature as exploitation-based activities (e.g., Dutta et al. 1999; Mizik and Jacobson 2003), the results paint them somewhat in opposition. It appears that advertising behaves as an exploration-focused activity at times rather than an exploitation-focused activity. For instance, when using advertising-based exploitation practices, I find that increasing firm maturity and flexibility associates strongly with exploitation-dominant practices. Moreover, with high market turbulence, mature firms seem to favor exploitation practices more so than in less turbulent industries. While advertising acts as a mechanism for capturing existing value (e.g., McAlister et al. 2007; Mizik and Jacobson 2003), it appears to also create future value, i.e., it acts to both exploit and explore.

In terms of SMA’s impact on performance, I found greater sales-based exploitation-dominant SMA increases risk and reduces financial returns. Excessive exploitation-dominant SMA appears to generate apprehension. This may stem from fears over the long-term outlook of a firm that does not stress the development of future market opportunities (e.g., Homburg and Jensen 2007). Eventually, all competitive advantage come under threat and diminishes (e.g., Barney 1991), putting firms without strong explorative practices in danger of obsolescence and reduced financial performance overtime. Exploration-dominant SMA allows a firm to develop future capabilities and market opportunities, enhancing its ability to compete, and producing
greater economic rents and competitive advantages (e.g., Porter 1985). However, advertising, with its apparent properties of both exploration and exploitation, reduced risk and increased performance when matched with R&D. The markets apparently reward firms with such an SMA with lower risk and greater return, as advertising apparently increases value extraction from existing customers while also attracting potential new customers as well. The dual focus of advertising, combined with quality exploratory components, results in competitive advantage (e.g., Day 1994; 2011) that improve the financial performance.

**Research implications**

This research contributes to theory in several ways. First, it responds to calls in the literature (e.g., Raisch and Birkinshaw 2008) by offering an integrated approach not confined to a single functional area in the firm, but instead, that spanned functional boundaries. This enriches the understanding of ambidexterity in organizations. Second, I investigate ambidexterity and its antecedent conditions over time and across a wide number of industry conditions. In so doing, I highlight the dynamic nature of the ambidexterity and demonstrated the importance of shifting ambidexterity orientations. Third, I show that SMA produces outcomes that vary depending on which financial performance dimension is the focus. While both risk and return matter, each has different theory underpinnings, and thus each responds differently in important ways. Fourth, my findings suggest that theorizing advertising as exploitive may be problematic. The results hint that advertising may also have some exploration tendencies which could complicate its treatment in SMA.

**Managerial implications**

This research offers several implications for marketing practice. First, marketing managers need to be keenly aware of the implications of their firm’s maturity, resource positions,
and industry context as they go about orchestrating the configuration of exploitative and exploratory strategic marketing action. Managers of younger firms may need to champion more exploitation-focused activities to fuel growth, expansion, and legitimacy. As the firm matures, marketing managers need to shift their strategic focus toward exploration to defend its market position from new threats. Industry context adds urgency to exploitation activities for less mature firms. While managers of mature firms in industries characterized by intense competition and market turbulence may be compelled to press on both exploration and exploitation.

Second, marketing managers must be cognizant regarding the full impact of strategic actions and consider risk as well as return. Managers may advocate actions they believe to serve the bottom line, but fail to comprehend the full risk generation effect of those actions. The results suggest prudence in aligning strategic marketing actions towards producing the greatest return for the most acceptable level of risk. My findings regarding both risk and return in SMA also demonstrates the critical role of strategic marketing action in critical firm financial outcomes.

Third, generally the results suggest that marketing managers should continue to insist on maintaining and creating an innovative firm orientation. The results indicate that a short-term exploitative focus is potentially life threatening and unsustainable. Leaning heavily toward exploitation increases exposure to risk and threatens a firm’s viability and vitality.

**Limitations and future research directions**

This study has several limitations, as well as avenues for future research. First, exploration and exploration practices and costs may vary by industry. Thus, despite the inclusion of industry moderators, these differences may influence the nature of SMA orientation. Future research could explore differences in exploration vs. exploitation costs based on industry norms. Second, this essay focused on publically traded firms. Future research might consider differences
in SMA in privately held firms as they may not be as pressured by short-term earnings expectations and do not have to respond to the financial markets. This could inherently change the dynamics of SMA and the challenges it presents. Further, in analyzing public firms, I was limited to firms who have already achieved some limited form of market acceptance. Thus, the findings do not generalize to new ventures and start-ups. Future research could explore the influence of SMA in new ventures.

Third, although the use selling, general, and administrative expenses as a proxy in studying strategic marketing action has precedence (e.g., Morgan and Rego 2009), it does contain elements not traditionally associated with the marketing mix. Future research could look to expand on the impact of sales by extrapolating its effect separate from administrative salaries to investigate SMA. Additional, future researchers could develop stronger proxies of exploitative marketing action.
References


Cambridge, MA: MIT Press.

CHAPTER THREE

ESSAY TWO: COMBINATIVE AFFECTS OF POLITICAL MANAGEMENT CAPABILITY AND MARKETING CAPABILITIES IN THE PHARMACEUTICAL INDUSTRY: A GOOD PROGNOSIS?

Abstract

For many firms, superior performance hinges both on their nonmarket-facing capabilities as well as their market-facing capabilities. Yet, surprisingly little is known about how firms balance nonmarket-facing capabilities with more traditional market-facing capabilities to influence performance. Grounded in dynamic capabilities theory, in this study I focus on the interplay of political management (nonmarket-facing) capability with R&D capability, marketing capability, and flexibility (market-facing capabilities) to understand the relationship with firm-idiosyncratic risk and profitability. I cast my investigation against the backdrop of the pharmaceutical industry—a rich setting given the intensity of innovation and marketing coupled with significant political and regulatory influence. Using panel regression with publicly-traded pharmaceutical firms over a six-year span, I find that political management capability combines with market-facing capabilities to influence both assessments of firm performance. Political management capability sometimes plays a compensatory role with performance for firms lacking in market-facing capabilities. However, for firms strong in market-facing capabilities, they appear to serve as a distraction to the detriment of performance. I explore theoretical and practical implications of these complex findings.
Introduction

For firms in many industries, superior performance hinges on the effectiveness of their market-facing capabilities in combination with the less understood yet critical nonmarket-facing capabilities (Oliver and Holzinger 2008). Market-facing capabilities refer to firm strategic actions that provide superior value to customers, including a firm’s research and development (R&D) efforts, its sales and advertising programs, and other marketing mix deployments (Slotegraaf, Moorman, and Inman 2003). Nonmarket-facing capabilities refer to firm strategic actions taken to control the external environment, including those aimed at shaping the regulatory environment (Ahuja and Yayavaram 2011). Nonmarket-facing capabilities play a key strategic role because they serve as indirect market making mechanisms. Nonmarket-facing capabilities indirectly make markets by expanding existing customer bases, (e.g., political efforts to influence approval for drug usage to expanded populations), by protecting markets (e.g., political efforts designed to limit the mimetic capacities of generic prescription drug companies or limit harmful over reliance on certain drugs), or even by opening customer segments previously nonexistent or inaccessible to the firm (e.g., expansion of prescription drug coverage to new populations under government health programs).

Typically, as the examples above indicate, firms attempt to control their nonmarket or regulatory environment via political management capabilities. I define political management capabilities as firms’ use of financial contributions to candidates, political parties, or political action committees (PACs), as well as their lobbying efforts. Firm political management capabilities have increased by a factor of two and one half times to 4.81 billion dollars in just the last decade (www.opensecrets.org). Although some research into political management capabilities has emerged recently (e.g., Getz 2002; Mahoney, McGahan, and Pitelis 2009), there is a dearth of empirical evidence and little understanding of their efficacy, for example as
indirect market making mechanisms. Extant literature has addressed the antecedents of firms’ political management capabilities (e.g., Hansen and Mitchell 2000; Hillman 2003; Schuler, Rehbein, and Cramer 2002). However, treatments of political management outcomes in terms of firm performance and competitive advantage are surprisingly scarce and largely confined to conceptual works (e.g., Oliver and Holzinger 2008). The lack of systematic empirical study and evidence is quite surprising given the costs involved. Firms pay a hefty price in an attempt to manage the political context and gain advantage, but know little to nothing about whether this strategy actually works.

Further and importantly, firms typically rely on combinations of capabilities to gain advantage (e.g., Day 1994; 2011). Indeed, scholars have argued that both market- and nonmarket-facing capabilities are necessary to generate competitive advantage and superior performance Holburn and VandenBergh 2013; Hunt and Morgan 1995). This suggests that understanding how political management capabilities and the more traditional market-facing capabilities interplay to enhance performance is critical. Yet little is known about how firms balance and integrate the two. I could find no treatments in the literature that investigate the critical question of how a firm’s political management capability (or any other nonmarket-facing capability) interacts with market-facing capabilities to influence performance outcomes.

As such, I contribute to marketing strategy literature by examining how a firm’s political management capability (a nonmarket-facing capability) interplays with its market-facing capabilities to influence financial performance i.e., firm-idiiosyncratic risk and profitability. Rather than serving as firm levers that operate in isolation, I argue that, serving as an indirect market making mechanism, firms political management capability deploy it in conjunction with marketing capabilities for compensatory or amplification purposes. For example, when market-
facing capabilities are lagging or inadequate, political management capabilities may be used to compensate for shortcomings and enhance performance. However, when market-facing capabilities are sufficient or even superior, firm deployment of political management capabilities may serve as an unwelcomed distraction, potentially even hindering firm performance. The conceptual framework, in Figure 1, profiles these interconnections. In addition to addressing key theoretical and practical questions, the investigation answers calls for more purposeful consideration of strategic firm behaviors and idiosyncratic risk (e.g., Luo and Bhattacharya 2009), as well as calls for heightened attention to the interaction of the firm’s business and political environments in marketing (Sheng, Zhou, and Li 2011).

I ground the inquiry in dynamic capabilities theory, and draw from it to develop hypotheses. My focal prediction is that a firm will garner performance gains from political management capability (through indirect market making) when it is combined with various market-facing capabilities (R&D, marketing, flexibility). To test these questions, I conduct a longitudinal investigation examining publicly available data for 83 pharmaceutical firms over the course of the six years spanning 2006-2011. I chose this industry because it has a strong regulatory and nonmarket-facing component (e.g., Tipton, Bharadwaj, and Robertson 2009). Indeed, for many years the pharmaceutical industry has led all others in political management capabilities (www.opensecrets.org). In addition, the industry’s competitive nature requires strong market-facing capabilities, allowing for a unique investigation into interactive effects. The findings suggest surprising outcomes and differential effectiveness resulting from how firms manage their political management capabilities together with their market-facing capabilities. Theoretical and practical implications of these findings are explored in the essay’s discussion and conclusion.
Figure 3.1: Essay Two Conceptual Framework

Market-facing Capabilities

- R&D Capability
- Marketing Capability
- Flexibility

Nonmarket-facing Capability
- Political Management Capability

Firm Performance
- Profitability
- Idiosyncratic Risk

Firm Controls
- Firm Size
- Capital Intensity
- Revenue Growth
- PMC Growth
Conceptual Framework and Background

Dynamic Capabilities and the Firm Environment

Adaptation, response, and management of the external firm environment has long interested researchers (e.g., Hrebiniak and Joyce 1985). The primary environments to which firms must constantly respond include the political (nonmarket-facing) and competitive (market-facing) environments (Aldrich 1979; Child 1972). The political environment is “characterized by the social, political, and legal arrangements that structure interactions outside of, but in conjunction with, markets and private agreements” (Baron 1997, p. 14). Through the deployment of various strategies and actions, firms attempt to influence the political or regulatory environment so as to extract economic rents (Ahuja and Yayvaram 2011). These strategies and actions, which I consider as nonmarket-facing capabilities, are intermediated by public institutions. Nonmarket-facing capabilities include coalition building, lobbying, information provision, and financial contributions to political causes, individuals, or groups (Hillman and Hitt 1999). In the market-facing environment, capabilities center on enabling firms to manage and optimize their competitive situation. Market-facing capabilities involve strategic action aimed at creating, communicating, and delivering value to customers in a manner that is superior to competitors, and thus accruing and maintaining superior performance (Day 1994).

Dynamic capabilities theory (e.g., Teece, Pisano, and Shuen 1997) is concerned with the ability of firms to create and protect value by cultivating and activating internal competencies that maximize congruence with changing environments. The theory suggests that firms engage in constant configuring and adjusting of capabilities to best respond to multiple external environments (e.g., Hunt and Morgan 1995; 1996; Moorman and Slotegraaf 1999) that encompass both nonmarket-facing and market-facing components (Oliver and Holzinger 2008).
Specifically, the integration of capabilities that are both nonmarket-facing and market-facing is key because firms interface with not only their markets, but also with various political entities (Baron 1997; 1999). Indeed, nonmarket-facing capabilities, e.g., political management capabilities, indirectly create and protect a firm’s markets. As I noted earlier, political management capabilities serve as indirect market makers by opening new markets (e.g., expansion of prescription drug coverage to new populations under government health programs), which can create firm value. Likewise, they can sustain or protect markets (e.g., political efforts designed to limit the mimetic capacities of generic prescription drug companies) and guard against competitive advances. Dynamic capabilities theory would suggest that firms deploy and configure nonmarket- and market-facing capabilities in various ways to enhance performance and gain firm value. The combinative effects of nonmarket- and market-facing capabilities are critical as firms use them in conjunction to influence various outcomes.

**Firm-Idiosyncratic Risk and Profitability**

To gain a comprehensive understanding of the effectiveness of nonmarket- and market-facing capabilities, I consider firm-idiosyncratic risk and firm profitability as performance outcomes. Risk involves the instantaneous reflection of new information as it impacts current and future projections of a firm’s cash flows (Carhart 1997; Fama and French 1992). It is divided into two key components, systematic risk (market-specific) and idiosyncratic risk (firm-specific). Idiosyncratic risk provides a current and regenerative depiction of the stability of revenue generation resulting directly from strategic actions, including strategic marketing actions (i.e., market development, brand extensions, customer satisfaction, advertising, etc.) on the longevity and consistency of cash flows. I focus on firm-idiosyncratic risk because it associates directly with a firm’s strategic actions involving the mix of nonmarket- and market-facing capabilities.
Importantly, I also examine the role of nonmarket-facing and market-facing capabilities on firm profitability conceptualized as return on assets (ROA). Measuring ROA has been advocated as a robust assessment of firm performance (Fang, Palmatier, and Steenkamp 2008), and aligns with a dynamic capabilities approach as it is often considered a forward-looking picture of a firm’s future profitability and overall financial health (Krasnikov, Mishra, and Orozco 2009; Rego, Billett, and Morgan 2009). In the sections that follow, I probe the nonmarket- and market-facing capabilities, both individually and in combination to understand their influence on firm profitability and firm-idiosyncratic risk (Luo and Bhattacharya 2009).

**Hypotheses Development**

**Political Management Capability**

Strategic political management is considered an important firm capability (e.g., Getz 2002; Holburn and Vanden Bergh 2013) used indirectly to gain and sustain competitive advantages as well as secure advantages from the nonmarket-facing environment. The extent to which firms mobilize and deploy this capability to manage the nonmarket or political environment is ongoing and dynamic as various challenges and opportunities manifest. Although some have argued that political management capability is critical for many firms as a source of competitive advantage, it is seldom emphasized in this way in scholarly work (e.g., Schuler, Rehbein, and Cramer 2002). Indeed, political management capability can be deployed to provide firms a voice in government decisions that “determine the rules of commerce; the structure of markets (through barriers to entry and changes in cost structures due to regulations, subsidies, and taxation); the offerings of goods and services that are permissible; and the sizes of markets based on government subsidies and purchases” (page 659). Not surprisingly, a political management capability used for indirect market making by securing access to public
policymakers and government regulators can sometimes appear to be a firm’s most important strategic resource, as detailed in the essay’s opening examples.

Also as described above, political management capability is the extent to which firms allocate financial resources to lobbying efforts, political candidates, coalitions, or causes. It can include direct forms of pressure that manifest as contributions to a lobby, candidate or political party, PAC contributions, speaking honoraria, paid travel expenses, personal services or other financial support (Aplin and Hegarty 1980; Hillman and Hitt 1999). For pharmaceutical firms, deployment of political management capability may originate from a firm’s desire to influence pressing regulatory issues such as patent protection, branded-to-generic access and distribution, Medicare/Medicaid provisions for prescription drugs, and safety/disclosure mandates, among others (Thomas 2013). Interestingly, both nonmarket- and market-facing capabilities can provide a competitive advantage relative to market rivals, but nonmarket-facing capabilities such as political management capability also may benefit other firms in the industry (Baron 1999) by increasing product demand (i.e., through inclusion of prescription drug coverage in government health plans), for example.

However, although political management capability may be effective in securing desirable firm outcomes, it simultaneously may be viewed as risky because its effectiveness and ability to garner crucial firm outcomes (i.e., change in policy; regulatory favor) is fraught with uncertainty (Ahuja and Yayavaram 2011). Sheng, Zhou, and Li (2011) find evidence of this risk in their investigation of how business ties versus political ties influence firm performance in China. They found that business ties positively influence performance, whereas political ties had no direct effect. Interestingly, they also found that in certain contexts (high enforcement efficiency, low government support, and low technological turbulence) political ties did benefit
performance. Apparently, political ties alone may be undesirable or risky, but may improve firm performance in certain market and institutional conditions. Likewise, I argue that the combinative relationship between political management capability and market-facing capabilities will be more powerful, which is consistent with dynamic capabilities where firms deploy resources in combined and interconnected ways rather than in isolation (e.g., Day 1994; 2011). Moreover, these combinations represent a variety of risk-reward tradeoffs with respect to firm performance, which I explore in more detail below.

**R&D Capability**

A firm’s research and development (R&D) capability involves skills and resources that foster continual innovation, development, and application of new technologies; and value-enhancing efforts through new products and services. Likewise, R&D capability represents a firm’s commitment toward continual innovation, development, and application of new technologies, products, and services, and signifies the efforts and importance placed on developing future products and process improvements (Krasnikov and Jayachandran 2008). Beyond the implications for new products (e.g., Ernst, Hoyer, and Rübsaamen 2010; Raassens, Wuyts, and Geyskens 2012), the literature suggests additional benefits from R&D capability, including customer relationship (e.g., Fang, Palmatier, and Grewal 2011), managerial (e.g., Mizik 2010), corporate restructuring (e.g., Swaminathan, Murshed, and Hulland 2008), and market dominance and performance benefits (e.g., Sorescu, Chandy, and Prabhu 2003). R&D capability also can improve diversification abilities (e.g., McAlister, Srinivasan, and Kim 2007).

The pharmaceutical industry is noteworthy for being a highly R&D intense industry, where firms possess significant R&D capability with most allocating approximately 20% of revenues toward the development and testing of new drugs (Yang 2013). Indeed, the focal need
to continually innovate and develop new pharmaceutical products to ensure long-term firm performance implies that subpar reinvestment through R&D capability is highly risky. Likewise, the deployment, maximization, and effectiveness of R&D capability in the pharmaceutical industry also is uniquely interconnected to government policy and regulatory oversight. As a case in point, only a small fraction of new pharmaceutical products successfully clear all regulatory hurdles to become commercialized (Yang 2013). Greater R&D capability results in innovations that improve overall uniqueness, durability, and inimitability of products and services (e.g., Hauser, Tellis, and Griffin 2006), and with regard to pharmaceuticals, correlates with number of new products discovered, developed, and ultimately launched.

Industry analysis of pharmaceuticals demonstrates that successful firms exhibit considerable R&D capability, and that capability has produced a pipeline full of ongoing and developing new products and processes (Yang 2013). In the presence of such a full complement of innovation potential, the combinative effect of political management capability with R&D capability may be viewed as risky. Particularly, when firms possess strong R&D capability, simultaneously strong political management capability may be seen as unnecessary and potentially as a signal of poor health or lack of confidence in a firm’s innovation pipeline.

Although like all pharmaceutical products, firms with a full new product development program will face significant regulatory hurdles regarding approval of their many new products and discoveries, sheer scope of innovation efforts for R&D intense firms suggest greater likelihood of success in the drug discovery and development process. In these combinative situations, significant political management capability may be viewed as unnecessary, distracting, and even as a high-risk indicator of troubles in a firm’s innovation portfolio.
Conversely, firms low in R&D capability do not enjoy the same pipeline and diversification benefits accrued by firms high in R&D capability. By acting together, political management capability may compensate for insufficient R&D capability in the form of new product introductions that have a higher likelihood of getting through the approval and regulatory process—even if the overall quantity of new products developed is deficient relative to peer firms. Moreover, once these firms’ innovations enter the market, political management capability helps to protect intellectual property from patent infringements and mimetic generic drug knock-offs. Together, these effects result in more predictable and stable cash flows (i.e., lower risk), as well as larger cash flows (i.e., greater profitability) over time. For these firms, greater political management capability may be viewed as a smart compensatory strategic maneuver to reduce risk and promote positive profitability outcomes. Political management capability may open new market opportunities, preserve entry barriers, or create other competitive advantages. Ultimately, when R&D capability is low, political management capability may help abate innovation shortcomings by securing advantages through management of the nonmarket environment. I see this occurring through two strong mechanisms.

First, strong political management capability supports protection of prior products and innovations, so that even though a firm may not be currently strong at R&D, their prior innovations have more intellectual property protection. Second, strong political management capability compensates by positioning the firm to secure more favorable governmental preference. The firm may be able to utilize its political leverage to ensure its drugs are chosen for programs such as Medicare and Medicaid. Further, it can secure advantageous position to win governmental subsidies and sponsored innovation programs. Put simply, political management capability interacts with R&D capability to influence firm performance. I posit that the
combinative effect of greater political management capability with greater R&D capability serves as a distraction by increasing risk and decreasing profitability (i.e., suppression effect). However, greater political capability when deployed by firms with lower R&D capability decreases risk and increases profitability (i.e., compensation effect).

\( \text{H}_{1a} \): The combinative effect of high political management capability and high (low) R&D capability increases (decreases) firm-idiosyncratic risk.

\( \text{H}_{1b} \): The combinative effect of high political management capability and high (low) R&D capability decreases (increases) firm profitability.

**Marketing Capability**

Marketing capability constitutes complex bundles of marketing resources, skills, and accumulated knowledge that enable firms to coordinate marketing activities and effectively utilize marketing assets (Day 1994). Marketing capability positively associates with business performance (Morgan, Vorhies, and Mason 2009; Vorhies and Morgan 2005). It enables more efficient and effective utilization of marketing resources and the ongoing adaptation to changing market conditions (Vorhies, Orr, and Bush 2011). Indeed, some suggest that whether a firm can keep pace in a turbulent, dynamic, and highly competitive market hinges on its successful deployment and adaptation of a marketing capability (Day 2011).

Firms in the pharmaceutical industry experience substantial performance benefits from the deployment of their marketing capability. These firms’ marketing capabilities have led to performance benefits that derive from both end consumers and physician customers. For end consumers, pharmaceutical marketing capability has heightened awareness, interest, and demand. A notable case in point involves AstraZeneca’s multimillion dollar “Little Purple Pill” marketing campaign for their Nexium product (Elliott 2004). The teaser ads promised relief that
led masses of consumers to their family doctor requesting a prescription, determined this purple pill was a panacea for what ailed them. What was most noteworthy about the Nexium ads, however, was that nowhere in the initial promotions that sent droves of people to their physicians, did AstraZeneca actually disclose the purpose of the pill (it relieves heartburn). For physician customers, these firms’ marketing capabilities have garnered significant attention and interest, as well as providing clinical and prescribing information for both new and existing pharmaceutical products. It follows that greater marketing capability has cultivated physician preference for more heavily marketed versions of drugs, leading to measurable performance benefits as captured through their prescription writing tendencies (Turk 2013).

Beyond the positive association with firm performance, literature notes that firms with greater emphasis on marketing capability also enjoy better customer awareness (Srinivasan et al. 2009) and experience lower risk (McAlister, Srinivasan, and Kim 2007). In the context of the pharmaceutical industry, marketing capability signals commitment to provide adequate marketing resources to the launch, ongoing commercialization, and relationship development efforts involved with pharmaceutical products. Given the evidence of marketing’s influence on both end consumer and physician customers, a positive main effect of marketing capability on firm profitability and a negative main effect on firm risk would not be surprising. However, I am interested in the intersection of marketing capability with political management capability.

I argue that when firms’ marketing capability is high, political management capability may serve as an unwelcome distraction. Take, for instance, that marketing capability and political management capability utilize divergent methods for achieving similar outcomes. Marketing capability works by increasing overall customer benefit and value exchange, whereas political management seeks to control the regulatory environment for the firm’s benefit. These
two competing orientations may result in significant tension in the firm. As they vie for dominance, an overall loss of the firm’s strategic focus may result, producing undesirable financial consequences (e.g., Homburg and Jensen 2007; Verhoef and Leeflang 2009). I argue that greater political management capability also may work against a marketing capability by corroding positive goodwill and image built by a strong marketing capability. Consider as well, that physicians may distance themselves from a drug with potentially controversial political affiliations. As such, strong political management capability may diminish the overall marketing capability effect, as demonstrated through heightened risk and reduced profit.

In the absence of a strong marketing capability, however, political management capability may play a compensatory role by securing advantages through management of the nonmarket-facing environment. Specifically, a firm with weak marketing capability faces an uphill battle regarding market presence, customer/physician loyalty, and sales support. It simply cannot compete with the marketing prowess of firms such as AstraZeneca and Pfizer in terms of their marketing activities and capabilities. Strong political management capability will therefore become critical to level the performance playing field for such firms. It can result in a firm’s product offering given preferential standing in governmental programs such as Medicare and Medicaid, as well as lesser regulatory restrictions. Moreover, the deployment of a marketing capability toward end consumers, and even physicians, is a relatively modern pharmaceutical phenomenon. Strong political management capability acts as a buttress to those firms who are either still learning how to utilize this rather new capability or who are weak in their marketing efforts. Thus, I expect that weaker marketing capability, when coupled with greater political management capability, will decrease firm-idiosyncratic risk and increase profitability. To summarize, I posit that the combinative effect of greater political management capability with
greater marketing capability creates tension that increases risk and decreases profitability (i.e., suppression effect). However, greater political management capability can support firms low in marketing capability and increase profitability while reducing risk (i.e., compensation effect).

H$_{2a}$: The combinative effect of high political management capability and high (low) marketing capability increases (decreases) firm-idiomatic risk.

H$_{2b}$: The combinative effect of high political management capability and high (low) marketing capability decreases (increases) firm profitability.

**Flexibility**

Flexibility involves the firm capability of speedy response and effective adaptation to dynamic competitive conditions (Kurt and Hulland 2013) as well as the ability to reconfigure products and markets to meet external challenges (Johnson et al. 2003). Flexibility also refers to the extent to which the overall firm resource position or portfolio remains uncommitted and technically available for deployment toward a variety of purposes (Cyert and March 1963). Flexibility consists of actual or potential resources and their use that provide organizations a cushion or a buffer against internal or external forces (Bourgeois 1981; Lee and Grewal 2004). Flexibility denotes the availability of resources that are highly adaptable and may be diverted or redeployed to further a range of firm goals (George 2005). Consistent with dynamic capabilities theory, firms with flexibility enable mobilization of resources to varied and critical areas where (and when) they are needed most. Accordingly, flexibility alone can promote the well-being of the firm, increase its long-term viability and likelihood of survival, reduce perceptions of performance variability, and improve profitability (Tan and Peng 2003). Flexibility also facilitates strategic experimentation, research and development (Thompson 1967), and provides protection against competitive rivalry (Kurt and Hulland 2013), market turbulence, and
economic hardship. It has been linked to greater market growth and product expansion (Mishina, Pollock, and Porac 2004).

Importantly, flexibility in deploying and redeploying firm resources should not adversely affect other firm activities or other coalition’s resource supplies (e.g., Sharfman et al. 1988). By definition, flexibility provides a firm with a padding of resources that allows responsiveness to their dynamic environments (Johnson et al. 2003; Lee and Grewal 2004). Flexibility denotes ease of resource deployment; however, it does not always foster positive firm outcomes. Research findings have uncovered an inverse U-shaped relationship between flexibility and innovation, where too much or too little flexibility can be detrimental to innovation (Nohria and Gulati 1996). In some cases, when flexibility takes the form of excess production capacity for example, spare resources cannot be redistributed and become a firm detriment. These findings are highly germane to the pharmaceutical industry, where innovation is a cornerstone to firm success.

Past work indicates that for some firms, greater flexibility can result in a positive influence on firm financial performance (e.g., George 2005). Specifically, it improves the ability of the firm to respond, as needed, to market conditions with purposeful strategic intent (e.g., Cyert and March 1963). Taken together with nonmarket-facing capabilities, however, the relationship becomes slightly more complex. A significant reservoir of available resources allows for more purposeful attempts to control the regulatory environment through enhanced resource allocation toward political management capability without disrupting other primary functional areas. In the presence of an abundant resource cushion, nonmarket-facing actions would not adversely affect the resource flows to other functional areas and capabilities (i.e., manufacturing, sales, R&D, marketing, etc.), reducing possible tension, rivalry, and conflict and thereby allowing market-facing capabilities to remain effective (e.g., Argote and Greve 2007;
Cyert and March 1963; Pitelis 2007). Thus, a firm would be able to utilize its market-facing capabilities to respond as needed to market challenges, but also would be able to develop a stronger political management capability to control its regulatory environment. This combinative effect should improve firm profitability.

However, research also notes that flexibility, when available, should be cultivated into improving innovation and search-like behaviors (e.g., Sharma 2000). Reinvestment of resources toward activities outside of those that could improve firm innovation deviate from expected behavior (Cyert and March 1963). This could result in market apprehension toward strategic investments outside the pale of orthodoxy regarding firm behaviors. The benefits of such strategic actions may not be abundantly clear to the market, with performance difficult to predict, and likewise, its competitive impact hard to judge. As such, I predict that a high level of flexibility coupled with high levels of political management capability heightens firm-idiosyncratic risk. This heightened risk also would resonate in the pharmaceutical industry where such substantial allocations to research, development, testing, and commercialization are even more critical and expected than in other contexts.

With low levels of flexibility, however, political management capability may help the firm accrue important advantages in their nonmarket-facing environment (e.g., George 2005). Again, I argue that political management capability plays a compensatory role, allowing the low-flexibility firm to compete more effectively by managing the regulatory environment, when it does not possess the resources needed to compete using its market-facing capabilities. In these conditions, political management capability reduces risk and improves firm profitability.

H₃a: The combinative effect of high political management capability and high (low) flexibility increases (decreases) firm-idiosyncratic risk.
H₃b: The combinative effect of high political management capability and high (low) flexibility increases (increases) firm profitability.

**Research Methodology**

The research context for this study is the pharmaceutical industry, which has proven a vibrant context for marketing strategy and innovation research (e.g., Sorescu, Chandy, and Prabhu 2003) as well as for explorations of marketing’s regulatory environment (e.g., Tipton, Bharadwaj, and Robertson 2009). Indeed, using characteristics explicated by foundational political strategy research (e.g., Bonardi, Hillman, and Keim 2005; Hillman and Hitt 1999), the pharmaceutical industry provides an excellent study setting for several reasons. First, it suggests an environment that is highly dependent on government regulation (specifically government/regulatory approval of new drug products) for firm survival. Second, the pharmaceutical industry has a clearly identifiable regulatory body in the Food and Drug Administration (FDA). Third, the industry has a narrowly defined regulatory and policy scope in that it pertains specifically to the innovation, development/testing, and regulation of pharmaceutical products. Finally, firms operating in the pharmaceutical industry are in a perpetual balancing act in terms of managing their political or nonmarket environment while concurrently managing their marketing environment to maximize firm performance and gain/sustain competitive advantage (Tipton, Bharadwaj, and Robertson 2009).

**Data**

The dataset consists of a sample of US publically traded pharmaceutical firms who made political contributions between the years of 2006 through 2011. I aggregated and integrated data for the selected firms from a variety of secondary sources, such as CRSP and COMPUSTAT, French’s personal Web site (http://mba.tuck.dartmouth.edu/pages/faculty-
/ken.french/data_library.html), and the opensecrets.org Web site. This resulted in a final dataset consisted of 83 pharmaceutical firms with significant amounts of financial contributions to lobbyists, political parties, and other political activities.

**Measures**

*Firm-idiosyncratic risk and profitability.* The measure of firm risk was based on previous research in marketing (e.g., Luo and Bhattacharya 2009), and was determined using the daily stock price for each firm matched with FF4 data from French’s Web site. The FF4 generates better, and more stable estimates of risk than other financial measures, such as CAPM, which only considers systematic risk as an important financial variable, despite financial and strategy research noting the opposite (e.g., Chakravarty and Grewal 2011; Fama and French 1992). The standard FF4 model accounts for firm idiosyncratic excess return through its residual \( u_{i,d} \) (Ang et al. 2006; Cao, Simin, and Zhao 2008), and is given as:

\[
(1) \quad r_{i,d} = \alpha_i + \beta_i^{\text{MKT}} r_{d}^{\text{MKT}} + \beta_i^{\text{SMB}} r_{d}^{\text{SMB}} + \beta_i^{\text{HML}} r_{d}^{\text{HML}} + \beta_i^{\text{UMD}} r_{d}^{\text{UMD}} + u_{i,d},
\]

where, \( \alpha_i \) is the intercept and \( u_{i,d} = \rho u_{i,d-1} + \delta_{i,d} \). \( \delta_{i,d} \) is assumed to be a normal random variable with mean 0 and variance of \( \sigma_{\delta}^2 \), which allows equation 1 to control for serial correlation through its error term. As such, the error term captures all variability in returns that is firm specific.

Utilizing equation 1, firm-idiosyncratic risk is measured by calculating the variance of the residuals \( \frac{1}{n} \times \left( \sum_{d=1}^{n} u_{i,d}^2 \right) \), in which \( n \) denotes the number of trading days in a calendar year (252) for each firm in the sample. This results in the residual variance term, needing to be scaled relative to total firm risk, equaling \( 1 - R_{it}^2 \). \( R_{it}^2 \) is the coefficient of determination from the regression analysis of equation 1. A benefit of scaling idiosyncratic risk by total risk is that it helps control for potential industry differences, and allows for comparison of idiosyncratic risk across industries (Luo and Bhattacharya 2009). Consistent with previous research in marketing
(e.g., Luo and Bhattacharya 2009), I conducted a logistic transformation to further help aid in interpretation and comparison across industries and contexts. This obtained my final measure of firm-idiosyncratic risk using the following equation:

\[
(2) \quad \nu_{it} = \ln \left( \frac{1-R^2_{rit}}{R^2_{rit}} \right),
\]

where \( R^2_{rit} \) is the coefficient of determination from the regression analysis of equation 1.

Consistent with previous marketing research (e.g., Fang, Palmatier, and Steenkamp 2008), I operationalize profitability as a firm’s yearly return on assets, measured as its net income divided by its total assets.

*Political management capability (PMC).* I operationalized a firm’s political management capability using financial contributions to lobbyists, political candidates, parties, and PACs in relation to its total year earnings (i.e., revenue). I refer to this as political management capability (PMC), and it was calculated as the dollar amount of political contributions in each year over the firm’s yearly revenue. This provides an indication of the amount of capital a firm is dedicating to political management capability aimed at indirect market making or manipulating and controlling its nonmarket-facing environment.

*R&D capability (RDC), marketing capability (MC), and flexibility (FL).* My three independent measures were all based on prior research in marketing (e.g., Chi, Nystrom, and Kircher 2004; Dutta, Narasimhan, and Rajiv 1999; Fang, Palmatier, and Steenkamp 2008; Lee and Grewal 2004). R&D capability (RDC) was operationalized as the ratio of R&D expenses for firm i in year t to total revenue for firm i in year t. This captures the relative importance a firm places on R&D capability, which is critical in fast moving, dynamic industries, such as pharmaceuticals (e.g., Mizik and Jacobson 2003). Marketing capability (MC) was measured as the ratio of firm selling, general, and administrative expenses over its total assets. This captures
the overall importance and impact/ability of the marketing function of the firm in relational to other departments and organizational entities. Flexibility (FL) was calculated using factor scores estimated from a second order principal components analysis with two financial ratios: (1) retained earnings to total assets, and (2) working capital to total assets. This captures to the current resource portfolio and position of the firm (e.g., George 2005; Lee and Grewal 2004).

**Control variables.** To help improve the statistical validity of the results, I include four control variables in the empirical analysis. First, firm size has long been studies as a key indicating factor of firm performance and vitality (e.g., Chandy and Tellis 1998). Larger firms have more resources, are more diversified, have higher profitability, and potentially lower levels of risk. Therefore, I control for firm size measured as the logistic transformation of the number of employees (e.g., Fang, Palmatier, and Steenkamp 2008). Second, given the context of pharmaceutical firms I control for the capital intensity of each firm, which could influence both performance and riskiness. Capital Intensity was measured as the ratio between plant, property, and other assets over total revenue (e.g., Castrogiovanni 1991). Finally, to help illustrate the dynamic nature of results, I control for two different growth factors. First, to help isolate the impact of market- and nonmarket-facing capabilities, I controlled for revenue growth measured as revenue in year t minus revenue in year t-1 over revenue in year t-1. Second, to help distill the true effect of political management capability, I controlled for its growth factor measured as PMC in year t minus PMC in year t-1 over PMC in year t-1. Table 1 summarizes the descriptive statistics and variable correlations.
Table 3.1: Descriptive Statistics and Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Descriptive</th>
<th></th>
<th>Correlation Table</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>1</td>
</tr>
<tr>
<td>1. Risk</td>
<td>.96</td>
<td>1.05</td>
<td>1.00</td>
</tr>
<tr>
<td>2. Profitability</td>
<td>.02</td>
<td>0.23</td>
<td>-.27*</td>
</tr>
<tr>
<td>3. PMC</td>
<td>.001</td>
<td>.004</td>
<td>.40*</td>
</tr>
<tr>
<td>4. RDC</td>
<td>.35</td>
<td>0.79</td>
<td>.19*</td>
</tr>
<tr>
<td>5. MC</td>
<td>.30</td>
<td>0.18</td>
<td>.23*</td>
</tr>
<tr>
<td>6. FL</td>
<td>.00</td>
<td>1.00</td>
<td>-.34*</td>
</tr>
<tr>
<td>7. Firm Size</td>
<td>1.39</td>
<td>2.23</td>
<td>-.48*</td>
</tr>
<tr>
<td>8. Firm Capital Intensity</td>
<td>.29</td>
<td>.72</td>
<td>-.03*</td>
</tr>
<tr>
<td>9. Revenue Growth</td>
<td>.36</td>
<td>2.34</td>
<td>.12*</td>
</tr>
<tr>
<td>10. PMC Growth</td>
<td>.95</td>
<td>9.41</td>
<td>.00</td>
</tr>
</tbody>
</table>

Notes: *p < .05. All p-values are two-tailed.
**Model Development**

The nature of the data (multiple firms, multiple observations, and multiple years) requires the utilization of panel methods over traditional time series approaches. Panel techniques allow for the appropriate analysis of primarily cross-sectional data over a series of years (e.g., Wooldridge 2009). As such, it has several advantages over traditional OLS and time series approaches in that it (1) controls for individual effects, (2) models heterogeneity across observations, and (3) models dynamic behavior of observations (e.g., Wooldridge 2009). There are, however, certain issues that must be addressed before estimation.

First, the dependent variables (risk and roa) could be biased by nonstationarity. Therefore, I utilized a Fisher-type unit root test with the results (risk: inverse $\chi^2 = 304.45, p < .01$; roa: inverse $\chi^2 = 960.98, p < .01$), which indicated that it was not a concern. Second, serial correlation could be an issue, so I examined it using a Wooldridge test for autocorrelation (Wooldridge 2002). The results indicated that serial-correlation was a potential concern for the dataset for both risk ($F (1, 81) = 18.71, p < .05$) and roa ($F (1, 81) = 27.75, p < .05$). In light of this, I elected to control for potential serial correlation effects of risk and roa with treatment of the error structure and including lagged-effects of the dependent variables (Wooldridge 2002). I used a robust treatment of the error structure to help control for any disturbances and potential issues. This approach is consistent with previous research in marketing (Fang, Palmatier, and Steenkamp 2008). Finally, I probed whether running a fixed- or random-effects model was appropriate for each dependent variable. The Hausman specification test (1978) was used to check if a random-effects treatment was tenable. Risk needed a fixed-effects approach, with a significant test statistic ($\chi^2 = 11.19, p < .05$), whereas the test showed roa required a random-effects treatment ($\chi^2 = 3.81, p > .05$). In addition, following previous suggestions in the
marketing literature (e.g., Fang, Palmatier, and Steenkamp 2008), I investigated threshold effects of my key market-facing indicators of R&D and marketing capabilities via curvilinear terms. It follows that given the competitive intensity of the pharmaceutical industry; firms would need to reach a certain threshold in both their R&D and marketing capabilities before harvesting substantial benefits from those activities. As such, the full research model is as follows:

\[ Y_{it} = \beta_1 PMC_{it} + \beta_2 RDC_{it} + \beta_3 RDC^{2}_{it} + \beta_4 MC_{it} + \beta_5 MC^{2}_{it} + \beta_6 FL_{it} + \beta_7 (PMC_{it} \times RDC_{it}) + \beta_8 (PMC_{it} \times RDC^{2}_{it}) + \beta_9 (PMC_{it} \times MC_{it}) + \beta_{10} (PMC_{it} \times MC^{2}_{it}) + \beta_{11} (PMC_{it} \times FL_{it}) + \beta_{12} (Size_{it}) + \beta_{13} (CI_{it}) + \beta_{14} (RTX_{it}) + \beta_{15} (PCX_{it}) + \epsilon_{it}, \]

Where, \( Y_{it} = \) the dependent variable of interest for firm \( i \) at time \( t;\) \( PMC_{it} = \) political management capability for firm \( i \) at time \( t;\) \( RDC_{it} = \) R&D capability for firm \( i \) at time \( t;\) \( MC_{it} = \) marketing capabilities for firm \( i \) at time \( t;\) \( FL_{it} = \) flexibility for firm \( i \) at time \( t;\) \( Size_{it} = \) log of employees for firm \( i \) at time \( t;\) \( FCI_{it} = \) capital intensity for firm \( i \) at time \( t;\) \( RTX_{it} = \) yearly revenue growth for firm \( i \) at time \( t;\) \( PCX_{it} = \) yearly PMC growth for firm \( i \) and time \( t;\) \( \epsilon_{it} = \) error term.

With regard to the data analysis, I first began with a main effects test of the primary independent variable and moderators on each of the dependent variables to gain a deeper understanding of the impact. Then, following the hypotheses, I address the moderating effects of the various market-facing capabilities on political management capability and firm financial outcomes. To aid in interpretation, I include the main effects of political management capability and each of the market-facing moderator relationships in the overall model.

**Results**

The results of the panel regression over the six years of interest reveal support for most of the hypothesized relationships. Table 2 contains main effects and combinative relationships examined in my hypotheses testing. Although I did not predict main effect relationships with
political management capability and market-facing capabilities on performance, those effects support the validity of my findings by operating in theoretically intuitive ways. Viewed in isolation, political management capability has little ability to influence risk, but significantly reduces profitability. These main effects may signal the market’s general uncertainty surrounding any political management actions taken by firms in the current political climate. Put simply, the market appears to view political management capability and the firm-government investment implied nervously when examined in isolation. Conversely, market-facing capabilities are viewed favorably by the market, and act largely to reduce risk and improve profitability.
Table 3.2: Combinative Role of Political Management Capability on Market-Facing Capability-Firm Idiosyncratic Risk and Profitability Relationships

<table>
<thead>
<tr>
<th>Variables</th>
<th>Idiosyncratic Risk</th>
<th>Firm Profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main Effect</td>
<td>Moderation</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.83 (.74)***</td>
<td>-.01 (.07)</td>
</tr>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PolMgt capability (PMC)</td>
<td>38.10 (34.13)</td>
<td>160.1 (216.3)</td>
</tr>
<tr>
<td>R&amp;D capability (RDC)</td>
<td>.45 (.49)</td>
<td>-.69 (.67)</td>
</tr>
<tr>
<td>Mktg capability (MC)</td>
<td>-2.88 (2.06)</td>
<td>-3.78 (2.90)</td>
</tr>
<tr>
<td>Flexibility (FL)</td>
<td>.23 (.27)</td>
<td>-.22 (.15)</td>
</tr>
<tr>
<td>RDC²</td>
<td>-.19 (.10)¹</td>
<td>-.02 (.12)</td>
</tr>
<tr>
<td>MC²</td>
<td>2.10 (1.18)¹</td>
<td>2.52 (3.02)</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>Interaction Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMC x RDC</td>
<td>180.34 (107.6)¹</td>
<td></td>
</tr>
<tr>
<td>PMC x MC</td>
<td>-111.92 (426.4)</td>
<td></td>
</tr>
<tr>
<td>PMC x RDC² (H1a,b)</td>
<td>-45.44 (22.0)*</td>
<td></td>
</tr>
<tr>
<td>PMC x MC² (H2a,b)</td>
<td>13.45 (347.0)</td>
<td></td>
</tr>
<tr>
<td>PMC x FL (H3a,b)</td>
<td>38.70 (12.9)²</td>
<td></td>
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<td>Control Variables</td>
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<tr>
<td>Firm size</td>
<td>-1.04 (.28)***</td>
<td>-1.20 (.28)***</td>
</tr>
<tr>
<td>Firm capital intensity</td>
<td>.61 (.18)**</td>
<td>.70 (.18)***</td>
</tr>
<tr>
<td>Revenue growth</td>
<td>.43 (.15)**</td>
<td>.38 (.14)***</td>
</tr>
<tr>
<td>PMC growth</td>
<td>.00 (.00)</td>
<td>.00 (.00)</td>
</tr>
<tr>
<td>Lag effect</td>
<td>-.03 (.07)</td>
<td>-.01 (.07)</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.24</td>
<td>.27</td>
</tr>
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</table>

Note: t < .10; *p < .05; **p < .01; ***p < .001;
Of interest, however, is the combinative nature of political management capability with market-facing capabilities. First, Hypotheses 1a and 1b predicted that the combinative effect of political management capability would heighten risk and decrease profitability for high R&D capability firms, and would reduce risk and increase profitability for low R&D firms. Both hypotheses are largely supported, including the nonlinear combinative effect on risk ($\beta = -45.44$; $p < .05$), as well as the nonlinear combinative effect on profitability ($\beta = 12.04$; $p < .001$).

Examination of the relationships revealed that firms low in R&D capability experienced a compensatory effect on profitability from political management capabilities. And, while low R&D capability firms experienced profitability benefits from strong political management capability, those capabilities in combination were also viewed as more risky. This finding speaks to a high-risk, high-reward tradeoff situation for firms low in R&D capability. Perhaps deriving from the highly innovative nature of pharmaceuticals, political management capability can compensate in terms of firm profitability, but that low R&D capability remains high-risk in the eyes of the market. As predicted, firms high in R&D capability experienced diminished profitability effects related to political management capability and likewise, were viewed as far less risky as they deployed lower levels of political management capability. Figure 2 graphically illustrates the nature of the interaction between R&D capability and political management capability.
Figure 3.2: Combinative Effects of Political Management Capability and R&D Capability on Firm Performance

With regard to marketing capability, I found no significant combinative relationship between either the linear or nonlinear form and political management capability and the effect on firm-idiosyncratic risk, as predicted in Hypothesis 2a. However, supporting Hypothesis 2b, low marketing capability firms experienced a significant, upward sloping boost to profitability when greater political management capability was deployed (linear: $\beta = -130.25; p < .01$; curvilinear: linear: $\beta = 50.12; p < .10$). Firms low in marketing capability and low in political management
capability experienced diminished performance. Thus, political management capabilities can have the compensatory effect on profitability for firms low in marketing capability as predicted. However, also as predicted, firms high in marketing capability saw a slightly decreased effect on profitability with high deployments of political management capability, evidencing the distracting, tension-creating effect described in the conceptual development. Figure 3 graphically illustrates the interaction between marketing capability and political management capability.

**Figure 3.3: Combinative Effects of Political Management Capability and Marketing Capability on Firm Profitability**

![Graph showing the interaction between marketing capability and political management capability on firm profitability.](image)

The nature of the results changes slightly once I shift the focus to flexibility. Here, political management capability works as an amplification to flexibility. The results tell a story of high-risk, high-reward combinative relationship between political management and high flexibility. First, supporting Hypothesis 3a, high flexibility capability and high political management capability combine to significantly increase firm-idiosyncratic risk ($\beta = 38.70; p <$
Although firms with high and low levels of flexibility saw political management capability increase firm-idiosyncratic risk, this effect was significantly more pronounced for firms high in flexibility. Supporting Hypothesis 3b, political management capability had a compensatory effect on profitability for firms low in flexibility, as predicted ($\beta = -10.8; p < .01$). For firms high in flexibility, greater political management capability coupled with flexibility showed a strong, positive ability to influence profitability, although this effect was not as pronounced as when firms lacked flexibility. Figure 4 graphically illustrates the nature of the interaction between flexibility and political management capability. I expand on these findings in the discussion and implications section that follows, exploring their meaning for both theory and practice.

**Figure 3.4: Combinative Effects of Political Management Capability and Flexibility on Firm Performance**
Discussion and Implications

In this study, I find that political management capability does, indeed, have a combinative effect with the firm’s various market-facing capabilities to influence both firm-idiosyncratic risk and profitability. The significant interactions between nonmarket-facing capabilities and market-facing capabilities were as I hypothesized. What I believe is a significant contribution of the empirical findings, moreover, is the highly nuanced nature of these relationships with each form of firm performance. To elaborate, political management capability appears to function as a distraction, or create tension, for firms with high levels of R&D and marketing capabilities, with negative effects on profitability for these firms. For firms low in R&D and marketing capabilities, political management capability significantly bolsters profitability, and thus may be advocated and prescribed. In addition, the combination of political management capability with flexibility produced an interesting high-risk, high-reward effect, where risk was increased, but with corresponding greater return as well. Interestingly, political management capability had a downward sloping negative relationship with profitability as R&D capability increased, and as marketing capability increased. As such, firms with strong R&D capability and strong marketing capability experience exponentially greater detriments to profitability from a political
management capability, suggesting such activity should be avoided. Perhaps for firms in pharmaceuticals, political management capabilities only represent a good prognosis for profitability when their market-facing capabilities are deficient or when they have ample amounts of flexibility.

The findings for firm-idiosyncratic risk tell a similar story about the role of political management capability, and suggest a firm must weigh the consequences of dynamic capabilities deployment in light of a risk-reward tradeoff. In an innovation and marketing intense industry such as pharmaceuticals, it appears that the market evaluates deficiencies in market-facing capabilities as high risk. As a case in point, the lowest risk situation for a firm was represented by high R&D capability firms that deployed low levels of political management capability (Hypothesis 1a), and experienced a negative, downward sloping relationship with firm-idiosyncratic risk. Firms high in flexibility experienced increases in firm-idiosyncratic risk when simultaneously deploying a strong political management capability, but as previously mentioned, also experienced improved performance. However, that risk remained inflated without subsequent improvements in performance when deficient marketing capabilities are combined with heavy political management capability. On the other hand, for those firms lacking strong marketing capabilities, a strong political management capability may represent a high-risk, high-reward approach to compensate for deficiencies. Taken collectively, these findings suggest firms should take a tempered approach to deploying political management capability considering carefully the nature and balance with their market-facing capabilities portfolio. I probe both theoretical and practical implications of these findings in the sections that follow.

*Theoretical Implications*
My investigation extends dynamic capabilities theory (e.g., Day 1994; Teece, Pisano, and Shuen 1997) in a number of ways. First, it represents one of the few juxtapositions of dynamic market-facing capabilities with dynamic nonmarket-facing capabilities in an empirical, longitudinal setting. I believe that exploring both categories of capabilities in combination represents an important theoretical contribution, as most firms do not cultivate, manage, and deploy these capabilities in isolation (e.g., Hillman and Hitt 1999). In fact, market-facing and nonmarket-facing capabilities represent complementary and highly interconnected components of a firm’s overarching competitive strategy. This study examines how various combinations of market-facing and nonmarket-facing capabilities interact to influence firm-idiosyncratic risk and profitability. The findings are especially informative to dynamic capabilities theory as they show that some capabilities that are beneficial alone, when combined with each other, can have detrimental effects on firm performance. Conversely, other combinations of dynamic capabilities can have positive compensatory or even bolstering effects on firm performance.

Second, in addition to understanding the nature of the capabilities themselves, this study also informs on the ability of firms to manage two different types of external environmental challenges—namely those evolving from the market-facing or competitive environment and those evolving from the nonmarket-facing or in this case, the political/regulatory environment. Similar to theoretical accounts of capabilities, few firms operate in a competitive vacuum, where challenges and pressures evolve solely from the market-facing environment. Yet few theoretical accounts have tackled the pressing problem of how nonmarket-facing capabilities might be cultivated, managed, and deployed across environmental contexts (Oliver and Holzinger 2008). These findings suggest that the interplay of these environments, coupled with firm response to said environments, have significant implications for the dynamic capabilities framework.
Third, although the marketing capabilities stream has seen substantial progress in empirically linking those capabilities to firm performance (e.g., Vorhies and Morgan 2005), the political management theoretical stream has little empirical evidence linking those capabilities to firm performance (Oliver and Holzinger 2008; Shaffer, Quasney, and Grimm 2000). Thus, this investigation provides a needed look at how political management capabilities influence two distinct performance outcomes. Moreover, to promote the validity of the findings I examine marketing capabilities and political management capabilities in the pharmaceutical industry—arguably one of the most politically and marketing rich industries available for examination.

*Managerial Implications*

Managers of firms in industries like pharmaceuticals that are R&D and marketing intensive, and also operate with significant government and regulatory oversight must constantly manage the complexities and volatility inherent to their environment. I believe this study sheds new light on one area of this complexity—the combinative effects of political management capability with the firm’s market-facing capabilities on different facets of firm performance. Perhaps the most important takeaway for managers is that some capabilities that produce beneficial firm outcomes when deployed in isolation may sometimes serve as detriments to firm performance, while others may sometimes serve to bolster firm performance when deployed in combination with other firm capabilities.

This complementary and compensatory nature of firm market-facing and nonmarket-facing capabilities can be particularly informative to managers. Especially noteworthy is the manner in which a strong political management capability combines with market-facing capabilities to exacerbate deficiencies. Firms with strong R&D capabilities, strong marketing capabilities, or a lack of flexibility experienced heightened risk and reduced profitability when
those capabilities were combined with a strong political management capability. Firms low in
R&D capability, or who had significant flexibility, experienced performance benefits from the
combinative effect with political management capability, but that combinative effect was also
viewed as higher risk. Ultimately, that both positive and negative firm performance outcomes
can result from the combinative deployment of these capabilities suggests managers sometimes
must make critical choices. If profitability, conceptualized as return on assets, is sought, firms
that are low in R&D and marketing capabilities, or that are highly flexible would do well to be
especially attentive to the nonmarket-facing environment. These firms can experience significant
compensatory effects to profitability when dynamically deploying a political management
capability. Likewise, when profitability is the goal, firms high in R&D capability, marketing
capability, or lacking flexibility would do well to restrict their political management capability.

Conversely, while a political management capability can have compensatory or
amplification effects on profitability, my findings show that these strategies are nonetheless
viewed as high-risk in nature. Although the combinative effect of political management
capability and a marketing capability on firm-idiosyncratic risk was not significant, the other
combinative effects demonstrated clear risk-inflating tendencies. For firms high in R&D
capabilities, high levels of political management capabilities significantly inflated risk. Taken
together with the negative effect on profitability for these same firms, the evidence suggests that
pharmaceutical firms with extensive R&D capabilities should avoid political management
strategies. It appears that these firms’ innovation efforts and new product pipelines are viewed as
so crucial by the market, efforts to manage the political environment signal troubles or firm
weaknesses and serve as an unwelcome distraction heightening risk and reducing profitability.
Yet, firms low in R&D capabilities must make a choice—high political management capabilities can be beneficial to profitability while at once increasing risk. This tradeoff applies to firms low in flexibility as well, as they demonstrated the same pattern of findings. For firms high in flexibility, the combinative effects of political management capability on both types of performance was mixed, with a simultaneous inflation of risk with a corresponding bump in profitability or return on assets. Managers in these situations have a difficult choice in that political management capability may indeed improve performance, but it also carries significant financial risk that the firm may not be willing to accept. The high-risk, high-reward performance tradeoff also was revealed for firms low in flexibility.

**Limitations and Future Research**

Ultimately, the internal validity benefits and conceptual advantages gained by focusing on the pharmaceutical industry also limit the generalizability of these findings. Although I believe that firms in similarly R&D intense, marketing intense industries with significant regulatory oversight may experience the same combinative effects with dynamic market- and nonmarket-facing capabilities, different industry conditions are likely to produce different findings. As such, extending exploration of market- and nonmarket-facing capabilities to firms in varied industry settings represents a fruitful line of future inquiry. Of particular interest may be industries where regulatory oversight is significant but marketing and R&D efforts are more constrained, such as airlines, banking or other financial service industries, as well as oil and gas.

Additional future research could further probe the contradictory nature of some findings between idiosyncratic risk and profitability. What characteristics about firms low in R&D, marketing, and flexibility capabilities, when coupled with high political management capabilities, at once inflate both profitability and risk? Are there unique facets of these firms
worth further exploring? Further, how do those contrasting performance outcomes reconcile over time (i.e., even beyond the six-year window comprising the investigation)? Another interesting set of findings worth additional exploration are the negative effect for firms in the study with strong market-facing capabilities coupled with strong political management capability. Perhaps another strain of nonmarket-facing capabilities could combine with these market-facing capabilities to promote positive performance outcomes. If so, what types of nonmarket-facing capabilities can do this? What other implications may surface in management of the nonmarket-facing environment for firms with strong market-facing capabilities? More generally, how should these firms approach their nonmarket environment—especially in heavily regulated or politically charged industries? These questions represent fascinating future work that could greatly advance understanding of the interplay of dynamic market-facing and nonmarket-facing capabilities.

Finally, I have enhanced understanding of political management capability by exploring firm performance outcomes as well as their combinative effects with various market-facing capabilities. Importantly, my political management capability conceptualization centered on the most publicized and controversial approaches, namely, financial contributions to lobbyists, political parties, candidates, or PAC organizations. Nonetheless, alternative political management approaches have been deployed and their effectiveness remains elusive (Hillman and Hitt 1999; Oliver and Holzinger 2008). It follows that broadening this conceptualization to include other political influence tactics could have varied direct and combinative effects on performance. Ultimately, this work represents a rare and needed exploration combining both categories of firm capabilities to understand their role on various types of performance. Yet, much remains undiscovered in this domain. Additional future research on the intersection of the
firm’s market and nonmarket environment would provide a vibrant context to advance dynamic capabilities theory, and perhaps even related research within additional theoretical frameworks.

Conclusion

Does the deployment of political management capability represent a good prognosis for the firm? This panel regression study with pharmaceutical firms over six years suggest that the answer is: It depends. The combinative role of political management capability on firm performance depends on the nature of various market-facing capabilities when deployed in conjunction. The complexity that characterizes this environment on the surface and in the popular press appears to play out in its empirical reality as well. I have taken a preliminary step to explain some of this complexity, but future work is needed.
References


CHAPTER FOUR

ESSAY THREE: UNCLE SAM RISING: THE IMPACT OF THE GOVERNMENT AS A CUSTOMER ON FIRM FINANCIAL PERFORMANCE

Abstract

Achieving and maintaining steady growth is a major concern for marketing managers and executives in today’s turbulent business landscape. In an effort to induce and improve growth, firms actively manage their portfolio of customers, seeking quality relationship partners that could fuel firm growth. One growing customer, the United States government, is increasing its market presence in many traditional industries, making the government a larger player in a firm’s customer basket. In fact, the United States government represents the single largest market force in existence. Each year, it issues more than three million contracts to over ten thousand firms, equaling more than four hundred billion dollars. It is also a unique customer entity, with distinctly idiosyncratic characteristics. The government, despite its size and growth potential, suffers from stringent bureaucracy, oversight, regulation, and budgetary concerns that might hinder a firm’s ability to extract value. Thus, the government’s overall impact as a customer on firm performance is ambiguous from other known customer segments. Therefore, using a sample of 328 publically traded firms, this essay investigates the influence of the government as a customer (via government contracts) on supplier firm financial performance. I find that the government has a negative influence on firm value, both in the short-term (i.e., market capitalization) and long-term (i.e., Tobin’s Q). However, a firm’s innovation capability (i.e., R&D intensity) and its resource portfolio (i.e., resource slack) can buffer the negative effect. The essay then provides implications for marketing theory and practice.
Introduction

“When our clients have the government as a customer that makes us very nervous”

-Business Portfolio Manager, Fortune 500 Bank.

A primary raison d’être of marketing is to facilitate the exchange of value between the firm and its environment. This entails the creation, communication, and delivery of value for profit (e.g., Kotler 2011). One of the key practices in the exchange of value is the management of a firm’s customer portfolio (e.g., Moorman and Rust 1999). Customer portfolio management entails the strategic development, deployment, and acquisition of value from the entire portfolio of external customers (e.g., Johnson and Selnes 2004). The successful managing of this portfolio has a profound influence on a variety of firm outcomes (e.g., Boulding et al. 2005). Specifically, extant research has shown that the successful management of customer heterogeneity (different traits, capabilities, and characteristics) ensures the transference of value between the firm and the environment, resulting in superior performance outcomes (e.g., Homburg, Steiner, and Totzek 2009). However, when investigating the performance implications of different customer types (e.g., Tarasi et al. 2011), marketing researchers have failed to incorporate the influence and impact of the single largest, as well as most unique, customer in the world, the United States government.

In 2012, the US government issued more than 3 million supplier contracts, worth in excess of 400 billion dollars (USAspending.gov), making it the largest single presence in the domestic market. In addition, continual government expansion into new business/social areas, such as health care, energy, education, etc., represents a significant shift in market dynamics, presenting new opportunities and challenges for many firms. Moreover, the sheer size and scope of this emerging customer force has intensified firm competition to earn a share of the government’s wallet (i.e., procuring government contracts) and forge relationships to ensure
long-term success. Organizations such as Boeing, IBM, Lockheed Martin, and GE, among others, are increasingly positioning themselves to enlarge their portion of sales to the government (i.e., enlarging the ratio of the government in their customer portfolio), in order to capture a significant portion of current and future market value.

Despite companies pursuing the government with more vigor in recent years, the overall impact of government contracts on firm performance is murky. Specifically, the nature of the government as a customer is unique from other B2C or B2B firms/contexts, and thus any generalizations on performance implications from traditional settings are inappropriate and potential misleading. For instance, government transactions/relationships (i.e., contracts), despite their significant size and capabilities, are imbued with numerous constraints that either do not exist or are not as relevant in traditional firm-customer relationship. Specifically, the relationship between an organization and the government exists under significant oversight and stringent regulatory controls, requiring bureaucratic management and maneuvering. This lends the government to be quite resilient to many vital marketing efforts, such as up- and cross-selling activities (e.g., Krasnikov, Jayachandran, and Kumar 2009), acquisition and retention practices (Lewis 2006), and developing lasting relational connections (e.g., Dwyer, Schurr, and Oh 1987).

In addition, the government procurement and appropriation process is much more complex than traditional customer entities, changing the financial structure of the firm-customer relationship. Lastly, the government possesses quite a diverse set of needs (i.e., from toilet paper to advanced anti-aircraft batteries), making the transference of value more challenging. These factors potentially mitigate any advantages gained through increased government patronage, introducing significant ambiguity concerning firm financial performance. Therefore, I feel this relationship warrants further analysis.
As such, given the importance, significance, and uniqueness of the government as a customer, as well as the clear lack of theoretical research examining its effect, I investigate the impact of government as a customer (via government contracts) on firm performance. Specifically, I investigate the influence of the government as a customer on future (Tobin’s Q) and present (market capitalization) market reflections of firm performance (Pauwels et al. 2004), thereby providing a holistic financial picture. Specifically, I examine the importance of the government in terms of a firm’s overall customer portfolio by capturing the percent of sales from government contracts to total yearly firm sales. This allows us to capture the importance a firm places on the government as a customer in relation to their entire customer portfolio.

In addition, I build from extant literature (relationship management and economics) (e.g., Johnson and Selnes 2004; Lichtenberg 1988), as well as in-depth conversations with business executives, to explore how contextual factors influence the relationship between the government as a customer and firm performance. Specifically, my review of the literature and executive discussions pointed to internal firm factors, such as innovation capabilities (i.e., R&D intensity) and resource portfolio (i.e., resource slack), that are essential firm components when interacting with the government (e.g., Johnson and Selnes 2004; Netzer, Lattin, and Srinivasan 2008). I pulled from capability (Day 1994; Teece, Pisano, and Shuen 1997) and resource based theories (Barney 1991) to explain their importance and potential impact. In fact, both theory and in-depth interview points to their presence and magnitude allowing a firm to capitalize and leverage the government’s size and growth to improve the firm’s performance. Figure 1 depicts my conceptual model of theoretical relationships.
My findings make several contributions to theory and practice. First, I contribute to and extend the growing body of literature concerning customer portfolio and customer manager by highlighting unique aspects of customer heterogeneity (i.e., government as a customer) and its subsequent effect on firm financial performance. As such, this research responds to repeated calls in the marketing literature for more analysis of the financial impact of customer management (e.g., Reinartz and Kumar 2003). Also, I provide the first empirical and theoretical test of the impact of governmental contracts on firm performance, and in so doing, highlight the unique relationship between organizations and the government. Second, I demonstrate that the impact of the government as a customer on firm outcomes is a dual-edged sword. Managers must be intimately aware of their R&D capabilities as well as the availability of slack resources when determining whether pursuing/enlarging the government as a customer is the correct strategic
action for the firm. Specifically, increasing the level of strategic importance placed on the
government as a customer, i.e., increasing the position of the government in the firm’s customer
basket has a more positive influence on financial outcomes when coupled with strong innovation
capabilities and an ample amount of spare resources. Absent these capabilities and additional
resources, the government poses dangerous financial repercussions, and should possible even be
avoided, if possible.

I organize the remainder of this essay as follows. First, I review the primary constructs
presented in this essay. Second, I connect the constructs to my conceptual model and posit
several formal hypotheses. Third, I detail my dataset and methodology. Finally, I review the
results and offer implications and contributions for marketing theory and practice.

Conceptual Development

Customer Management

A critical component of marketing strategy entails the successful management of the
customer basket/portfolio to maximize the value exchanged between the firm and its
environment (e.g., Bolton, Lemon, and Verhoef 2004; Moorman and Rust 1999). This entails the
strategic matching of capabilities between the interfirm partners (e.g., Johnson and Selnes 2004).
The successful matching of these capabilities allows the firm to attain growth in profitable
customer segments while minimizing the effect of less desirable customer groups (e.g., Boulding
et al. 2005). As such, customer portfolio management requires a deep understanding of the
heterogeneous nature of customer needs and requirements and the subsequent development of an
appropriate and satisfactory offering, achieved through congruency with a firm’s capabilities and
resources (e.g., Alderson 1957). This necessitates divergent strategies for the entire basket of
customers, as each requires unique value propositions and requirements (e.g., Johnson and
Selnes 2004). To do so successful, firms expel significant resources, energy, and capabilities into the processes of managing their customers to ensure significant appropriation of value from the relationships, i.e., enhanced competitive advantage and improved performance (e.g., Reinartz and Kumar 2003).

Extant research notes that the proper alignment of capabilities between the firm and customer results in greater customer lifetime value (e.g., Homburg, Droll, and Tozek 2008), improved customer satisfaction, retention, and acquisition (e.g., Reinartz, Thomas, and Kumar 2005), and enhanced firm performance (e.g., Tasari et al. 2011), among others (e.g., Boulding et al. 2005). On the other hand, incongruence of capabilities results in suboptimal value exchange, limiting potential extraction of value and threatening performance (e.g., Haenlein, Kaplan, and Schoder 2006). Correctly matching capabilities and resources is particularly important with the introduction of the government into the basket of customers, as its highly unique and idiosyncratic characteristics make it difficult for a firm to strategically manage the exchange, distorting the overall potential impact of the government as a customer.

**The Government as a Customer**

The U.S. government has emerged as a significant topic of interest to scholars in economics (e.g., Lichtenberg 1988), finance (e.g., Ciccotello and Hornyak 2000), accounting (e.g., Demski and Magee 1992; Thomas and Tung 1992), and management (Adegbesan and Higgins 2010). Unfortunately, marketing has had little to say on the topic (see Katz 1965 as an exception). Most of this research focuses on macro-level issues such as: the role of government in generating societal innovation (e.g., Lichtenberg1988), boosting overall domestic market performance (e.g., Riech 1972), and promoting CSR activities (McWilliams and Siegel 2001). Surprisingly, a significant omission from the governmental research stream is the role of the
government as a customer in a firm’s basket of customer relationships, and its subsequent influence on firm financial performance. This is a strategically important question, one to which marketing is ideally suited to provide an answer (e.g., Anderson 1982), as the United States government continues to extend its reach in the domestic market. The government also has characteristics and capabilities that are quite distinct from traditional customer segments, making it unique from any other force in the market. This makes the government’s potential influence on a firm’s bottom line ambiguous. I explore the positive and negative financial implications of the government as a customer below.

Unfortunately, marketing has very little to say regarding the impact of the federal government as a customer. To alleviate this concern, I decided to complement my review of the literature with in-depth discussions with business managers and executives. These executives had significant experience selling to, and dealing with, the government. Given the uniqueness of the topic, each interview was unstructured to improve the richness of the data. Interviews were recorded and then coded using Grounded Theory methodology to see which themes and “theories-in-use” emerged from the data (e.g., Strauss and Corbin 1990). The primary goal for the interviews was to compliment the literature that is available on the government as a customer to strengthen my theorizing and conceptual development. Table 1 provides a description of the interviewees.
In terms of performance, I consider two stock market based metrics of firm financial value, Tobin’s Q and market capitalization. Due to the efficient market hypothesis (e.g., Fama 1970) the stock market, and firm stock prices, contain up-to-the-minute reflections of the value and performance of the firm and therefore provide key metrics into the overall success of firm strategic action (see Srinivasan and Hanssens 2009). Also, because stock prices are immediately responsive to strategic actions, using market data removes some of the biases that exist in traditional performance measures, such as sales, that can be sensitive to lag or delayed effects (e.g., Lee and Grewal 2004). In fact, when combined together, both measures can provide a complete picture as the financial effects of a particular firm strategy. Tobin’s Q, a measure of the market value of a firm to the replacement costs of its assets (e.g., Fang, Palmatier, and Steenkamp 2008), is a forward looking measure of firm performance. This allows us to capture a long-term financial perspective of the impact of the government as a customer. Market capitalization, the market’s exact perception of the overall value of the firm (e.g., Joshi and Hansssens 2004), is an immediate reflection of the overall financial view of the firm.

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<td>Don</td>
<td>Account Manager</td>
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<td>Business Account Management</td>
<td>Fortune 500 bank</td>
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<td>Jeff</td>
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</tbody>
</table>
The literature review and in-depth discussion pointed toward a conceptual development that is predicated on how the government as a customer affects firm financial performance (Tobin’s Q and market capitalization) through a series of positive and negative mechanisms. Specifically, the government personifies several unique characteristics that indicate its effect on firm performance might be positive. First, the government’s sheer size makes it a very attractive customer segment, as the government has the largest “wallet” in the market, providing the most sales potential (e.g., Du, Kamakura, and Mela 2007). With annual primary contracts in excess of 400 billion dollars (e.g., USAspending.gov), and several trillion in additional governmental spending each year (Ferrara 2012; GAO 2012), it easily eclipses other market players in terms of market growth and potential. The government’s size provides numerous opportunities for growth for collaborating firms, improving their financial outlook both in the short- and long-term. “They help provide our manufacturing plan a critical mass and necessary volume in order to meet our production schedules,” said Darryl, a CMO of a food manufacturing company. “There are big budgets there, we wanted a piece of that business,” said Paul, a marketing executive with a software company.

Second, the government possesses significant capabilities that a firm can leverage to spark social and marketplace innovation (e.g., Doutriaux 1991; Scherer 1965; Wright 1983), market growth (e.g., Reich 1972), and firm resource advantages (e.g., Wernerfelt 1984). The government routinely sponsors and subsidizes numerous innovation projects to promote new industries, technologies, and market growth. “They [the government] fund our R&D to help accelerate technology in the marketplace… They try to get things earlier than the general marketplace,” said Bruce an account manager with a large semiconductor manufacturer. Recently, this has been particularly relevant and observable in the government’s green energy
initiatives and research projects. As such, government sponsored programs and subsidies present firms with additionally resources that could help spark innovation, payback new product development costs, as well as the ability to create competitive advantages through erecting barriers to entry and enabling first-mover advantages (e.g., Porter 1985). The additional capabilities gained through collaboration and the development of competitive advantages would likely result in short- and long-term financial health.

Third, the government continues to expand its presence in numerous market sectors, extending its reach and traditional boundaries. Industry sees this in the continual expansion of the government into new market domains, such as health care and energy. Such a diversification allows extensive opportunities for a wide variety of firms to collaborate with the government and attempt to cross-sell their offerings into new departments and agencies, thereby gaining marketing efficiency in the process (e.g., Boulding et al. 2005). Marketing efficiencies help to improve performance over the firm’s financial horizon (e.g., Vorhies and Morgan 2003). Unfortunately, the government as a customer also contains elements that can actually impede its value to a firm.

For instance, interacting with the government means facing significant policy and procedural requirements. These include very strict guidelines concerning exact repayment and cost reimbursement schedules, supplier approval and certification guidelines, and extremely idiosyncratic bidding requirements. These requirements increase the amount of idiosyncratic investments required in the transaction, making government interactions more tenuous, costly, and very time consuming (e.g., Katz 1965). “It costs a lot of money just to become a preferred supplier and start bidding contracts….,” said Tim, the CEO of a metal manufacturing company. Additionally, governmental programs are increasingly coming under cost reduction threats due to
public concerns over rising government spending (e.g., Miller 2014). This has resulted in highly variable year-to-year budgets, introducing significant uncertainty into whether a firm will be able to make a return on its investment into the becoming a preferred supplier.

In addition, every governmental agency and department must comply with stringent oversight and mandates. Oversight affects all aspects of the transaction, from the amount of financial resources available to the types of products and services permissible to precise production and outsourcing requirements. “They [the government] pass down exact specifications for all products they’re buying. We’re required to follow this drawing exactly. They have exact quality control requirements we have to follow as well,” said Ken. “Their [the government] spec is so unique, we have to make a whole new product,” said Scott, an executive of a paint manufacturer. As such, the government is resilient to many firm marketing efforts designed at harnessing greater value from customer relationships (e.g., Reinartz and Kumar 2003). This makes it difficult for a firm to build loyalty and relational norms (e.g., Palmatier et al. 2006) with the government and limits opportunities for up- and cross-selling activities (e.g., Bolton, Lemon, and Verhoef 2004; Gupta, Lehmann, and Stuart 2004). These factors impede the development of relational contracting, reducing the market for government contracts to resemble spot-market transactions. At this point, firms face pricing pressures that reduce the overall financial benefit from the government transaction. “The Navy will award contracts to multiple suppliers in order to drive the price down…” said Ken, a marketing manager whose company sells furniture to the Navy.

They’ll get you to lower your price by threatening to go to another competitor; most of the time I can’t refuse because I’ve already been awarded the contract…Their new approach is to try and drive down the price of the contract.
In addition, federal mandates also influence government interactions. For instance, federal mandates require small-to-medium sized firms receive up to 50% of all government contracts, potentially reducing overall market competitiveness and value creation. Specifically, a deserving firm may lose a contract, not because they failed to provide superior value, but because of a quota.

Lastly, the government has significant power in transactions with supplier firms, influencing its ability to dictate terms of the contract, and subsequently influence firm financial performance. For instance, researchers note the importance of increasing a firm’s share of its customer’s overall wallet (e.g., Du, Kamakura, and Mela 2007). Unfortunately, this is nearly impossible in regards to the government, as its size, mandates, regulations and oversights, make it impossible for a firm to gain a significant wallet share. Further, the federal government exhibits high switching behavior, making it a turbulent customer with unpredictable behaviors (e.g., Keaveney 1995). A portfolio manager with Bank of America gave us this story about one of their clients:

I had this client who had a big government contract for three years and they were doing great, then all of a sudden, the government dropped them as a supplier, and now they’re really hurting financially

Boeing is another example of a firm who has experienced the tempest that is the government in a quite publically manner in recent years, as the loss of Air Force defense contracts became a national issue. Boeing utilized a significant portion of their social capital to win back those contracts (e.g., Hodge 2011). The government can use its power and influence to dictate more favorable terms in the contract, minimizing the financial benefit received to the
firm. Many of the executives I spoke with noted the lack of recourse against the government if the relationship turned negative.

In addition to the government’s power, it also causes dependence issues. Specifically, a firm is often required to make sizable and significant idiosyncratic investments in order to become a preferred supplier (e.g., USAspending.gov). However, becoming a preferred supplier does not assure procurement of significant contracts and continual business. Further, a firm may face co-creation limitations and regulations. For instance, defense contractors are frequently limited in their ability to sell their products to other entities or nations, locking the firm into significant dependence on the government (e.g., Reich 1972). “If it’s proprietary, there are restrictions on who we can sell to,” said Ken. I heard similar stories from other managers, as well.

Additionally, many government transactions work on a reimbursement structure, where the firm fronts the costs of development, production, and delivery, with reimbursement coming after completion. This can become quite costly, as delays, work stoppages, and underestimation of the initial costs can reduce the firm’s overall value gained from the relationship. “The turnaround time is slow; it could be six months before we get paid back,” mentioned Tim. Thus, a firm may invest significant capital, resources, and capabilities into becoming a government supplier, but have little assurances or guarantees that it will achieve a satisfactory return.

In summary, the government as a customer possesses certain attributes that suggest it would improve the overall financial health of a firm as it increases in importance in relation to the customer portfolio. However, I posit that the stock market is going to have considerable hesitation to increased government transactions due to concerns over oversight, regulation, and power and dependence. Kevin, a CFO, states, “If I’m in the financial community, I’m going to
view the government as harder to deal with than traditional customers, and have a bias against them.” Emily, a portfolio manager at a major bank confirms, “We don’t care about them [firm’s] having a single government contract, what makes us nervous is a high concentration.” Therefore, I posit that the significant investments required to become a government supplier, as well as concerns with oversight, turbulent budget conditions, and uncertain public sentiment, will cause significant hesitation by the financial markets, reducing overall firm financial health. Thus:

\[ H_1: \text{An increase in the government as a customer is associated with a decrease in a) Tobin’s Q and b) market capitalization.} \]

**The Influence of R&D Intensity and Resource Slack on the Relationship between the Government as a Customer and Firm Value**

Extant research notes that the ability of a firm to effectively manage and extract the most value from its external relationships depends on the appropriate management and congruence of its internal capabilities and resources (e.g., Johnson and Selnes 2004). This is especially true in this context, as these characteristics influence the viability and attractiveness of government contracts. Therefore, I build from capabilities theory (e.g., Day 1994) and RBV (e.g., Barney 1991) to posit that two factors, R&D intensity (capabilities) and resource slack (resources), play an integral role in positively influencing the relationship between government as a customer and firm value.

R&D intensity represents a firm’s commitment toward continual innovation and improvements of its physical product, while maintaining its current market share and operational objectives (Gebauer, Gustafsson, and Witell 2011). As such, it demonstrates the effort and importance placed on developing future products and process improvements, while not sacrificing current economic rent generation. Extant literature notes that R&D intensity affects
new product development outcomes (e.g., Raassens, Wuyts, and Geyskens 2012), myopic management tendencies (Mizik 2010), as well as other critical firm outcomes (e.g., Swaminathan, Murshed, and Hulland 2008). In addition, R&D intensity significantly influences customer relationships (e.g., Fang, Palmatier, and Grewal 2011).

I posit that greater R&D intensity operates as a buffer to the market’s negative perception of the government as a customer on firm financial performance. This occurs for three reasons. First, greater R&D intensity enhances a firm’s ability to extract value from government relationships, by aiding in the co-creation of value as well as the strategic sharing of information between the two entities (e.g., Fang 2009; Frazier et al. 2009). The government, as a customer and market entity, possesses significant capabilities in the realm of innovation creation and stimulation in many industries (e.g., Adegbesan and Higgins 2010). Thus, a firm with greater R&D intensity would possess the requisite organizational routines (e.g., Connor and Prahalad 1996) and internal knowledge stores (e.g., Johnson, Sohi, and Grewal 2004) necessary to effectively manage and initiate the transfer and absorption of innovation and knowledge to and from the government. Such strategic sharing and transference of key information between relational partners is a key driver of firm performance and success (e.g., Frazier et al. 2009). As such, increased prevalence of government contracts in a portfolio increases the opportunity to extract unique knowledge, resulting in an increased positive financial effect. Moreover, co-creation from government relationships likely results in beneficial spillover effects from knowledge and capabilities gained via government transactions. Once again, this would be more advantageous as a firm obtains more and more government contracts. The improved acquisition and dissemination of value would then improve the entire firm offering and competitive position in the marketplace (e.g., Porter 1985).
Second, partnerships with the government require firms to comply with stringent oversights, regulations, and procurement requirements (e.g., Baysinger and Woodman 1982; Katz 1965), specifically in regards to manufacturing efficiencies, outsourcing, and working conditions. This can be time consuming as well as costly to ensure firms meet the required regulations to become a preferred governmental supplier. Greater R&D intensity, representing a firm’s commitment to “process improvements,” would therefore be a strong signal that a firm would be able to meet the necessary standards in order to interact with the government. Thus, firm’s with stronger R&D intensity would have a strong probability of not incurring such costs and delays as the proportion of their business with the government increases. In essence, the firm would already possess the organizational capabilities required to develop and meet the new requirements (e.g., McWilliams and Siegel 2001). The operational improvements stemming from government interactions would likely improve a firm’s position in the minds of its non-government customers as well. These requirements would force the firm to become more efficient and refined, and require higher quality in its offering, resulting in another form of spillover benefits.

Lastly, as government contracts increase in a firm’s customer basket, the firm begins to face more and more diversity in terms of customer demands, needs, and requirements. Greater R&D intensity improves the firm’s ability to provide these solutions to the government. For example, Northrup Grumman, a major defense and solutions contractor, provides numerous services for the armed forces in addition to physical hardware, including technical training, logistics, and even support staff. Northrup Grumman’s strong R&D intensity provides it with the requisite capabilities to provide the appropriate solutions to meet numerous governmental needs,
and thereby, extract significant value from its exchange. Therefore, I posit that these effects are likely to mitigate the negative effect in both the present and long-term. Stated formally:

H2: R&D intensity moderates the relationship between government contracts and firm financial performance, such that as R&D intensity increases, the negative influence of the government as a customer on a) Tobin’s Q and b) market capitalization is mitigated (i.e., becomes weaker).

Resource slack confers a firm’s overall resource position (Bourgeois 1981). It depicts the relationship between total firm resources and the amount necessary for the efficient working of the firm (e.g., Cyert and March 1963). Greater levels of resource slack indicate a reservoir of spare resources (i.e., cash) that have not been consumed in the operations of a firm. These resources are easily redeployed toward other activities and operations. Importantly, as this represents a buffer of spare resources, any redeployment does not adversely affect other activities and operations (e.g., Sharfman et al. 1988). This allows for improved flexibility and responsiveness to dynamic markets and buffers firms from environmental threats and fluctuations (Grewal and Tansuhaj 2001; Lee and Grewal 2004). In contrast, a reduction in resource slack indicates that a larger extent of a firm’s resources are currently dedicated to current operations (e.g., Voss, Sirdeshmukh, and Voss 2008), representing the absence of a resource buffer.

I posit that greater resource slack results also buffers the negative effects of the government as a customer on financial performance. This occurs for several reasons. First, government relationships generally contain strict reimbursement structures. Generally, these contracts require a firm to incur all or most of the costs for delivering on the contract, receiving their reimbursement after completion. Thus, greater resource slack provides a buffer of resources
a firm can use to fulfill its contractual obligations without limiting its current activities (e.g., Bourgois 1981). Moreover, as previously stated, government contracts, and continuing relationships with the government, require a significant amount of idiosyncratic investments, whereby a firm becomes a preferred supplier by meeting all the regulatory and oversight requirements. This takes time and resources. Many of the executives I talked with echoed this sentiment, noting that quality cash reserves are a must when dealing with government minutia. As such, greater resource slack allows the firm to go through the regulatory confirmation processes without harming current operations. Lower or no resource slack represents a dry reservoir of available resources. A new contract forces the firm to divert resources from current capabilities, potentially resulting in inter-departmental tension and conflict (e.g., Bourgois 1981). Therefore, I expect a positive market response, via Tobin’s Q and market capitalization, to government contracts, in the presence of greater resource slack. Stated formally:

\[ H_3: \text{Resource slack moderates the relationship between government contracts and firm financial performance, such that as resource slack increases, the negative influence of the government as a customer on a) Tobin’s Q and b) market capitalization is mitigated (i.e., becomes weaker).} \]

**Research Methodology**

**Data Sources**

The data for this investigation were drawn from several secondary sources (CRSP/COMPUSTAT and USAspending.gov), between the years of 2009-2011. Yearly government contract data were taken from the USAspending.gov website and then aggregated to the firm-level. On average, each year produced around 3.0 million government contracts issued to over 10,000 supplying firms from a variety of industries, including pharmaceuticals,
manufacturing, and consumer electronics, among others. From this group of 10,000 supplying firms, I drew a random sample of 500 publically traded firms, and matched their governmental contract data with secondary data. Firms had to receive government contracts in each of the three-year windows to remain in the final sample. I began with over 10 million government contracts over a three-year period, and aggregated them at the firm level to have a final sample consisting of 328 firms with 956 aggregate (i.e., yearly total) observations.

Measures

Firm Performance. Following previous research in marketing (e.g., Fang, Palmatier, and Steenkamp 2008; Mizik and Jacobson 2003), I used Tobin’s Q and market capitalization as measures of firm performance. Specifically, I was particularly interested in investigating the financial markets response to the management of a firm’s customer portfolio. Combined, these measures represent the projected and current market value for firms, and thus provide a more complete picture of the financial consequences of the government in terms of its customer hierarchy. Both measures were determined using data obtained from the COMPUSTAT database. I used Chung and Pruitt’s (1994) short method to calculate Tobin’s Q. Its equation is as follows:

\[ \text{Tobin’s Q} = \frac{MVE + PS + DEBT}{TA}, \]

Where MVE is equal to the closing value of firm shares at the end of the financial year multiplied by the number of common shares outstanding, PS is equal to the value of outstanding liquidated preferred stock, DEBT is equal to current liabilities minus current assets plus the book value of a firm’s inventory plus their long-term debt, and TA is equal to the book value of total assets. Market capitalization was captured using MVE from the equation above.
**Government as a customer.** To calculate the impact of the government as a customer on firm value, I determined the total amount of government contracts issued for a firm in each year. I then divided this yearly total by a firm’s total yearly revenue to determine its ratio of revenue tied directly to government contracts. As such, this measure shows the overall size and significance of the government in a firm’s portfolio of customers. I refer to this as government ratio for the remainder of the essay. I obtained data for this measure from the USAspending.gov and COMPSTAT databases.

**R&D intensity and resource slack.** My internal moderation measures are consistent with previous research (e.g., Fang, Palmatier, and Steenkamp 2008). First, for R&D intensity, I measured the ratio of R&D expenses to revenue for each firm in each year. Second, resource slack was measured using factor scores from two financial ratios: (1) retained earnings to total assets and (2) working capital to total assets.

**Control variables.** To further strengthen the validity of the results, I included several time-varying firm- and industry-specific control variables. Specifically, I controlled for three firm-effects. First, I controlled for firm size measured as the log-transform of the firm’s employees. Second, I controlled for ROA measures as net income over total assets. Third, I controlled for the yearly growth of government contracts. This was measured by a firm’s government ratio for year t by its government ratio at time t-1. This value was then divided by its government ratio at time t-1 to generate a growth term. This was done because the primary research question in this study is the influence of the position of the government in the basket of customer relationships, not the growth of a single customer segment. I then controlled for three industry effects, which were all consistent with previous research (e.g., Castrogiovanni 1991; Fang, Palmatier, and Steenkamp 2008; Finkelstein and Boyd 1998). First, I controlled for
industry capital intensity, which I calculated as the ratio of a firm’s plant, property, and other assets to its yearly revenue, and then calculated the average of all firm’s capital intensity by industry based on their two-digit SIC codes. Second, I controlled for environmental munificence by taking the five year average of industry sales based on a firm’s two-digit SIC code. Lastly, I controlled for industry turbulence, which was calculated as the standard deviation of industry sales during the prior five years divided by the average industry sales during those years. Data for these measures were obtained from the COMPUSTAT database. Table 4.2 contains definitions and calculations for the measures, and Table 4.3 shows descriptive and correlation statistics.

<table>
<thead>
<tr>
<th>Table 4.2: Essay Three Variable Definitions</th>
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<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td><strong>Dependent Variable</strong></td>
</tr>
<tr>
<td>Tobin’s Q</td>
</tr>
<tr>
<td>Market capitalization</td>
</tr>
<tr>
<td><strong>Independent Variable</strong></td>
</tr>
<tr>
<td>Government ratio (GR)</td>
</tr>
<tr>
<td><strong>Moderating Variables</strong></td>
</tr>
<tr>
<td>Firm R&amp;D intensity (RDI)</td>
</tr>
<tr>
<td>Firm resource slack (RS)</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
</tr>
<tr>
<td>GR growth</td>
</tr>
<tr>
<td>Firm size</td>
</tr>
<tr>
<td>Firm ROA</td>
</tr>
<tr>
<td>Industry capital intensity</td>
</tr>
<tr>
<td>Industry munificence</td>
</tr>
<tr>
<td>Industry turbulence</td>
</tr>
</tbody>
</table>
Table 4.3: Essay Three Descriptive Statistics and Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Descriptive</th>
<th>Correlation Table</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1. Tobin’s Q</td>
<td>1.73</td>
<td>1.12</td>
</tr>
<tr>
<td>2. Market capitalization</td>
<td>7.83</td>
<td>2.24</td>
</tr>
<tr>
<td>3. Government ratio (GR)</td>
<td>.04</td>
<td>.16</td>
</tr>
<tr>
<td>4. R&amp;D intensity (RDI)</td>
<td>.19</td>
<td>.93</td>
</tr>
<tr>
<td>5. Resource slack (RS)</td>
<td>.95</td>
<td>.89</td>
</tr>
<tr>
<td>6. GR growth</td>
<td>1.65</td>
<td>2.17</td>
</tr>
<tr>
<td>7. Size</td>
<td>.03</td>
<td>.16</td>
</tr>
<tr>
<td>8. ROA</td>
<td>2.89</td>
<td>.96</td>
</tr>
<tr>
<td>9. Industry turbulence</td>
<td>1.93</td>
<td>4.32</td>
</tr>
<tr>
<td>10. Industry capital intensity</td>
<td>7.61</td>
<td>.98</td>
</tr>
</tbody>
</table>

Notes: * p < .05. All p-values are two-tailed.
Model Estimation

This dataset consists of observations for multiple firms over multiple years, and therefore, requires the utilization of panel estimation techniques over traditional time series approaches. Panel estimation has several estimation issues that must be addressed before the final analysis can be reported. First, prior research (e.g., Cuthbertson and Gasparro 1995; Fang, Palmatier, and Steenkamp 2008) notes that my dependent variables may be nonstationary, potentially biasing the final results. As a result, I tested for this effect using a Harris-Tzavalis unit root test, and found a significant panel unit root for Tobin’s Q ($\rho = -.17, p < .01$) and market capitalization ($\rho = -.04, p < .01$), indicating that my measures are stationary (e.g., Cameron and Trivedi 2005).

Second, serial correlation of Tobin’s Q may be a problem as it may bias parameter estimates. I ran a Wooldridge (2002) test for autocorrelation in panel data (Tobin’s Q: $F = 7.14, p < .05$; market capitalization: $F = 106.62, p < .05$), which indicated that I should include a single period lag of my DVs. Further, to help alleviate any firm unobserved heterogeneity, I included several firm-specific effects in the model (Jacobson 1990), which also helps to control for serial correlation (Cameron and Trivedi 2005). Also, following previous research (e.g., Fang, Palmatier, and Steenkamp 2008), I employed the White period robust coefficient variance estimator for statistical inferences (Arellano 1987), which also helps to control for any arbitrary serial correlation.

Lastly, I utilized the Hausman (1978) specification test to determine if a random-effects or fixed-effects model was the most appropriate. The non-significant Hausman tests for Tobin’s Q ($\chi^2 = 2.61, p > .05$) and market capitalization ($\chi^2 = 3.29, p > .05$), indicated that a random-effects approach was the most appropriate analysis given the data. Thus, the final random-effects panel model is as follows:
\[
Y_{it} = \beta_1 GR_{it} + \beta_2 RDI_{it} + \beta_3 RS_{it} + \beta_4 (GR_{it} \times RDI_{it}) + \beta_5 (GR_{it} + RS_{it}) + \beta_6 \text{Size}_{it} + \beta_7 \text{ROA}_{it} + \\
\beta_8 GRX_{it} + \beta_9 IC_{it} + \beta_{10} IM_{it} + \beta_{11} IT_{it} + \beta_{12} Y_{i(t-1)} + \epsilon_{it},
\]

where, \(y_{it}\) is equal to Tobin’s Q/market capitalization for firm \(i\) in year \(t\); \(GR_{it}\) = government ratio for firm \(i\) at time \(t\); \(RDI_{it}\) = R&D intensity for firm \(i\) at time \(t\); \(RS_{it}\) = resource slack for firm \(i\) at time \(t\); \(\text{Size}_{it}\) = log of employees for firm \(i\) at time \(t\); \(\text{ROA}_{it}\) = return on assets for firm \(i\) at time \(t\); \(GRX_{it}\) = growth in government ratio for firm \(i\) in year \(t\); \(IC_{it}\) = industry capital intensity for firm \(i\) at time \(t\); \(IM_{it}\) = industry munificence for firm \(i\) at time \(t\); \(IT_{it}\) = industry turbulence for firm \(i\) in year \(t\); \(Y_{i(t-1)}\) = lagged dependent variable for firm \(i\) at time \(t-1\); \(\epsilon_{it}\) = error term.

Results

Table 4.4 shows the full results. In regards to my research question, the analysis indicates that the government as a customer has a significant and substantial negative effect on firm value in regards to Tobin’s Q (\(b = -.19, p < .10\)) and market capitalization (\(b = -.27, p < .05\)). Therefore, I have strong support for Hypothesis One. In regards to the moderations, Hypotheses Two and Three investigate the effect of firm-level effects on the relationship between the government as a customer and firm-value.
Table 4.4: Results of the Government as a Customer on Firm Financial Performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tobin's Q</th>
<th>Market Capitalization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main Effect</td>
<td>Moderation</td>
</tr>
<tr>
<td>Intercept</td>
<td>.71 (.34)***</td>
<td>.71 (.36)**</td>
</tr>
<tr>
<td>Government ratio (GR)</td>
<td>-.19 (.11)*</td>
<td>-.22 (.11)**</td>
</tr>
<tr>
<td>GR x RDI</td>
<td>.45 (.20)**</td>
<td>.15 (.09)*</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GR growth</td>
<td>-.00 (.00)</td>
<td>-.00 (.00)</td>
</tr>
<tr>
<td>Size</td>
<td>-.01 (.02)</td>
<td>-.02 (.02)</td>
</tr>
<tr>
<td>Profitability</td>
<td>-.05 (.57)</td>
<td>-.32 (.60)</td>
</tr>
<tr>
<td>Industry turbulence</td>
<td>.09 (.03)***</td>
<td>.10 (.04)***</td>
</tr>
<tr>
<td>Industry capital intensity</td>
<td>.01 (.01)</td>
<td>.01 (.01)</td>
</tr>
<tr>
<td>Industry munificence</td>
<td>-.03 (.03)</td>
<td>-.03 (.04)</td>
</tr>
<tr>
<td>R&amp;D intensity (RDI)</td>
<td>-.07 (.05)</td>
<td>-.25 (.10)**</td>
</tr>
<tr>
<td>Resource slack (RS)</td>
<td>-.03 (.05)</td>
<td>-.04 (.05)</td>
</tr>
<tr>
<td>Lag Effect</td>
<td>.59 (.06)***</td>
<td>.60 (.08)***</td>
</tr>
</tbody>
</table>

\( \chi^2 \) 169.00*** 162.15*** 37489.9*** 41838.03***
R\(^2\) .55 .56 .98 .98

*p ≤ .10; **p ≤ .05; ***p ≤ .01

My first model of moderators examines the impact of internal capabilities and resources on the relationship between the government as a customer and firm value measured as Tobin’s Q. Specifically, H\(_2\) predicts that as a) R&D intensity increases and b) resource slack increases, the negative effect of the government as a customer on firm value is mitigated. I find a significant positive interaction terms between R&D intensity and government ratio (b = .45, p < .05) and between resource slack and government ratio (b = .72, p < .05), providing initial support for H\(_{2a}\) and H\(_{2b}\). To gain a deeper understanding of this relationship, I produced profile plots of the interaction. When the government is an important customer to the firm, the graphs shows that
high R&D intensity can mitigate the otherwise negative effect of government contracts on firm financial performance. In fact, the line trends upwards, showing that R&D intensity may even flip the overall effect to be quite positive. Please see Figure 4.2, Panel A.

In terms of slack, I see a clear positive effect of high resource slack when the government becomes an essential customer in the firm’s portfolio. Increasing the government as a customer corresponds with an increase in Tobin’s Q under conditions of high resource slack. Please see Figure 4.2, Panel B for results. The overall results show a positive projection of future firm value deriving from the interaction between a firm’s customer portfolio and its internal capabilities and resources, conforming to previous research (e.g., Fang 2008; Frazier et al. 2009).

The second model of moderators examines the impact of a) R&D intensity and b) resource slack on the relationship between the government as a customer and firm value measured by market capitalization. H2 predicts that as a) R&D intensity increases and b) resource slack increases, the negative effect of the government as a customer on market capitalization is mitigated. The results confirm this effect for R&D intensity (b = .15, p ≤ .10), but not for resource slack (b = .07, p > .10), and thus provide partial support for H2. Once again, the negative slope of government contracts on firm performance is mitigated, made less steep, in the presence of high R&D capabilities. Please see Figure 4.3 for graphical analysis. It appears that in terms of present firm value, the market is only responding to the effect from R&D.
Figure 4.2: Essay Three Moderation of Tobin’s Q

Panel A

Panel B
Figure 4.3: Essay Three Moderation of Market Capitalization

Discussion and Implications

A critical component of marketing strategy entails facilitating the exchange between the firm and its environment to ensure a sufficient flow of value into and out of the firm (e.g., Anderson 1982; Moorman and Rust 1999). Especially critical in this endeavor is the successful management of the basket of customers a firm possess (e.g., Reinartz and Kumar 2000, 2003). As such, marketing has expended considerable resources ensuring it understands the impact of its customers. However, collectively as a field, we’ve ignored the influence of one of the most influential, powerful, and unique customers in the marketplace, the United States government. The governments continued growth and expansion into business markets necessitates the systematic investigation of its impact on firm outcomes. Therefore, I explored the financial
impact of this particular type of customer becoming a larger aspect of a firm’s customer portfolio.

The government possesses many diverse characteristics that make it unique from other market forces, and thus its impact on firm performance is ambiguous, warranting further analysis. First, the immense size of the government in terms of capabilities and economic footprint (e.g., Lichtenberg 1988) makes it an extremely influential market force. Firms stand to gain significant economic rewards from capturing this potential customer, and developing a pipeline of future opportunities for partnership and cooperation. However, the government also exhibits less-than desirable characteristics as a customer that might hinder a potential positive effect on firm value. Specifically, the government operates under significant oversight, regulatory concerns, and restrictions. These necessitate strict compliance from suppliers and significant investment of idiosyncratic assets to ensure preferred status in securing governmental support. In addition, the government is resilient to many traditional marketing efforts designed at developing long-term close relationships with customers and enhancing greater value (e.g., Homburg et al. 2005). Combined, these factors make the potential impact of the government as a customer on firm performance highly ambiguous, and influenced by key contextual factors.

In terms of its effect on performance, The conversations with executives as well as empirical results indicate that the more a firm incorporates the government as a customer into their basket of customer relationships, i.e., the more of the firm’s revenue is derived from government projects, the worse their financial performance. This was a particularly unique finding, as the current industry trend indicates firms increasingly competing for governmental resources and contracts. My results show that this is might be shortsighted strategy in isolation, hindering both present and future projections of firm value. It appears that the market does not
look favorably toward increasing reliance on government contracts in a firm’s customer portfolio. Several executives I talked with noted that one possible reason for this effect is the markets concern over federal budgetary fluctuations. However, the negative main effect can be mitigated by the presence and magnitude of key internal firm characteristics.

Specifically, the results showed that strong R&D intensity mitigates the negative relationship between the government as a customer and firm financial performance. Clearly, factors associated with R&D intensity, a strong commitment toward process and product improvements, are vital for a successful coexistence between the government and the firm. Given the government’s significant capabilities to sponsor and churn innovation and market development, it follows that strong R&D intensity facilitates the improved sharing of key information between the two relational partners (e.g., Frazier et al. 2009; Rindfleisch and Moorman 2001) and result in increases co-creation of value (e.g., Fang 2008), boosting overall firm value in the process. This contributes to both future and present projections of firm value. Additionally, strong R&D intensity signifies process improvements as much as product improvements, signaling to the market a firm that is already capable of handling government restrictions and regulations in terms of production quality.

Moreover, the results indicate that a firm’s level of slack resources greatly determines the efficacy of the relationship with the government. As postulated, greater resource slack provides a comforting buffer for a firm to incur the necessary costs associated with becoming a preferred supplier, allowing the firm to grow its overall government book of business without harming its current and ongoing operations. This mitigates potential inter-departmental conflicts and insulates the firm from external threats and potential crisis (e.g., Grewal and Tansuhaj 2001). Interestingly enough, however, the effect only holds for future projections of firm value (i.e.,
Tobin’s Q), but were not significant for present projections (e.g., market capitalization). The market appears to view current resource positions as more influential in long-term planning horizons than in short-term windows. This makes sense in regards to my findings, as government contracts generally represent longer-term commitments by a firm to provide a service/product to the government. Resources would then become more essential over the course of the contract, as opposed to the initial issuing date. These results present clear and meaningful implications for marketing theory and practice that I discuss in more depth below.

**Theoretical Implications**

These findings make several important contributions to marketing theory. First, this is the first attempt to investigate and uncover the significant and critical impact the government as a customer has on firm strategic outcomes, such as performance. As such, I developed unique theoretical linkages concerning the nature of the government in relation to the firm. In so doing, I open up possibilities for future research in marketing to continue to explore the nature of this highly unique and important market force on other marketing related outcomes. Specifically, marketing scholars need to carefully consider the heterogeneous nature of customer types and how these features influence the overall financial health of the firm. The business-to-government realm presents many opportunities for future theoretical expansion in this regard, as individual government agencies may produce differing effects. Further, I highlighted the need for marketing theory to extend its realm of influence into other domains than the traditional B2B and B2C contexts. This offers future opportunities for research into the impact of other social contexts, such as educational and social institutions. In addition, I contribute to economic theory by demonstrating a positive effect of the government as a customer on firm performance, when in
congruence with firm capabilities and resources, merging marketing’s principles with economic theory and perspectives.

Second, I extend marketing’s knowledge in the theoretical realm of managing customers. Specifically, I extend marketing’s theory concerning the appropriate management of a firm’s basket of customers and its subsequent impact on firm financial performance. I also highlighted the need for customer management research to investigate the impact of the government. In addition, I moved customer management research beyond the investigation of customer lifetime value, and toward more macro-level firm outcomes, such as overall firm value (e.g., Reinartz, Thomas, and Kumar 2005).

Further, I note the importance of internal play on the relationship between customer management and firm performance, providing evidence of important boundary conditions, and thereby extending the known parameters of marketing theory, especially in regards to managing customer portfolios. Finally, I continued upon marketing’s recent tradition of highlighting unique strategic marketing elements affecting firm financial outcomes (e.g., Srivastava and Hanssens 2009). In so doing, I extend the influence of the marketing department within the firm, and its importance in managing the exchange between the firm and its environment particularly the customer.

Managerial Implications

These findings provide several important implications for marketing managers. First, I validate the importance of marketing managers becoming intimately familiar with the make-up and distribution of its portfolio of customers. Specifically, the results indicate the importance of understanding all customer types in a portfolio. Marketing managers need to investigate each customers ability to positively or negatively influence overall firm financial outcomes, as unique
customer traits shift the relationship. Further, despite presenting opportunities for growth, marketing managers must become aware of the costs and idiosyncratic investments associated with increasing the importance of a single customer in its portfolio.

Second, the results provide managers with both optimism and hesitation in regards to engaging in business relationships with the government. While the government may appear to be a significant source of value to the firm, marketing managers must become astute at recognizing their internal capabilities and resources, and how they could potential interact to influence firm outcomes. Specifically, marketing managers must beware of the current state of a firm’s innovation capabilities and current resource portfolio, as incorrectly positioning the firm to receive government contracts without the appropriate support adversely affects financial performance. The government represents many possibilities for future economic expansion, but marketing managers need to weigh the pros as well as cons before furthering their expansion into that particular frontier. The results paint a rather negative perspective on dealing with the government, a thought that executives noted, but also cautioned. The government, especially from a supplier’s perspective, can provide benefits that may not be readily seen in financial value. I feel this is especially related to the government’s ability to provide continuous and predictable demand for a product or service. Marketing managers can use the government to fill out their production schedules and make sure their firm is operating efficiently and more continuously.

**Limitations and Future Directions**

There are several limitations that must be addressed in regards to the current research. First, government contracts were aggregated into yearly totals, and not measured individually. While I felt this was the most appropriate way to investigate their overall effect, as well as gain
some understanding as to the nature of the government as a customer, future research could investigate the impact of individual government contract types on firm performance. Specifically, government contracts vary in form and function, which could result in different firm performance outcomes. Second, the sample included only publically traded firms, removing small and medium sized firms, who through federal requirements and mandates comprise 50 percent of all awarded contracts. Future research could explore the impact the government has on private firms. In addition to private firms, future research could explore small to medium sized firms and the influence the government as a customer has on their financial outcomes. I expect that dependence and power become even larger issues with these smaller firms, who may not possess sufficient safeguards and deterrents (e.g., Heide and John 1988).

Also, the sample included only U.S. firms who received U.S. government contracts. Future research could explore the impact of foreign governments on domestic or international firm performance. This would be a particularly interesting line of research, as perceived government stability could influence the potential impact of business-to-government relationships. Finally, secondary data makes it difficult to directly test and measure many of the proposed underlying mechanisms that are theorized to influence the relationships. However, the longitudinal nature of the data, as well as the consistency of the results, supports the proposed claims (Fang, Palmatier, and Steenkamp 2008). Further research could explore these effects in more detail through primary data collection methods.
References


*Academy of Management Review*, 16 (3), 542-65.


CHAPTER FIVE

GENERAL DISCUSSION

One of marketing’s primary roles is to engage in strategic activities to create value in the marketplace and then harvest that value to bring financial resources back to the firm (e.g., Anderson 1982). These financial resources are used the fuel the firm’s existing as well as future operations, ensuring survivability (e.g., Anderson 1982). The process of creating and extracting value from the marketplace has become more difficult in recent years due to competitive changes in many industries (e.g., Fang, Palmatier, and Steenkamp 2008). The dynamic nature of today’s environment puts even more pressure on the marketing function to develop strategies and tactics that succeed in both the short and long-term.

External factors such as the commoditization of products, increased globalization, and compressed product lifecycles have shorted a firm’s viable window to create and then extract these financial resources (e.g., Antioco et al. 2008). Marketing managers must continuously develop new and novel strategies to ensure their firm survives and grows in the face of such pressures (e.g., Sheth 2011). It is not surprising, therefore, that marketing managers and scholars have become increasingly interested in studying how marketing strategies and tactics influence the ability of the firm to extract financial resources from the environment (e.g., Srinivasan and Hanssens 2009). This dissertation sought to expand this work through three related essays that explored how marketing strategy affects firm financial performance.
Essay one investigated antecedents and consequences to strategic marketing ambidexterity (SMA), the simultaneous pursuit of exploitation (sales and advertising) and exploration (R&D) through the marketing function. Using longitudinal data from publically traded firms, the results showed that firm maturity and resource slack are prime determinants of a firm’s SMA. Older, more mature, firms shift their SMA emphasis more toward exploration than exploitation (in terms of sales), whereas younger, less mature, firms emphasize exploitation more so than exploration. This effect was moderated by two industry effects, market turbulence and industry competitiveness. A stronger emphasis on exploration then resulted in greater financial performance in terms of lower risk and greater return. However, a unique result from the analysis into the antecedents of SMA was the fact that advertising, which was initially theorized as a proxy of exploitation-based SMA practices, appears to contain some strong elements of exploration as well. The results showed that more mature firms have a stronger emphasis on advertising than R&D, and that this emphasis resulted in better financial performance, lower risk and greater return. Combined, these results provided several unique contributions to marketing theory and practices.

Specifically, the results of Essay One contribute to marketing theory by uncovering and showing empirically unique firm antecedents to the orchestration of capabilities. This fills an important gap in the marketing discipline (e.g., Voss and Voss 2013). Additionally, the counterintuitive finding regarding advertising extends marketing’s understanding about one of its primary constructs, and presents numerous opportunities for further research and exploration. Further, the results showed that
different orientations yield different financial rewards, providing marketing managers with a useful benchmark to use in their own operations.

Essay two explored the ability of a firm’s political management capability (PMC) (e.g., Ahuja and Yayavaram 2011; Oliver and Holzinger 2008), a firm’s financial contributions to political parties, campaigns, and lobbying groups, to influence its financial performance. Focusing on the pharmaceutical industry, Essay Two looked at PMC in connection with a firm’s traditional marketing facing capabilities, R&D, sales, and resource flexibility (e.g., Slotegraaf, Moorman, and Inman 2003). The results showed that PMC, in isolation, is detrimental to firm financial performance in terms of increasing risk and decreasing financial return. However, PMC results in positive financial performance when it compensates for weak market-facing capabilities. In these instances, PMC can provide a firm with a useful market creation tool and provide an apparent competitive advantage. However, the results also show that in the presence of strong market-facing capabilities, strong PMC is a distraction and actually hinders firm financial performance. These results make several important contributions.

First, Essay Two expands the fields understanding concerning the implications of nonmarket-facing capabilities, like PMC. Marketing has focused almost exclusively on the effect of market-facing capabilities, but increasingly, firms like Pfizer are utilizing other means to try and gain an advantage in the marketplace. Nonmarket-facing capabilities have an ability to influence a wide variety of firm outcomes, and warrant further discussion and analysis. Second, marketing managers must carefully monitor their financial contributions to political causes, candidates, and lobbyist. These activities work best when paired with weak market-facing capabilities. Firm energy, and financial
resources, should not be spent on PMC when they are already strong in their competitive environment.

Essay Three analyzed the impact of the government as a customer on the supplier firm’s performance. The government represents the single largest and most unique force in the domestic market. The government’s sheer size makes it appear to be a desirable customer to include a firm’s traditional basket of customers, but it’s also endowed with less appealing aspects that might hinder its ability to provide sufficient value to the firm. In fact, the results showed that increasing the government as a customer actually reduces the supplier firm’s performance. Financial markets appear to be very uncomfortable with the idea of the government representing a significant portion of a firm’s customer portfolio and sales. However, this effect was buffered by two key internal characteristics of the firm, R&D capability and slack resources. Greater R&D capabilities and slack resources allow a firm to leverage their relationship with the government and extracting more value from the partnership. These findings make several important contributions.

First, this is the first attempt in the marketing discipline to explore the financial implications of the government, and opens the field for more exploration into the relationship between firm and the government. Essay Three isolates and uncovers novel theoretical linkages that tie the firm and the government together and extends the disciplines understanding of a new phenomenon. Second, the results can be used by marketing managers to determine the appropriate strategy when dealing with the government as a customer. The government provides many opportunities for supplier firms to pursue, but marketing managers must be cautious and determine whether their firm has the requisite capabilities to succeed in this type of interaction.
In closing, this dissertation provides novel insights into the phenomenon of strategic marketing action influencing a firm’s financial performance. It extends the reach of existing research into a higher-level of firm decision making and analysis (Essay one), into unique strategic actions (Essay two), and into new market areas (Essay three).
CHAPTER SIX

GENERAL DISSERTATION REFERENCES


