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FIRM PERFORMANCE AS A FUNCTION  
OF ENTREPRENEURIAL ORIENTATION AND STRATEGIC  
PLANNING PRACTICES

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September, 2007

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This dissertation has been approved  
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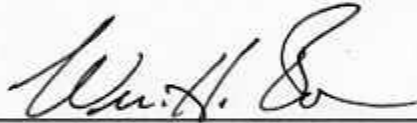
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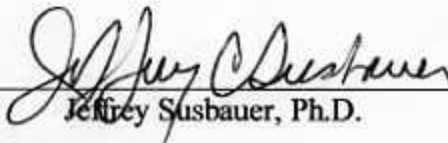
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## Dedication

This dissertation is dedicated to Maurleen who's love, strength, perseverance, and patience enabled me to face and overcome the many challenges confronted throughout my doctoral studies.

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FIRM PERFORMANCE AS A FUNCTION OF ENTREPRENEURIAL  
ORIENTATION AND STRATEGIC PLANNING PRACTICES

JAMES W. KROEGER

**ABSTRACT**

New business creation is essential for our nation's economy and accounts for all net new job creation. However, 56% of small businesses fail within four years of startup. One way to address this issue is to employ an approach combining an entrepreneurial orientation (EO) with key strategic management planning practices for firms seeking to gain a competitive advantage and improve firm performance.

Entrepreneurial orientation is the propensity of firms to be innovative, proactive, and be willing to take risks, and strategic planning processes are the firm-level activities that decide the firm's mission and goals, explore the competitive environment, identify and analyze strategic alternatives, and coordinate implementation activities across the entire organization.

This research project empirically investigated the relationship among a firm's scanning intensity, locus of planning, planning flexibility and entrepreneurial orientation and firm performance. Also studied was the moderating effect of the external environment as it relates to firm performance. The sample for this research involved the owners and principal managers of Northeastern Ohio small businesses, all of whom are members of COSE, the largest local small business organization in the country, and all of whom participated and completed a COSE-sponsored strategic planning course.

The results of this research indicate that a firm's entrepreneurial orientation is positively related to the firm performance. However, the positive relationship between strategic planning processes and firm performance were not supported. Environmental uncertainty was shown to have an effect on the relationship between entrepreneurial orientation and performance.

## TABLE OF CONTENTS

	PAGE
ABSTRACT	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
I. INTRODUCTION.....	1
1.1 Purpose of the Research .....	1
1.2 Statement of the Problem .....	6
1.3 Firm Performance: Strategic Management and Entrepreneurship ..	7
1.4 Entrepreneurial Orientation .....	11
1.5 Definition of Terms .....	12
1.6 Research Goals and Anticipated Contributions .....	13
1.7 Organization of the Paper .....	16
II. LITERATURE REVIEW .....	18
2.1 Introduction .....	18
2.2 Entrepreneurial Orientation .....	19
2.2.1 Innovativeness .....	23
2.2.2 Risk-Taking .....	25
2.2.3 Proactiveness .....	27
2.3 Strategy and the Resource-Based View of the Firm .....	28
2.3.1 Scanning Intensity .....	33
2.3.2 Locus of Planning .....	36
2.3.3 Planning Flexibility .....	38
2.4 External Environment .....	40
2.4.1 Environmental Turbulence .....	43
2.4.2 Environmental Hostility .....	45
2.4.3 Environmental Dynamism .....	46
2.4 Firm Performance .....	48
III. HYPOTHESIS DEVELOPMENT .....	51
3.1 Introduction .....	51
3.2 Relationships .....	52
3.3 Contribution .....	53
3.4 Hypothesis Related to Entrepreneurial Orientation .....	54
3.5 Hypothesis Related to Scanning Intensity .....	55
3.6 Hypothesis Related to Locus of Planning .....	57
3.7 Hypothesis Related to Planning Flexibility .....	58
3.8 Hypothesis Related to Environmental Uncertainty .....	59



IV.	RESEARCH DESIGN AND METHODOLOGY .....	63
4.1	Overview .....	63
4.2	Sample .....	63
4.3	Measures .....	66
4.3.1	Entrepreneurial Orientation Scale .....	68
4.3.2	Scanning Intensity Scale .....	69
4.3.3	Locus of Planning Scale .....	70
4.3.4	Planning Flexibility Scale .....	71
4.3.5	Environmental Uncertainty Scale .....	72
4.3.6	Firm Performance Scale .....	73
4.4	Demographics .....	75
4.5	Data Collection Procedure .....	76
4.6	Analytic Techniques and Hypothesis Testing .....	77
V.	RESEARCH RESULTS .....	81
5.1	Research Process .....	81
5.2	Sample Description .....	81
5.2.1	Size .....	81
5.2.2	Sample Characteristics .....	82
5.2.3	Data Collection Procedures .....	83
5.3	Data Analysis .....	83
5.3.1	Frequency Distributions and Missing Data .....	83
5.3.2	Factor Analysis .....	84
5.3.3	Reliability Analysis .....	86
5.3.4	Multicollinearity .....	88
5.4	Hypothesis Testing .....	89
5.4.1	Hypothesis 1 – Hypothesis 4 .....	90
5.4.2	Hypothesis 5 .....	92
VI.	DISCUSSION AND CONCLUSIONS .....	96
6.1	Results of Hypothesized Relationships .....	96
6.2	Discussion of Research Results .....	96
6.3	Theoretical Contributions .....	98
6.4	Managerial and Practical Considerations .....	100
6.5	Limitations of the Study .....	104
6.6	Implications for Future Research .....	106
6.7	Conclusions .....	108
	REFERENCES .....	110

APPENDICES .....	132
A. Descriptive Statistics.....	133
B. Research Variables.....	139
C. Survey Scales Utilized.....	141
D. Institutional Review Board Form.....	149

## LIST OF TABLES

Table I.	Start and Closures of Employer Firms .....	3
Table II.	Characteristics of Firms in Survey .....	65
Table III.	Characteristics of Survey Participants .....	66
Table IV.	Literature Support for Scales .....	67
Table V.	Factor Loading for Entrepreneurial Orientation.....	85
Table VI.	Correlations .....	87
Table VII.	Results of Regression Analysis .....	91
Table VIII.	Results of Environmental Uncertainty Moderator .....	93
Table IX.	Summary of Results .....	97

## LIST OF FIGURES

Figure1. Entrepreneurial Orientation, Strategic Planning, and Firm Performance ...	52
Figure 2. Model Predicting Firm Performance.....	89
Figure 3. Impact of Environmental Uncertainty.....	94

## **CHAPTER 1**

### **INTRODUCTION**

#### 1.1 Purpose of the Research

The purpose of this dissertation is to extend the research literature in the area of entrepreneurial orientation and strategic entrepreneurship by integrating key constructs of strategic management with those of entrepreneurship. Entrepreneurial orientation is a firm-level phenomenon that refers to the processes, practices, and decision-making activities that lead to new business entry, and includes the three primary attributes of innovation, risk-taking, and proactiveness. Entrepreneurship is broadly defined as the exploration and exploitation of opportunities. Schumpeter (1934) stressed the fact that entrepreneurship has to do with the creation of new products or processes, and the combining of resources in new ways.

Strategic management is defined as the set of decisions, commitments, and actions that result in the formulation and implementation of plans designed to achieve a company's objectives and produce a competitive advantage as well as earn above-average returns. Strategic planning is a systematic approach by management to

formulate strategy on the basis of comprehensive analyses of the firm's environment (Barney, 2001; Porter, 1980). The objective of strategic planning processes is to integrate the firm's overall mission, goals, policies, and action plans across all levels of the organization, from enterprise and business levels to all functional units in the value chain (De Toni & Tonchia, 2003; Lei & Slocum, 2005). Strategic planning processes can then be defined as firm-level activities that decide mission and goals, explore the competitive environment, identify and analyze strategic alternatives, and coordinate implementation activities across the entire organization (Anderson, 2004). Wealth creation is at the heart of both entrepreneurship and strategic management (Venkataraman & Sarasvathy, 2001).

The fields of entrepreneurship and strategy have become critically important to the survival and growth of our nation's economy. After the significant retrenchment activities by a majority of the Fortune 500 companies beginning in the early 90s, including significant downsizing, restructuring, and rightsizing of the labor force, entrepreneurship has been shown to be a significant engine of job creation and job growth. In the U.S., studies have shown that 90% of new jobs come from small firms (Allen, 1999). This is not a new trend. For example, the United States has created 34 million new jobs since 1980, while the Fortune 500 accounted for a loss of over 5 million jobs (Timmons, 2007). In the most recent year with data (2003), according to the U.S. Small Business Administration's Office of Advocacy, employer firms with fewer than 500 employees created 1,990,326 net new jobs, as opposed to large firms with 500 or more employees which shed 994,667 net jobs.

As critical as new business creation is to our nation's future, an estimated 51.7% of entrepreneurial start-ups are dissolved within four years either through voluntary dissolutions or through bankruptcy (Timmons, 1999). A more recent study that tracked start-up firms for 16 quarters that began in the second quarter of 1998 concluded that two-thirds of these new employer establishments survived at least two years, and 44 percent survived at least four years (Knaup, 2005; Headd, 2003). This obviously equates to a 56% failure rate and further highlights the vital importance of the need for additional research in the field of entrepreneurship to improve the success rates of our key sources of net new job creation. The preceding discussion centers on the percentages of successes and failures; the following table depicts the quantity of business start-ups and endings for the years 2001-2004:

<b>Table I</b>				
<b>Starts and Closures of Employer Firms, 2000 - 2004 (<a href="http://www.sba.gov/faq">www.sba.gov/faq</a>)</b>				
<b>Category</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
New Firms	585,140	569,750	612,296	642,600e
Firm Closures	553,291	586,890	540,658	544,300e
Bankruptcies	40,099	38,540	35,037	34,317
<i>e = Estimate</i>				
<i>Sources: U.S. Bureau of the Census; Administrative Office Of the U.S. Courts; U.S. Department of Labor, Employment And Training Administration</i>				

In today's dynamic, fast-changing and intense worldwide competitive environment, the importance of strategic management is manifest in its rapid

diffusion throughout the strategy literature (e.g, Wernerfelt, 1984; Barney, 1986, 1991; Teece, Pisano, & Shuen, 1997; Ray, Barney, & Muhanna, 2004; Harris & Ogbonna, 2006). Strategy reflects a company's awareness of how, when, and where it should compete; against whom it should compete; and for what purposes it should compete. The significance of the study of strategy is even reflected in the curricula of nearly all business colleges, wherein the designated capstone course centers on the study of strategy. Entrepreneurship, if it is even included in the curriculum, is typically established as a separate discipline, even though the fields of strategic management and entrepreneurship are both focused on growth and competitive advantage, as well as the identification and exploitation of opportunities.

In academic research, little empirical research exists in support of the congruence or fit of strategy and entrepreneurship (Wiklund and Shepherd, 2005; Thompson, 1999). An objective of this study is to examine this congruence and attempt to illustrate that integrating strategic and entrepreneurial initiatives (strategic entrepreneurship) creates a more favorable climate for positive firm performance and the growth of new and established firms and, in fact, creates a synergistic effect in the combined goal of wealth creation and growth. The construct of entrepreneurial orientation (EO), with its dimensions of innovativeness, risk-taking, and proactiveness, has emerged in both the strategic management and entrepreneurship literature (Strandholm, Kumar, & Subramanian; Morris & Kuratko, 2002), and may be a vital link toward integrating both disciplines.

Entrepreneurial orientation is a process construct and refers to the processes, practices, and decision-making activities that lead up to a new business venture



(Hisrich & Peters, 1989; Lumpkin & Dess, 1996). With this focus, entrepreneurial orientation centers on how new business entry is undertaken. Entrepreneurship would consist of the new business venture itself (content), and would address questions such as, “What business do we enter?” and “How do we make the new business succeed?” (Richard et al., 2004). Morris and Paul (1987) define entrepreneurial orientation as the propensity of a company’s management to take calculated risks, to be innovative, and to demonstrate proactiveness. For this research study, entrepreneurial orientation focuses on organizational processes that take place in a firm to improve firm performance.

Strategy can be simply defined as a firm’s theory of how to compete successfully (Barney, 2002; Porter, 1980). It appears that if we could gain a better understanding of what entrepreneurs and entrepreneurial managers achieve strategically, we could help foster successful business enterprises in a wide range of organizations. A more encompassing definition of strategy might be “an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage” (Hitt, Ireland & Hoskisson, 1997). Although the fields of strategic management and entrepreneurship have evolved separately, they both have the combined objectives of improved firm performance and the acquisition of a sustained competitive advantage.

A business competes on the basis of its available *resources*, including its skills and expertise, its competitive capabilities, and its strategically valuable assets. Considerable time and effort has been expended in researching the role a firm’s resources and capabilities play in formulating strategy and in determining

profitability. This body of research has evolved into what we now term the resource-based view of the firm.

## 1.2 Statement of the Problem

All businesses are experiencing increasingly difficult challenges in today's competitive landscape. First, the rate of change in terms of new products, new technology, and shifts in customer preferences has increased dramatically. Obviously, a static snapshot of a moving industry is not an adequate means for formulating strategy in an increasingly dynamic environment (Bettis & Hitt, 1995). Secondly, traditional industry boundaries are blurring as many industries converge or overlap, especially in technology-related industries (Bettis & Hitt, 1995; Hamel & Prahalad, 1994). We are also witnessing many firms expanding through forward and backward vertical integration (e.g., McDonald's Corporation raising beef cattle and owning/leasing thousands of acres for potato production), as well as many firms expanding through related and unrelated diversification (e.g., bank holding companies acquiring insurance companies, investment brokerage houses, credit card operations, real estate investment trusts, etc.) Yet, traditional IO strategic thinking is based on stable industry, as are many strategic analysis tools, including competitor analysis, strategic groups, and diversification typologies. Finally, the increasing rate of change has put increasing pressure on firms to react more quickly, as time is often seen as a source of competitive advantage (Stalk & Hout, 1990). All these reasons suggest that firms may look inwardly for strategic opportunities, and utilize strategic management

processes to identify and develop distinctive capabilities and competencies in the goal of acquiring a competitive advantage and improved performance. Businesses must also be willing to reconceptualize how they think of industries and define competitors.

The importance of small business in the U.S. economy has never been greater. Small business has often been described as the engine of this economy and accounts for nearly all new net job creation. Small businesses, however, have an extremely high failure rate with the majority failing within the first four years of operation. In a turbulent and chaotic business environment, small businesses need to improve performance by developing a management style that that adopts and supports strategic planning processes and an entrepreneurial orientation.

### 1.3 Firm Performance: Strategic Management and Entrepreneurship

The evolution of the study of strategic management developed separately from the field of entrepreneurship. However, both are concerned with positive firm performance and growth (Ireland, Hitt & Sirmon, 2003; Amit & Zott, 2001), and both seek to adapt to environmental change and exploit opportunities in the creation of wealth (Venkataraman & Sarasvathy, 2001; Hitt & Ireland, 2000).

In this discussion, it is important to note the difference between the concept of wealth creation as opposed to firm performance. The concept of firm performance has traditionally been viewed from an accounting perspective where profitability and return on investment are most paramount (Jennings & Seaman, 1994; Reese & Cool, 1978). Since there are many accounting conventions that can increase short-term

profitability at the expense of long-term value (Otley & Fakiolas, 2000), and in light of the high failure rate of new business formations, it appears to be wise to consider the longer-term perspectives of both strategic management and entrepreneurship. Strategic management, for example, has been defined as that set of managerial decisions and actions that determine the long-run performance of a firm (Wheelen & Hunger, 2003; Ray, Barney, & Muhanna, 2003), and incorporates such topics as long-range planning and strategy in the goals of positive firm performance and the attainment of a sustained competitive advantage. On the other hand, Shane and Venkataraman (2000) purport that the discovery and exploitation of profitable opportunities is at the heart of wealth creation through entrepreneurship. Wealth creation through entrepreneurship will most likely not occur (or at least it will be difficult) if the entrepreneur establishes only a temporary competitive advantage (Hitt, Ireland, Camp, et al., 2001). It would appear that the study of the integration of strategic management and entrepreneurship could advance the understanding of both opportunity recognition and how wealth is created in established firms as well as new venture formations.

New technologies, accelerating globalization, and significant increases in worldwide competition are shortening many product and industry life cycles. In this dynamic environment, the field of strategic management attempts to address the question of how firms achieve and sustain competitive advantage. The resource-based view of the firm (RBV) with its advantage-seeking perspective has dominated much of the research and thinking in the field of strategic management over the past twenty-five years (Wright, et al., 2005; Ramos-Rodriguez & Ruiz-Navarro, 2004).

The field of entrepreneurship has evolved separately and focuses on creation and an opportunity-seeking perspective (McMullen & Shepherd, 2006; Hitt, et al., 2002). However, both entrepreneurship and the strategic management of the firm must develop the competency to identify and exploit opportunities in the external environment. A number of scholars suggest that strategic and entrepreneurial thinking should be integrated (Wiklund & Shepherd, 2005; McGrath & MacMillan, 2000; Meyer & Heppard, 2000; Barringer & Bluedorn, 1999).

Entrepreneurship in established firms is commonly referred to as corporate entrepreneurship (aka intrapreneurship) which is simply an extension of entrepreneurship and encompasses entrepreneurial behavior exhibited by managers in larger organizations. The concept of entrepreneurial behavior has been defined in many ways, including by Miller (1983) who posited that an individual displays entrepreneurial behavior if he performs product-market innovations, takes risks, and behaves proactively. Numerous researchers have used Miller's conceptualization in their works, including Covin and Slevin (1989), Ginsberg (1985), Naman and Slevin (1993), and Wiklund (1999). It is also valuable to consider Schumpeter's work (1936, 1950) when he argued that the driving forces of economic growth are the entrepreneurs (managers) who introduce new products, new methods of production, and other innovations that stimulate growth and economic activity. He described entrepreneurship as a process of "creative destruction," in which the entrepreneur continually displaces or destroys existing products, processes, or methods of production with new ones. In other words, Schumpeter was one of the first economists to emphasize the importance of business innovation. This is especially

relevant in the U.S. economy in which the majority of industries are in the maturity stage (little or no industry growth), consolidations are occurring in most industries with a resultant heightened level of competition, and industry and product life cycles are shorter as a result of growth in other industrialized countries and worldwide competition.

To survive in today's turbulent and dynamic business environment, the need for managers to adopt entrepreneurship when formulating their strategies has become recognized, and many researchers argue that entrepreneurial attitudes and behaviors are necessary for firms of all sizes to prosper and grow (e.g, Hitt, 2005; Dess & Lumpkin, 2005; Ahuja & Lampert, 2001; Zahra, 1993; Covin & Slevin, 1989). An evolving body of literature exists to help explain the organizational processes that facilitate entrepreneurial behavior (Miller, 1983; Guth & Ginsberg, 1990; Wiklund & Shepherd, 2005). The firm-level propensity to act entrepreneurially is referred to as a firm's entrepreneurial orientation.

In discussing the relationship between entrepreneurial behavior and strategic management practices, Barringer and Bluedorn (1999) identified five dimensions of the strategic management process that were deemed to be the most relevant to the pursuit and encouragement of corporate entrepreneurship—scanning intensity, planning and flexibility, planning horizon, locus of planning, and control attributes. These will be examined to observe the impact on corporate entrepreneurship intensity and wealth creation. These dimensions are of particular significance to this researcher because of the tacit knowledge gained over 24 years as a management

consultant/advisor to several dozen small businesses, including new business formations.

#### 1.4 Entrepreneurial Orientation

A distinction must be made between the concepts of entrepreneurship and “entrepreneurial orientation.” The distinction is comparable to the one made in the strategic management literature between content and process (Bourgeois, 1980). The early strategy literature equated entrepreneurship with going into business, and the basic “entrepreneurial problem” (Miles & Snow, 1978) was to address the principal question of strategy *content*, that is, “What business should we enter?”

As the field of strategic management developed, however, the emphasis shifted to entrepreneurial processes—the methods, practices, and decision-making styles managers use to act entrepreneurially. These include such processes as experimenting with new technologies, being willing to seize new product-market opportunities, and having a predisposition to undertake risky ventures. Five dimensions—autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness—have been used for characterizing and distinguishing key entrepreneurial processes (Lumpkin & Dess, 1996), in other words, a firm’s entrepreneurial orientation (EO). In a seminal article, Miller (1983) proposed that an entrepreneurial firm “engages in product-market innovation, undertakes somewhat risky ventures and is first to come up with ‘proactive’ innovations, beating competitors to the punch.” This suggests that entrepreneurial orientation has the

primary dimensions of innovativeness, risk-taking, and proactiveness. Numerous researchers have adopted an approach based on Miller's (1983) conceptualization (e.g., Covin & Slevin (1989); Ginsberg (1985); Schafer (1990); Barringer & Bluedorn (1999); Wiklund & Shepherd (2003). These processes do not, however, represent entrepreneurship, which is defined here as a new business venture. In other words, a new business venture explains the content of *what* entrepreneurship consists of, and entrepreneurial orientation describes the process of *how* a new business venture is undertaken.

## 1.5 Definition of Terms

For this dissertation research, the following definitions for the key terms and concepts are as follows:

*Small Business*—The Office of Advocacy of the U.S. Small Business Administration defines a small business for research purposes as an independent for-profit business having fewer than 500 employees. The Office of Advocacy reports that small businesses represent 99.7 percent of all employer firms and employ half of all private sector employees.

*Entrepreneurship*—Entrepreneurship is a dynamic process of innovation and new-venture creation, and includes the assumption of the risks and rewards of the new venture (Hisrich & Peters, 1998). Entrepreneurial attitudes and behavior include: the motivation to achieve and compete; taking ownership and being



accountable; being open to new information, people, practices, etc.; being able to tolerate ambiguity and uncertainty; creative and flexible thinking, problem-solving and decision making; the ability to see and capture opportunities; awareness of the risks attached to choices and actions; and the capacity to manage and ultimately reduce risks (Timmons & Spinelli, 2007).

*Entrepreneurial Orientation*—Entrepreneurial Orientation is the propensity of firms to be innovative, be proactive to marketplace opportunities, and be willing to take risks (Lumpkin & Dess, 1996).

*Strategy*—Strategy is a firm's theory of how to compete successfully (Porter, 1980).

*Strategic Management*—Strategic Management is the set of managerial decisions and actions that determine the long-run performance of a firm, incorporating topics such as long-range planning and strategy in the goal of attaining a sustained competitive advantage (Whelen & Hunger, 2003).

*Strategic Planning Processes*—Strategic Planning Processes are the firm-level activities that decide the firm's mission and goals, explore the competitive environment, identify and analyze strategic alternatives and coordinate implementation activities across the entire organization (Anderson, 2004).

## 1.6 Research Goals and Anticipated Contributions

This dissertation attempts to develop a more robust interpretation of strategic entrepreneurship in examining how organizations improve performance, create

wealth and achieve a sustained competitive advantage. Much research has been conducted in the areas of entrepreneurship and strategic management, but as separate disciplines. Entrepreneurship is often thought to be within the purview of individuals only. It is also considered by some academics to be in the domain of small businesses since small businesses are responsible for the net new creation of jobs in the economy and contribute significantly to economic growth. Even the definition of an entrepreneurial firm has been the subject of considerable debate (Sharma & Chrisman, 1999). Further clouding the picture is that both entrepreneurship and strategic management research have rendered unique and valuable contributions to organization science. Therefore, this dissertation seeks to expand the strategic entrepreneurship process concept, and to add support to strategic entrepreneurship as a unique discipline as well as a unique intersection of both strategy and entrepreneurship. It is hoped that this research will make contributions for both practitioner and academician.

The scope of strategic management is concerned with acquiring and/or possessing resources which are valuable, rare, imperfectly inimitable, and nonsubstitutable to develop a sustainable competitive advantage and create wealth (DeCarolis, 2003; Rouse & Daellenbach, 1999).

In examining the scope of entrepreneurship, Shane and Venkataramann (2000) argue that discovering and exploiting profitable opportunities are the foci for improving firm performance through entrepreneurship. But discovering and exploiting profitable opportunities is also a goal of large and established firms. Entrepreneurship (and strategic management) bundles resources and deploys them to

create new and/or improved organizational and industry configurations. Though large and established firms have a significantly lower failure rate than new business ventures, this could be the result of experience curves and learning curves. Oftentimes, the high failure rate of new business ventures simply results from entrepreneurs failing to manage resources strategically (Hitt, et al., 2001).

In this dissertation, entrepreneurial orientation with its attributes of innovativeness, risk-taking, and proactiveness, and the strategic planning processes of scanning intensity, locus of planning, and planning flexibility will be focused on in linking the fields of strategic management and entrepreneurship. Many authors have argued that entrepreneurial behaviors and attitudes are necessary for all firms to survive and grow in dynamic and competitive environments (e.g., Wiklund & Shepherd, 2005; Antoncic & Hisrich, 2003; Lumpkin & Dess, 1996; Zahra, 1993; Miller, 1983). Other researchers have posited that a firm's strategic management practices can lead to improved firm performance and facilitate entrepreneurial behavior in a firm (Harris & Ogbonna, 2006; Barringer & Bluedorn, 1999; Covin & Slevin, 1991; Miller, 1983). This research will examine entrepreneurial orientation and the key strategic management practices of scanning intensity, locus of planning, and planning flexibility, and their impact on a firm's performance. It is hypothesized that a firm's entrepreneurial orientation, scanning intensity, locus of planning, and planning flexibility will improve the performance of the firm. It is also hypothesized that the external environment moderates the relationship between entrepreneurial orientation, scanning intensity, locus of planning, and planning flexibility with firm performance.

This dissertation uses survey methodology to examine the experiences of small business enterprises during their formative years. Using a survey methodology allows many managers and organizations to be researched economically. This allows for hypothesis testing in strategic entrepreneurship, a construct which has limited previous research. The results of this dissertation should benefit entrepreneurial practitioners by providing suggestions for the successful implementation of resource decisions.

## 1.7 Organization of the Dissertation

Chapter II is a review of literature surrounding the concept of strategic entrepreneurship, including the theory of the firm known as the resource-based view of the firm, strategy and strategic management including the strategy planning processes of scanning intensity, locus of planning, planning flexibility, and entrepreneurship and entrepreneurial orientation with its dimensions of innovativeness, risk-taking, and proactiveness. A conceptual model of strategic entrepreneurship is discussed.

Chapter III introduces the conceptual model of strategic entrepreneurship, and develops hypotheses based on the constructs in the model. Chapter IV describes the research methodology, including the identification of the sample and sampling population, the questionnaire development along with the scales and measures used, the data collection procedures, and a discussion of the hypothesis testing and analysis. Chapter V discusses the results of the investigation as well as the results of hypothesis

testing. Chapter VI presents the conclusions and contributions of the study, as well as the limitations of the study and the study's implications for future research.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### 2.1 Introduction

This chapter first reviews the theoretical background and concepts of entrepreneurship and entrepreneurial orientation. The background for the characteristics of innovation, risk-taking, and proactiveness is presented. Strategic management and strategic planning are then discussed from the viewpoint of the resource-based view of the firm. A review of the extant literature on the strategic planning processes of scanning intensity, locus of planning, and planning flexibility is then presented, followed by a review of the external environment in which all firms operate.

Firm performance is the concluding subject in this chapter. The complexity of firm performance, the dependent variable in this research project, is well noted in the literature and measurement approaches are discussed.

## 2.2 Entrepreneurial Orientation

There has been a long tradition of writers on the subject of entrepreneurship dating back several centuries and linked to the fact that competitive capitalism was supplanting feudalism and absolutist monarchy, thereby encouraging innovation and technological progress (Cantillon, 1734). The decline in feudalism and absolutist monarchy allowed innovation and growth to flourish because capitalism rewarded commercial success instead of military prowess or courtly behavior (Brouwer, 1996).

It appears that contemporary entrepreneurship research began with the work of economist Joseph Schumpeter (1883-1950) who stressed the importance of new entry for business innovation in his early work (Schumpeter, 1936), referring to the process of creative destruction. Schumpeter focused on innovation and the individual entrepreneur and maintained that richness was created when things were changed, whether by the introduction of a new asset or new product, a new production method, the opening of a new market, or the creation of a new organization. Following Schumpeter were many entrepreneurship scholars who agreed that there is no entrepreneurship without the entrepreneur and, therefore, it is important to study entrepreneurship at the individual level since entrepreneurs are the energizers of the entrepreneurial process (Brockhaus, 1976; Tibbits, 1979; Casson, 1982; Carsrud & Johnson, 1989).

The essential act of entrepreneurship is the new entry, and the ultimate dependent variable in entrepreneurial research is firm performance (Wiklund & Shepherd, 2005; Covin & Slevin, 1991). As the literature developed in the areas of

strategic management, competitive advantage, and the resource based view of the firm, emerging streams of thought evolved to focus not on the new entry itself, but how new entry is undertaken in entrepreneurial firms. This focus on the process of entrepreneurship has been discussed utilizing many terms, including corporate entrepreneurship, corporate venturing, intrapreneurship, and entrepreneurial orientation (Harris & Ogbonna, 2006; Hornsby, Kuratko, & Zahra, 2002; Dess, Lumpkin, & McGee, 1999). Entrepreneurial orientation (EO) will be the term used in this research.

In general, entrepreneurial orientation or posture refers to top management's strategy in relation to innovativeness, proactiveness, and risk-taking (Lumpkin & Dess, 1996; Miller, 1983; Khandwalla, 1977). The innovation dimension of entrepreneurial orientation (EO) reflects the propensity of the firm to engage in new ideas and creative processes that may result in new products, services or technological processes. Innovativeness can include pursuing novel and creative solutions to challenges and opportunities facing the firm (Wiklund, 1999). Proactiveness refers to the extent to which a firm is a leader or a follower and is associated with aggressive posturing relative to competitors (Davis, Morris & Allen, 1991). Risk-taking is the extent to which a firm is willing to make large and risky resource commitments (Stewart et al., 1998; Covin & Slevin, 1991). It is posited that firms with an entrepreneurial orientation are willing to innovate, be proactive relative to marketplace opportunities, be aggressive toward competitors, and take risks (Lumpkin & Dess, 1996). Therefore, EO is a firm-level behavioral process of



entrepreneurship. It should be pointed out that in entrepreneur-led firms, the behaviors of the firm and that of the entrepreneur are likely to be the same.

With the need for firms to react more quickly to rapid change, competitive pressures domestically and globally, and quickly changing technologies, firms in today's environment may benefit greatly from adopting and encouraging an entrepreneurial orientation. There is considerable literature support that entrepreneurial organizations possess three main characteristics—innovation, risk-taking, and proactiveness—that could be aggregated to assess a firm's entrepreneurial orientation (EO) (Covin & Slevin, 1989; Miller, 1983; Miller & Friesen, 1982).

In fact, Covin and Slevin's (1989) measure of EO, based on the earlier work of Khandwalla (1977) and Miller and Friesen (1982) is the most widely utilized operationalization of the construct in both the entrepreneurship and strategic management literatures. Wiklund alone (1998) identified no less than twelve empirical studies based on Covin and Slevin's scales. Covin and Slevin further theorized that the three sub-dimensions of innovativeness, proactiveness, and risk-taking acted in concert to "comprise a basic, unidimensional strategic orientation" that should be aggregated together when conducting research in the field of entrepreneurship (Covin & Slevin, 1989). This operationalization has shown high levels of reliability and validity in numerous studies.

A review of the literature also indicates that future research on entrepreneurial orientation may benefit from considering innovation, proactiveness, and risk-taking as unique sub-dimensions of the entrepreneurial orientation construct (Kreiser, Marino, & Weaver, 2002, Lumpkin & Dess, 1996). Lumpkin and Dess (1996)

suggested that there are two additional sub-dimensions to the entrepreneurial construct, competitive aggressiveness and autonomy; Hart (1992) purported that organizational activities such as planning and decision making are additional sub-dimensions; Frederickson (1986) proposed rationality and comprehensiveness as additional sub-dimensions; and Miles and Snow (1978) considered organizational processes to formulate a typology that included prospectors, defenders, analyzers, and reactors. A review of the literature indicates that there is considerable debate as to what should be included in the entrepreneurial orientation construct. The one commonality that does exist, however, is that there is almost no disagreement with the inclusion of the dimensions of innovativeness, proactiveness, and risk-taking in the entrepreneurial orientation discussions.

Firms in today's environment are challenged by rapid change, heightened global competition, shortened product and industry life cycles, and rapidly changing technology. This is combined with the fact that entrepreneurial activities account for most of the new job creation in this country. It appears that innovation, proactiveness, and risk-taking can be the mechanisms for firm survival and success (Porter, 1996). Since today's firms are in a turbulent environment, and since there is an essential need to focus on entrepreneurial activities, functions, and processes, it is anticipated that entrepreneurial firms will score high in each of the three sub-dimensions of entrepreneurial orientation agreed upon by the majority of EO scholars—innovation, proactiveness, and risk-taking. Accordingly, this research will consider the entrepreneurial orientation construct to be unidimensional, thereby evaluating entrepreneurial orientation as a single construct.

### 2.2.1 Innovativeness

Much of the literature in entrepreneurship is dedicated to the entrepreneur's ability to innovate. The innovativeness sub-dimension of EO reflects a propensity to support and engage in new ideas, experimentation, novelty, and creative processes, effectively departing from established practices and technologies (Lumpkin & Dess, 1996). Schumpeter (1934, 1942) was one of the first economists who stressed innovation as the engine of economic growth. He described entrepreneurial innovation in terms of introducing new products or services, new processes or methods of production to create or manufacture a good or service, opening new markets or new sources of supply, or reorganizing industries. The economic process of "creative destruction" was outlined by Shumpeter (1942), a process in which wealth was created when existing structures were disrupted by the introduction of new goods or services that effectively shifted resources away from existing firms and caused new firms to grow. In other words, innovations eliminate obsolete goods and services, as well as obsolete production methods.

Innovations can come in many different forms, and innovativeness is one of the factors over which management has considerable control (Hult, Hurley, & Knight, 2004). Technological innovativeness would be evident in research and development efforts that result in developing new products and processes. However, a waste of resources could result if the investment in R&D did not yield results (Dess & Lumpkin, 2005). Product-market innovativeness could include product design,

market research, and innovations in advertising and promotion. Administrative innovativeness could refer to more efficient management information systems, control techniques, and organizational structure.

Innovation may be the most important component of a firm's strategy since innovation contributes to business performance and the firm's quest of wealth creation (Hamel, 2000; Lumpkin & Dess, 1996). Empirical evidence exists showing a relationship between high innovation and superior profitability (Roberts, 1999). Innovation is linked to successful firm performance for firms in both the industrial and service sectors as well as to entire economies (Gupta, MacMillan, & Surie, 2004; Kluge, Meffert, & Stein, 2000). Effective innovations help to create a competitive advantage by creating new value for customers (Mizik & Jacobson, 2003). The capability to develop and introduce new products to the market appears to be a primary driver of a successful global strategy (Subramaniam & Venkatraman (1999).

There is a demonstrated strong interrelationship between innovation and entrepreneurship. Drucker (1985) maintains that innovation is the primary activity of entrepreneurship. One of the key sub-dimensions of an entrepreneurial orientation (EO) is an emphasis on innovation (Lumpkin & Dess, 1996; Covin & Slevin, 1989; Miller, 1983). It follows that an entrepreneurial mindset is required for the founding of new businesses as well as the revitalization of existing ones (McGrath & Macmillan, 2000).

### 2.2.2 Risk Taking

Risk is simply a course of action with uncertain danger and is an integral part of the stream of entrepreneurship literature dating back to the era of Cantillon (1734) who was the first to use the term *entrepreneurship*. Cantillon associated risk with the uncertainty of self-employment as opposed to being a hired employee. It can be argued that all business ventures involve some degree of risk since we cannot predict future events, so risk-taking propensity is generally perceived as a continuum from low risk-taking (minimally risky actions) to high risk-taking (highly risky actions). In today's turbulent and dynamic business environment, risk management is a vital component in strategic management and entrepreneurial considerations (Harris & Ogbonna, 2006).

In turbulent and dynamic business environments, organizations need to make aggressive risky, strategic decisions in order to cope with the constant state of change encountered in these conditions (Khandwalla, 1977). Risk-taking behavior dominates the entrepreneurial literature, and entrepreneurial firms are characterized by boldness and tolerance for risk that leads to new opportunities (Chow, 2006). It is posited that organizations that do not take risks in dynamic environments will lose market share and will not be able to maintain a strong industry standing relative to more aggressive competitors (Freel, 2005; Covin & Slevin, 1991; Miller, 1983).

When Cantillon (1734) discussed the concept of risk in entrepreneurship, he viewed risk as personal risk-taking in that the entrepreneur risked employment and wages since he did not work for someone else for wages. In today's environment,

personal risk-taking refers to the risks that a manager assumes in making a decision regarding a strategic course of action (Voss, et al., 2006; Zahra & Dess, 2001). Such decisions can have serious implications with reference to the success or failure of the company and/or the manager's career.

Financial risk-taking occurs when an organization acquires a heavy debt burden or it commits a large percentage of its scarce resources in the quest of wealth creation. This is concomitant with Miller & Friesen's view of risk-taking which is the "degree to which managers are willing to make large and risky resource commitments" (Miller & Friesen, 1978). It must be pointed out that, although financial risk-taking involves taking chances, it is not gambling. The best run companies use financial analysis and risk management techniques to assess risk factors to minimize uncertainty (Dess & Lumpkin, 2005).

Business risk-taking involves venturing into new business arenas without knowing the probability of success or failure. This could be any "uncharted" business activity including new product development, new market segments, changing demographics, new services or processes, new organizational structures, new strategic directives, etc. However, change is constant and accelerating in today's competitive landscape, and the firm's focus must be on identifying and exploiting opportunities in the environment (Strandhold & Kumar, 2003; Shane and Venkataraman, 2000). Drucker (1985) argues that successful entrepreneurs avoid focusing on risk and remain focused on opportunity. The fields of strategic management and entrepreneurship are both focused on how firms adapt to environmental change and

both seek to exploit opportunities created by uncertainties and discontinuities in the creation of wealth (Venkataraman, & Sarasvathy, 2001).

### 2.2.3 Proactiveness

The definition of “proactive” in *Webster’s II New College Dictionary* (1995) is simply “acting in advance to deal with an expected difficulty.” Miller (1983) posited that proactiveness meant that the firm was aggressive in its pursuit of its competitive priorities and goals, surpassing its rivals in this regard. Lumpkin & Dess (2001) considered proactiveness a posture of anticipating and acting on future wants and needs in the marketplace and creating a first-mover advantage. Since it is grounded in action orientation, proactiveness is associated with competitive superiority due to the “step-ahead” tactics pursued, as well as the market leadership characteristics exhibited by firms with this strategic behavior (Gatignon & Xuereb, 1997).

Proactive organizations, then, identify the future needs of current and potential customers, monitor trends, and anticipate changes in demand. There is a strong corollary between this dimension of entrepreneurial orientation and strategic management (Dess & Lumpkin, 2005). Strategic managers who manage proactively have their eye on the future and look for opportunities to exploit for growth and improved performance, and to create a competitive advantage. (Teece, Pisano, & Shuen, 1997). Proactiveness helps to create competitive advantages by placing competitors in the position of having to respond to first mover initiatives. First mover

advantage refers to the benefit gained by firms that are the first to produce a new product or service, establish brand identity, enter new markets, or adopt new operating technologies (Ferrier, Smith, & Grimm, 1999; Lieberman & Montgomery, 1988). Proactiveness in this research is defined as anticipating and acting on future wants and needs in the marketplace.

### 2.3 Strategy and the Resource-Based View of the Firm

All firms face an increasingly dynamic, unpredictable, and complex environment, where industry consolidations, technology, globalization, shorter product life cycles, and fast-changing competitive approaches impact on overall performance (Asch & Salaman, 2002; Scott, 2000). The intensity and complexity of this external environment is driving both large and small firms to ferret out new ways of conducting business to survive and grow (Stopford, 2001). More and more firms are turning to strategic approaches and processes as the way to approach business in the new millennium.

Strategy research seeks to discover and explain why some firms are more successful than others. It appears obvious that strategy is based on resource strengths (Hitt, 2005; Wernerfelt, 1997). How to determine if a firm's strengths do, indeed, provide value creation and contribute to firm performance appears to be critical to the discussion of strategic entrepreneurship. For example, it also appears to be obvious that not all resources can be considered strengths. A simple case in point would be considering the existence of non-earning assets in a firm's financial statements. If



these assets do not contribute to value creation or assist in creating a competitive advantage, whether temporary or sustained, they would appear to be a waste of a firm's limited resources.

Just as we can argue that not all resources are equal, we can also argue that, if all firms were equal in their endowment of resources, there would be no differences in profitability among them, and they would all earn the same amount (De Toni & Tonchia, 2003). The resource-based view of the firm, then, stresses the role of idiosyncratic firm resources in creating and sustaining competitive advantage. Competitive advantage can be sustained by protecting any economic benefit gained through barriers to imitation derived from organizational strategy and processes (Floyd, et al., 2004; Teece, Pisano & Shuen, 1997; Peteraf, 1993; Connor, 1991; Wernerfelt, 1984). The concepts of resources and economic rents derived from these resources must be examined.

One of the difficulties in reviewing the literature of the resource-based view of the firm is the myriad terms used to describe the concepts (Barney, 2003; Del Canto & Gonzalez, 1999). Many terms are similar and are used interchangeably by different authors, e.g., tangible assets, intangible assets, resources, strengths, competencies, skills, physical capital, human capital, organizational capital, capabilities and business processes. It is generally agreed, however, that resources are the basic unit of analysis. A firm's resources at a given time could be defined as those tangible and intangible assets which are semi-permanently tied to the organization (O'Regan & Ghobadian, 2004; Barney, 1991; Hofer & Schendel, 1978).

The term “resources,” then, will be used in this research interchangeably with the concept of “capabilities,” and both refer to the tangible and intangible assets business formations use to develop their strategic processes and implement their chosen strategies. Physical capital consists of plant capacity, location, equipment, technology, processes, and availability of raw materials (Williamson, 1975). Human capital includes the tacit knowledge, training, insight, relationships, intelligence, experience and judgment of managers and workers (Becker, 1964). Organizational capital incorporates a business’s reporting structure, controlling and coordinating systems, and internal and external relationships (Tomer, 1987). All of these categories include aspects of “invisible” critical resources such as consumer trust, brand image, culture, and management skill (Helfat& Raubitschek, 2000; Hall, 1992).

Business processes can best be illustrated by incorporating Porter’s (1985) concept of the value chain. All firms have inputs, and all firms produce outputs. A value chain is simply a linked set of value-creating activities beginning with inputs, continuing with a series of value-adding activities involved in the production and marketing the firm’s product or service, and ending with the distribution process in getting the final product or service (outputs) to the end customer. The primary objective of the value chain concept is to add as much value as possible in every step of the process, and to add this value as cheaply as possible while capturing that value (Webb & Gile, 2001).

Business processes, then, can be considered as the activities of the firm that the firm develops to get something done (Nelson & Winter, 1982). The concepts of the value chain and business processes are important because firms create competitive

advantage and earn above-average returns only when the value the firm creates is greater than the costs incurred in the creation of that value (Porter, 1985, 1991). In other words, competitive advantage is achieved when the firm is implementing a “value creating strategy” not being pursued by current or potential customers (Barney, 1991). The competitive advantage is “sustained” when the competitive advantage cannot be easily duplicated (Mahoney & Pandian, 1992; Reed & DeFillippi, 1990). In reviewing the literature of the resource-based view, it becomes apparent that resources, in and of themselves, cannot be a source of competitive advantage. Resources become a source of a competitive advantage when they allow firms to accomplish tasks and perform activities (Porter, 1991; Stalk, Evans & Shulman, 1992). The exploitation of resources in formulating and implementing value-creating strategies through business processes is the source of competitive advantage.

Strategy has been described as a firm’s continuing search for economic rents (Bowman, 1974), where rent can be defined as a return in excess of the resource owner’s opportunity cost (Mahoney & Pandian, 1992). The resource-based view’s primary task within the area of strategy formulation and implementation is to maximize rents over time (Grant, 1991). Mahoney and Pandian (1992) conveniently summarize several types of rents from the literature, such as Ricardian, monopoly, Schumpeterian (entrepreneurial), and the concept of quasi-rents. Ricardian (Ricardo, 1817) rents can be achieved through the ownership of valuable but scarce resources, such as land, patents, trade secrets, or location advantages. Monopoly rents may be acquired through collusion or governmental arrangements which heighten

competitive barriers. Schumpeterian or entrepreneurial rent may be realized through risk-taking and entrepreneurial insight into uncertain environments. When resources are firm-specific, quasi-rent (also known as Pareto rent) represents the rent or value resulting from the difference between the first- and second-best use of a resource.

Two frequently cited assumptions within the resource-based view of the firm are resource heterogeneity and resource immobility, both of which serve as the basis of sustained competitive advantage (Alvarez & Barney, 2002; Barney, 1991; Rumelt, 1984). Resource heterogeneity refers to the assumption that competing firms may own or control different bundles of resources and capabilities, and reflects differential efficiency levels between resources (Peteraf, 1993) as well as differences in the quantity and type of assets. In other words, some assets and business processes are more productive, efficient, or available than other assets or business processes, or can satisfy customer needs better.

The subject of resources and resource allocation is vitally important to every firm since every resource choice has significant implications for survival and growth, or business failure. This is particularly true for new business formations since they lack the track record and history of established firms. In other words, new business formations have no loyal customer bases, they have no financial history, they cannot point to their reputation for performance, and their strategic resource decisions are judgmental at best (McMullen & Shepherd, 2005; McGrath, 1999). If these judgmental strategic decisions are wrong, the results may be negative and/or the wrong resources may be acquired. If acquired resources do not contribute to attaining the firm's goals and help lead to a competitive advantage, these resources may even

waste other productive resources of the firm (West & DeCastro, 1999). It appears that, for new ventures to improve performance in the long run, their strategies and efforts must have a foundation in unique capabilities and core competencies and have the right combination of resources to provide a competitive advantage (Collis & Montgomery, 1995).

### 2.3.1 Scanning Intensity

The fields of strategic management and entrepreneurship are both concerned with planning, firm performance, and the attainment of a sustained competitive advantage defined as above average returns (O'Regan & Ghobadian, 2004; Barney, 1991; Porter & Villar, 1985). The establishment of goals is an integral part of the strategic management process as well as the entrepreneurial process (Spulber, 2004). In order to establish realistic goals, it is essential that a clear vision of the external and internal environments be developed. The external environment should include knowledge and information about competitors, customers, government regulations, macroeconomic changes and emerging new issues and trends (Hay and Williamson, 1997). Environmental scanning, then, is the managerial activity of discovering and understanding the events and trends in an organization's internal and external environments (Hambrick, 1981). Hambrick also refers to environmental scanning as a basic unit of analysis since analysis can facilitate opportunity recognition and help minimize uncertainty.

The role of scanning in the strategic management process is to identify information that may provide an opportunity or present a threat to an organization (Muralidharan, 2003). As the rate of environmental changes continues to increase, it is suggested that environmental scanning has become one of the most important duties for managers (Freel, 2005; Suh, Key, & Munchus, 2004). Environmental scanning is used for a variety of strategic purposes. For example, environmental scanning is used to reduce uncertainty in the environment (Frishammar & Horte, 2005), to further the goal of competitive advantage through superior information gathering (Strandhold & Kumar, 2003), to develop strategies that improve financial performance (Falshaw, Glaister, & Tatglu (2006), to generate strategic change (Pett & Wolff (2003), and to increase the general usefulness of the strategic management process (Raymond, 2003).

Since entrepreneurship promotes the search for competitive advantages through product, process, and market innovations, the degree or intensity of its environmental scanning process should be directly related to its ability to recognize entrepreneurial opportunities and be a key wealth creation activity. This is especially true in today's fast-changing business world of shortened product and industry life cycles, changing demographics, the emergence of new markets and new market segments, the rise of global competition, and changes in domestic and foreign governmental regulations, all of which serve to create entrepreneurial opportunities (Morris, 1998). Examples of these fast-changing high-velocity industries would include health care, biotechnology, computer hardware and software, electronics, and

telecommunications (Morgan & Strong, 2003; Zahra, 1993; Covin and Slevin, 1991). To survive in these industries, firms must aggressively and continuously scan the environment, adopt both short and long term planning horizons, and be able to react quickly to change to take advantage of market opportunities. In other words, scanning intensity appears to be a strong component of the tenets of both strategic and entrepreneurial orientations.

A high level of environmental scanning is also a method of reducing the uncertainty inherent in decision making by providing extensive analysis to recognize and exploit environmental change (Suh, Key, & Munchus, 2004; Brouwer, 2000). Uncertainty is a perception derived from an inability to assign probabilities to future events, primarily caused by a lack of information about cause/effect relationships (Hoskisson & Busenitz, 2002). Entrepreneurs, in particular, must learn to cope with uncertainty since uncertainty is a disincentive to both entrepreneurship and innovation (Freel, 2005). Organizations that develop a competency to successfully deal with uncertainty tend to outperform those unable to do so (Brorstrom, 2002). Dedication to environmental scanning with the knowledge gained may lower a firm's perception of risk associated with a potential project or venture, and may improve the organization's ability to learn, change, and react (Barney, 2001), improve its use of resources and skills (Fiol, 2001), and improve customer loyalty and satisfaction (Carr, 1999).

### 2.3.2 Locus of Planning

Locus of planning refers to and focuses on the firm's planning activities and centers on the depth of employee involvement. A shallow locus of planning would typically be found in a bureaucratic organization where the planning process would be the exclusive domain of top management with little or no input from the lower levels of the organization. A deep locus of planning, then, would indicate that employees from all hierarchical levels within the firm are involved in the planning process, similar to the concepts of team building and participative management (Reid, 1989). A deep locus of planning would be demonstrated by the willingness of top-level managers to facilitate and promote entrepreneurial behavior in the workplace (Ireland, Kuratko, & Morris, 2006), as well as the commitment by top-level managers to tolerate failure, provide freedom from excessive oversight, and to delegate authority and responsibility to middle- and lower-level managers (Kuratko & Goldsby (2004).

It appears that a deep locus of planning facilitates a firm's performance level, as well as encourages entrepreneurial behavior. For example, operating-level managers are closest to the customers, suppliers, and vendors, and can bring relevant external information to the internal planning process (Qi, 2005; Floyd & Lane, 2000). In addition to encouraging active participation and entrepreneurial behavior, and in order to expeditiously service customer needs and solve customer problems, a deep locus of planning would demonstrate the commitment of top-level managers to encourage risk taking and not to punish failure, thereby providing decision-making



latitude, and to delegate authority and responsibility (Hornsby, Kuratko, & Zahra, 2002).

The literature clearly suggests that managers at all levels play important roles in the many dimensions of organizational success (Ireland, Hitt, & Vaidyanath, 2002), and it has been empirically demonstrated that the entrepreneurial decision-making process is participative (Jennings & Lumpkin, 1989). In discussing entrepreneurial behavior and corporate entrepreneurship, it is worthwhile to discuss the middle-level manager's unique central role in the organization, which is to interface and communicate with both top-level and operating-level managers. In an organization with a deep locus of planning, this central organization position of middle-level managers allows them to consider and absorb innovative ideas from inside and outside the organization, and, in a proactive mode, endorse, refine, and guide entrepreneurial opportunities, as well as identify, acquire, and deploy organizational resources to pursue those opportunities (Lopez, 2005; Nonaka & Takeuchi, 1995). In an organization with a demonstrated strength in innovation, the central role of middle managers creates the social capital and trust needed to foster the corporate entrepreneurial process (Zahra, Nielson, & Bogner, 1999). This trust is of great importance because it encourages employees to take risks without undue fear of losing their jobs or career opportunities (Floyd & Woolridge, 1997), effectively fostering the corporate entrepreneurial process.

It would appear that conservative and risk-averse organizations would have a shallow locus of planning (Uittenbogaard, et al., 2005; Barringer & Bluedorn, 1999). The entrepreneurial process involves innovativeness, risk-taking, and proactive

behaviors. A risk-averse organization would tend to not seek out opportunity since change involves risk (Harris & Ogbonna, 2006; Greve, 1998), even though opportunity recognition is an integral part of firm performance. The literature also highlights the fact that many organizations that have undergone considerable retrenchment in terms of downsizing, rightsizing, and restructuring, have created demanding work schedules for their management teams that leave little time for innovation and experimentation (Hornsby, Kuratko, & Zahra, 2002; Moen, 2000). This would foster a shallow locus of planning.

### 2.3.3 Planning Flexibility

As previously noted, the tendency in today's business environment is the shortening of product and business life cycles (Hamel, 2000). As a result, the future profit streams from existing operations are uncertain and businesses are forced to continuously seek out new opportunities (Wiklund & Shepherd, 2005). Planning flexibility, then, indicates the extent of the capability of the firm to change and respond quickly to changing conditions as environmental opportunities and threats emerge. There is general agreement that the forces in the new competitive landscape of the new millennium require a continuous rethinking of existing strategic actions, organization structure, communication systems, technological advances, corporate culture, asset deployment, and investment strategies (Clarkin & Rosa, 2005; Hitt, Keats, & DeMarie 1998). To achieve competitive advantage in the current rapidly

changing environment, firms must have strategic flexibility in order to support successful firm performance.

Uhlenbruck et al. (2003) emphasize that the continuously changing market conditions in today's economies mandate the development of strategic flexibility that should help firms to take advantage of existing and new strategic opportunities. Strategic flexibility depends on an understanding of the resources and capabilities available to the firm and on managers' flexibility in applying those resources and capabilities to alternative courses of action (Sanchez, 1995).

The concept of planning flexibility was introduced by Kukalis (1989) who investigated how dynamic environmental conditions and firm characteristics affect the process of strategic planning. Kukalis concluded that firms in dynamic competitive environments must adopt "flexible" planning systems in order to adjust their strategic implementation plans quickly. This viewpoint aligns well with the entrepreneurial characteristics of innovation, risk-taking, and responding proactively, characteristics that support opportunity recognition (Freel, 2005; Young, Charns, & Shortell, 2001), and the ability to strategically take advantage of given opportunities. In other words, entrepreneurial strategic orientation involves a willingness to innovate to revitalize market offerings, be willing to take risks to try out new and revised products, services, and markets, and be more proactive than competitors to new opportunities (Covin & Slevin, 1991).

Empirical evidence exists that entrepreneurial firms are very flexible in their planning process (Jelinek & Schoonhoven, 1990; Hambrick & Crozier, 1985). This suggests that entrepreneurial firms must be flexible and have the competency to

manage the high level of organizational change that is required in conditions of high growth or fast-changing environments. This is in congruence with Shumpeter (1936) who posited that entrepreneurial behavior must be flexible because the essence of entrepreneurship is capitalizing on changes in the environment.

Shumpeter further maintained that the competition that counts is the competition from new, innovative firms. A high degree of planning flexibility would mean that an organization would be able to respond quickly to competitor influences, as well as other changes in the external environment.

## 2.4 External Environment

Managers face an increasingly dynamic, complex, and unpredictable environment, where technology, globalization, resource shortages, wide swings in the business cycle, changing social values, competitors, customers, suppliers, and a multitude of other dynamic forces impact on overall performance (Ward & Lewandowska, 2005; Asch & Salaman, 2002). The intensity and complexity of the current changing environment is forcing firms, both large and small, to seek new ways of conducting business to create wealth (Stopford, 2001). In a formal manner, the external environment can be defined as all elements that exist outside the boundary of the organization and have the potential to affect all or part of it (Dess et al., 1997; Daft, 1989).

The effect of the external environment on a company's strategic choices is widely acknowledged in the literature (Wiklund & Shepherd, 2005; Covin, Slevin &

Heeley, 2000; Boyd, Dess & Rasheed, 1993). This view is consistent with the views of economists (Scherer & Ross, 1990), and with the empirical findings of entrepreneurship researchers (Sandberg & Hofer, 1987).

The external environment has been conceptualized using a variety of methods (Aloulou & Fayolle, 2005; Yeoh & Jeong, 1995). The vast majority of researchers frame the external environment in terms of abstract qualities and dimensions. The following dimensions have often been used to conceptualize the environment: turbulence (Khandwalla, 1977; Naman & Slevin, 1993); hostility, heterogeneity, and dynamism (Yeoh, 1994; Miller, 1983); volatility (McKee, Varadarajan, & Pride, 1989); munificence (Rasheed & Prescott, 1992; Dess & Beard, 1984); and complexity (Aldrich & Wiedenmayer, 1993). The environment may affect a firm's performance regardless of its strategic orientation (Lumpkin & Dess, 1996) or its resources.

A firm's task environment is the portion of the total environment relevant to strategy development and implementation (Dill, 1958; Montanari et al., 1990). The task environment can be generally described based on the level of environmental turbulence, a term encompassing the overall dynamics, unpredictability, expansion, and fluctuations in the environment (Khandwalla, 1977). Environmental turbulence subsumes the environmental dimensions of munificence and complexity which impact the organization's task environment. For the purpose of this study, therefore, it was decided to operationalize the external environment according to its level of turbulence, hostility, and dynamism.

That a company's external environment serves as a moderator of the relationship between strategy and performance is consistent with the literature

(Desarbo et al., 2005; Golder & Tellis, 1993; Zahra & Covin, 1993). The external environment is an important determinant of entrepreneurial orientation at both the individual and the organizational level (Aloulou & Fayolle, 2005; Dess et al., 1997; Zahra & Covin, 1995). It is significant that many academics and management theorists agree on the central importance of the external environment for management (Goll & Rasaheed, 2005; Galbreath & Schendel, 1983; Bourgeois, 1980), and there is some empirical evidence that the environment moderates broad business strategies (Greenley & Foxall, 1999).

Since environmental uncertainty influences the structuring and strategies of organizations, it is significant to note the importance of the entrepreneurial-environmental fit. Perceived environmental uncertainty is the absence of information about organizations, activities and events in the environment (Rhyne, 1986). It has been suggested in the literature (Li, et al., 2006; Miller & Friesen, 1983; Lawrence & Lorsch, 1967) that organizations may pursue more proactive, more aggressive strategies as uncertainty increases. Environments characterized by high levels of uncertainty were found to encourage higher levels of innovation and risk-taking by adopting entrepreneurial postures (Yeoh & Jeong, 1995). By exploring the moderating effect of the environment on the relationship between strategy and company performance, as suggested by Hitt, Ireland & Goryunov (1988), this research hopes to provide a better understanding of strategies that impact performance in different environments.

#### 2.4.1 Environmental Turbulence

Environmental turbulence is a term encompassing the overall dynamics, unpredictability, expansion, and fluctuations in the environment (Khandwalla, 1977). It subsumes the environmental dimensions of dynamism, complexity, and munificence which impact the organization's task environment (Dess & Beard, 1984). The level of environmental turbulence is described as both the rate of environmental change as well as the level of unpredictability of that change. Terreberry (1968) suggested that the degree of organizational strategic planning increases as the level of turbulence increased.

The model of environmental turbulence developed by Dess and Beard (1984) identifies three dimensions of environmental turbulence—stability-instability, homogeneity-heterogeneity, and concentration-dispersion. The stability-instability dimension ranges from change that is foreseeable and predictable and thus is easy to anticipate to change that is hard to predict and, therefore, heightens uncertainty.

The homogeneity-heterogeneity dimension refers to the homogeneity of the range of organizational activities (Child, 1972). It is posited that industries requiring many different inputs and producing many different outputs are termed heterogeneous and are considered more complex (Tung, 1979). In a concentrated industry in the concentration-dispersion dimension, the complexity of the environment would increase the need for strategic activities such as strategic planning (Aldrich, 1979). In a dispersed industry, all firms are evenly distributed throughout the environment. The

structure of the industry would be rather simple since firms would have very few similar competitors because of the wide dispersion.

Many industries are typified by their instability. The computer and telecommunications industries are usually noted as being highly turbulent, and it appears this situation will continue. At some point, however, all industries experience turbulent environments of varying degrees. Turbulent environments have been described as having high levels of interperiod change that create uncertainty and unpredictability (Bourgeois & Eisenhardt, 1988), as well as dynamic and volatile conditions with sharp discontinuities in demand and growth rates (Glazer & Weiss, 1993). Turbulent environments typically have low barriers to entry and exit that continuously change the competitive structure of the industry (Chakravarthy, 1997).

Technological innovations may cause environmental turbulence by accelerating the rate of change in the scientific communities and in the marketplace. This is easily demonstrated in the computer hardware, software and biotechnology industries which are typified by rapid change and constant innovation. A firm may only enjoy a temporary competitive advantage as product obsolescence occurs quickly. A high level of environmental turbulence generates risk and uncertainty in the strategic planning process, thus reinforcing the need for a high level of environmental scanning and a proactive approach (Calantone, et al., 2003; Lindelof & Lofsten, 2006). The fact that a sustainable competitive advantage lies in a firm's ability to adapt to the changing environment supports the need for an entrepreneurial orientation.



#### 2.4.2 Environmental Hostility

A hostile environment is sometimes referred to as a high velocity environment and is characterized by intense price, product, and technological competition, shortages of resources (e.g., shortages of raw materials and/or labor), severe regulatory restrictions, a relative lack of exploitable opportunities, and unfavorable demographic trends (Miller & Friesen, 1983). Hostile environments are typically characterized by such rapid rate of change that current, accurate information is difficult to obtain (Bourgeois & Eisenhard, 1988).

Hostile environments pose constant threats to the on-going viability of business operations (Oliver & Roos, 2005; Zahra, 1993). The failure rate of firms in hostile environments tends to be high, and competitive intensity is often fierce with price wars and low customer loyalty (Hall, 1980). Entrepreneurial start-ups with their historically high failure rates would be considered to be in hostile environments. Profit margins are characteristically low for firms in these environments (Potter, 1994). Reduced profits may cause firms to reduce their investment in R&D, and have the counter-productive effect of reducing innovation and new product development, contributing to the downward cycle.

Yeoh and Jeong (1995) posit that an entrepreneurial orientation may be important to a firm in a hostile environment. When firms are faced with a hostile environment, an entrepreneurial strategic orientation contributes to greater performance (Lindelof & Lofsten, 2006). Firms must still develop ways to differentiate their products and services from the competition. Planning flexibility,

proactiveness, innovation, and implementing strategic processes may be requisites to gain or sustain a competitive advantage (Zahra, 1993), though there are always risks associated with being aggressive in hostile environments (Sutton et al., 1986). It appears that the entrepreneurial orientation dimensions of innovativeness, proactiveness, and risk-taking are essential for survival in a hostile environment.

#### 2.4.3 Environmental Dynamism

Dynamism refers to the perceived instability and continuing changes in the firm's environment. Dynamism references the extent of environmental predictability, and is manifested in the variance in the rate of market and industry change and the level of uncertainty about the environment that is beyond the control of the individual firm (Dess & Beard, 1984). Dynamic environments are similar to, but not the same as, high velocity markets (Judge & Miller, 1991). High velocity environments would be characterized by fast-paced changes in demand, technology, and competition which possibly could result in instability, turbulence, and unpredictability. Mature industries with a low growth rate, for example, may still be "dynamic" if some of the incumbents are high performers.

Boyd, Dess, and Rasheed (1993) posit that not only does dynamism indicate the rate of change in the industry, it also demonstrates the unpredictability of the behavior of customers and competitors, and the shifts in the industry's technological conditions. This is readily apparent when viewing the telecommunications industry

in which companies compete in a dynamic environment where the technology is changing very rapidly, customers needs and demands change constantly, and competitors are continuously increasing their promotional efforts. Competitors in the industry have responded in a variety of ways, including acquiring technology-based companies to expand their R&D efforts, increasing their R&D expenditures to further new product development, and creating strategic alliances to exploit market opportunities or to gain access to new technology.

Organizations often respond to challenging conditions in a dynamic environment by adopting an entrepreneurial posture (Khandwalla, 1987). A high level of environmental changes in a competitive industry is thought to influence corporate entrepreneurship (Guth & Ginsberg, 1990). Hobson & Morrison (1983) suggest that a high level of market growth is related to start-up success.

Although the literature uses a variety of terms such as uncertainty, volatility, complexity, and high-velocity, they all encompass the notion of unpredictable change. The moderating role played by environmental dynamism is empirically well documented in a variety of relationships between organizational variables and firm performance. It was demonstrated that the relationship between decision process rationality and firm performance is moderated by environmental dynamism (Anderson, 2004). Another study found evidence for the moderating role of environmental dynamism in the relationship between outsourcing and firm performance. There appears to be a strong argument for the need for an entrepreneurial orientation in a dynamic external environment.

## 2.5 Firm Performance

Measuring firm performance has been, and remains, a major challenge for researchers. The conventional approach to business performance assessment has been to consider profitability which is generally regarded as return on investment (Reese & Cool, 1978). However, many researchers have criticized the validity of return on investment as the sole indicator of business performance. The biggest objection to the use of this criterion is that short-term profits can be enhanced at the expense of long-term growth.

The goal of the strategic management process is that firms obtain a sustained competitive advantage by implementing strategies that exploit their internal strengths, through responding to environmental opportunities, while neutralizing external threats and avoiding internal weaknesses (Barney, 1991). The concept of a sustained competitive advantage (sustained above-normal returns) is more in line with the concept of firm performance than the single criterion of return on investment. The focus of this research is on corporate entrepreneurship utilizing strategic processes with the goal of maximizing firm performance. The literature on corporate entrepreneurship has identified two main sets of corporate entrepreneurship antecedents; one set refers to the organization and the other to the external environment of the firm, with the most important consequence of corporate entrepreneurship being firm performance.

Many researchers have identified the importance of congruence or fit among various elements of corporate entrepreneurship in the explanation and prediction of

firm performance (Burns & Stalker, 1961; Galbraith, 1977; Tosi & Slocum, 1984; Nadler & Tushman, 1997). Entrepreneurial orientation refers to management's strategy in relation to innovativeness, proactiveness, and risk-taking. Firms with an entrepreneurial orientation are willing to innovate, be proactive relative to environmental opportunities, be aggressive toward competitors, and take risks (Lumpkin & Dess, 1996; Covin & Slevin, 1991). At the empirical level, past studies have shown positive relationships between entrepreneurial orientation and firm performance (Wiklund & Shepherd, 2005; Yusuf, 2002; Smart & Conant, 1994).

Numerous researchers have posited that multiple dimensions of firm performance should be used in organization research (Lumpkin & Dess, 1991; Venkatraman & Ramanujam, 1986). Chakravarthy (1986) and Cameron (1978) insist that it is essential to recognize the multidimensional nature of the performance construct. Lumpkin & Dess (1996) suggest that entrepreneurial processes may lead to favorable outcomes on one performance dimension and unfavorable outcomes on another performance dimension. For example, a large investment of resources for a long-term project may detract from short-term performance. Multiple measures incorporating both financial and non-financial goals supporting the strategic plan should be utilized to allow for a broader, more comprehensive conceptualization of firm performance (Murphy, Trailer, & Hill, 1996).

The most common financial measurements may include return on assets, return on investment, return on equity, sales growth, gross profit, and new wealth creation. Non-financial performance measurements may include market share, customer retention, reputation, and corporate social responsibility (Antoncic &

Hisrich, 2003). Obviously, if strategic processes like long-term planning and planning flexibility are organic and react to a turbulent, hostile, and dynamic environment, performance measures will be adjusted to support the strategic planning process.

Since most of the firms in the proposed research are expected to be closely held, it is expected that managers will be unwilling to provide detailed accounting data. Therefore, the managers will be asked financial and non-financial performance questions based on the Dess and Robinson model (1984). The respondents will be asked to rank the firm's performance compared to other similar firms on the criteria selected. The comparison to their peer group provides a form of control for differences in performance that may be due to industry (Dess, Ireland & Hitt, 1990) and strategic group (Hatten et al., 1978) effects. Multiple measures will be used to reflect the multidimensionality of the performance construct (Cameron, 1978; Chakravarthy, 1986). Subjective, self-reported performance measures have been found to be highly correlated with objective measures of firm performance (Robinson & Pierce, 1988; Venkatraman & Ramanujam, 1987; Dess & Robinson, 1984).

## **CHAPTER III**

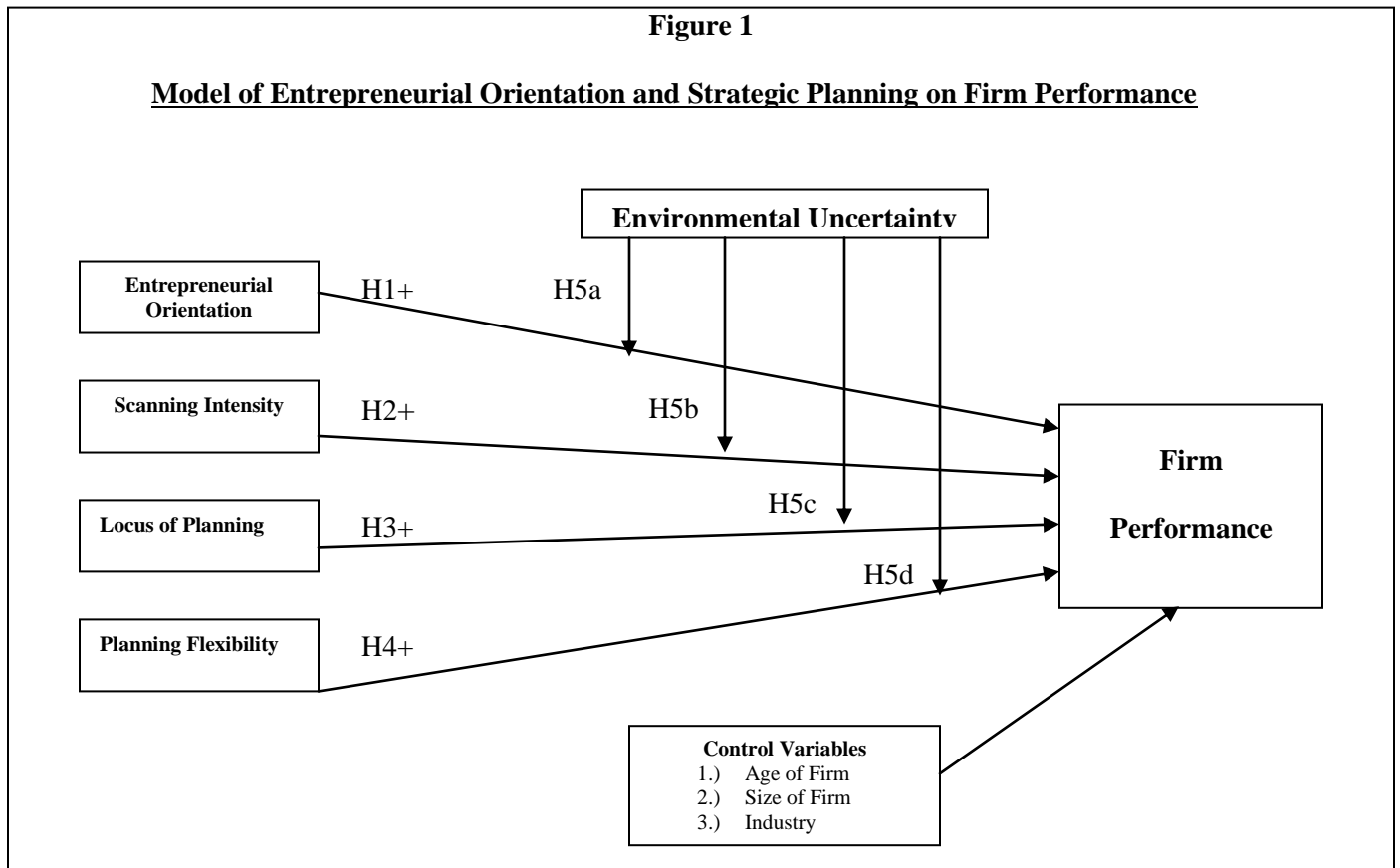
### **HYPOTHESIS DEVELOPMENT**

#### 3.1 Introduction

In this chapter, the conceptual model is shown depicting entrepreneurial orientation and the key strategic management practices of scanning intensity, locus of planning, and planning flexibility, and their impact on firm performance. The literature on entrepreneurial orientation suggests that the most important consequence of corporate entrepreneurship is firm performance. The literature further suggests that the strategic planning processes of scanning, locus of planning, and planning flexibility are directly associated with firm performance. The importance of fit among the diverse elements in the explanation and prediction of firm performance has been advocated by many researchers (Lawrence & Lorsch, 1967; Nadler & Tushman, 1997; Antoncic & Hisrich, 2004).

In seeking to clarify the entrepreneurial orientation construct, Lumpkin & Dess (1996) suggest that “moderating effects, mediating effects, independent effects,

and interaction effects provide a useful framework for gaining additional insight into the EO-performance relationship” (p. 155). For example, factors such as environmental variables may influence how or if an entrepreneurial orientation will lead to high performance.



### 3.2 Relationships

The suggested relationships in the above model are:

1. A firm’s performance is influenced by its entrepreneurial orientation, scanning intensity, locus of planning, and planning flexibility (hypotheses 1, 2, 3 and 4).



2. The external environment will moderate the relationships between a firm's entrepreneurial orientation, scanning intensity, locus of planning and planning flexibility with its performance (hypotheses 5a, 5b, 5c, and 5d).

If a firm has demonstrated above-average returns, that firm is assumed to both have a competitive advantage and be more entrepreneurial in its business functions and strategic processes. The model suggests that a firm's performance is influenced by its entrepreneurial orientation and its internal strategic planning processes as well as an understanding of its strengths, weaknesses, opportunities, and threats. The external environment moderates the relationships between a firm's entrepreneurial orientation, scanning intensity, locus of planning, and planning flexibility with the performance of the firm..

### 3.3 Contribution

The model suggests that strategic processes and principles and an entrepreneurial orientation (EO) impact a firm's performance. There has been considerable theoretical and empirical research in the area of strategic management and the resource based view of the firm. A great deal of theoretical and empirical research has been conducted in the area of entrepreneurship, the majority focusing on the entrepreneur as an individual who starts a business. There is a noticeable paucity of research in combining strategic and entrepreneurial activities together under the separate and distinct topic of strategic entrepreneurship (Wicklund & Shepherd, 2005;

Ireland, et al., 2003; Entrialgo, et al., 2000). Therefore, the first contribution is to advance the understanding of how the union of strategy and entrepreneurship can be beneficial to all firms in improving firm performance.

The second contribution is to assess the impact of key strategic management practices on a firm's performance regardless of the size of the firm, thus extending small and large business research. A third contribution is the investigation of the uncertainty inherent in the external environment, including an identification of the uncertainty factors important to business managers.

### 3.4 Hypothesis Related to Entrepreneurial Orientation

The relationship between entrepreneurship and firm performance has been the subject of considerable discussion and debate for several decades (Wiklund & Shepherd, 2003; Sandberg & Hofer, 1987, Miller & Friesen, 1982), with most researchers theorizing a positive relationship between entrepreneurial behaviors and firm profitability and growth (Lumpkin & Dess, 1996; Covin & Slevin, 1991). A number of studies indicate that entrepreneurial organizations should be conceptualized as possessing three main characteristics—innovativeness, risk-taking, and proactiveness—to assess a firm's entrepreneurial orientation (Covin & Slevin, 1989; Miller & Friesen, 1982).

Entrepreneurial processes can be viewed as actions taken that result in new or improved products, services, or technologies (Lumpkin & Dess, 1996), and includes the propensity of managers to commit firm resources to strategic actions without

knowing the probability of success or failure (Poon, et al., 2006; Richard, Barnett, Dwyer, & Chadwick, 2004). The goal of new entry, new products, and new services is to improve or create a higher level of firm performance, and an entrepreneurial orientation may be a requisite for creating new value for end users in the firm's attempt to attain a competitive advantage (Mizik & Jacobson, 2003).

It appears that today's challenging business environment requires a firm to have an entrepreneurial orientation if it is to survive and grow. Rapidly changing technology and shortened product life cycles support the need for a firm to be innovative and develop new ideas, products, and processes, and be willing to take risks to cope with rapid change. Increased domestic and global competition amplify the need for a firm to stay ahead of competition, to be proactive.

This discussion of firm performance and an entrepreneurial orientation with its sub-dimensions of innovativeness, risk-taking and proactiveness, forms the basis of the first hypothesis:

H1: *The entrepreneurial orientation of a firm is positively related to the firm's performance.*

### 3.5 Hypothesis Related to Scanning Intensity

Success in today's turbulent business environment depends, to a large extent, on the ability of firms to gather and process information and the amount of relevant information used in the strategic planning process. The external environment can create problems and opportunities for organizations which depend on it for scarce

and valued resources (Temtime, 2004). Environmental scanning is an essential strategic planning activity undertaken by managers in order to be effective in steering the organization in a fast-changing environment (Walters, Jiang, & Klein, 2003). Additionally, environmental scanning is used for the strategic purposes of achieving a competitive advantage through superior information gathering (Strandholm & Kumar, 2003), and to develop strategies that improve firm performance (Suh, et al., 2004; Kumar, et al., 2001).

The literature on strategic business planning is both descriptive (Mintzberg, 1994), and prescriptive (Brews & Hunt, 1999). It can generally be described as an active process of continuously determining what an organization is able or intends to carry out with respect to its future, and how it expects to do this. Today's volatile competitive conditions heighten the need of managers for ever more timely information and analysis. The current competitive environment is even more volatile and unpredictable due to increased globalization, mergers and acquisitions, and an explosion in technology applications and new business practices (Calantone, et al., 2003). Extensive scanning may be required to recognize and exploit environmental change. In fact, firms may attain a strategic competitive advantage or disadvantage depending on how and to what extent environmental scanning is conducted.

This discussion of environmental scanning intensity, the need for managers to have current and reliable strategic information, and the need to cope with uncertainty form the second hypothesis:

H2: *The environmental scanning of a firm is positively related to the firm's performance.*

### 3.6 Hypothesis Related to Locus of Planning

A shallow locus of planning denotes a fairly exclusive strategic planning process in an organization, typically involving only the senior managers in the organization. Conversely, a deep locus of planning denotes a high level of employee involvement in the planning process, typically employees from all levels in the organization. It is significant that many companies have attributed their improvements in performance directly to the institution of participative management and teams in the workplace (Whetten & Cameron, 2002; Cohen & Bailey, 1997; Guzzo & Dickson, 1996).

It has been demonstrated that today's business environment is complex, turbulent, and fast-changing. A deep locus of planning appears to be essential for organizations confronting turbulent and dynamic external environments (Antoncic & Hisrich, 2004; Morris & Sexton, 1996). It also appears that a deep locus of planning would facilitate a high level of firm performance for a number of reasons. A high level of employee participation in the planning process may facilitate opportunity recognition and avoid the problem of overlooking good ideas simply because lower-level managers were not involved in the planning process (Cameron, 1998; Burgelman, 1988).

Strategic planning processes are organizational activities that systematically discuss and adopt mission and goals, explore the competitive environment, analyze strategic alternatives to formulate the strategic plan, and coordinate actions of implementation across the entire organization (Antoncic & Hisrich, 2004; Anderson,

2004). A deep locus of planning may allow key strategic issues to emerge and gain formal recognition as lower-level managers promote their ideas to top management until they become part of an organization's formal strategy (Anderson, 2004; Dutton, et al., 1997). A deep locus of planning provides a firm with a better chance of recognizing and identifying the firm's strengths, weaknesses, opportunities, and threats, of identifying and implementing a successful strategy and avoiding groupthink, of providing an accurate and robust interpretation of the internal and external environments, and of developing internal capabilities and competencies (Daft, 2001).

This discussion of the locus of planning and the advantages of employee participation in the strategic planning process form the third hypothesis:

H3: *The locus of planning in a firm is positively related to the firm's performance.*

### 3.7 Hypothesis Related to Planning Flexibility

Entrepreneurship and strategy literatures have focused on how firms adapt to environmental change by recognizing and exploiting the opportunities created by uncertainties and discontinuities as a means of improving firm performance (Hitt et al., 2001). The rapid pace of current change is putting pressure on firms of all sizes to expand their strategic planning efforts.

There is strong support to indicate that planning flexibility is directly related to the performance of the firm. Kukalis (1989) posits that flexible strategic planning systems are mandatory for firms to compete effectively because of the frequency of change in the business environment. Clarkin and Rosa (2005) maintain that forces in today's competitive landscape require firms to have strategic planning flexibility to support successful firm performance. This is particularly true for entrepreneurial firms. The formative years for start-up firms are typically characterized with a high degree of uncertainty and the necessity to make quick decisions (Bhide, 1994). Planning flexibility allows a firm to fine-tune to changing environmental challenges and adjust to take advantage of existing and new strategic opportunities.

This discussion of the need for strategic planning flexibility forms the basis of the fourth hypothesis:

H4: *The planning flexibility of the firm is positively related to the firm's performance.*

### 3.8 Hypotheses Related to Environmental Uncertainty

Based on the preceding discussions, Entrepreneurial Orientation (EO), Scanning Intensity, Locus of Planning, and Planning Flexibility are all believed to be positively related to firm performance. There is reason to believe, however, that these four variables may be more or less strongly related to firm performance in different

situations. Environmental uncertainty is a key situational influence which will make these four variables even more important.

While most researchers theorize a positive relationship between an entrepreneurial orientation and firm performance, it is also apparent that environmental characteristics play a role as entrepreneurial firms respond to challenging conditions, including intense competition, rapid technology change, rising globalization and other dynamic forces. For example, an entrepreneurial orientation seems to have a larger positive effect on firm performance in hostile than in benign environments (Wicklund & Shepherd, 2005; Zahra & Covin, 1995). Uncertain and complex environments may necessitate a strong entrepreneurial posture for a firm. This discussion of the external environment and environmental uncertainty form the basis for the following hypotheses:

H5a: *Environmental uncertainty will moderate the relationship between entrepreneurial orientation and performance such that the relationship will be more positive in conditions of uncertainty than in benign environments.*

Environmental scanning is the process of discovering and understanding the events and trends in a firm's environment. Not only has environmental scanning become one of the most important duties for managers (Freel, 2005), a high level of scanning intensity is required for firm survival and growth in high-velocity dynamic environments, and the need for timely information and analysis. However, the importance of environmental scanning may be reduced in benign environments which



are characterized by low competitive intensity and high customer loyalty. This forms the basis of the next hypothesis:

H5b: *Environmental uncertainty will moderate the relationship between scanning intensity and firm performance such that the relationship will be more positive in conditions of uncertainty than in benign environments.*

Dynamic and turbulent environments are characterized by unpredictability, instability, complexity and higher levels of change. Higher levels of change create higher levels of uncertainty (Bourgeois & Eisenhardt, 1988). Involving employees from all hierarchical levels within the firm in the planning process (deep locus of planning) facilitates opportunity recognition and the firm's ability to respond to change (Lopez, 2005). Benign environments are typically stable and the rate of change is diminished. This discussion forms the basis of the next hypothesis:

H5c: *Environmental uncertainty will moderate the relationship between locus of planning and firm performance such that the relationship will be more positive in conditions of uncertainty than in benign environments.*

A high degree of planning flexibility would mean that a firm would be able to respond quickly to change, to opportunities in a dynamic environment, to competitor challenges, and other changes in the environment. In a stable environment, there is less pressure and incentive for the firm to expand its planning efforts, or to innovate and be proactive. This forms the basis of the final hypothesis:

H5d: *Environmental uncertainty will moderate the relationship between planning flexibility and firm performance such that the relationship will be more positive in conditions of uncertainty than in benign environments.*

## **CHAPTER IV**

### **RESEARCH DESIGN AND METHODOLOGY**

#### 4.1 Overview

Based on the model and hypotheses developed in Chapter III, this chapter covers the research design and research method used to test the hypotheses. First, the sample population is identified and described. Second, the measures are described, evaluation procedures are discussed, and demographic data are presented. Third, the data collection procedure is presented. Lastly, the analytic techniques used to test the hypotheses are presented.

#### 4.2 Sample

Small businesses account for 90% of new job creation in the United States and employ more than 60% of the labor force (Allen, 1999). For this study, the need to obtain access and the constraints of time and funding prevent the use of a random

sample using small business on a national or state basis. However, just as on the national level, more jobs are provided in Northeast Ohio by small businesses than by large corporations. Therefore, a convenience sample of Northeast Ohio small businesses will be used as participants in the survey.

Target firms will be provided through the Greater Cleveland Partnership's Council of Smaller Enterprises (COSE) which plays an important role in the success of small business in this area. COSE, the largest local small business organization in the country, supports small businesses by offering start-up assistance, providing continuing education, and administering a cost-effective health insurance program. Currently, COSE has a membership of 12,000 businesses. For this study, access was acquired to a population of approximately 300 small business enterprises. The members of this population all share the common experience of being COSE members, and of participating and completing a sponsored strategic planning course. Covin & Slevin (1989) followed a similar approach in the Pittsburgh, Pennsylvania, area to study smaller firms.

The small businesses represented in the sample range in size from less than \$50,000 in annual sales to sales in excess of \$1,000,000. Most of this population of diverse COSE businesses operate in single industries, with 65.6% (105) operating in the service sector and 34.4% (55) operating in the manufacturing sector. No one type of firm dominates the sample because of the size range and diversity in operations. The common links among all firms surveyed are their location, membership in COSE, and similar continuing education experience.

The sample population broke down into the following company and respondent demographics. See tables II and III on the following pages.

Table II

Characteristics of the firms in survey

Variable	<i>n</i>	%	Cumulative %
<b>Industry Type</b>			
Service	105	65.6	65.6
Manufacturing	<u>55</u>	<u>34.4</u>	100.0
	160	100.0	
<b>Firm Age in Years</b>			
1-5	6	3.8	3.8
6-10	11	6.9	10.7
11-15	14	8.8	19.5
16-20	16	10.0	29.5
20 +	<u>113</u>	<u>70.5</u>	100.0
	160	100.0	
<b>Number of Employees</b>			
1-10	34	21.3	21.3
11-20	27	16.9	38.2
21-50	45	28.1	66.3
51-80	20	12.5	78.8
80 +	<u>34</u>	<u>21.3</u>	100.0
	160	100.0	
<b>Firm Sales in \$1000s</b>			
< \$500	11	6.9	6.9
\$ 500 – \$1,999	30	18.7	25.6
\$2,000 – \$4,999	43	26.9	52.5
\$5,000 – \$9,999	31	19.4	71.9
> \$10,000	<u>45</u>	<u>28.1</u>	100.0
	160	100.0	

Table III

## Characteristics of the survey participants

Variable	<i>n</i>	%	Cumulative %
<b>Gender</b>			
Male	144	90.0	90.0
Female	<u>16</u>	<u>10.0</u>	100.0
	160	100.0	
<b>Tenure in Years</b>			
< 1	4	2.5	2.5
2-4	10	6.3	8.8
5-7	6	3.7	12.5
8-10	17	10.6	23.1
10+	<u>123</u>	<u>76.9</u>	100.0
	160	100.0	
<b>Source of Hire</b>			
Within firm	67	41.9	41.9
Outside firm	<u>93</u>	<u>58.1</u>	100.0
	160	100.0	
<b>Education</b>			
High school	5	3.1	3.1
Some college	30	18.8	21.9
Four-year degree	86	53.7	75.6
Master's degree	36	22.5	98.1
Doctoral degree	<u>3</u>	<u>1.9</u>	100.0
	160	100.0	

The Institutional Review Board of Cleveland State University was provided with the survey instrument (Appendix A) and a cover letter (Appendix B), along with the application for project review. Appendix B includes a sample of the cover letter to participants as well as the IRB application. Approval was received.

#### 4.3 Measures

A number of scales are used to assess the various constructs. Measures from

prior studies are used and all scale items are supported by a significant amount of literature. The following table identifies the scales and literature support for their reliability and validity.

Table IV  
Literature Support for Scales

<b><u>Instrument</u></b>	<b><u>Literature Support</u></b>
Scanning Intensity Scale (10 items)	Hambrick (1982); Miller & Friesen (1982); Fahr, Hoffman, & Hegarty (1984); Morris & Sexton (1996); Elenkov (1997); Pett & Wolff (2003); Bhuian (2005).
Locus of Planning Scale (15 items)	Hage & Aiken (1982); Miller (1987); Boyd & Reuning-Elliott (1998); Slater, Olson, & Hult (2006).
Planning Flexibility Scale (9 items)	Barringer & Bluedorn (1999); Entrialgo, Fernandez, & Vazquez (2000).
Environmental Uncertainty Scale (12 items)	Khandwalla (1977); Miller & Friesen (1982, 1984); Zahra (1991); Naman & Slevin (1993); Wicklund & Shepherd (2005).
Entrepreneurial Orientation Scale (9 items)	Khandwalla (1977); Miller & Friesen (1982); Miller (1983); Covin & Slevin (1989); Hult, Hurley, & Knight (2004); Richard, Barnett, Dwyer, & Chadwick (2004).
Performance Scale (16 items)	Gupta & Govindarajan (1984); Naman & Slevin (1993); Covin, Slevin, & Schultz (1997); Strandholm, Kumar, & Subramanian (2004); O'Regan & Ghobadian (2004).

#### 4.3.1 Entrepreneurial Orientation Scale

Entrepreneurial orientation is the propensity of firms to be innovative, be proactive to marketplace opportunities, and be willing to take risks (Lumpkin & Dess, 1996). The entrepreneurial orientation scale is based on the work of Covin and Slevin (1989) which was modified from the scales developed by Miller & Friesen (1982) and Khandwalla (1977). It utilizes a nine-item Likert-type scale to measure the three dimensions of entrepreneurial orientation—innovation, risk-taking, and proactiveness. Many researchers conclude that the variables of innovation, risk-taking, and proactiveness measure the entrepreneurial orientation of a firm, e.g., Wicklund & Shepherd (2005); Aloulou & Fayolle (2005); Poon, et al. (2006); Hult, Hurley, & Knight (2004); Richard, et al. (2004); Kreiser, et al., (2002). These researchers agree with Covin & Slevin (1989) that the three sub-dimensions of innovation, risk-taking, and proactiveness acted in concert to “comprise a basic, unidimensional strategic orientation” that should be aggregated together. This operationalization has shown high levels of validity and reliability in numerous studies.

Three items of the nine-item entrepreneurial orientation scale will be used to assess a firm’s tendency toward innovation; three items will assess a firm’s degree of risk-taking, and three items will assess proactiveness. For this measure, respondents are asked to indicate on a seven-point Likert-type scale (1 = complete agreement with the statement on the left side of the scale and 7 = complete agreement with the statement on the right side of the scale) the response which most clearly matches the



management style of the managers. A sample of the scale items used to measure entrepreneurial orientation reads “In general, the top managers of my firm favor.....low-risk projects with normal rates of return” versus “High-risk projects with chances of very high returns.” The ratings of these items will be averaged to generate an entrepreneurial orientation index. The higher the index, the more entrepreneurial the firm. Covin & Slevin (1989) noted that all of the items loaded above 0.5 on a single factor with an average loading of 0.66, and indicated that it is appropriate to combine these items in a single scale. The mean value in their research was 4.33 with a standard deviation of 1.23, a range of 1.22 to 6.78, and an inter-item reliability coefficient of 0.87. Analysis will be conducted to determine if the scale is unidimensional in the present study.

#### 4.3.2 Scanning Intensity Scale

The external environment is a major source of uncertainty for managers who are responsible for identifying external opportunities and threats, and developing and implementing strategy with the goal of improved firm performance. The strategic planning process of scanning is clearly critical to organizational performance and viability since it provides the external intelligence that decision-makers use in strategy formulation and implementation. Hambrick (1982), Fahr, Hoffman, and Hegarty (1984), Miller and Friesen (1982), Elenkov (1997), Barringer and Bluedorn (1999) and others have employed a scanning intensity scale to identify the scanning intensity of firms.

The scanning intensity scale utilized in this research is the effort dedicated toward scanning measure created by Miller and Friesen (1982), which evaluates the extent of effort dedicated towards environmental scanning and the comprehensiveness of the environment scanning process. For this measure, respondents are asked to indicate on a seven-point Likert-type scale (1= not ever used and 7 = used frequently) how thoroughly his or her firm measured scanning. A sample of one of the questions for scanning effort is to “rate the extent to which the following scanning device is used by your firm to gather information about the business environment.” A scanning intensity index will be developed. The higher the index, the higher the level of scanning intensity. Miller and Friesen’s (1982) effort dedicated toward scanning scale has a mean 4.7, a standard deviation of 1.4, and a coefficient alpha of 0.74. Its recent use was by Morris and Sexton (1996) and Bhuian (2005).

#### 4.3.3 Locus of Planning Scale

Locus of planning focuses on the depth of employee involvement in a firm’s strategic planning process. Participatory decision processes allow more market views and organizational perspectives to be considered in strategic decisions, which should lead to better decision outcomes (Anderson, 2004; Covin, et al., 1997). A decentralized strategy planning process facilitates opportunity recognition. Locus of planning is measured by using the five-item distributed decision authority scale developed by Miller (1987) which was adapted from a measure identified by Hage &

Aiken (1970). The measure was utilized by Anderson (2004) who posited that decentralized strategy making and strategy planning processes were important in dynamic environments. Wang & Tai (2003) used the measure to investigate the formalization and centralization of the planning process.

A sample of the scale items to measure distributed decision authority reads “Managers reporting to the top executive.....can introduce new practices without approval.” Respondents are asked to indicate on a seven-point Likert-type scale (1 = definitely false and 7 = definitely true) how true or false the provided statements are when identifying the distributed decision authority in the firm. The derivation of a locus of planning index will assess the degree of managerial involvement in the planning process. The higher the index, the more participatory the planning process. The coefficient alpha of this measure is 0.70.

#### 4.3.3 Planning Flexibility Scale

Planning flexibility refers to the extent of the capability of the firm to change and respond quickly to changing conditions as environmental opportunities and threats emerge. O'Regan and Ghobadian (2004) suggest that managers must be flexible in the strategic planning process to survive and grow in an increasingly dynamic, complex and unpredictable business environment. Planning flexibility is measured using a nine-item scale which identifies the degree of planning flexibility. Items are taken from an instrument developed by Barringer and Bluedorn (1999). A sample of the scale items used to measure planning flexibility reads “Please indicate how difficult it is for your firm to change its strategic plan to adjust to each of the

following.....The emergence of an unexpected threat.” Respondents are asked to indicate on a seven-point Likert-type scale (1 = very difficult and 7 = not at all difficult) the degree of difficulty for their firm to change their strategic plans in response to environmental change. The mean score, averaged across the items, assesses the degree of planning flexibility in the organization. The higher the score, the more flexible is the strategic planning process. The coefficient alpha for the planning flexibility scale is 0.80. In their research investigating linkages between strategic management and entrepreneurship, Entrialgo, Fernandez, and Vazquez (2000) validated and utilized the planning flexibility scale.

#### 4.3.5 Environmental Uncertainty Scale

An important determinant of entrepreneurial orientation is the external environment (Ward & Lewandowska, 2005; Zahra, 1993), and managers must deal with the impact of the external environment (Hamel & Prahalad, 1994). Characteristics describing the environment include turbulence, hostility, and dynamism. Turbulence refers to the unpredictability, instability, and complexity in the environment (Dess & Beard, 1984). Hostility is described by intense competition, and rapid changes. Dynamism is defined as unexpected change or change that is hard to predict (Dess & Beard, 1984). Higher levels of turbulence, hostility, and dynamism create higher levels of uncertainty and unpredictability.

The environmental uncertainty scale used in this research is the turbulence scale created by Naman & Slevin (1993). The scale utilizes a Likert-type response

format (1 = strongly disagree and 7 = strongly agree). The mean score, averaged across the items, assesses the degree of environmental uncertainty facing the firm.

Naman & Slevin's (1993) turbulence scale has a mean value of 3.95, a standard deviation of 0.78, and a coefficient alpha of 0.63. An example of an environmental uncertainty question is "The external environment our firm operates in has a high level of risk and uncertainty." The turbulence measure has been used by a number of researchers, including Robertson and Chetty (2000), and Aloulou and Fayolle (2005).

#### 4.3.6 Firm Performance Scale

Measuring firm performance remains a major challenge for researchers. In this study, firm performance measurement involves two Likert-type scales to capture the importance and satisfaction of firm performance indicators. Since small business owners tend not to reveal their business data (Naman & Slevin, 1993), perceptual measures to assess firm performance are used. The issues relevant to performance measurement in the context of small firms are well documented by Sapienza, Smith, and Gannon (1988) who note that

....it is quite common for owner/entrepreneurs to refuse to provide objective and actual measures of organizational performance to researchers. Furthermore, often when such data are made available, they are not representative of the firm's actual performance, as many owner/entrepreneurs for a variety of reasons report manipulated performance outcomes (e.g., profits) (p. 46).

The use of subjective, self-report measures of performance is consistent with past research practices (Lyles & Salk, 1996; Smart & Conant, 1994; Covin & Slevin, 1989). In addition, there is research evidence that managers' perceptions of the performance of their firm are highly consistent with how their firm actually performed as indicated by objective measures (Wall, et al., 2004; Dess & Robinson, 1984). Therefore, a subjective measure will be used.

Firm performance is measured with a modified version of an instrument developed by Gupta and Govindarajan (1984). Respondents are first asked to indicate on a 5-point Likert-type scale (1 = of little importance and 5 = extremely important) the degree of importance to their firm of each of the firm performance criteria: sales growth rate, market share, operating profits, profit to sales ratio, market development, and new product development. Respondents are then asked on another 5-point Likert-type scale (1 = highly dissatisfied and 5 = highly satisfied) the extent to which their firm is satisfied with their firm's performance on each of these same firm performance criteria. "Satisfaction" scores are multiplied by the "importance" scores to compute a weighted average performance index. Gupta and Govindarajan's scale (1989) resulted in a mean of 11.57 with a standard deviation of 4.06, a range of 3.78 to 23.33, and an inter-item reliability coefficient of 0.88.

This instrument has been used by a number of researchers, including O'Regan and Ghobadian (2004), Kreisner, Marino, and Weaver (2002), Robertson and Chetty (2000), and Covin, Slevin, and Schultz (1997). Additional support comes from, Strandholm, Kumar, and Subramanian (2004), Naman and Slevin (1993), and Naman and Slevin (1993).

#### 4.4 Demographics

The survey instrument includes a number of demographic questions used for descriptive and control purposes. These questions address the age of the firm, number of employees, classification of industry, net sales (by range), and past descriptions of firm performance. There are also five respondent-only questions requesting that the respondent supply personal information including tenure with the firm, whether or not he was promoted within the firm, minority status, gender, and formal education level.

The age of the firm will be determined by the number of years that the firm has been in existence. Durand and Courderoy (2001) posit that older firms are more likely to compete in mature industries and might be slower in responding to change, which could lower their performance. Zahra (1991) and Pinchot (1991) suggest that company age influences a firm's entrepreneurial activities, and that older firms are expected to be less entrepreneurial in their operations and more conservative in their market orientation. Rosen (1991) states that younger companies often pursue more radical innovations than older companies. McGee, Dowling, and Megginson (1995) suggest that the older firms may benefit from learning curve effects and economies of scale which can influence a firm's performance. Since the age of the firm could influence the relationships examined in this research, age of the firm will be used as a control variable for this research.

The size of the firm will be the second control variable in this research. Many researchers have argued that small-sized firms may exhibit different organizational

characteristics from their large-size counterparts, and that differences in size can influence a firm's performance (Lindsay & Rue, 1980; Robinson, 1982). Some researchers note the significant association between size of firm and corporate innovation and venturing (Zahra, 1993), and product diversification (Sambharya, 1995). Rosen (1991) reports that large companies spend more on research and development than smaller companies, but they often choose "safer" projects that generate fewer radical innovations. Many studies have found firm size to be an important determinant of organizational processes and performances (Poon, et. al., 2006; Baum, et al., 2001). Firm size may affect a firm's entrepreneurial orientation (Durand, 2001; Zahra, 1991; Covin & Slevin, 1989). For all these reasons, the size of the firm will be a control variable in this study.

The third control variable in this study will be the industry the firm operates in, whether service or non-service. Wiklund and Shepherd (2005) state that firms in different industries may exhibit different organizational and environmental characteristics, which in turn may influence performance. Kreiser, Marino, and Weaver (2002) state that the type of industry that firms compete in has been shown to exert an influence on the entrepreneurial process. This was also suggested in the research of Covin & Slevin (1991), and Sandberg and Hofer (1987).

#### 4.5 Data Collection Procedure

The convenience sample used in this survey are small business managers who



are members of the Greater Cleveland Partnership and are graduates of a sponsored strategic planning course. The surveys will be mailed to these managers with a cover letter, and the respondents are asked to complete the questionnaire and return it within a two-week timeframe. It is expected that it will take no longer than twenty minutes to complete the instrument. Part I of the survey contains the scale measures of scanning intensity, locus of planning, planning flexibility, external environment, and firm performance (Appendix A). Part II of the survey contains demographic questions involving the size and age of the firm, as well as the industry it operates in, and other descriptive information.

Each questionnaire will be coded and only the primary researcher will know which firms respond. The coding technique will only be used for the purpose of matching returned, completed surveys with those mailed to the business organizations.

#### 4.6 Analytic Techniques and Hypothesis Testing

This section discusses the techniques that will be used to test the hypotheses.

The steps below were followed:

Step One: Assessment of data (check for accuracy, run frequency distributions on all items, check on assumptions); reliability check on the consistency of all measures will be performed. Higher Cronbach alphas will indicate higher reliability among the indicators.

Step Two: Factor analysis will be used to examine the factor structure and investigate the dimensionality of the instruments for the constructs of entrepreneurial orientation (innovativeness, risk-taking, proactiveness), scanning intensity (frequency, effort), locus of planning (distributed decision authority, participation, strategic planning processes), and environmental uncertainty (turbulence, hostility, dynamism). This will be done to confirm or refute the outcomes of previous research. The scores of all items for each construct will be averaged to produce indices which will be used as factors to test the hypotheses.

Step Three: Correlation analyses will be performed to determine if any variables (entrepreneurial orientation index, scanning intensity index, locus of planning index, planning flexibility index, environmental uncertainty index, firm performance index) are correlated. The Pearson correlation coefficient ( $r$ ) will be used to identify the magnitude and the direction of the relationships between variables. For example, the value can range from  $-1$  to  $+1$ , with a  $+1$  indicating a perfect positive relationship,  $0$  indicating no relationship, and  $-1$  indicating a perfect negative or reverse relationship (as one grows larger, the other grows smaller).

Step Four: Hypotheses 1, 2, 3, and 4 will be tested using multiple regression analysis. Multiple regression is the appropriate method of analysis when the research problem involves a single metric dependent variable presumed to be related to one or more metric independent variables. The objective of multiple regression analysis is to predict the changes in the dependent variable in response to changes in the several independent variables. The factors of entrepreneurial orientation, scanning intensity, locus of planning, and planning flexibility

(independent variables), and the three control variables (size and age of firm, industry) will be regressed on firm performance (dependent variable) to assess the strength of the potential positive relationship between each factor and entrepreneurial orientation. The regression equation is:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

“Y” is the dependent variable (firm performance),  $\beta_0$  is the regression coefficient,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are the slopes of the regression equation,  $X_1$  is the entrepreneurial orientation independent variable,  $X_2$  is the scanning intensity independent variable,  $X_3$  is the locus of planning independent variable,  $X_4$  is the planning flexibility independent variable, and  $\epsilon$  is an error term, normally distributed about a mean of 0 and, for purposes of computation, the  $\epsilon$  is assumed to be 0. The regression will be run twice, one with the control variables included and one without. Results will be compared to see if a relationship exists.

Step Five: Moderated regression analysis will be utilized to test hypotheses 5a, 5b, 5c, and 5d in assessing the impact environmental uncertainty has on the relationships between entrepreneurial orientation, scanning intensity, locus of planning, and planning flexibility with firm performance, and allows for interaction effects. Moderated regression analysis is an analytic approach which maintains the integrity of a sample, yet provides a basis for controlling the effects of a moderator variable.

Each of the four independent variables will be entered together with environmental uncertainty as the potential moderator variable to see if the latter interacts with any of the former. This analysis will determine when the effects of any independent variable in this study interact with environmental uncertainty.

## **CHAPTER V**

### **RESEARCH RESULTS**

#### 5.1 Research Process

This chapter first describes the sample used in this research, as well as the sample's characteristics and data collection procedures followed. This is followed by a discussion of the data analysis procedures used and includes the reliability analysis, factor analysis, mean substitution, and multicollinearity testing. The balance of the chapter reports on the tests of all hypotheses utilizing regression analysis and moderated regression analysis.

#### 5.2 Sample Description

##### 5.2.1 Size

The target population was a convenience sample of small business managers whose firms were members of the Greater Cleveland Partnership's Council of Smaller Enterprises (COSE). A total of 228 small business managers were identified

as not only being members of COSE, but also sharing the common experience of being graduates of a COSE-sponsored strategic planning course. Surveys were mailed to this population.

### 5.2.2 Sample Characteristics

Completed surveys were returned by 160 of the 228 (70.2%) managers. A better understanding of the sample can be obtained by reviewing some of the demographic variables. Of the 160 respondents, 65.6% (105) operated in the service sector, while 34.4% (55) were in manufacturing. Males (144) accounted for 90.0% of the sample population, while females (16) accounted for 10.0%. The education level of these responding managers followed a bell-shaped curve, with 53.7% (86) having a four-year degree. On the low end of the scale, 3.1% (5) had only a high school education, while 1.9% (3) had a doctoral degree.

Firm size was operationalized in terms of number of employees as well as annual sales. In terms of number of employees, 21.3% (34) were on the low end of the scale with ten or fewer employees, with an identical number (21.3%) being represented on the high end of the scale with more than 80 employees. The mid-range group (21-50 employees) accounted for 28.1% (45) of the sample. In terms of annual sales, 6.9% (11) of the firms represented had annual sales of less than \$500,000, while 28.1% (45) had annual sales in excess of \$10,000,000. The mid-range group (\$2,000,000-4,999,999) accounted for 26.9% (43) of the firms represented. The age of the firms was skewed to the high end of the scale with 70.5%

(113) of the firms represented being in business more than twenty years, and only 3.8% (6) being in business less than five years. A complete listing of all demographic data for this sample is included in Appendix C.

### 5.2.3 Data Collection Procedure

During the spring of 2007, surveys were mailed to 228 managers who were both members of COSE and graduates of a COSE-sponsored strategic planning course. Names and addresses for the study were obtained from the course roster listings for the current and previous four years. Of the 228 mailed, 160 responded, for a response rate of 70.2%.

## 5.1 Data Analysis

### 5.3.1 Frequency Distributions and Missing Data

The variables used in this study are identified in Appendix D. After visually inspecting the survey instruments for accuracy and completeness, frequency distributions were conducted run for all variables. These descriptive statistics are included in Appendix C. Random missing data were identified for eleven cases. Specifically, four (4) respondents had missing values for firm performance, six (6) respondents had missing values for locus of planning, and one (1) respondent had missing values for entrepreneurial orientation. The number of respondents with missing values was less than 4% of the subjects, and the values that are missing for

each are small relative to the parts they completed. For these several cases that contained missing data, general mean substitution was utilized in accordance with Tabachnick and Fidell (2007) who state that, in the absence of other information, mean substitution is appropriate and is the most conservative method of substitution.

As an additional check on the appropriateness of mean substitution, the analyses were rerun with these cases excluded, with the results having no substantive effect on the conclusions reached.

### 5.3.2 Factor Analysis

The variable of entrepreneurial orientation was submitted to factor analysis with varimax rotation, and a three-factor solution emerged (innovation, risk-taking and proactiveness). However, the literature recommends treating this construct as unidimensional by aggregating scores across these three factors. This is consistent with the results of many researchers as indicated in Chapter II (e.g., Wicklund & Shepherd (2005), Poon, et al. (2006), Hult, Hurley, & Knight (2004), Kreiser, et al. (2002), and others who agree with Covin and Slevin (1989) that these sub-dimensions of innovation, risk-taking, and proactiveness should be aggregated in evaluating entrepreneurial orientation unidimensionally as a single construct.

To create the one-factor solution, a second principle components factor analysis was conducted, and the extent to which each item measured the construct of entrepreneurial orientation was examined (See Table ). Hair, Anderson, Tatham, and Black (1995) suggest that factor loadings greater than  $\pm .30$  are considered to



meet the minimal level; loadings of  $\pm .40$  are considered more important; and if the loadings are  $\pm .50$  or greater, they are considered practically significant. From their investigation, Comrey and Lee (1992) suggest that loadings in excess of .71 are considered excellent, .63 very good, .55 good, .45 fair, and .32 poor. Tabachnick and Fidell (2007) state that the choice of the cutoff for size of loadings is the preference of the researcher. Based on the guidelines set by Tabachnick and Fidell (2007), I chose a decision rule of 0.40 as the factor loading point at which any factor loading greater than or equal to 0.40 was included in the analysis. In examining Table V, it is apparent that all items are retained. Hence, I opted to use the data from the one-factor solution for all analyses below.

Table V

Factor Loadings for Entrepreneurial Orientation.	
<u>Items</u>	<u>Factor Loadings</u>
1. Innovation	.56
2. Project Risk	.62
3. Decision Making	.72
4. Product/Service Additions	.65
5. Product/Service Changes	.58
6. Response to Competition	.59
7. Introduce New Offerings	.68
8. Competitive Posture	.41
9. Environmental Risk	.77

### 5.3.3 Reliability Analysis

Reliability analyses were conducted for all survey items used in this research. Table VI contains simple correlations for all variables used in this study, with the Cronbach's Coefficient Alphas appearing in the diagonal. Based on prior research (Nunnally, 1978; Hair et al., 1995), a threshold value coefficient alpha score above 0.70 is considered acceptable reliability for experimental research.

Entrepreneurial orientation has a reliability of 0.80. In their original research, Covin and Slevin (1989) identified an inter-item reliability coefficient of 0.87, a mean value of 4.33 with a standard deviation of 1.23, and a range of 1.22 to 6.78. This research identified a mean of 4.03 with a standard deviation of .95. Firm performance has a reliability of 0.76 and compares with an inter-item reliability of 0.88 in the research of Gupta and Govindarajan (1989). The scanning intensity scale used in this research has an inter-item reliability of 0.76 compared to the inter-item reliability identified by Covin and Slevin (1989) of 0.74. The locus of planning scale used in this research has an inter-item reliability of 0.76 with a mean value of 3.78 and a standard deviation of 1.31. This compares with the research of Miller (1987) with an alpha reliability of 0.70. The environmental uncertainty scale had an alpha of 0.83. Planning flexibility was studied by Barringer and Bluedorn (1999) who reported an inter-item reliability of 0.80. The alpha reliability for planning flexibility in this research is 0.60.

Table VI

Pearson product-moment correlation matrix including entrepreneurial orientation, dimensions of strategic management included in this study, the moderator variable, and control variables. *N* ranges from 154 to 160.

	Mean	S.D.	1	2	3	4	5	6	7	8
1. Entrepreneurial Orientation	4.04	0.95	(0.80)							
2. Firm Performance	3.45	0.43	0.22**	(0.76)						
3. Scanning Intensity	3.84	1.23	0.22*	0.08	(0.77)					
4. Planning Flexibility	4.50	0.66	0.22**	0.16*	0.02	(0.60)				
5. Locus of Planning	3.81	1.33	0.22**	0.07	0.17*	0.16	(0.77)			
6. Environmental Uncertainty	4.54	1.33	-0.04	-0.17*	0.13	-0.29**	0.04	(0.83)		
7. Age of Firm <sup>a</sup>	1.71	0.46	-0.10	-0.01	0.02	-0.02	-0.01	0.02		
8. Size of Firm <sup>b</sup>	1.62	0.49	0.14*	0.06	0.14	-0.01	-0.12	0.07	0.26*	
9. Industry Type	1.34	0.48	-0.01	0.07	-0.01	-0.01	-0.09	0.04	0.04	0.08

<sup>a</sup> Age of firm converted to dichotomous variable using a median split (0= <20 years; 1= >20 years)

<sup>b</sup> Size of firm converted to dichotomous variable using a median split (0= <20 employees; 1= >20 employees)

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Coefficient alphas are on the diagonal where applicable.

In evaluating the correlation matrix, some variables are identified as being correlated, but there is no significant degree of overlap and all variables are retained. In examining reliability using Cronbach's alpha, all but one variable exceed the 0.70 threshold criteria. The only variable below the 0.70 threshold is planning flexibility which has an inter-item reliability of 0.60. Though this result is less than ideal, Hair, et al. (1995), argue that the 0.70 threshold value for acceptable reliability is not an absolute standard, and values below 0.70 have been deemed acceptable if the research is exploratory in nature. Additionally, Nunnally (1967) has argued that this value (0.60) is well within the satisfactory range for exploratory research.

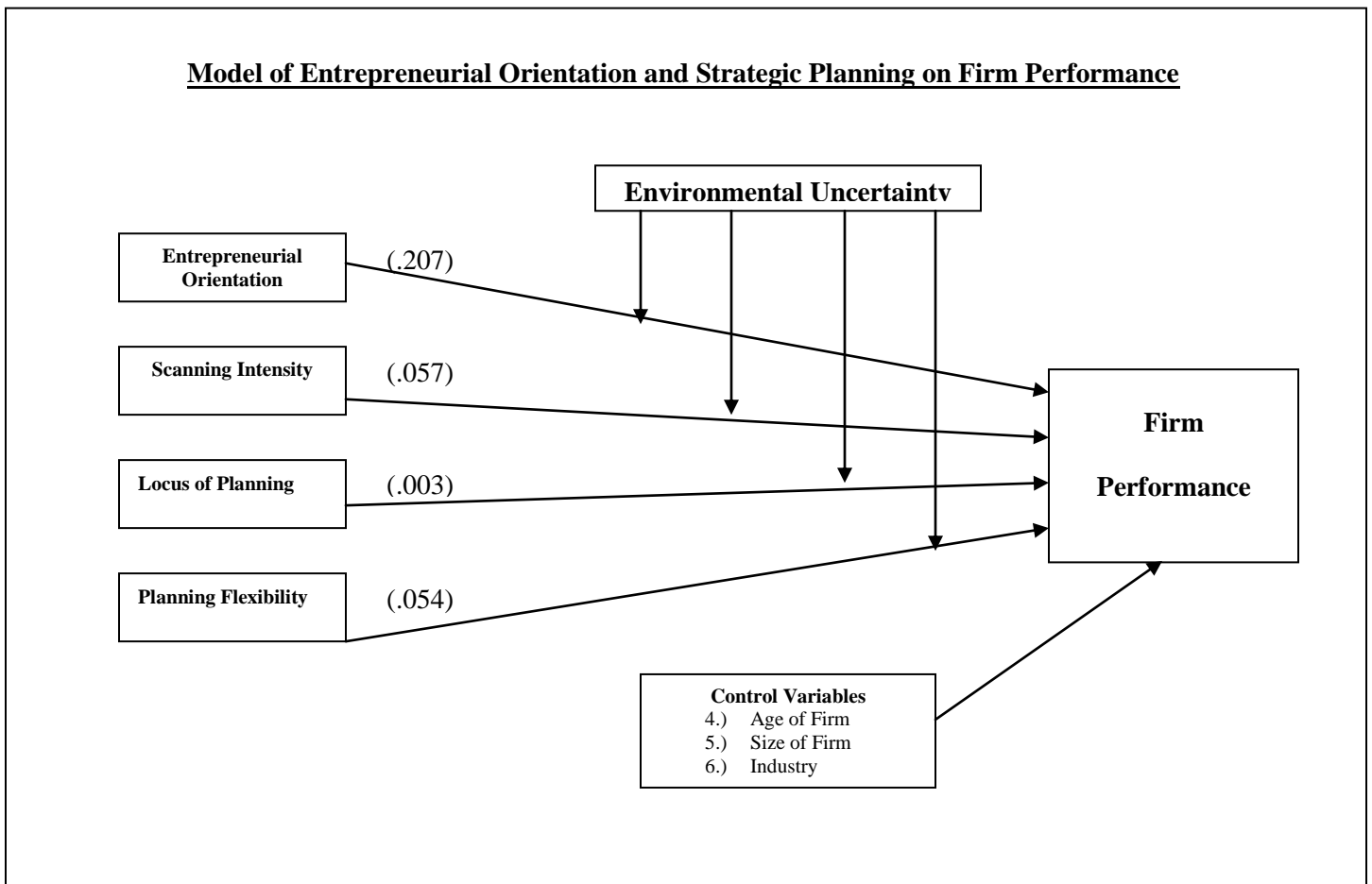
#### 5.3.4 Multicollinearity

Based on the recommendations of Cooper and Emory (1995), as well as the research of Hatcher (1995), a correlation above the threshold of 0.80 between two independent variables would indicate serious multicollinearity. In reviewing Table VI, no independent variables were near or above the 0.80 threshold. Nonetheless, some independent variables are significantly correlated. Planning Flexibility, Locus of Planning and Entrepreneurial Orientation are correlated at the  $p < .01$  level. Similarly, Environmental Uncertainty is correlated with Planning Flexibility at the  $p < .01$  level. Given these relatively small correlations, it does not appear, therefore, that multicollinearity seriously reduces the power of the regression analysis.

5.4 Hypothesis Testing

A total of five hypotheses were tested utilizing regression analysis. Figure II shows the model for this research with standardized Beta values in parentheses.

**Figure II**  
**Model Predicting Firm Performance**



Control variables for this research included the age of the firm, the size of the firm, and the industry type. Firm age was a dichotomous variable with values of:

0 =  $\leq 20$ ; 1 =  $> 20$ . The size of the firm was measured in terms of number of employees, then dichotomized using a median split with values of: 0 =  $\leq 20$ ; 1 =  $\geq 21$ . The type of industry was the third control variable selected for this research, and was dichotomized (service versus manufacturing) with values of: 0 = service; 1 = manufacturing.

#### 5.4.1 Hypothesis 1 - Hypothesis 4

The first four hypotheses were tested looking at whether or not the independent variables predicted firm performance. Specifically, Entrepreneurial Orientation (Hypothesis 1), Scanning Intensity (Hypothesis 2), Locus of Planning (Hypothesis 3), and Planning Flexibility (Hypothesis 4) were all predicted to show positive correlation with firm performance.

Multiple regression analysis was used to predict firm performance on the basis of the four independent variables. The control variables of industry type, age of firm, and size of firm were entered in Step 1 (shown in Table VII). Next, the four independent variables were entered in Step 2, together with the main effect of the moderator variable, Environmental Uncertainty. The contribution of the individual predictors to firm performance is shown in Table VII.

Table VII

## Results of Regression Analysis for Firm Performance

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Industry Type	.070	.116	.049
Age of Firm <sup>a</sup>	-.047	.124	-.032
Size of Firm <sup>b</sup>	.066	.119	.047
Step 2			
Industry Type	.124	.114	.088
Age of Firm <sup>a</sup>	.004	.122	.003
Size of Firm <sup>b</sup>	.018	.120	.013
Entrepreneurial Orientation	.153	.064	.207*
Scanning Intensity	.031	.045	.057
Planning Flexibility	.055	.088	.054
Locus of Planning	.002	.043	.003
Environmental Uncertainty	-.086	.043	-.168*

Note:  $R^2 = .005$  for Step 1;  $R^2 = .099$  for Step 2;  $\Delta R^2 = .094$  for Step 2;

N = 160

<sup>a</sup>Age of firm was converted to a dichotomous variable using a median split (where 0 = less than 20 years, and 1 = greater than 20 years).

<sup>b</sup>Size of firm was converted to a dichotomous variable using a median split (where 0 = less than 21 employees, and 1 = more than 20 employees).

\*  $p < .05$ .

The test of the full model with all four predictors was statistically significant

[ $R^2 = .094$ ;  $F(8,145) = 1.99$ ;  $p = .05$ ], indicating that the predictors, as a set, had a

positive relationship with firm performance. In evaluating each independent variable separately, entrepreneurial orientation is significant with a Beta of .207 ( $t = 2.40$ ;  $p = .019$ ). This confirms Hypothesis 1. The remaining three independent variables—scanning intensity, locus of planning, planning flexibility—proved not be significant with a Beta of .057 for scanning intensity, a Beta of .003 for locus of planning, and a Beta of .054 for planning flexibility (all  $t$  values were  $< 1.0$ ). Therefore, the conclusion is that hypotheses two, three, and four are not supported. Note, too, that the main effect of environmental uncertainty was significant with a Beta of  $-.168$  ( $t = 2.00$ ;  $p = .048$ ).

#### 5.4.2 Hypothesis 5

The next hypothesis tested the potential moderating effect of environmental uncertainty on the relationships between the independent variables and firm performance. Therefore, four interaction terms were examined (Hypotheses 5a through 5d). Results of the moderated regression analysis appear in Table VIII.

Step 1 consisted of entering the control variables of industry type, age of firm, and size of firm. Step 2 consisted of entering each of the four independent variables (entrepreneurial orientation, scanning intensity, locus of planning, planning flexibility), as well as the main effect of the moderator variable (environmental uncertainty). Step 3 consisted of creating four composite variables, the products of environmental uncertainty with each of the four independent variables after centering the variables to reduce the effects of multicollinearity.



Table VIII

Results of regression for Environmental Uncertainty Moderator.

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Industry Type	.070	.116	.049
Age of Firm <sup>a</sup>	-.047	.124	-.032
Size of Firm <sup>b</sup>	.066	.119	.047
Step 2			
Industry Type	.124	.114	.088
Age of Firm <sup>a</sup>	.004	.122	.003
Size of Firm <sup>b</sup>	.018	.120	.013
Entrepreneurial Orientation	.153	.064	.207*
Scanning Intensity	.031	.045	.057
Planning Flexibility	.055	.088	.054
Locus of Planning	.002	.043	.003
Environmental Uncertainty	-.086	.043	-.168*
Step 3			
Industry Type	.114	.117	.081
Age of Firm <sup>a</sup>	.009	.122	.006
Size of Firm <sup>b</sup>	.000	.121	.000
Entrepreneurial Orientation (EO)	.141	.064	.190*
Scanning Intensity (SI)	.035	.045	.065
Planning Flexibility (PF)	.054	.089	.053
Locus of Planning (LP)	.001	.043	.001
Environmental Uncertainty (EU)	-.086	.043	-.169*
EO x EU	.091	.044	.176*
SI x EU	.004	.033	-.010
PF x EU	-.014	.067	-.017
LP x EU	-.013	.031	-.036

Note:  $R^2 = .005$  for Step 1;  $R^2 = .099$  for Step 2;  $\Delta R^2 = .094$  for Step 2;  
 $R^2 = .127$  for Step 3;  $\Delta R^2 = .028$  for Step 3.

n = 160

<sup>a</sup>Age of firm was converted to a dichotomous variable using a median split (where 0 = less than 20 years, and 1 = greater than 20 years).

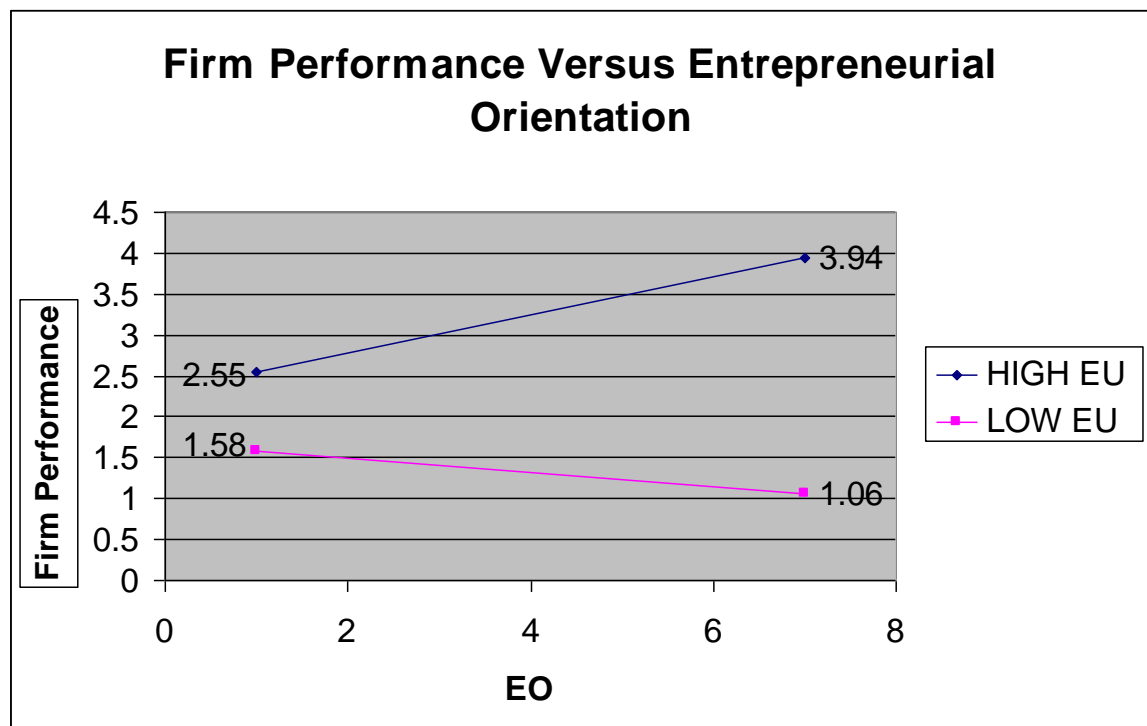
<sup>b</sup>Size of firm was converted to a dichotomous variable using a median split (where 0 = less than 21 employees, and 1 = more than 20 employees).

\*  $p < .05$ .

Significant Betas in Step 3 would indicate that environmental uncertainty indeed moderated the relationship between the independent variables and firm performance. In the third step, an interaction emerged between entrepreneurial orientation and environmental uncertainty (  $t = 2.07$ ;  $p = .040$ ).

Figure III shows firm performance as a function of entrepreneurial orientation and environmental uncertainty. Note that when entrepreneurial orientation is low, environmental uncertainty has very little effect on firm performance. However, when entrepreneurial orientation is high, environmental uncertainty strongly predicts firm performance.(high environmental uncertainty = better firm performance than low).

Figure III



Specifically, firm performance is nearly four times better when environmental uncertainty is high versus low. In summary, the difference between high versus low entrepreneurial orientation is strong when business environments are uncertain, and weak when business environments are stable.

## **CHAPTER VI**

### **DISCUSSION AND CONCLUSIONS**

This research is based on the small business environment and evaluated the constructs of entrepreneurial orientation, scanning intensity, locus of planning, and planning flexibility, and their impact on a firm's performance. Included in this section is a summary of the interpretation of the results, the implications of these findings from both practical and theoretical considerations, the research limitations, the directions for future research, and the final conclusions.

#### **6.1 Research Results**

Hypothesis one states, "The entrepreneurial orientation of a firm is positively related to the firm's performance." As indicated in Table VII, the result is significant at the  $p < .05$  level, and it is confirmed that entrepreneurial orientation is a predictor of firm performance. However, hypotheses two, three, and four were not supported. Hypothesis two states, "The environmental scanning of a firm is positively related to

the firm’s performance”; hypothesis three states, “The locus of planning in a firm is positively related to firm performance”; and hypothesis four states, “The planning flexibility of the firm is positively related to the firm’s performance.” All three t values were < 1.0. Therefore, environmental scanning, locus of planning, and planning flexibility are not predictors of firm performance, and these will be discussed in the following section. Finally, hypotheses 5a through 5d address environmental uncertainty as a moderator between each of the independent variables and firm performance. Only hypothesis 5d was supported. This hypothesis states, “Environmental uncertainty will moderate the relationship between entrepreneurial orientation and performance such that the relationship will be more positive in conditions of uncertainty than in benign environments.” The moderated regression results for this analysis have a significance of 0.090.

Table IX. Summary of Results

Hypothesis	Result
H1: EO and Firm performance	Supported*
H2: Scanning Intensity and Firm Performance	Not Supported
H3: Locus of Planning and Firm Performance	Not Supported
H4: Planning Flexibility and Firm Performance	Not Supported
H5a: Environmental Uncertainty (EO & FP)	Supported*
H5b: Environmental Uncertainty (SI & FP)	Not Supported
H5c: Environmental Uncertainty (LP & FP)	Not Supported
H5d: Environmental Uncertainty (PF & FP)	Not Supported

Step 3 overall:  $\Delta R^2 = .028$ ;  $F(12,141) = 1.714$ ;  $p = .070$

\*  $p < .05$

## 6.2 Theoretical Implications

As indicated earlier, this research demonstrates support for the first hypothesis, that an entrepreneurial orientation, a propensity of a firm to be innovative, proactive, and be willing to take risks (Lumpkin & Dess, 1996), has a positive relationship with the performance of the firm. Mizik and Jacobson (2003) suggest that an entrepreneurial orientation may be a prime requisite for a firm seeking to attain above average returns. A low level of entrepreneurial orientation may be part of the reason why a majority of business start-ups are dissolved within four years (Knaup, 2005; Timmons, 1999), a disconcerting fact since net new job creation is a result of small business activities (Timmons, 2007).

Scanning intensity (hypothesis two) does not have a positive relationship with a firm's performance. Although some researchers (Freel, 2005; Suh, Key, & Munchus, 2004) purport that environmental scanning is now one of the most important duties for managers because of today's high rate of environmental change, this may not be the case for small business managers. The sample population of small businesses may not have the luxury of specialized scanning staffs, and scanning is usually performed by one person (Smeltzer, et al., 1988; Morgan & Strong; 2003). Combined with the fact that less than 50% of small businesses actually do continuous scanning (Smeltzer, et al., 1988), information about the external environment may be missed, rejected, or ignored. This may be a reason as to why this hypothesis is not supported.

Hypothesis three is not supported, indicating that locus of planning does not have a positive relationship with firm performance. Antoncic and Hisrich (2004), as well as Barringer and Bluedorn (1999), suggest that a deep locus of planning would facilitate a high level of firm performance. Ireland, Kuratko, and Morris (2006) posit that a deep locus of planning is a result of the willingness of top-level managers to facilitate and promote entrepreneurial behavior. Given the sluggish economic climate in Northern Ohio combined with considerable retrenchment activities in terms of downsizing and restructuring, a deep locus of planning may not be a characteristic of this small business population. It also appears that risk-averse, conservative, and bureaucratic organizations would foster a shallow locus of planning (Harris & Ogbonna, 2006; Moen, 2000). These may be reasons as to why this hypothesis is not supported.

Hypothesis four is not supported, indicating the planning flexibility is not positively related to firm performance. The planning flexibility scale used for this segment of the investigation had an inter-item reliability of 0.60, indicating that some of the items may not be the best measure of this construct. Clarkin and Rosa (2005) maintain that the frequency of change in today's competitive environment requires firms to have strategic planning flexibility to support successful firm performance. However, the lack of support for this hypothesis suggests that the respondents in this small business survey do not perceive a need to change strategic plans quickly. In addition, the planning flexibility scale utilized was created by Barringer and Bluedorn (1999) and was operationalized using data involving only large manufacturing firms (mean number of employees for the responding firms was 4,720). Therefore, the

scale items chosen may have been misinterpreted or simply may not be meaningful to a more homogeneous convenience sample of small business managers and owners.

The effect of environmental uncertainty as a moderator variable between the four independent variables and firm performance is partially supported. Specifically, environmental uncertainty was significant in the relationship between entrepreneurial orientation and firm performance. Wicklund and Shepherd (2005) suggest that an entrepreneurial orientation has a larger effect on firm performance in hostile than in benign environments. Likewise, Miller and Friesen (1983) posit that a benign environment results in a less than positive relationship between entrepreneurial orientation and performance. Additionally, the research of Yeoh and Jeong (1995) concluded that environments characterized by high levels of uncertainty encouraged higher levels of innovation and risk-taking by the firm adopting entrepreneurial postures. The results of this research indicate that a higher level of entrepreneurial orientation with a high level of environmental uncertainty results in significantly higher firm performance.

### 6.3 Managerial and Practical Considerations

One important fact to consider based on this research is that a firm's entrepreneurial orientation is positively related to the firm's performance. This suggests that the firm and its managers may benefit from implementing strategy to encourage and increase the firm's level of entrepreneurial orientation, which has been shown to be the propensity of the firm to be innovative, proactive to marketplace



opportunities, and be willing to take risks. The importance of this for business is strengthened by the fact the source of net new job creation in this country is small business; however, 56% of entrepreneurial start-ups are dissolved within four years. Porter (1996) posits that an entrepreneurial orientation may be the mechanism for firm survival and success.

One practical consideration of these findings is that managers may want to actively ferret out ways to encourage and promote innovation within their organizations. Not only is innovation linked to successful firm performance (Gupta, MacMillan, & Surie, 2004), but innovation is a factor over which management has considerable control (Hult, Hurley, & Knight, 2004). Innovativeness can be engendered in any dimension of the firm, including developing new products or services, introducing new and more efficient processes and procedures, or simply creating new value for customers. Innovativeness appears to be a requisite for avoiding complacency and inertia.

Additional considerations for managers arise from the risk-taking and proactiveness dimensions of an entrepreneurial orientation. It was indicated that today's business environment is dynamic, fast-paced, complex, and characterized by shorter product life cycles, globalization, and continuous improvements in technology. Freel (2005) suggests that firms that do not take risks in dynamic environments will lose market share to more aggressive competitors. Proactiveness indicates that a firm is aggressive in anticipating and acting on the future wants and needs of its customers, and aggressively tries to create first-mover advantage. Because of their positive relationship with firm performance, managers may want to

seek out ways to encourage and promote risk-taking and proactive behavior by training employees in risk analysis and risk management, and encouraging proactiveness relative to customers and marketplace opportunities.

In today's dynamic and competitive business environment, firms must aggressively scan the environment to understand the events and trends taking place, and to reduce uncertainty in the environment and be able to react quickly to change. Suh, Key, and Munchus (2004) suggest that environmental scanning has become one of the most important duties for managers. Environmental scanning assists a firm in achieving above average returns through superior information gathering (Strandhold & Kumar, 2003), as well as helps a firm minimize uncertainty. Brorstrom (2002) indicates that firms that develop a competency to deal successfully with uncertainty outperform those unable to do so. This research was unable to replicate past support for the construct that scanning intensity has a positive relationship on firm performance. One possible explanation is that small businesses don't have the resources to perform continuous environmental scanning.

It has been reported that many firms have attributed improvements in performance to the implementation of participative management (Whetten & Cameron, 2002); and that a deep locus of planning may facilitate opportunity recognition together with the identification, acquisition, and deployment of firm resources to take advantage of opportunities (Lopez, 2005). Though prior investigations suggest participatory decision-making facilitates a firm's performance level (Anderson, 2004; Miller, 1987), this research did not support the concept that a firm's locus of planning is positively related to the firm's performance. One potential

explanation is that a significant percentage of this sample of small businesses may be conservative and risk-averse, characteristics which foster a shallow locus of planning.

For firm survival in today's dynamic and turbulent business environments, businesses must be flexible and be able to change and respond quickly to environmental opportunities and threats. Clarkin and Rosa (2005) suggest that planning flexibility is a requirement for today's business firms to support successful firm performance. This research was unable to replicate the results of either the reliability of the scale for planning flexibility developed by Barringer and Bluedorn (1999), or their conclusion that planning flexibility is positively related to firm performance. The differences in firm size and industry concentration may provide a possible explanation.

The last construct to consider is the effect environmental uncertainty had on the relationships between the independent variables and firm performance. The external environment creates enormous pressures for firms of all sizes. Today's external business environment has been characterized as increasingly dynamic, intense, complex, and unpredictable (Ward & Lewandowska, 2005; Wiklund & Shepherd, 2005). The rapid growth of technology and globalization has resulted in shortened product life cycles, has increased the intensity of competition in virtually every industry, and has increased environmental uncertainty and unpredictability. In this research, environmental uncertainty did not have an effect on the relationships between scanning intensity, locus of planning, or planning flexibility with firm performance, but environmental uncertainty did have an effect on the relationship between entrepreneurial orientation and firm performance. The results of this study

indicated that a higher level of entrepreneurial orientation in times of high environmental uncertainty resulted in significantly higher firm performance.

Since today's external business environment is increasingly dynamic and turbulent, and since a strong entrepreneurial orientation can enhance firm performance, the practical consideration of these findings is that managers may want to develop methods and programs to increase the level of entrepreneurial orientation in the firm. In other words, managers should work on ways to increase innovativeness, risk-taking, and proactiveness.

#### 6.4 Limitations of the Study

Included in the limitations are both the sample population and the individual participants. The sample population was drawn from a segment of small business organizations in Northeast Ohio. Care should be taken in generalizing the results of this study because the competitive situations and/or growth of small business activity here may be different in other parts of the country or state.

The study relies on perceptual data provided by one person from each organization, typically the owner, company president, or general manager of the small business. The simple majority of cases involved the business owner. Individual managers have their perceptual biases and cognitive limitations in viewing their organization and environment. The small business owner often views his business as an extension of his/her personality intricately bound with family needs, relationships, and desires (d'Amboise & Muldowney, 1988). Though objective data is generally

difficult to obtain from small businesses (Covin & Slevin, 1989), future research efforts may want to design or use objective data to encourage confidence in the reported analysis.

Another limitation deals with the predictor variables used in this research. Though the results indicated support for entrepreneurial orientation being positively related to a firm's performance, all three strategic planning variables (scanning intensity, locus of planning, and planning flexibility) were not supported in terms of their being positively related to firm performance. Past research, however, indicated that each of these independent variables was positively related to firm performance, but those results could not be replicated. In particular, prior research indicated that the construct of planning flexibility was measured using a nine-item scale developed by Barringer and Bluedorn (1999) that had a coefficient alpha of 0.80, which is well above the threshold for acceptable reliability for experimental research. The results in this research indicated this scale had an inter-item reliability of only 0.60, which is below the threshold for acceptable reliability for experimental research, but is within the satisfactory range for exploratory research (Nunnally, 1967). Perhaps more reliable subjective measures of planning flexibility are available.

An additional limitation may be in the measurement of the dependent variable, firm performance. The measures used pertained to the satisfaction with the firm performance areas of sales growth rate, market share, operating profits, profit to sales ratio, market development, and new product development. There may be other measures or dimensions that are better indicators of firm performance.

## 6.5 Implications for Future Research

A number of research opportunities can be identified from this study of strategic planning practices and entrepreneurial orientation and their relationship to firm performance. First, the research supports the hypothesis that an entrepreneurial orientation has a positive relationship with a firm's performance. The subjects in this research were small business managers from both the manufacturing and service industries with the common links of location and similar continuing education experience. Future research could explore single industries and/or small, medium, and large-scale businesses to determine outcome similarities or differences. Since the sample population in this study was restricted to northeastern Ohio, different geographic areas could be explored, again to assess outcome similarities or differences.

Second, regarding the construct of entrepreneurial orientation, since it appears to be beneficial to support and promote a high level of entrepreneurial orientation because of its positive relationship to firm performance, future research could explore the antecedents of entrepreneurial orientation. Insight may be gained to determine potential programs and methods to encourage higher levels of entrepreneurial orientation.

Additionally, the literature supports entrepreneurial orientation as a unidimensional construct with sub-divisions of innovativeness, risk-taking, and proactiveness. However, several researchers suggest that there may be other

important sub-dimensions of the entrepreneurial orientation construct—competitive aggressiveness and autonomy (Lumpkin & Dess, 1996); organizational processes (Hart, 1992); and rationality and comprehensiveness (Frederickson, 1986). Further research may develop richness of the entrepreneurial construct.

Future research should include a longitudinal study. This research investigates the relationships of entrepreneurial orientation and strategic planning practices with firm performance at a particular point in time. Therefore, the richness of the study is restricted by the “snapshot” taken in this study. For example, if programs were implemented in a firm to increase the level of entrepreneurial orientation, a longitudinal study, perhaps taken in five-year increments, would indicate whether or not corresponding improvements in firm performance were the result.

The study relies on perceptual data provided by a single person from a small business. Future research efforts may want to design or use objective measures to compare with the perceptual data gathered in order to encourage confidence in the reported analysis.

The literature and prior research suggested that the planning processes of scanning intensity, locus of planning, and planning flexibility would be positively related to the firm’s performance. However, the results of this research did not support a positive relationship. Future research could further explore these planning processes to determine the extent of their potential relationships with firm performance. Different measurement instruments could be investigated at the same time.

## 6.6 Conclusions

This study sheds some light on our understanding and evaluation of entrepreneurial orientation and strategic planning practices, and their relationship with a firm's performance. As a result, there are several conclusions emanating from this research.

The first is the fact that small businesses are facing increasing competitive challenges in an external environment which is dynamic and turbulent, challenges resulting from rapid change, increased global and domestic competition, fast-paced and rapidly changing technology, and shortened product and industry life cycles. The facts that the majority of entrepreneurial start-ups fail in four years or less, and that net new job creation in this country results from entrepreneurial activities accentuate the problem.

It appears that an entrepreneurial orientation—the propensity for a firm to be innovative, risk-taking, and proactive—has a positive impact on the performance of a firm. Business managers must seriously consider implementing policies and procedures to encourage and promote an entrepreneurial orientation. Porter (1996) suggests that innovation, risk-taking, and proactiveness may be the very mechanisms to ensure firm survival, as well as improvements in performance.

It can also be concluded that a high level of entrepreneurial orientation, in an external environment of high uncertainty, may contribute to higher levels of firm



performance. This is particularly important since it appears that factors in the external environment will only become more dynamic and turbulent as the intensity of domestic and global competition increases and as technology continues to accelerate.

In closing, this study highlights the conclusion that significant external factors affect the performance, survival, and growth of every firm. This study suggests that businesses do not have the luxury of time and cannot afford to assume a “hold and maintain” or a “wait and see” attitude. As organizations change and adapt, an entrepreneurial orientation may be an integral component for a firm’s successful development and an essential ingredient to attain a competitive advantage.

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## **APPENDICES**



## **APPENDIX A**

### Descriptive Statistics

## Descriptive Statistics

### Demographics

1) Industry: (1= service; 2= manufacturing)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	105	65.6	65.6	65.6
	2.00	55	34.4	34.4	100.0
	Total	160	100.0	100.0	

2) Age of Firm: (1= 1-5; 2= 6-10; 3= 11-15; 4= 16-20; 5= 20+)

#### FIRMAGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	3.8	3.8	3.8
	2.00	11	6.9	6.9	10.6
	3.00	14	8.8	8.8	19.4
	4.00	16	10.0	10.0	29.4
	5.00	113	70.6	70.6	100.0
	Total	160	100.0	100.0	

3) Employees: (1= 1-10; 2= 11-20; 3= 21-50; 4= 51-80; 5= 80+)

#### EMPNUMBR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	34	21.3	21.3	21.3
	2.00	27	16.9	16.9	38.1
	3.00	45	28.1	28.1	66.3
	4.00	20	12.5	12.5	78.8
	5.00	34	21.3	21.3	100.0
	Total	160	100.0	100.0	

4) Net sales: (1= >500k; 2= 500k-2mil; 3= 2mil-5mil; 4= 5mil-10mil; 5= <10mil)

FIRMSALE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	11	6.9	6.9	6.9
	2.00	30	18.8	18.8	25.6
	3.00	43	26.9	26.9	52.5
	4.00	31	19.4	19.4	71.9
	5.00	45	28.1	28.1	100.0
	Total	160	100.0	100.0	

5) Industry: (1= growing; 2= stable; 3= declining)

INDSTATU

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	60	37.5	37.5	37.5
	2.00	65	40.6	40.6	78.1
	3.00	35	21.9	21.9	100.0
	Total	160	100.0	100.0	

6) Firm: (1= growing; 2= stable; 3= declining)

FIRMSTAT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	91	56.9	56.9	56.9
	2.00	56	35.0	35.0	91.9
	3.00	13	8.1	8.1	100.0
	Total	160	100.0	100.0	

Respondent Demographics

1) years with firm: (1= >1; 2= 2-4; 3= 5-7; 4= 8-10; 5= <10)

EMPYEARS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	4	2.5	2.5	2.5
	2.00	10	6.3	6.3	8.8
	3.00	6	3.8	3.8	12.5
	4.00	17	10.6	10.6	23.1
	5.00	123	76.9	76.9	100.0
	Total	160	100.0	100.0	

2) Hired within? (1= yes; 2=no)

HIREDINS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	67	41.9	41.9	41.9
	2.00	93	58.1	58.1	100.0
	Total	160	100.0	100.0	

3) Gender: (1= male; 2= female)

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	144	90.0	90.0	90.0
	2.00	16	10.0	10.0	100.0
	Total	160	100.0	100.0	

4) Education: (1= high school; 2= some college; 3= bachelor's; 4= master's; 5= doctor)

MGREDU

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	3.2	3.2	3.2
	2.00	30	19.0	19.0	22.2
	3.00	84	53.2	53.2	75.3
	4.00	36	22.8	22.8	98.1
	5.00	3	1.9	1.9	100.0
	Total	158	100.0	100.0	

Firm Performance

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PERFRM_S	156	1.00	4.83	3.0310	.6706

Alpha reliability for Firm Performance: .758

Scanning Intensity:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SCANNIN G	160	1.00	6.40	3.8450	1.2274
Valid N (listwise)	160				

Alpha Reliability for scanning: .767

Planning flexibility:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PFLEX	160	2.78	6.33	4.5014	.6613
Valid N (listwise)	160				

Alpha for planning flexibility: .597

Entrepreneurial Orientation (EO)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ENT_ORI	159	1.44	6.22	4.0356	.9475
Valid N (listwise)	159				

Alpha for Entrepreneurial Orientation: .795

Locus of Planning

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
DECMAKE	154	1.00	7.00	3.8130	1.3325
Valid N (listwise)	154				

Alpha for Locus of Planning: .769

Environmental Uncertainty

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ENVUNC	160	1.67	7.00	4.5354	1.3276
Valid N (listwise)	160				

Alpha: .827

## **APPENDIX B**

### Research Variables

## RESEARCH VARIABLES

<u>VARIABLE</u>	<u>N</u>	<u>MEAN</u>	<u>S.D.</u>	<u>Cronbach</u>
	<u>Alpha</u>			<u>Coefficient</u>
Entrepreneurial Orientation	159	4.0356	.9475	.795
Firm Performance (Satisfaction)	156	3.4466	.4349	.758
Scanning Intensity	160	3.8450	1.2274	.767
Planning Flexibility	160	4.5014	.6613	.597
Locus of Planning	154	3.8130	1.3325	.769
Environmental Uncertainty	160	4.0356	.9475	.827



## **APPENDIX C**

### **Survey Scales Utilized**

## APPENDIX: MEASUREMENT SCALES USED IN THE SELF-REPORT MAIL SURVEY

### The Entrepreneurial Orientation Scale

The following statements are meant to identify the *collective management style* of your firm's key decision makers. Please indicate which response *most clearly matches* the management style of your business key managers by circling the closest number that best represents your views. *Selecting a 1 indicates a complete agreement with the statement on the left side of the scale, selecting a seven indicates complete agreement with the right side of the scale, and selecting a 4 indicates neutrality.*

1. In general, the top managers of my firm favor...

- |   |               |   |
|---|---------------|---|
| a. A strong emphasis on the marketing of tried and true products and services   | 1 2 3 4 5 6 7 | A strong emphasis on R&D, technological leadership, and innovation  |
| b. Low-risk projects with normal and certain rates of return  | 1 2 3 4 5 6 7 | High-risk projects with chances of very high returns  |
| c. A cautious, 'wait and see' posture in order to minimize the probability of making costly decisions when faced with uncertainty | 1 2 3 4 5 6 7 | A bold, aggressive posture in order to maximize the probability of exploiting potential when faced with uncertainty |

2. How many new lines of products or services has your firm marketed in the past 5 years?

- |   |               |  |
|---|---------------|--|
| a. No new lines of products or services                                   | 1 2 3 4 5 6 7 | Many new lines of products or services                               |
| b. Changes in product or service lines have been mostly of a minor nature | 1 2 3 4 5 6 7 | Changes in product or service lines have usually been quite dramatic |

3. In dealing with its competitors, my firm...

- |   |               |   |
|---|---------------|---|
| a. Typically responds to actions which competitors initiate                                       | 1 2 3 4 5 6 7 | Typically initiates actions to which competitors then respond                                 |
| b. Is very seldom the first firm to introduce new products/services, operating technologies, etc. | 1 2 3 4 5 6 7 | Is very often the first firm to introduce new products/services, operating technologies, etc. |
| c. Typically seeks to avoid competitive clashes, preferring a 'live-and-let-live' posture         | 1 2 3 4 5 6 7 | Typically adopts a very competitive, 'undo-the-competitor' posture                            |

4. In general, the top managers of my firm believe that...

- |  |               |  |
|--|---------------|--|
| a. Owing to the nature of the environment, it is best to explore gradually via cautious behavior | 1 2 3 4 5 6 7 | Owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives |
|--|---------------|--|

Source: Covin and Slevin (1989).

## The Scanning Intensity Scale

### Effort Dedicated Toward Scanning

The following statements are meant to identify the *scanning devices* used by your firm's key decision makers. Please indicate which response *most clearly matches* the frequency of scanning device by circling the closest number that best represents your observation. *Selecting a 1 indicates no usage, selecting a seven indicates a very high degree of usage, and selecting a 4 indicates neutrality.*

1. Rate the extent to which the following scanning devices are used by your firm to gather information about its business environment.

		Not ever used				Used frequently		
a.	Routine gathering of opinions	1	2	3	4	5	6	7
b.	Explicit tracking of the politics and tactics of competitors	1	2	3	4	5	6	7
c.	Forecasting sales, customer preferences, technology, etc.	1	2	3	4	5	6	7
d.	Special marketing research studies	1	2	3	4	5	6	7
e.	Gathering of information from suppliers and other channel members	1	2	3	4	5	6	7

Source: Miller and Friesen (1982).

### Scanning Frequency

The following statements are meant to identify the *frequency of factors collected and used* by your firm's key decision makers. Please indicate which response *most clearly matches* the frequency of scanning device by circling the closest number that best represents your observation. *Selecting a 1 indicates no collection of information, selecting a seven indicates a very high degree and frequency of information gathering, and selecting a 4 indicates neutrality.*

2. How often do you collect information to remain abreast of changes in each of the following areas?

		Never					Frequently	
a.	Demographics (life styles, social values of society)	1	2	3	4	5	6	7
b.	Economic factors (interest rate, GDP, etc.)	1	2	3	4	5	6	7
c.	Political factors (new laws, regulations, and policies)	1	2	3	4	5	6	7
d.	Technological factors (new products, processes, materials)	1	2	3	4	5	6	7
e.	Competitor strategies (pricing, distribution)	1	2	3	4	5	6	7

Source: Hambrick (1982).

## The Planning Flexibility Scale

Please indicate how difficult it is for your firm to change its strategic plan to adjust to each of the following contingencies/possibilities. *Selecting a 1 indicates a high degree of difficulty, selecting a 7 indicates no degree of difficulty, and selecting a 4 indicates neutrality.*

	Very difficult				Not at all difficult		
	1	2	3	4	5	6	7
a. The emergence of a new technology	1	2	3	4	5	6	7
b. Shifts in economic conditions	1	2	3	4	5	6	7
c. The market entry of new competition	1	2	3	4	5	6	7
d. Changes in government regulations	1	2	3	4	5	6	7
e. Shifts in customer needs and preferences	1	2	3	4	5	6	7
f. Modifications in supplier strategies	1	2	3	4	5	6	7
g. The emergence of an unexpected opportunity	1	2	3	4	5	6	7
h. The emergence of an unexpected threat	1	2	3	4	5	6	7
i. Political developments that affect your industry	1	2	3	4	5	6	7

Source: Barringer and Bluedorn (1999).

## The Locus of Planning Scale

### **Distributed Decision Authority**

Please indicate how true or false the statements below are when identifying the distributed decision authority among managers reporting to top executives for your firm. *Selecting a 1 indicates the statement is definitely false, selecting a 7 indicates the statement is definitely true, and selecting a 4 indicates neutrality.*

Managers reporting to the top executive:

	Definitely False				Definitely True		
a. can start major market activities without approval	1	2	3	4	5	6	7
b. can market to new customer segments without approval	1	2	3	4	5	6	7
c. need no approval to initiate new product developments	1	2	3	4	5	6	7
d. can introduce new practices without approval	1	2	3	4	5	6	7
e. need no approval to develop new internal capabilities	1	2	3	4	5	6	7

Source: Miller (1987).

### **Participation in Decisions**

Please indicate how often managers in your company participate in decision-making. *Selecting a 1 indicates that managers never participate in the decision for the statement, selecting a 7 indicates that managers always participate in the decision for the statement, and selecting a 4 indicates neutrality.*

The managers participate in decisions:

	Never				Always		
a. to change the firm's market position	1	2	3	4	5	6	7
b. about moves into new customer segments	1	2	3	4	5	6	7
c. about major product/service introduction	1	2	3	4	5	6	7
d. about development of important capabilities	1	2	3	4	5	6	7
e. to adapt new policies and practices	1	2	3	4	5	6	7

Source: Miller (1987).

### **Strategic Planning Processes**

Please indicate to what degree of emphasis your organization puts on strategic planning processes. *Selecting a 1 indicates that your organization puts no emphasis on the strategic planning process, selecting a 7 indicates that your organization puts a strong emphasis on the strategic planning process, and selecting a 4 indicates neutrality.*

What emphasis does your organization put on:

	No Emphasis				Strong Emphasis		
a. development of mission statement	1	2	3	4	5	6	7
b. long-term plans	1	2	3	4	5	6	7
c. annual goals	1	2	3	4	5	6	7
f. short-term action plans	1	2	3	4	5	6	7
g. evaluation of strategic objectives	1	2	3	4	5	6	7

Source: Boyd and Reuning-Elliott (1988).

## The External Environment Scale

The following statements pertain to the external environment affecting your firm. Please review each of the following statements and circle the item that approximates your response. *Selecting a 1 indicates that you strongly disagree with the statement, selecting a seven indicates that you strongly agree with the statement, and selecting a 4 indicates neutrality.*

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
1.) The external environment our firm operates in has a high level of risk and uncertainty.	1	2	3	4	5	6	7
2.) The external environment poses serious threats to our firm's survival and well-being.	1	2	3	4	5	6	7
3.) Our firm must deal with a wide range of external environment influences (e.g., competitive, political, social/cultural, or technological forces).	1	2	3	4	5	6	7
4.) Declining markets for products are a major challenge in our industry.	1	2	3	4	5	6	7
5.) Tough price competition is a major challenge in our industry.	1	2	3	4	5	6	7
6.) Government interference is a major challenge in our industry.	1	2	3	4	5	6	7
7.) Our business environment causes a great deal of threat to the survival of our firm.	1	2	3	4	5	6	7
8.) The rate of product and service obsolescence in our industry is high.	1	2	3	4	5	6	7
9.) In our firm, the modes of production and service change often and in many ways.	1	2	3	4	5	6	7
10.) Our firm must change its marketing practices frequently.	1	2	3	4	5	6	7
11.) In our industry, actions of competitors are unpredictable.	1	2	3	4	5	6	7
12.) In our industry, demand and customer tastes are unpredictable.	1	2	3	4	5	6	7

## Performance Scale

### Importance

The following pertain to the important performance areas of your firm. Please review each of the following and select a number between 1 and 5 that best represents your views. Selecting a 1 indicates the performance area is of no importance, selecting a 5 indicates the performance area is extremely important, and a selection of 3 indicates neutrality.

Identify your rating of importance with:

Importance	Of Little Importance				Extremely Important
Sales Growth Rate	1	2	3	4	5
Market Share	1	2	3	4	5
Operating Profits	1	2	3	4	5
Profit to Sales Ratio	1	2	3	4	5
Market Development	1	2	3	4	5
New Product Development	1	2	3	4	5

Source: Gupta and Govindarajan (1984).

### Satisfaction

The following pertain to the satisfaction with performance areas of your firm. Please review each of the following and select a number between 1 and 5 that best represents your views. Selecting a 1 indicates that you are highly dissatisfied with the performance of your firm, selecting a 5 indicates that you are highly satisfied with the performance of your firm, and a selection of 3 indicates neutrality.

Identify your rating of satisfaction with:

Importance	Highly Dissatisfied				Extremely Satisfied
Sales Growth Rate	1	2	3	4	5
Market Share	1	2	3	4	5
Operating Profits	1	2	3	4	5
Profit to Sales Ratio	1	2	3	4	5
Market Development	1	2	3	4	5
New Product Development	1	2	3	4	5

Source: Gupta and Govindarajan (1984).

## Demographics

Finally, we would like to ask a few questions about your firm.

Background information: Please circle your response or fill-in the appropriate answer blanks.

- 1.) Generally classify your industry:
  - a.) Service
  - b.) Manufacturing
  - c.) Distribution
  - d.) Construction
  - e.) Wholesale trade
  - f.) Retail trade
  - g.) Mining
  - h.) Agriculture
  - i.) Other \_\_\_\_\_
- 2.) What is your firm's specific industry? \_\_\_\_\_
- 3.) How many years has your firm been in business? \_\_\_\_\_
- 4.) How many employees does your firm have?
  - a.) 1-10
  - b.) 11-20
  - c.) 21-50
  - d.) 51-80
  - e.) 80+
- 5.) What are your net sales?
  - a.) Below \$500,000
  - b.) \$500,000 - \$1,999,999
  - c.) \$2,000,000 - \$4,999,999
  - d.) \$5,000,000 - \$9,999,999
  - e.) \$10,000,000 +
- 6.) Which best describes your industry in the last three years?
  - a.) Growing
  - b.) Stable
  - c.) Declining
- 7.) Which best describes your firm within the last three years?
  - a.) Growing
  - b.) Stable
  - c.) Declining

### For Respondent Only:

- 1.) Number of years with firm?  <1 year  2-4 years  5-7 years  8-10 years  >10 years
- 2.) Hired from within firm?  yes  no
- 3.) Gender  male  female
- 4.) Minority  yes  no
- 5.) Formal education level  High School  Some College  Bachelor's Degree  Master's Degree  Doctoral Degree



**APPENDIX D**

Institutional Review Board Form



# Cleveland State University

## Institutional Review Board for Human Subjects in Research Application for Project Review

### I. Title Page

Date: (mm/dd/yy): 03/14/07

Transaction Number (office use only): \_\_\_\_\_

Project Title An Empirical Investigation Of Firm Performanc As A Function Of Entrepreneurial Orientation And Srategic Man

#### PRINCIPAL INVESTIGATOR OR ADVISOR

Name: (Last, First): Scherer, Robert

Degree Attained: PhD, ThD, PhL, PhB

Department: BUSINESS ADMINISTRATION Title: Dean/Assoc. Dean

Electronic Mail Address: r.scherer@csuohio.edu

Campus Address: Monte Ahuja Hall Rm 411 1860 East 18<sup>th</sup> Street Cleveland, Ohio

Office Phone: 216-687-3786

Home Phone: \_\_\_\_\_

Has the investigator completed the CITI course in the protection of human subjects?  Yes  No

#### CO-PRINCIPAL OR STUDENT INVESTIGATOR

Name: (Last, First): Kroeger, James

Degree Attained: MA, MS, MBA, MSW

Department: Business Administration Title: Instructor

Electronic Mail Address: jamkroeger@adelphia.net

Office Phone: 440-227-9776

Home Phone: 440-347-0785

Has the investigator completed the CITI course in the protection of human subjects?  Yes  No

If this is a student investigator, please indicate status:

Undergraduate

Master level student

Doctoral level student

and level of involvement in the research:

Assisting Faculty Research

Thesis

Dissertation

Classroom project: Class name/number \_\_\_\_\_

If there are more CSU investigators, please complete the "Additional CSU Investigators" form

#### PROPOSED PROJECT DURATION (research may not begin prior to IRB approval):

From (mm/dd/yy): 04/01/07 To (mm/dd/yy): 07/01/07 (date following anticipated approval; maximum one year later)

*If expected duration of project exceeds 12 months, continuation of IRB approval will require additional action by the IRB. Renewal requests will be sent to you prior to the expiration date.*

Type of funding or support: None

#### FOR IRB USE ONLY

<u>Initial Evaluation</u>	<u>Final IRB Action</u>
<input type="checkbox"/> Approve as is	<input type="checkbox"/> Exempt Status: Project is exempt under 45 CFR 46.101 _____
<input type="checkbox"/> Requires Revision before evaluation or final action	<input type="checkbox"/> Expedited Review: Approval Category _____
<input type="checkbox"/> Full IRB review required	<input type="checkbox"/> Regular IRB approval
	<input type="checkbox"/> Other: _____
Reviewer: _____	Signature: _____
	Approval Date: _____

Institutional Review Board  
Human Subjects in Research  
Instructions and Checklist for Applicants

The Institutional Review Board (IRB) of Cleveland State University (CSU) is responsible for ensuring the protection and ethical treatment of human participants in research conducted under the auspices of the University. Accordingly, the IRB must evaluate all such research projects, in compliance with Federal Regulations. Your application to the IRB for permission to test human subjects should follow the guidelines provided below. *Proposed Departures from the guidelines should be justified thoroughly.*

Some protocols may be approved through one of the expedited or exempt categories in the Federal Regulations, and some require full Committee consideration. These determinations are made by the IRB, **not** by the researcher. If your protocol requires full Committee consideration, the University Office of Sponsored Programs and Research must receive it no later than one (1) full week prior to the IRB meeting; this will normally be during the first week of the month. Protocols should be submitted to the IRB, Office of Sponsored Programs and Research, 1621 Euclid Avenue Keith Building Suite 1150 Cleveland, OH 44115-2440 ATTN: IRB Coordinator.

**Issues of Particular Concern to the IRB**

- **Privacy** In most research, subjects' willingness to participate will depend on the researcher's explanation of the project and its purpose, the subject's understanding of risks and benefits, and the assurance that the specifics of their participation will not become known to other individuals. A mismatch between your assurance to the subjects and the procedures you explain in your Project Description will lead the IRB to request revisions before approval can be granted. Issues of anonymity and confidentiality are of special concern when subjects might divulge sensitive information, including situations in which their responses might place them in jeopardy (e.g., public embarrassment, threats to job security, self-incrimination). The care with which you address these issues in your procedures is very important to the IRB approval process
- **Risk** In much research, subjects' participation involves little or no risk. If this is genuinely the case, say so; e.g., "minimal risk," "no foreseeable risk," "no risks beyond those of daily living." If there is some risk, where physical, psychological, social, legal, or otherwise, the IRB will be particularly interested in the safeguards you implement to deal with these risks. The overall importance and soundness of the research project will be especially important if subjects are placed at some degree of risk by participating.
- **Special Populations** Testing minors, pregnant women, prisoners, mentally retarded or disabled persons, or other special populations raises serious issues regarding risk and informed consent, which your protocol must address. On the other hand, recent federal guidelines mandate the inclusion of women and minorities in research. The nature of your subject population must be clear in your proposal, and you must provide your rationale for including/excluding identifiable subgroups based on gender and minority status.
- **IRB Procedures** CSU's IRB receives approximately 300 applications a year, each of which must be evaluated for adequate protection of the subjects against research risks. You will enhance the acceptability of your proposal, and the speed with which the IRB can evaluate it, if your protocol is concise, deals specifically with the issues discussed in these instructions, and shows your sensitivity to the overriding concerns of ethical treatment of human subjects. Please feel free to suggest any modifications or elaboration to these instructions that would be helpful to you as you write or revise your applications.

## II. Participant Information

Total number of subjects: **300**

Age range (lower limit – upper limit): \_\_\_\_\_ Gender: Select one Ethnic Minority: Select one

Inclusionary criteria: \_\_\_\_\_

Exclusionary criteria: \_\_\_\_\_

Source of participants: \_\_\_\_\_

Length of participation (x min/session, y sessions, over z months): \_\_\_\_\_

**Participants in Special Consideration Categories:** (Check all that apply.)

None

Military personnel

Children (age range: \_\_\_\_\_)

Wards of the State

Cognitively impaired persons

Institutionalized individuals

Prisoners

Non-English speaking individuals

Pregnant or lactating women

Students

Blind individuals

Other subjects whose life circumstances may interfere with their ability to make free choice in consenting to take part in research (please specify): \_\_\_\_\_

Site(s) of data collection: Small business in Greater Cleveland

Letters of approval from project site officials are not needed (research on-campus).

\*You **MUST** include letters of approval from appropriate administrative officials at the facility where you will be collecting data

## III. Project Description

- a. Give a concise statement of the area of research and briefly describe the purpose and objectives of your proposed research:

**The purpose of this research is to extend the entrepreneurial orientation literature (EO) in small business settings. The premise of this research is to empirically test factors that may affect a firm's EO and performance. This research will identify the strategy planning processes of scanning intensity, locus of planning, and planning flexibility, and their relationship with a firm's entrepreneurial orientation and entrepreneurial intensity. Also, the external environment will be assessed as to its role in the relationship between a firm's entrepreneurial orientation and performance.**

**While past research has focused on the individual entrepreneur or entrepreneurial behavior, this research will focus on the firm-level phenomena of EO and the strategy planning processes firms engage in to improve performance.**

- b. Provide a detailed description of how participants will be recruited and used in the project. Please include a description of the tasks subjects will be performing, the circumstances of testing, and/or the nature of the subjects' involvement.

**The subjects used in this study are a convenience sample of small businesses who are members of the Greater Cleveland Growth Association's Council of Smaller Enterprises (COSE). The small business owners and managers in this population share the common experience of being COSE members, and of participating and completing a sponsored strategic planning course. Since only small businesses from northeastern Ohio are included in this study, they provide a sample population that is somewhat homogeneous with regard to the external business environment, including competitive forces, markets, customers, and demand conditions. The subjects will be asked to complete an anonymous survey of empirically validated instruments, in addition to the demographic information concerning the firm. Each survey will have a coded ID number that only the co-principal/student investigator will know. This will be used to pair the completed surveys with those mailed.**

- c. Make an explicit statement concerning the possible risks and benefits associated with participating in the research. Describe the nature and likelihood of possible risks (e.g.,

physical, psychological, social) as a result of participation in the research. Risks include even mild discomforts or inconveniences, as well as potential for disclosure of sensitive information. If a risk exists, how does it compare to those of daily living?  
 What are your safeguards for avoiding risks, for protecting subjects' privacy, etc.?

**There are no risks afforded the participants. Since it is anonymous, there is no potential for the disclosure of sensitive information. The benefits to be realized involve the publication of studies that can assist in the performance enhancement of entrepreneurial businesses.**

d. Describe measures to be taken to protect subjects from possible risks or discomforts.

**Each survey will have a code that will be used ONLY to compare with mailings. No other identifiers will be captured in the data base.**

e. Describe precautions to ensure the privacy of subjects and confidentiality of information. Be explicit if data are sensitive. Describe coding procedures for subject identification. Include the method, location and duration of data retention. (Federal regulations require data to be maintained for at least 3 years)

**Only the co-principal/student investigator will have the coding for institutions. Data base entry will be completed by the co-principal/student investigator.**

#### IV. Informed Consent Form

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

##### Does the Informed Consent Statement

1. Introduce you and your research (including names and phone numbers).
2. Provide the subject with a brief, understandable explanation of the research.
3. Explain the risks and benefits.
4. Explain the details of the time commitment for participation.
5. Explain how your protocol either protects confidentiality or is anonymous.\*
6. Mention that participation is voluntary, and that the subject may withdraw at any time without penalty.
7. Include the exact statement about contacting the IRB.\*\*
  8. Provide a phone number where the subject may contact you for further information (students should include a phone number for themselves and also for their supervising faculty member).
9. Have a signature/date block for the subject to complete.\*\*\*

\* Confidentiality and anonymity are not the same. Confidentiality means that the researcher will know the identity of specific subjects and their data. Anonymity means individuals' responses cannot be associated with the data they generate.

\*\* "I understand that if I have any questions about my rights as a research subject I can contact the CSU Institutional Review Board at (216)687-3630," or if a minor, "I understand that if I have any questions about my child's rights as a research subject I can contact the CSU Institutional Review Board at (216)687-3630."

\*\*\* *If you wish to dispense with a signed consent form, for either procedural or substantive reasons, be sure to include a clear statement of your reasons and your alternate procedure for obtaining consent.*

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## V. Copies of Instruments and Questionnaires

**To complete this application,** attach a copy of all questionnaires or other instruments. This application **MUST** include copies of instrumentation before approval can be granted.

## VI. CERTIFICATION/SIGNATURE

I certify that the information contained in this protocol application and all attachments is true and correct. I certify that I have received approval to conduct this research from all persons named as collaborators and from officials of the project site(s). If this protocol is approved by the Cleveland State Institutional Review Board, I agree to conduct the research according to the approved protocol. I agree not to implement any changes in the protocol until such changes have been approved by The Cleveland State Institutional Review Board. If, during the course of the research, unanticipated risks or harm to subjects are discovered, I will cease collecting data and report them to IRB immediately.

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Principal Investigator/Faculty Advisor Signature      Date

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Co-Principal or Student Investigator Signature      Date

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Co-Principal or Student Investigator Signature      Date

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Co-Principal or Student Investigator Signature      Date

**Forward this completed form to:**  
Cleveland State University  
Office of Sponsored Programs and Research (IRB)  
1621 Euclid Avenue  
Keith Building Suite 1150  
Cleveland, OH 44115-2440