

**An Empirical Investigation of Entrepreneurial Marketing
and the Role of Entrepreneurial Orientation**

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Business Administration
in the Graduate College of the
University of Illinois at Chicago, 2011

Chicago, Illinois

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This dissertation is dedicated to my beloved daughters, Gracie and Lisa.

ACKNOWLEDGEMENTS

This study could not have been completed without guidance from my committee members: Professor Gerald E. Hills, Professor Joseph Cherian, Professor Claes M. Hultman, Professor Stanley L. Sclove, and Professor Patrick J. Murphy. I thank Professor Hills for introducing me to entrepreneurial marketing and encouraging me to work on this topic. I must thank Professor Cherian for his advice and suggestions regarding entrepreneurial orientation during the model construction process, and Professor Sclove for his valuable statistical inputs into my models and my analysis, and for his significant involvement in this dissertation. I thank Professor Hultman for agreeing to serve on this committee and for his thoughtful comments regarding the entrepreneurial marketing concept. I also thank Professor Murphy for his constructive comments and suggestions.

My family has contributed tremendously to my Ph.D. journey and has been a source of strength and energy throughout the years. I am truly grateful to my mother, Kesorn Ratchawong, for her love and support, for her patience in caring for Gracie and Lisa, and for giving up so much for me. Without her help it would not have been possible for me to pursue this degree and start a family simultaneously. To my beautiful daughters for giving me the motivation to complete this Ph.D. journey so we can start a new journey together. I hope that when you grow up, both of you will be proud of what we have accomplished as a family. To my husband, Tee, who tirelessly read and edited countless drafts, for his love, understanding, and support throughout the years; I am so lucky to have him. To Pom, my older brother, for being a patient listener and for helping with any computer problems I encountered. And to my father, Wichai Ratchawong, for his love and support, and for encouraging me to pursue a Ph.D., even though this took away time that I could have spent at home.

ACKNOWLEDGEMENTS (continued)

I deeply appreciate my friends who have helped me in so many ways during this journey: Oui Hongsresawat for inviting me to use a study room at Engelhart Hall, Northwestern University and for helping me to obtain research materials that were not available at UIC library; Toy Hongsresawat for baby-sitting and taking good care of Gracie when I had to finish my draft; Thanh Huyen Vu for her support and for being there for me when I needed; and Ay Prachumwat for checking in on me and inviting me for good meals during the second year of my study. I must also thank my friends in Thailand, Paew, Oum, Imm, Boom, Kung, and Nim, for cheering me up during my stressful times.

PK

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LIST OF ABBREVIATIONS

EM	Entrepreneurial Marketing
EO	Entrepreneurial Orientation
PASW	Predictive Analytics Software
AMOS	Analysis of Moment Structures
SEM	Structural Equation Modeling
MANOVA	Multivariate Analysis of Variance
ANOVA	Analysis of Variance
CFA	Confirmatory Factor Analysis
PCA	Principal Component Analysis
CFI	Comparative Fit Index
SRMR	Standard Root Mean Square Residual
TLI	Tucker-Lewis Index
NFI	Normed Fit Index
NNFI	Non-Normed Fit Index
RMSEA	Root Mean Square of Approximation
BIC	Bayesian Information Criterion
CR	Critical Ratio
CMIN	Minimum Discrepancy (Chi-square statistics)
DF	Degree of Freedom

SUMMARY

This study quantitatively examines entrepreneurial marketing (EM) construct using an archival data called National Small Business Poll 2006. The study addresses several important issues in the field of entrepreneurial marketing including the dimensions of EM behaviors, their systematic relationships with firms' characteristics, and their antecedent. These issues are investigated through three essays.

The first essay provides a classification of EM behaviors as a foundation upon which researchers can build and test for a broader theory. It proposes six factors underlying EM behaviors including growth orientation, opportunity orientation, market immersion, two-way contacts with the customers, value creation through relationships and alliances, and informal marketing research. The essay quantitatively examines these factors on the dataset using a confirmatory factor analysis. Results from the analysis confirm the existence of six factors underlying EM behaviors.

The second essay examines systematic relationships between firms' characteristics and firms' EM practice using multigroup confirmatory factor analysis. Level of firms' EM practice is hypothesized to be influenced by firm age, firm size, and the firms' founder. Results from the analyses show that the level of EM practice has a systematic relationship with firm age, but not with firm's founder. The impact of firm size on EM practice is evident when firm age is taken into account. This essay suggests that relationships between firm's characteristics and EM practice are more complicated than we anticipate, and that firms' EM practice cannot be solely determined by firm's characteristics.

SUMMARY (continued)

The third essay analyzes a relationship between firms' EM practice and level of firms' entrepreneurial orientation (EO). It proposes that EO is an antecedent of EM and that EO should be treated as a multidimensional construct when researchers measure its impact on firms' EM practice. This essay investigates the relationship between EM and EO using multigroup confirmatory factor analysis and structural equation modeling. Results show that a higher level of EO leads to a higher level of EM. A model with multidimensional EO is found to fit with the data better than a model with unidimensional EO. All dimensions of EO are shown to independently affect different EM dimensions in different magnitudes. Compared to proactiveness and risk-taking, innovativeness has the strongest impact on EM.

CHAPTER 1

INTRODUCTION

Firms today operate in a rapidly changing environment with fierce competition and increasingly demanding customers. Firms have a limited ability to forecast customer demand and their market boundaries are hard to define (Day and Montgomery, 1999). Traditional marketing, which is widely practiced by large and/or mature firms, may not be adequate for competing in this highly dynamic business environment (Gronroos, 1990; Webster, 1992; Hultman and Shaw, 2003; Vargo and Lusch, 2004). In such an environment, marketing practice that deviates from traditional marketing can outperform traditional marketing (Glazer and Weiss, 1993).

Entrepreneurial marketing (EM) has emerged as a new marketing paradigm that helps firms to operate in a rapidly changing environment. EM originates from an interface between marketing and entrepreneurship (Hills and LaForge, 1992). It integrates marketing and entrepreneurship through the common concepts shared by the two fields (Morris et al., 2002a). Evidence of EM practices is documented both in real business practice (McKenna, 1991; Magretta, 1998; Christensen et al., 2002; Buskirk and Lavik, 2004), and in academic research (Glazer and Weiss, 1993; Gilmore and Carson, 1999; Siu and Kirby, 1999; Coviello et al., 2000; Lindh, 2005).

The emergence of EM underscores the importance of entrepreneurship in firms' business practice. Entrepreneurship helps firms to create new thought processes to respond to changes in the marketplace (Hills and Hultman, 2006). Recent studies propose that firms should be more entrepreneurial in their marketing when dealing with market uncertainty and ambiguity. Researchers suggest that firms should use effectual marketing when markets are hard to predict (Read et al., 2009), and use entrepreneurial strategies to construct and shape market boundaries when facing ambiguity (Santos and Eisenhardt, 2009). Additionally, marketing practices that incorporate entrepreneurship concepts are

also reported to help improve firm performance (Davis et al., 1991; Zahra and Garvis, 2000; Droge et al., 2008).

EM behaviors are different from traditional marketing behaviors in several aspects (Morris et al., 2002b; Hills et al., 2008). Previous studies mention several characteristics of EM behaviors, such as calculated risk-taking (Carson and Grant, 1998), decision making based on intuition and experience (Siu and Kirby, 1999), an inherent focus on the recognition of opportunities (Hills and Singh, 1998), a flexible approach to the market (Sashittal and Jassawalla, 2001; Shaw, 1999), and exploitation of smaller market niches (Sarathy et al., 1993; Stasch, 1999). These characteristics are reported to be evident in entrepreneurial firms, such as small firms, young firms, and high-growth firms. These firms are characterized as entrepreneurial firms by their entrepreneurial orientation.

Although new knowledge in the field of entrepreneurial marketing has been generated, there are many important issues that have not been addressed. These issues include the dimensions of EM behaviors, their systematic relationships with firms' characteristics, and, most importantly, their antecedents. This dissertation quantitatively investigates these issues through three essays. The first essay examines factors underlying EM behaviors and develops a test to confirm the existence of these factors in empirical data. The second essay investigates EM practice and its relationships with firms' characteristics, such as age, size, and founders. The third essay identifies EM's antecedents and proposes that EM is driven by EO. We also investigate whether EO should be treated as a multidimensional construct or a unidimensional construct when it affects EM behaviors.

We briefly delineate each essay below. Then we elaborate on EM and EO constructs in Chapter 2. We present the full details of each essay in Chapters 3 through to 5 and we discuss our findings and conclusions in Chapter 6.

Essay 1: An Empirical Investigation of Entrepreneurial Marketing Dimensions: A Confirmatory Factor Analysis

Although EM behaviors are widely reported in many studies, there is no common classification for these behaviors. When investigating firms' EM behaviors, researchers use different classifications to categorize them. The classifications used by researchers vary from one study to another, both in content and in their number of dimensions, depending on the context. For example, when conceptualizing the EM concept, Morris et al. (2002a) suggest seven elements of EM, namely proactive-oriented, opportunity-driven, customer intensity, innovation, risk management, resource leveraging, and value creation. Investigating EM in the context of social entrepreneurship, Shaw (2004) classify EM behaviors using four themes, namely opportunity recognition, entrepreneurial effort, entrepreneurial organizational culture, and networks and networking. Elaborating on marketing in small/new firms, Gruber (2004) suggests three relevant characteristics including newness, small size, and uncertainty and turbulence.

As researchers in the field of entrepreneurial marketing make constant progress in generating new knowledge regarding EM, we believe that there is a need to create a common classification for EM behaviors. EM behaviors have received so much attention from researchers because, from the behavioral perspective of entrepreneurship, it is the action of entrepreneurs that leads to new venture creation, not the entrepreneurs' profile. Therefore, we believe that an empirically verified classification of EM behaviors should provide a foundation upon which researchers can build and test for a broader theory. To our knowledge, no prior study has empirically classified and confirmed EM behaviors according to the common factors underlying them. This dissertation is the first attempt to empirically confirm the factors underlying EM behaviors using empirical data.

In the first essay, we propose and verify a classification of EM behaviors. Based on the characteristics of EM behaviors identified in prior studies, six factors (or dimensions) underlying EM behaviors are identified. These factors include growth-orientation, oppor-

tunity orientation, value creation through relationships and alliances, two-way contact with customers, informal marketing, and market immersion. In the process of testing our hypothesis, the six-factor model is compared with theoretically-feasible five-factor and seven-factor models using confirmatory factor analysis (CFA). We expect to find that the six-factor model has the best fit with the data compared to the two alternative models.

Essay 2: Entrepreneurial Marketing Practice: Systematic Relationships with Firm Age, Firm Size, and Founder

Several EM behaviors have been identified in previous studies (Gilmore and Carson, 1999; Lindh, 2005; Shaw, 1999; Siu and Kirby, 1999; Stasch, 1999). Researchers frequently find that these behaviors are evident in entrepreneurial firms, including small firms, young firms, and founder-operated firms. Nonetheless, no empirical study has explicitly examined a systematic relationship between such characteristics and EM practice.

We believe that in order to ensure that EM behaviors do not happen randomly, there is a need for an empirical study to identify the systematic patterns in EM behaviors. That is, we need empirical evidence to show that EM is practiced by firms that share common characteristics. A study that can identify systematic patterns in EM behaviors will provide evidence to show that firms systematically (rather than randomly) practice EM. In this essay, we propose that EM is systematically practiced in entrepreneurial firms and define entrepreneurial firms as small firms, young firms, and entrepreneurs operated firms. This definition is based on the behavioral perspective of entrepreneurship, where entrepreneurship is defined as a process of new venture creation and entrepreneurs are defined as persons who found or operate new firms (Gartner, 1988; Low and MacMillan, 1988). As a result, we investigate systematic relationships between EM and three characteristics of firms; namely firm size, firm age, and the firm's founder.

Regarding firm size, prior research has found that marketing practices in small firms are different from those of larger firms (Bjerke and Hultman, 2002; Carson et al., 1995;

Coviello et al., 2000). According to Carson et al. (1995), marketing in small firms is opportunistic, flexible, and innovative. Compared to marketing in large firms, marketing in small firms is less formal and more intuitive (Bjerke and Hultman, 2002). Coviello et al. (2000) find that, relative to larger firms, smaller firms are less likely to use formal plans, but are more likely to invest in creating personal relationships with their primary customers.

EM practice has also been found to be more prevalent in new firms (Cunningham and Lischeron, 1991; Gruber, 2004). New and young firms are at the beginning of their development stages and so are more likely to face uncertainty, ambiguity, and turbulent environment than established firms. According to Stinchcombe (1965), young firms are more likely to fail than older firms because they cannot use their resources as effectively and they lack stable relationships with their customers compared to older firms. As a result, young firms need to be more entrepreneurial in their marketing activities than older firms. Prior studies reported that younger firms use less formal market research (Spitzer et al., 1989; Hite and Hesterly, 2001) and are more customer oriented (Teach and Tarpley, 1989; Mohan-Neill, 1993) than older firms.

Finally, researchers argue that the founders of firms have a significant influence on their firms' business practices. Firms that have founders who have a personal goal that is compatible with growth are found to grow more than firms that have founders who do not have a compatible goal (Hills and Hultman, 1999). Values and beliefs of top management also critically affect the structure, function, and performance of the firms (Khandwalla, 1977). Researchers find that firm performance can be affected by the founders' experiences (Reuber and Fischer, 1999), orientations (Runyan et al., 2008), characteristics (Daily et al., 2002), and commitments (Erikson, 2002).

In the second essay, we quantitatively examine the relationships between firms' characteristics and EM practice. It is hypothesized that the level of firms' EM practice is influenced by their age, size, and founders/nonfounder status. Using a classification of

EM behaviors confirmed in the first essay, we compare means of factors underlying EM behaviors across firms with different size, age, and founding status. We expect to find that smaller firms, younger firms, and founder-operated firms engage in EM practice more than larger firms, older firms, and nonfounder-operated firms. In testing our hypothesis, we conduct several multigroup confirmatory factor analyses to compare latent means of factors underlying EM behaviors across firms with different age, size, and founding status.

Essay 3: Entrepreneurial Marketing as an Outcome of Entrepreneurial Orientation

It has been recognized that entrepreneurship is important for business performance. Drucker (1970) states that the entrepreneurial act is central to the business enterprise. Researchers find that entrepreneurial culture encourages the flow of innovative ideas (Menon et al., 1999) and facilitates the capacity of firms to innovate (Carrillat et al., 2004). Moreover, entrepreneurial culture also helps firms to create strategies that are suitable for business operations in difficult times (Khandwalla, 1977; Srinivasan et al., 2005). In this essay, we propose that EM is practiced by entrepreneurial firms and define entrepreneurial firms as firms with a high level of entrepreneurial orientation (Miller, 1983).

Entrepreneurial orientation (EO) is a construct that researchers frequently use to measure the level of firms' entrepreneurship. The construct originates from strategic management literature (e.g., Miller, 1983; Covin and Slevin, 1989; Covin, 1991) that categorizes firms as either non-entrepreneurial or entrepreneurial firms. Prior studies find that EO is not only correlated to firms' general business activities, but also to specific marketing activities. Researchers find that EO affects firms' capacity to innovate (Carrillat et al., 2004), ability to create new product applications (Covin and Slevin, 1991), marketing strategy making process (Menon et al., 1999), intention to enter new markets

(Atuahene-Gima and Ko, 2001), and ability to cope with complex market environments (Knight, 2000).

This dissertation argues that EM behaviors are driven by EO. Firms with higher levels of EO are expected to engage more in EM practice than firms with lower levels of EO. This argument is based on prior studies suggesting that the marketing behaviors of entrepreneurial firms are different from the marketing behaviors of non-entrepreneurial firms (Miller and Friesen, 1982; Hills and Hultman, 2006). Compared to non-entrepreneurial firms, entrepreneurial firms offer more extensive customer support and better product warranties, charge higher prices for their products, pay more attention to product quality, and are more concerned with industry and market trends (Covin, 1991).

In the third essay, we propose that EO is an antecedent of EM behaviors, and empirically analyze a causal relationship between EM behaviors and EO. The relationship between EM and EO is investigated using multigroup confirmatory factor analysis (CFA) and structural equation modeling (SEM). In this essay, we focus on the innovativeness, risk-taking, and proactiveness dimensions of EO. To our knowledge, this study is the first attempt to explicitly identify a causal relationship between EO and EM practice. Theoretically, the EM concept was previously conceptualized in Hills and Hultman (2006) where it is acknowledged that EM behaviors are determined by EO and that EO makes marketing behaviors of entrepreneurs differ from the marketing behaviors of managers.

Researchers in the field of entrepreneurship debate the dimensionality of EO. Some studies treat EO as a unidimensional concept (Covin, 1991; Naman and Slevin, 1993), while some studies treat it as a multidimensional concept (Venkatraman, 1989; Zahra, 1996). Miller (1983) suggests that an entrepreneurial firm needs to have a high level of all dimensions of EO at one time. More recent studies, however, indicate that EO dimensions may vary independently (Lumpkin and Dess, 1996; Stetz et al., 2000; Kreiser et al., 2002a,b). Therefore, in addition to empirically testing a causal relationship between

EO and EM, we further propose that researchers should treat EO as a multidimensional construct when measuring its impact on firms' EM.

In testing our hypotheses, the causal relationship between EO and EM is initially investigated using multigroup confirmatory factor analysis by treating EO dimensions as observed variables. Then, a structural equation modeling (SEM) is used to investigate the relationship by treating EO dimensions as latent variables. In examining the dimensionality of EO, SEM models depicting EO as a multidimensional construct are compared with SEM models depicting EO as a unidimensional construct. We determine the best model by comparing how they fit with the empirical data.

Contribution of this study

This dissertation contributes to modern marketing theory by investigating the complex relationship between EO and EM using several statistical methods, including multivariate analysis of variance (MANOVA), multigroup confirmatory factor analysis (CFA), and structural equation modeling (SEM). Results from our analyses should help researchers to determine the robustness of results generated by previous studies. Accordingly, this study follows a suggestion by Day and Montgomery (1999), who challenge marketing scholars to test complex, wide-ranging theories with many interdependencies using several statistical methods.

This dissertation also contributes to entrepreneurial marketing literature. According to our knowledge, this study is the first to empirically confirm the common factors underlying EM behaviors and empirically test a model that takes EO as an antecedent of EM behaviors. It is also an attempt to identify causal relationships between EM behaviors and EO dimensions. We add to the existing literature, which usually uses case studies to report EM practices (e.g., Gilmore and Carson, 1999; Siu and Kirby, 1999; Lindh, 2005), by examining EM practice using a large survey data set. Results from the current study can not only be a foundation for future research but can also help to verify the

robustness of the findings in prior studies. Knowledge created by this dissertation should, therefore, contribute to knowledge accumulation in the field of entrepreneurial marketing and therefore support the legitimacy of the entrepreneurial marketing field.

The current study also contributes to entrepreneurship literature. We test whether EO acts as a multidimensional or unidimensional construct when it affects firm's EM behaviors. Although prior studies have tested EO's dimensionality when EO affects firm's performance, according to our knowledge, this study is the first to test the dimensionality of the EO construct on EM. Results from the current study should help researchers to operationalize EO in an EM context in the future.

In addition to its contributions to marketing and entrepreneurship literature, this dissertation also benefits practitioners and policy makers. Marketing practices in small and new firms should not be ignored because small and new firms are involved in creating jobs and helping the economies grow. Understanding the entrepreneurial marketing practices of entrepreneurial firms is important in many ways. First, policy makers need to understand firms' marketing behaviors in order to set appropriate and relevant policies for small/entrepreneurial firms. Secondly, business consultants need to understand firms' marketing behaviors in order to advise these firms on how to overcome marketing obstacles and attain better performance. Thirdly, investors need to understand firms' marketing behaviors so that they are able to make good decisions and capture market opportunities in a timely manner.

CHAPTER 2

LITERATURE REVIEW

2.1 Entrepreneurial Marketing: Marketing at the Interface

Entrepreneurial marketing originates from an interface between marketing and entrepreneurship. Researchers identify similarities between the two fields and suggest that each field can contribute to the other. Hills and LaForge (1992) state that the fields of marketing and entrepreneurship are similar in that both fields are boundary spanning, involve extensive interplay with the environment, and require the assumption of risk and uncertainty. Moreover, marketing and entrepreneurship both have customers as their focal point (Hisrich, 1992). Both fields are change focused, opportunistic in nature, and innovative in their approach to management (Collinson and Shaw, 2001). Therefore, researchers suggest that the interface between marketing and entrepreneurship can help entrepreneurs to deal with change, identify viable opportunities, and develop their innovative skills (Collinson, 2002).

Omura et al. (1994) define the interface between marketing and entrepreneurship using Kirznerian and Schumpeterian views of entrepreneurship. They state that the interface between marketing and entrepreneurship has both differences and overlaps. The differences at the interface are between traditional marketing and pure entrepreneurship. While traditional marketing operates in continuous market conditions where market needs are clearly perceived, pure entrepreneurship operates in discontinuous market conditions where the needs of the market are unclear. Omura et al. state that the overlaps between marketing and entrepreneurship are what constitute the interface. The overlaps occur in two areas, known as opportunistic marketing/entrepreneurship and strategic marketing/entrepreneurship. Under opportunistic marketing/entrepreneurship, the role of entrepreneurs is defined by Kirzner (1978). Entrepreneurs discover unperceived needs

in the market and satisfy those needs using what the markets already have. Under strategic marketing/entrepreneurship, the entrepreneurs' role follows what is defined by Schumpeter (1934). Entrepreneurs disrupt the old market equilibrium and create a new one by satisfying unexplored needs through invention.

Although Omura et al. do not include pure entrepreneurship as a source of EM, Hills and Hultman (2006) extend Omura et al.'s framework using a logic of value creation, and propose that EM also covers pure entrepreneurship. Under the logic of value creation, customers do not have to realize what their needs are in order for value creation to occur. Entrepreneurs who operate under discontinuous market conditions where the needs are not clear can create a unique value to their customers by delivering products that customers have not even thought of. That is, EM leads customers to where they want to go before they even know it (Hamel and Prahalad, 1991). Therefore, marketing under pure entrepreneurship is also considered EM.

The definition of EM has evolved accordingly. Researchers in the early years defined EM and investigated firms' marketing behaviors according to those contexts. For example, Stokes (2000b) defines EM as a marketing practice carried out by entrepreneurs or owners/managers of entrepreneurial firms. Recent definitions have reflected more of the essential elements of entrepreneurial process embedded in EM, such as opportunity identification, customer relationship, innovation, and value creation (Morris et al., 2002a; Hills et al., 2010). The definition by Hills et al. (2010) is the most complete definition of EM; according to Hills et al., EM is defined as "a spirit, an orientation as well as a process of passionately pursuing opportunities and launching and growing ventures that create perceived customer value through relationships by employing innovativeness, creativity, selling, market immersion, networking and flexibility." (p.3)

Entrepreneurial marketing integrates entrepreneurship and marketing. It covers all emerging marketing practices, such as guerrilla marketing (Levinson et al., 2007), radical marketing (Hill and Rifkin, 2000), and expeditionary marketing (Hamel and Prahalad,

1991). The focus of these new marketing practices includes but is not limited to thinking outside current business boundaries, operating under a limited budget and resources, marketing efforts that aim at growth and long-term profit, marketing to become market leader, and educating customers about what is possible.

In addition to covering emerging marketing practices, entrepreneurial marketing also covers marketing in small firms (Carson et al., 1995; Gilmore et al., 2001; Blankson and Stokes, 2002; Fillis, 2002), marketing in the early stages of a firms development (Gruber, 2004), and marketing of high growth firms (Feesser and Willard, 1990; Hills and Hultman, 1999). These firms encounter market conditions that allow them to benefit from several elements of entrepreneurship, such as creativity, relationships, and networking, which are embedded in EM.

Creativity helps firms to identify viable opportunities and develop them into real opportunities to deliver customer value. According to Fillis and McAuley (2000), creativity is not always about ideas that are radically new, but can also be about discovering a better way to solve existing problems. Firms that are willing to take risks and are flexible in their ways of thinking can use creativity to gain a competitive advantage (Fillis, 2000).

Entrepreneurial marketing is also closely related to marketing through relationships and networking. Relationship marketing aims to establish, maintain, and enhance relationships with customers (Gronroos, 1990). Relationships between firms and customers are dyadic; firms promise to deliver quality products/services and a range of future commitments, while customers also promise to commit to the relationships (p.5). Firms establish good relationships through networks and alliances. Networks help firms to gain access to resources needed to accomplish their marketing tasks and keep track of changes in their environment when new opportunities arise. As a result, firms are able to deliver superior products to their customers. According to Carson and Gilmore (2000), the network creation process in entrepreneurial firms is “haphazard, disjointed, spontaneous and opportunistic.” (p.4)

Entrepreneurial marketing behaviors are different from traditional marketing behaviors in several aspects (Stokes, 2000a; Morris et al., 2002b; Hills et al., 2008). Several characteristics of EM behaviors have been reported in previous studies, namely calculated risk-taking, decision-making based on intuition and experience, an inherent focus on the recognition of opportunities, a flexible approach to the market, and the exploitation of smaller market niches. Based on previous literature (Stokes, 2000a; Morris et al., 2002b), we summarize the differences between traditional marketing and EM according to marketing principles underlying the two marketing concepts. The differences are shown in Table I.

EM is not suggested as a replacement, but rather as a complement to traditional marketing in order for firms to effectively compete in highly competitive environments. Covin (1991) state that an entrepreneurial strategic posture is not always better than a conservative strategic posture, but that it depends on environmental contexts. The traditional marketing concept does not become less important with the rise of a new marketing paradigm. Instead, firms can benefit from using both traditional marketing and EM in their marketing activities (Hultman and Shaw, 2003). Carson and McCartan-Quinn (1995) suggest that the efficiency of resource utilization of firms will be improved if a firms's use of intuitive marketing decision-making is based on a theoretical and/or formal foundation (p.30). Similarly, Coviello and Brodie (2001) note that while relationship marketing is practiced, "the application of more traditional cornerstone marketing activities was considered to be both relevant and necessary in many contexts". Previous empirical studies suggest that EM can be practiced not only in small firms, young firms, and high-growth firms, but can also be extended to other contexts such as large firms (Miles and Darroch, 2006) and public sector organizations (Shaw, 1999; Stokes, 2002).

TABLE I: DIFFERENCES BETWEEN TRADITIONAL MARKETING AND ENTREPRENEURIAL MARKETING

Traditional Marketing	Entrepreneurial Marketing
<p>Marketing philosophy</p> <p>A dedication to customer orientation</p> <p>Marketing supports research and development departments</p> <p>Reactive approach to market</p> <p>Marketing strategy</p> <p>Top-down approach with a process of segmentation, targeting, and positioning</p> <p>Emphasis on risk minimization</p> <p>Efficient use of existing resources</p> <p>Marketing technique</p> <p>Define market in terms of marketing mix</p> <p>Impersonal marketing through mass promotions</p> <p>Marketer is a builder of the brand</p> <p>Marketing intelligence</p> <p>Use formal market research</p> <p>No role for networks</p> <p>Customer is external source of intelligence</p>	<p>A zeal for innovation orientation</p> <p>Marketing is the home of innovation</p> <p>Proactive approach to lead customers</p> <p>Bottom-up approach with a process of opportunity-identification, customer attraction, and customer base expansion</p> <p>Emphasis on mitigate, stage or share risks</p> <p>Creative use of the resources</p> <p>Not following marketing mix concept</p> <p>Marketing through personal contacts</p> <p>Marketer is a creator of new product categories</p> <p>Use little formal research</p> <p>Gather information through alliances and networks</p> <p>Customer is active participant in marketing decision process</p>

2.2 Why Entrepreneurial Marketing: A Need for New Marketing Paradigm

EM has emerged as a new marketing paradigm that helps firms rethink their ways of doing marketing. In the past two decades, marketing scholars have questioned the adequacy of traditional marketing and suggested that a new marketing paradigm is needed (Webster, 1992; Gronroos, 1994; Day and Montgomery, 1999; Vargo and Lusch, 2004). Several empirical studies show that the traditional marketing concepts do not cover all marketing practices. For example, Hultman and Shaw (2003) find that service firms engage in several activities that are not covered by the marketing mix concept. Those activities are a creation of reputation through word of mouth, referral marketing, good will, and long-term personal relations. A study by Constantinides (2006) also finds that the marketing mix concept lacks customer orientation and customer interactivity.

According to Day and Montgomery (1999), there are five changes that influence the field of marketing to pursue a new direction. The first is the connected knowledge economy, where accumulating knowledge in an industry creates room for more industry participants. The second is the globalization, convergence, and consolidation within industries that make it difficult to determine market boundaries and create a shift in balance of power between sellers and customers. The third is the conflict between fragmenting and frictionless markets that make it unsafe for firms “to assume that markets are predictable and that large segments of the market will behave alike.” (p.8) The fourth is demanding customers who are more willing to participate in and take control of the marketing process. The final change is the way organizations adapt to changes in their customers, competitors, and environments, which brings them closer to their customers.

Researchers, therefore, suggest several new marketing practices to complement traditional marketing practice. Based on the criticism that the marketing mix concept does not cover all activities that occur in service marketing contexts, Gronroos (1990) proposes taking a relationship approach to marketing. Under this marketing approach, customers play an active role in the production process and create a range of contacts between them

and the firms. A new marketing paradigm is suggested to be both knowledge-based and experience-based (McKenna, 1991). While knowledge helps firms to obtain insights regarding technology, customers, and competitors, experience helps firms to emphasize on interactivity, connectivity, and creativity (p.67). In addition, Webster (1992) suggests that a new marketing paradigm should focus on building relationships with customers, suppliers, and resellers. To deliver superior value to customers in the competitive market, marketing focus should “shift from products and firms as units of analysis to people, organizations, and the social processes that bind actors together in ongoing relationships.” (p.10)

The elements mentioned in these new marketing practices are reflected in a new marketing paradigm proposed by Vargo and Lusch (2004). Vargo and Lusch state that marketing has moved from a goods-dominant logic to a service-dominant logic, where marketing is customer-centric and market-driven. Using service-dominant logic, people make exchanges to acquire the benefits of services, goods are used as an intermediary in the value creation process, and value is determined by the customers. As a result, firms have to pay close attention to customer demand and collaborate with customers who are also the co-producers of their products and services.

After reviewing the above-suggested new marketing paradigms, we believe that the emergence of EM complements these marketing paradigms. We can see that EM covers several concepts that are the essence of these new marketing paradigms. Coupled with an intention to grow, a major characteristic of EM behaviors that distinguishes EM from other marketing thoughts, EM can help firms to effectively adapt to and survive the changes identified by Day and Montgomery (1999). We elaborate on EM behaviors and their dimensions in the next section.

2.3 Entrepreneurial Marketing Behaviors and their Dimensions

When investigating firms' EM behaviors, researchers use different classifications to categorize them. The classifications researchers have used vary from one study to another, both in content and number of dimensions, depending on the contexts. Conceptualizing the EM concept, Morris et al. (2002a) suggest seven elements of EM, namely proactive-oriented, opportunity-driven, customer intensity, innovation, risk management, resource leveraging, and value creation. Investigating EM in the context of social entrepreneurship, Shaw (2004) classify EM behaviors using four themes, namely opportunity recognition, entrepreneurial effort, entrepreneurial organizational culture, and networks and networking. Elaborating on marketing in small/new firms, Gruber (2004) suggests three relevant characteristics, namely newness, small size, and uncertainty and turbulence. To our knowledge, no prior study has classified and empirically confirmed EM behaviors according to the common factors underlying them.

In a study aiming to investigate how entrepreneurial firms engage in their marketing practices, Hills and Hultman (1999) find several marketing behaviors that are distinctive to entrepreneurial firms. Those behaviors are the non-implementation of the marketing mix concept, an emphasis on high-quality products, the use of gut feeling and intuitive decision making, the use of networks and relationships in marketing, little engagement in formal market research, and the influence of personal goals on the firms' marketing goal. These behaviors are not new and other studies have also reported similar behaviors (Hultman, 1999; Stokes, 2000a). Hills and Hultman (2006) summarize several characteristics of EM behaviors that are frequently found in prior studies. The characteristics are shown in the right column of Table II.

The reappearance of several EM behaviors across different studies urges us to examine the common factors underlying these behaviors, and whether we can create a classification for them. Based on the characteristics of EM behaviors reported by Hills and Hultman (1999) and Hills and Hultman (2006), this dissertation proposes that there

are six common factors underlying EM behaviors including growth orientation, opportunity orientation, market immersion, two-way contacts with customers, value creation through relationships and alliances, and informal marketing research. Table II shows how the EM behaviors summarized by Hills and Hultman (2006) are classified into these six factors. We elaborate on each factor as follows.

TABLE II: DIMENSIONS OF ENTREPRENEURIAL MARKETING BEHAVIORS AND THEIR CHARACTERISTICS

EM Dimensions	Characteristics of EM Behaviors (Hills and Hultman, 2006)
Growth Orientation	Marketing decisions are linked to long-term performance Founder and other personalities are central to marketing Exploit smaller market niche
Opportunity Orientation	Inherent focus on recognition of opportunities Focused on proactively creating and exploiting markets Marketing strives to lead customers Innovation in products/services and strategies
Market Immersion	Customer knowledge based on market interaction Marketing decisions based on daily customer contact Reliance on experience A role for passion, zeal and commitment
Two-way Contacts with Customers	Marketing tactics are often two-way with customers Flexible, customization approach to market Speedy reaction to shifts in customer preference Marketing permeates all functional areas of the firm
Value creation through Relationships and Alliances	Use relationships to find customer value Calculated risk-taking in new ventures Marketing based on personal reputation, trust, credibility
Informal Marketing Research	Formal market research is rare Product development is informal with little research Reliance on intuition Planning, is done in short, incremental steps

2.3.1 Growth Orientation

Entrepreneurial marketing is closely related to growth. According to Mintzberg (1973), growth is the dominant goal of the entrepreneurial organization. The intention to grow is what separates entrepreneurial firms from non-entrepreneurial firms. While small firms generally start small and stay small, entrepreneurial firms grow and strive to grow even further. Therefore, it is also acknowledged that entrepreneurial marketing is the marketing of small firms to grow through entrepreneurship (Bjerke and Hultman, 2002).

Entrepreneurial marketing places an emphasis on growth and expansion rather than short-term profits (Morris et al., 2002a). Entrepreneurial firms' marketing decisions are linked to long-term performance (Hills and Hultman, 2006). Successful entrepreneurs tend to have a long-term orientation toward opportunity creation and exploitation (Hills et al., 2008). To grow, firms focus not only on responding to current customers demand, but they also explore the means to develop products that customers cannot think of (Hamel and Prahalad, 1991; Magretta, 1998; Atuahene-Gima and Ko, 2001).

Entrepreneurs' ambitions to grow are usually captured by a firms business model, which will later define the firms competitive strategy and resource management. According to Morris et al. (2005), entrepreneurs who aim to grow will choose to make "a significant initial investment and also a substantial reinvestment in an attempt to grow the value of the firms to the level that generates a major capital gain for investors." (p.731) Christensen et al. (2002) proposes that to create a growth business, firms have to create new markets for their innovations and to disrupt industry leader's model. He suggests that firms can disrupt the industry by targeting the least demanding market tier and by making and marketing the product using the disruptive model. Doing so makes it difficult for other firms to make an entry because those firms would then have to come in with pricing at a deep discount (p.26).

Firms can adopt several means to expand their business. Yu and Hills (2007) states that firms grow their business using word-of-mouth, referrals and increasing repeat busi-

ness. According to Hill and Rifkin (2000), entrepreneurs expand their customer base by creating communities of customers who are dedicated and loyal to the products. It is important to note that entrepreneurial firms may not choose to expand or grow their business in a way that large firms do. Entrepreneurial firms are influenced by the individuals who manage them and the goals of such firms are often set to match these individuals' personal motivations. Empirical studies suggest that the strategies pursued by entrepreneurs affect firm growth (Feesser and Willard, 1990). Some firms do not plan to grow because their operators have different business goals. According to Runyan et al. (2008), firms that are operated by individuals who have low level of entrepreneurial orientation may just work toward positive cash flow in order to remain in business rather than working to maximize financial performance. Entrepreneurs in high-growth firms have personal goals that are congruent with growth and expansion, while entrepreneurs in non-growth firms have personal goals that constrain growth (Hills and Hultman, 1999).

Prior studies have found that high-growth firms' marketing is different to that of non-growth firms. Examining the characteristics of high-growth firms, Chaston and Mangles (1997) find that firms that actually grow are those that can translate the characteristics needed for growth into the capability to grow. In addition, there are several marketing activities practiced by high-growth firms that seem to encourage growth. According to Hills and Hultman (1999), high-growth firms have a carefully and fully defined target market, while non-growth firms have a relatively vague description of their target customers. While high-growth firms occupy niche markets of limited size, non-growth firms try to sell their products to everyone. Compared to non-growth firms, high-growth firms have a more balanced product-market orientation. That is, while firms place an emphasis on using technology to deliver high-quality products and services to their customers, they are also flexible in responding to their customers demands and are able to provide superior customization of products.

2.3.2 Opportunity Orientation

Entrepreneurial marketing places an emphasis on pursuing opportunities. Compared to traditional marketing, entrepreneurial marketing is more opportunity-driven. While traditional marketers are limited by the available resources, entrepreneurial marketers pursue opportunities regardless of the available resources (Morris et al., 2002b). Firms that are in entrepreneurial strategic-making mode always actively search for new opportunities (Mintzberg, 1973). Through the process of opportunity discovery and exploitation, firms can anticipate new needs, envision new market offerings, and obtain the resources required to create the innovation that will change the market (Schindehutte et al., 2008). Firms can expand their opportunity horizon by thinking of themselves as a portfolio of core competencies instead of a portfolio of products (Hamel and Prahalad, 1991).

Stevenson and Gumpert (1985) provide two criteria for an opportunity to be considered an entrepreneurial opportunity; an opportunity must be a desirable future state that involves growth or change and it must be possible to achieve (p.90). This definition of entrepreneurial opportunity requires entrepreneurs to go beyond identifying an opportunity to pursue them. Entrepreneurs are expected not only to adjust to change, but also to capitalize on it and make things happen (p.93). According to Stevenson and Gumpert, the thinking process of an entrepreneur comprises a series of questions, including where the opportunity is, how to capitalize on it, what resources are needed, how to get access to them, and with what form of organization structure?

Firms respond to emerging opportunities by continually improvising and redeploying the available resources (Sashittal and Jassawalla, 2001). Read et al. (2009) find that entrepreneurs are more likely to identify and pursue opportunities than managers. That is, they are willing to make product changes, reformulate the concept of the market, and create different market definitions. According to Hills and Singh (1998), entrepreneurs are opportunistic and enjoy thinking about new opportunities. Entrepreneurs perceive

themselves as having a “special alertness” toward opportunities, and see new opportunities “naturally” (p.254).

Entrepreneurial marketers exploit new market opportunities using innovation and creativity. Morris et al. (2002a) acknowledge that firms that practice EM focus on innovative and creative approaches to marketing. They focus on creating new categories of products and then seek to lead their customers by discontinuous innovation (Christensen et al., 2002). According to Drucker (1998), innovation is the heart of entrepreneurial activity. It is “the means by which entrepreneurs create new wealth-producing resources or endow existing resources with enhanced potential to create wealth.” (p.3)

The marketing department in an entrepreneurial firm is central to innovation and houses ideas about new products (Schindehutte et al., 2008). Entrepreneurs are Kirznerian marketers, who bring a successful marketing model to implement in a new market, and Schumpeterian marketers, who create new markets for new products (Hills and Hultman, 2006). Morris and Paul (1987) note that “marketing departments in entrepreneurial firms tend to be a key source of direction in terms of innovation, and tend to significantly impact upon the strategic direction of the firm.” (p.257)

Firm’s innovation is not only about their products but can be also about processes or strategies. According to McGowan and Rocks (1995), small firms are innovative in their customer services and promotional media. Stasch (1998) also finds that firms are innovative in their marketing strategies. Firms use innovative strategies such as providing longer-term protection, offering improved logistics, establishing new relationships, distributing directly to customers, and providing new services.

Entrepreneurial marketing thrives on change and exploitation of opportunities. While traditional marketing focuses on responding to changes in environment, entrepreneurial marketing emphasizes proactively reshaping the environment. Zeithaml and Zeithaml (1984) report cases of firms using a concept called “environmental management” to change the context in which they operate. Firms may use several strategies, such as

establishing dependent relationship with suppliers and negotiating with other firms, in order to alter their environments. An empirical study finds that firms proactively create and exploit new market opportunities. Santos and Eisenhardt (2009) examine how new firms in different markets shape their organizational boundaries in their initial years. They find that firms take several steps to create their market boundaries. As a first step, a firm chooses an identity that represents both the firm and the market at the same time. Then it takes control of the market by trying to occupy the whole market. The most important step for the firm in this is that it does not wait for its potential competitors to make a move. Instead, it proactively establishes a role for its potential competitors and forms alliances.

Although opportunities can arise randomly, entrepreneurial marketers are known for proactively searching for new opportunities (Hills and Singh, 1998). Constantly searching for opportunities that are ignored by other firms makes entrepreneurial firms able to serve unsatisfied needs before their competitors can. Wiklund and Shepherd (2005) suggest that proactive firms are able to capture emerging opportunities because they are forward looking and have the will to become pioneers. Entrepreneurial marketers are found to search proactively for their first customers and sometimes create the needs for their products.

Entrepreneurs do not only look for opportunities but also create opportunities for themselves. According to Stasch (1999), firms can create interest in their products by sending the products to potential customers in the first place. Entrepreneurial marketers' effort to create opportunities for their products also exists in non-business contexts. Lindh (2005) claims that a museum can create an opportunity to present its products by inviting its potential customers to host a conference or a meeting at the museum. Increasing patronage to the museum helps promote its other products, such as art galleries or art training.

2.3.3 Two-way Contacts with Customers

While traditional marketing treats customers as an external source of intelligence and feedback, entrepreneurial marketing integrates customers into a firm's operation by creating a two-way communication. Firms use flexibility and the customization approach to satisfy customer demand. According to Schindehutte et al. (2008), entrepreneurial firms establish dyadic relationships with their customer base. Entrepreneurial marketers treat customers as an active participant in their firm's marketing decision process and their innovations are considered customer-centric (Morris et al., 2002a). Therefore, customers' preferences play a major role in defining firms' product, price, distribution, and communication approaches.

To keep up with changes in customer preferences, entrepreneurial firms have to be flexible, adaptive, and able to improvise. Flexibility and adaptability in entrepreneurial marketing come from a firm's commitment to delivering superior quality products to customers (Hills and Hultman, 1999). Flexibility helps firms to provide a speedy reaction to changes in customer preferences (Bjerke and Hultman, 2002). Previous studies report evidence of entrepreneurial marketers adapting or adjusting their products and strategies to suit their customers' preferences. In a study of highly successful entrepreneurs and representative entrepreneurs, Hills and Singh (1998) find that more than ninety percent of entrepreneurs are prepared to quickly adjust their products or services in order to meet customer demands. Hills and Hultman (1999) also find that high growth firms are substantially more flexible in responding to their customers in order to provide superior customization of services and products. Similarly, Shaw (1999) reports that entrepreneurs are flexible with their prices so that they can give lower prices to their key clients when needed. In a study of small service firms in Sweden and Scotland, Hultman and Shaw (2003) also find that firms are flexible in their marketing approach. The service firms are found to choose their marketing activities based on customers' characteristics. According to a study of marketing planning and implementation by Sashittal and Jassawalla (2001),

firms are adaptive to day-to-day market events. Instead of being constrained by their current plans, firms made new promises to customers, modify their product designs, change their prices, and adjust their distribution arrangements (p.53).

Researchers mention several advantages of two-way contacts with customers. The relationship with customers benefits firms in that it allows firms to obtain direct knowledge of how satisfied their customers are Gronroos (1994). Day (1994) state that a firm is considered to have a distinctive capability to deliver superior value only when customers perceive that it can do so. That is, the superior value must be defined from customers' perspective, not from firms' perspective. The importance of direct customer feedback cannot be more emphasized than in a study by Deshpandé et al. (1993) which finds that there is a positive correlation between customer assessment and firm performance. In addition, two-way contact with customers helps firms to focus on customer needs, which in turn allows firms to have a balanced product and market orientation. This may lead to firm growth, since researchers have found that a balanced product and market orientation is found more in high-growth firms than in non-growth firms (Hills and Hultman, 1999). Researchers have also found that firms that have a balanced product and market orientation have superior product quality than their competitors and are more likely to be the first to entry (Atuahene-Gima and Ko, 2001).

Two-way contact with customers allows firms to engage in a process of co-creation. According to Athaide et al. (2003), co-creation in the new product development process benefits both firms and their customers. On the one hand, co-creation makes it possible for firms to alert their customers regarding their new application and technology and to obtain first-hand information about desirable products. On the other hand, it provides an opportunity for customers to obtain customized products and provide firms with specific information about their environments (p.52). The co-creation process between firms and their customers and/or suppliers is complicated. Firms need to put significant effort into managing the co-creation process successfully Enz (2009). Athaide et al. (2003)

claim that factors that encourage co-creation process are buyers' prior knowledge, prior relationship history, and level of product customization. A study by Rowley et al. (2007) adds that innovative product development strategies also encourage a co-creation of the customer experience.

The use of the Internet can enable firms to have two-way interactions with their customers (Day and Montgomery, 1999). Firms can use the Internet to perform mass customization of their strategies in order to help their customers to articulate their needs, find their best options, and place orders (p.9). Researchers have also found that the use of online social networks helps new firms to grow (Murphy, 2009) and facilitates communication between firms and customers (Mangold and Faulds, 2009). For example, Naked Pizza, a firm in New Orleans, has been reported to used Twitter to facilitate their business (Murphy, 2009). The business owner noted that Twitter helps his firm to interact directly with his customers and "illuminates the human aspects of the enterprise to many people." The use of online social networks is reported not only in small firms but in larger firms as well (Ernestad and Henriksson, 2010).

Geursen and Conduit (2001) mention that two-way communications with customers benefit both customers and firms. It helps the customers to receive a product that satisfies their most current needs and helps firms to know which products will generate cash flows for them (p.36). In addition, close contacts with customers help firms to prepare for unmet needs that may arise in the future. In an interview with Magretta (1998), Michael Dell acknowledges that the use of virtual integration by Dell Computer encourages the firm to integrate its customers into its product creation process. The integration helps the firms to solve problems that may arise in the future because the firm gets to understand how the customers plan to use its product during the product creation process.

2.3.4 Value Creation through Relationships and Alliances

Marketing through networks does not receive much attention in traditional marketing, but it is an important concept in entrepreneurial marketing. Networks can not only provide information about the markets, but also give access to potential customers. Resources within firms' networks can help them manage their risks and allocate their resource more efficiently. Entrepreneurial firms' networks are not limited to suppliers and customers, but also include competitors.

Entrepreneurial marketing focuses on creating new value and exploring each marketing mix element in order to search for new sources of customer value (Hills et al., 2008). The main task of an entrepreneurial marketer is to “discover untapped sources of customer value and to create unique combinations of resources to produce value” (Morris et al., 2002a). Firms can create new value by using existing technology to serve customers in an unconventional manner (Kumar et al., 2000) and/or using emerging technology to better satisfy customers' current needs (Hamel and Prahalad, 1991).

Entrepreneurial marketing is a market-driving behavior that allows firms to deliver a discontinuous leap in customer value. According to Kumar et al. (2000), entrepreneurial firms “create and deliver a leap in benefits, while reducing the sacrifices and compromises that customers make to receive those benefits(p.130).” As business environment continue to change, entrepreneurial marketers' task is to discover how to successfully create value for customers in new environment (Watson et al., 2002). To do so, entrepreneurs have to think outside the current business boundaries and lead customers to where they want to go before they even know it themselves (Hamel and Prahalad, 1991).

Firms can rely on their network to obtain information that can be used to identify untapped sources of customer value. Entrepreneurial firms gather market information and gain access to potential customers through their networks (McGowan and Rocks, 1995; Shaw, 1999). Looking at a museum context, Lindh (2005) reports that a museum operates joint projects with different organizations in order to gain access to potential

customers. According to Webster (1992), networking and relationships with customers, suppliers, and resellers can help firms to deliver superior quality products to their customers. Firms can create several forms of network organizations, ranging from pure transaction to vertical integration (p.12). Networks creation is also suggested to help firms to create entrepreneurial capital and create a competitive advantage over their competitors (Erikson, 2002).

Knowing that good alliances are important to their success, entrepreneurs maintain good relationships with people in their networks. Gilmore et al. (2001) find that entrepreneurs spend a considerable amount of time and effort maintaining good relationships with regular clients. Shaw (1999) finds that owners/managers of service firms use hospitality as a tool to build a good relationship with key customers. Doing so helps firms to acquire new contracts and maintain long-term relationships with the customers (p.205).

Entrepreneurial firms can overcome their resource constraints by utilizing their networks' resources. This is especially true for small firms and new firms whose marketing activities are constrained by their lack of resources. Morris et al. (2002a) mention that firms can leverage their resources through many activities, such as collaborative marketing programs with other firms, joint development projects, working with lead customers, and strategic alliances. Previous empirical studies indicate that firms do utilize resources of their networks. Stasch (1999) reports that new firms establish relationships with other firms in order to share marketing resources. Rao et al. (2008) find that new firms form alliances with established players in the market in order to gain access to resources needed to successfully introduce their new products. A study by Shaw (1999) shows that firms are able to expand their resource base through bartering exchanges with their customers. In addition, Gilmore et al. (2001) report that firms sometimes work together with their competitors in the form of a joint arrangement. Doing so benefits them because competitors have skills and resources that the firms do not have. In addition, working with

competitors helps prevent customers from taking jobs to a company outside the domestic market (p.195). A study by Siu and Kirby (1999) found that firms also exchange information with friendly competitors to keep themselves updated regarding overseas buyers. Under the effectuation logic proposed by Sarasvathy (2001), firms are encouraged to use strategic alliances as a way to eliminate uncertainty and build barriers to entry.

Networking also helps create trust for both new and small firms. According to Hills and Hultman (1999), small firms have a limited market size with a small number of identifiable potential customers. Therefore, networking is a particularly important part of their marketing. Referrals from networks can help entrepreneurs to build a good reputation and credibility, which are critical for firms' survival. To create trust and build strong relationship with their customers, firms interact with their customers through group meetings, newsletter, training programs, and seminars Sarathy et al. (1993). In a study of new firms, Rao et al. (2008) find that new firms may obtain legitimacy by forming an alliance with established players in the market. The fact that a firm can form an alliance with established players sends a positive signal to outsiders and demonstrates that the firm has the potential to succeed (p.60).

2.3.5 Informal Marketing Research

While traditional marketing encourages the use of a formal and analytical approach to marketing, entrepreneurial marketing generally involves informal approaches to marketing. Under traditional marketing, firms use market research to guide their marketing decisions. Under entrepreneurial marketing, however, firms' marketing decisions rely on informal market research and informal marketing plans. Instead of conducting market research to discover customers needs, entrepreneurial firms collect information about their customers through direct interactions with them. They adopt an informal approach to market planning which is adaptive and improvised. Moreover, their marketing decisions are affected by the personal influences of individuals who manage the firms.

Prior research acknowledges that entrepreneurs have a tendency not to use formal market research. A study by Hills and Hultman (1999) shows that very few business owners carry out formal market research. Some entrepreneurs indicate that formal market research does not tell them what they do not already know (p.29). Although entrepreneurs indicate that market research is of value, they did not think that the market research is worth its cost (Spitzer et al., 1989). This evidence, therefore, led the researchers to conclude that entrepreneurs have only limited faith in formal market research.

Hills and Hultman (1999) suggest that the tendency not to conduct formal market research may come from the fact that entrepreneurs gain an intuitive and rich understanding of the markets through constant direct contact with their customers. Prior studies show evidence of entrepreneurial firms acquiring market information through direct interactions with their customers. Lindh (2005) reports that a museum constantly interacts with its customers by asking for feedback regarding the museums activities and sharing information regarding their projects. According to Siu and Kirby (1999), entrepreneurs collect market information through informal discussions with their customers. Entrepreneurs are reported to visit the customers personally and frequently in order to have face-to-face discussions with their customers (p.184). By paying close attention to customers' opinions during the discussions, entrepreneurs are able to identify viable market opportunities (Hills and Singh, 1998). By constantly creating proactive communication with their customers and modifying their products and services to have more market relevance, firms can overcome difficulties in defining a market (Geursen and Conduit, 2001).

In traditional marketing, marketing decisions are based on a formal plan which specifies scientific goals and decision rules (Morris et al., 2002a). On the other hand, in entrepreneurial marketing, marketing decisions do not rely on a formal planning process. Lumpkin et al. (1998) report that less than half of the firms in their study used a formal business plan when they started their firms. In their study, Carson and Cromie

(1989) find that firms' marketing planning is distinctive in that it does not adhere to formal structures or formal frameworks. Coviello et al. (2000) also find that small firms are less likely to rely on formal planning than larger firms. According to Sashittal and Jassawalla (2001), out of forty firms in their study, seven of them had conducted market planning while eight of them did not have either formal or informal marketing plans on paper. Regardless of the level of formal planning, firms' marketing strategies are considered emergent and are adjusted at the time of implementation (p.53). The use of informal marketing planning may be affected by the fact that entrepreneurial firms operate in a turbulent environment. A study by Glazer and Weiss (1993) shows that in turbulent market conditions, marketing teams that did not use formal market planning outperformed teams that used formal market planning.

Informal marketing decisions in entrepreneurial firms are based on intuition. Owners/managers of entrepreneurial firms follow their instincts in making marketing decisions. Hills and Hultman (1999) report that entrepreneurs are strongly intuitive in their marketing decision-making and some of them state that instead of formal written marketing plans, they tend to "have their plans in their heads". Hills and Singh (1998) and Geursen and Conduit (2001) acknowledge that entrepreneurs consider intuitive judgment to be an extremely important part of judging market potential.

The informal aspect of entrepreneurial marketing also covers the personal influence of owners/managers on firms' marketing activities. Entrepreneurial firms are operated by fewer dominant persons than large firms and more than often that these dominant persons' goals guide the firms' direction (Khandwalla, 1977; Bjerke and Hultman, 2002; Erikson, 2002; Runyan et al., 2008). Carson et al. (1995) also state that the personality of owners/managers of firms can influence the state of marketing in the entrepreneurial firms. Owners/managers' backgrounds in and interpretations of marketing will determine what marketing activities will be conducted. This is evident in a study by Sashittal

and Jassawalla (2001), which indicates that the implementation of a firm's marketing strategies is based on the managers' interpretation and skills.

2.3.6 Market Immersion

This dimension of entrepreneurial marketing behavior is closely related to the informal marketing dimension. Entrepreneurial marketers do not always behave in a rational and sequential manner, as assumed by traditional marketing. Instead, they are immersed in the market and behave as if they live in the customer's world. To entrepreneurial marketers customers are their top priority. Entrepreneurs are willing to find the best way to serve consumers, sometimes even incurring extra cost. Entrepreneurial marketers always have a vision regarding customer preferences in their minds, and constantly think of how to improve customer value (Hills et al., 2008).

In an economy where experience is also offered alongside goods and services, finding the best way to deliver their products to customers is vital to firms' success (Pine and Gilmore, 1998). Market immersion activities cannot be more important in this type of economy. Information regarding customer's latent needs obtained through constant contacts with the market can be very helpful in this process. Continuously thinking and living as if they are customers helps entrepreneurs to respond to customer demand better than their competitors. Market immersion helps entrepreneurs to thoroughly understand the problems their customers are facing and makes them able to identify solutions that the customers seek.

Market immersion requires a significant commitment from entrepreneurs. The commitment reflects the emotional, intellectual, and physical energy that is employed in order to reach the firm's main objective (Erikson, 2002). Shaw (1999) reports that owners and managers of firms typically work long hours to make sure that their work is completed on time and that they deliver high quality products and services. According to Sarathy

et al. (1993), top managers are heavily and personally involved in marketing, almost to the exclusion of other activities.

Entrepreneurs have their own ways of developing new products or services for their customers. Some entrepreneurs rely on their experience. They think that they do not need to use formal marketing tools because they know the market well (Siu and Kirby, 1999). According to Carson and Grant (1998), entrepreneurs acquire experience regarding marketing mix elements over time. Entrepreneurs believe that the experience helps them to make effective and competent marketing decisions (p.184). According to Reuber and Fischer (1999), there are two kinds of entrepreneur experience: stock of experience and stream of experience. The former is what entrepreneurs possess, while the latter is non-routine events or activities encountered by entrepreneurs.

Networking is also a crucial tool in market immersion activities. Entrepreneurs utilize their networks to stay close to their customers. Through alliances, such as those with suppliers and trade partners, entrepreneurs can gather information regarding the market and changes in customer preferences. Constant contact with networks is crucial to entrepreneurs because it helps them to keep up with the market when new information emerges. Information from networks also helps entrepreneurs to understand the norms and values of the target market better. This will help them to implement their marketing and communication strategies more effectively.

This study proposes that the above mentioned EM behaviors are driven by entrepreneurial orientation. We briefly elaborate on entrepreneurial orientation construct in the next section.

2.4 Entrepreneurial Orientation and its Dimension

Entrepreneurial orientation (EO) originates from literature in strategic management as strategic postures that explain firms' behaviors. The early literature regarding categorizations of firms is based on how they make decisions and form strategies. For exam-

ple, Mintzberg (1973) categorizes a firm's strategy-making process into three groups, or "modes" as he called them; namely entrepreneurial mode, adaptive mode, and planning mode. These strategic modes differ in terms of several factors, such as organization size, style of its leadership, and features of its environment. Similarly, Miles et al. (1978) categorizes firms according to the strategies they use to adjust to change and uncertainty. Firms are categorized into four groups: prospectors, analyzers, defenders, and reactors.

Later researchers categorized firms by placing them along a continuum ranging from conservative to entrepreneurial (Miller, 1983; Covin and Slevin, 1989; Covin, 1991). According to Miller (1983), an entrepreneurial firm is defined as "one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with proactive innovations, beating competitors to the punch." (p.771) According to this definition, an entrepreneurial firm can be described by three strategic factors: innovativeness, risk-taking, and proactiveness. These three strategic postures are important dimensions of entrepreneurial orientation.

Prior research has found that EO has relationships with several other variables, such as strategy formulation, market orientation (Matsuno et al., 2002), organization culture, human resource management, and firm performance. The factor that has received most attention from researchers as a result of EO is firm performance. In this study, however, our focus is on the relationship between EO and EM. We propose that EM is driven by EO.

Lumpkin and Dess (1996) conceptualize EO and define it as "processes, practices, and decision-making activities that lead to new entry" (p.136). Besides innovativeness, risk-taking and proactiveness, Lumpkin and Dess add two more dimensions of EO to those suggested by Miller (1983), namely competitive aggressiveness and autonomy. They define competitive aggressiveness as "the intensity of a firm's effort to outperform rivals and its characterized by a strong offensive posture or aggressive response to competitive

threats”, and autonomy as the “independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion.”

Due to limited availability of data, as a starting point this study focuses on the proactiveness, innovativeness, and risk-taking dimensions of EO. We hope to investigate the impact of competitive aggressiveness and autonomy in the future. The following subsections give definitions of each of the aforementioned dimensions of EO. For more details on each dimension of EO, please see Lumpkin and Dess (1996).

2.4.1 Innovativeness

Lumpkin and Dess (1996) define innovativeness as “a firms’ tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services or technological processes.” (p.142) Lumpkin and Dess state that there are two types of innovativeness: product-market innovativeness and technological innovativeness. While technological innovativeness is related to product and process development, engineering, and research, and has an emphasis on technical expertise and industry knowledge, product-market innovativeness is related to product design, market research, advertising and promotion (p.143). Lumpkin and Dess indicate that it is hard to distinguish between these two types of innovativeness because there the case can be made that technological innovation is developed to meet market demand. Innovativeness is suggested as an important means by which firms can exploit market opportunities, because it leads to higher rate of innovation (Wiklund and Shepherd, 2005). Innovativeness can be represented by a firm’s values and beliefs toward innovation and an ability to successfully develop new products or processes (Hult et al., 2003).

Innovativeness is the dimension of EO that receives most attention from research scholars in marketing field, especially in new product development literature. Menon et al. (1999) find that an innovative culture in a firm can encourage the marketing strategy making process. In their studies of high performance firms, researchers find

that the firms' level of innovativeness has a positive relationship with firms' performance Deshpandé et al. (1993, 2000). In a study of small business units of manufactures for the Fortune 500 firms, Droge et al. (2008) also find that "innovativeness was positively related to new product success in turbulent environment". Note that this dimension of EO is closely related to proactiveness. Some researchers do not distinguish between the two dimensions. For example, according to Deshpandé et al. (2000), innovativeness is defined as "being first to market with new products and services, and being at the cutting edge of technology." (p.354)

2.4.2 Risk-taking

A willingness to take a risky and uncertain project distinguishes entrepreneurs from hired employees. Risk has several meanings, one of which is the possibility of a loss or negative outcome. Miller and Friesen (1982) define risk taking as "the degree to which managers are willing to make large and risky resource commitments, i.e., those of which have a reasonable chance of costly failures." (p.923)

Entrepreneurial firms are characterized by their risk-taking behaviors. According to Mintzberg (1973), entrepreneurial firms thrive in conditions of uncertainty, and their strategy moves forward by taking large, bold decisions. According to Lumpkin and Dess (1996), risk-taking behaviors range from nominal risk, such as depositing money in a bank, to high risk, such as bringing new products or services into new markets. Venkatraman (1989) indicate that firms' resource allocation decisions and choices of products and markets reflect the extent of risk taken by a firm (p.949). Baird and Thomas (1985) state that firms take risks when they "venture into the unknown, commit a relatively large portion of assets, and borrow heavily." Similarly, Wiklund and Shepherd (2005) state that firms are considered risk-taking when they commit their resources to projects where the outcomes are unknown (p.75).

Prior research has mentioned some issues when operationalizing risk as a construct. Risk-taking can be viewed as both an individual-level construct and an organizational-level construct. This can cause problems when measuring risk-taking. Lumpkin and Dess mention that the apparent degree of risk-taking in firms may be misleading. Firms may take bold actions because individuals in risk-averse firms have carefully planned out how to overcome the risk. In addition, Miller and Leiblein (1996) note that there are two kinds of risk; downside risk and variability. While variability includes both upside and downside outcomes, downside risk is specified in terms of failure to perform at the aspired level. Miller and Leiblein suggest that researchers should adopt the downside concepts of risk because it is more relevant to practicing managers than performance variability.

2.4.3 Proactiveness

Venkatraman (1989) explains that proactive behavior is about “seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the nature or declining stages of life cycle.” (p.949) Agreeing with Venkatraman’s definition, Lumpkin and Dess (1996) define proactiveness as processes aimed at anticipating and acting on future needs through proactive behavior (p.146). They suggest that proactive firms do not adjust to the changing environment, but instead take initiatives to change and shape their environment.

While Venkatraman emphasizes that proactiveness is about searching for market opportunities, Lumpkin and Dess make it clear that proactiveness is about leading not following. They state that a proactive firm is one which leads rather than follows because it has a desire to seize opportunities. Wiklund and Shepherd (2005) agree with this and mention that proactive firms can capture emerging opportunities because they have a forward-looking perspective with the desire to be pioneers. While Miller (1983) implies that proactiveness means being first to come up with proactive innovation, Lumpkin and

Dess (1996) believe that being a leader does not necessarily mean being the first to enter the market. Lumpkin and Dess make the criticism that Miller's explanation of proactiveness may be too narrow and argue that a proactive firm is not necessarily the first to innovate; the second firm that enters a market can be as novel, forward thinking, and fast as the first firm to enter (p.146).

2.5 The Role of Entrepreneurial Orientation on Entrepreneurial Marketing

The entrepreneurial act is central to business enterprise (Drucker, 1970). Researchers often recognize the importance of entrepreneurship in business operations and use EO as a factor measuring the influence of entrepreneurship on firms' operations and marketing activities. EO can affect different aspects of firms' operations, such as their organizational cultures and strategy-making processes.

An organization culture that fosters high level of EO is suggested to influence how firms perform their general business and marketing activities. Srinivasan et al. (2005) define a firm's entrepreneurial culture as "the extent to which the firm and its top managers are inclined to take business-related risks, and to favor change as a way to obtain competitive advantage." (p.114) An entrepreneurial management style is suggested to be more effective for firms in hostile environments (Khandwalla, 1977). A firm's innovation culture is found to encourage the flow of innovative ideas in its marketing strategy making process (Menon et al., 1999). Carrillat et al. (2004) acknowledge that an organizational culture that fosters risk taking, innovativeness, and interactive organizational learning facilitates the firm's capacity to innovate. They also note that the ability of firms to translate its capacity into market-driving innovation depends on how well firms handle organizational changes. In addition, Srinivasan et al. (2005) find that the greater a firm's entrepreneurial culture, the greater its proactive marketing during times of recession.

Researchers conceptually and empirically examine the impact of EO on firms' marketing practice. Conceptually, Covin and Slevin (1991) propose that EO is positively

correlated with the firm's ability to bring new products to market, identify opportunities for product-market development, and create new product applications from generic technologies (p.16). In a model specifying interrelations between EO, environment, business practice, and organizational culture, Covin and Slevin provide several propositions. One of the propositions speculates that there is a relationship between the level of EO and growth-oriented marketing. It was suggested that firms that place an emphasis on growth should be more entrepreneurial in their strategy in order to achieve their marketing growth goal (p.13).

Empirically, firms with different strategic types are found to have different views regarding the marketing mix and market research (McDaniel and Kolari, 1987). An empirical study by Morris and Paul (1987) finds that firms that "score higher in terms of EO also tend to be more marketing oriented." (p.256) Knight (2000) find that levels of EO are associated with a firm's marketing strategy's emphasis on innovative marketing techniques, product quality, and product specialization. Firms with a high level of EO are more likely to use their marketing strategies in order to entry new markets and to cope with the complex environment (p.27). Atuahene-Gima and Ko (2001) also find that firms with higher levels of both EO and market orientation are more likely to enter new markets than firms with lower level of EO.

Although some empirical studies suggest a relationship between the level of firms' EO and marketing activities, not many have explicitly investigated a causal relationship between the two variables. Davis et al. (1991) empirically examine causal relationships between the level of a firms EO, the turbulence of the environment, the firms marketing activities, and its organizational structure. However, they only find a correlation between EO and marketing activities, not a causal relationship. In a more recent study by Qureshi and Kratzer (2010), an integrated model illustrating the relationships between EO, marketing capabilities, and environment is proposed. Qureshi and Kratzer test a causal relationship between level of firms' EO and their marketing capability. In

their study, marketing capabilities cover six marketing areas: capabilities in marketing research, pricing, product development, channel management, promotion, and marketing management. While a study by Qureshi and Kratzer places an emphasis on firms' marketing capability as an outcome of EO, we focus on EM behaviors as an outcome of EO.

This dissertation proposes that there is a causal relationship between the levels of firms' EO and EM behaviors. We test this relationship in Chapter 5.

2.6 Entrepreneurial Orientation Dimensionality

There is a debate regarding the dimensionality of EO. Some studies treat EO as a unidimensional concept (Covin, 1991; Covin and Slevin, 1989; Miller, 1983), while others treat it as a multidimensional concept (Venkatraman, 1989; Zahra, 1996).

Miller (1983) suggests that to be considered entrepreneurial, a firm needs to have a high level of all the dimensions of EO all at once. Therefore, he suggests that EO should be studied as a unidimensional concept (p.780). In his study, Miller investigates the relationships between entrepreneurial orientation, environmental factors, organizational structure, and decision-making variables. He uses an average score of innovativeness, proactiveness, and risk-taking to measure entrepreneurial orientation. He finds that there are strong correlations between the aggregated score of EO and its dimensions. His results also show that more than seventy percent of all significant correlations between aggregated entrepreneurial orientation and other variables are also significant for innovativeness, proactiveness, and risk-taking. Therefore, he suggests that it is reasonable to use an aggregated score to measure EO.

Prior studies indicate that dimensions of EO may vary independently (Lumpkin and Dess, 1996; Stetz et al., 2000; Kreiser et al., 2002a). Lumpkin and Dess (1996) suggest that the idea that entrepreneurial behaviors should be restricted to reflect only the case in which all dimensions of EO are high may prevent researchers from being able to

explain many types of entrepreneurship (p.150). They suggest that entrepreneurial orientation dimensions may occur in different combinations depending on the environment and organizational context, and the type of entrepreneurial opportunities a firm pursues. Following Lumpkin and Dess (1996), Stetz et al. (2000) conduct a confirmatory factor analysis to test the independence of innovativeness, proactiveness, and risk-taking. They find that these three dimensions of EO are independent of each other. Kreiser et al. (2002a) also investigate the dimensionality of EO using a confirmatory factor analysis. They find that entrepreneurial orientation has a better model fit when it is measured as a three-dimensional measure as opposed to a one-dimensional or a two-dimensional measure. In addition, Kreiser et al. (2002b) find that all the dimensions of EO do not covary when investigating their impact on performance. While innovativeness and proactiveness are found to be positively related to firm performance, risk-taking has a U-shaped curvilinear relationship with performance.

Results from the literature suggest that entrepreneurs do not necessarily have high levels in all the dimensions of entrepreneurial orientation at one time (Brockhaus, 1980; Santos and Eisenhardt, 2009). Brockhaus (1980) mentions that the risk-taking propensity of entrepreneurs may differ depending on how long they have been in the business (p.519). In a study by Santos and Eisenhardt (2009), many firms are found to use proactive but non-innovative strategies to establish their market boundaries. According to a study by Read et al. (2009), innovative entrepreneurs who have founded several firms in the past are very cautious about the marketing decisions they make. Schindehutte et al. (2008) also state that different degrees of innovativeness, risk taking, and proactiveness are possible in a particular entrepreneurial event.

Investigating whether there is a relationship between EO and firm performance, Rauch et al. (2009) find that the magnitude of the relationship between EO and performance does not differ much, whether EO was measured by an aggregated measure or by its subdimensions. Therefore, they conclude that an aggregated score of EO dimensions

can be reasonably used to explain firm performance. Nonetheless, they also note that a careful modification of the original EO measure can be done without losing its validity and that researchers can benefit from using an alternative approach to measuring EO. In particular, Rauch et al. indicate that a multidimensional measure of EO would be more appropriate in a study examining the antecedents and consequences of EO. Since this study focuses on EO as an antecedent of EM, we believe that it is appropriate to investigate the dimensionality of EO by comparing a unidimensional EO with a model with multidimensional EO. In a recent article, Miller (2011) suggest that researchers should not always treat EO as an aggregated construct, but may treat it as a multidimensional construct because different dimensions of EO may have different relationships with variables that the researchers examine. In his own words, “even within a carefully defined context, the differences between the components are important for understanding entrepreneurial behaviour.” (p.8)

This study tests whether EO is a multidimensional or unidimensional construct in how it affects EM behaviors. That is, it tests whether proactiveness, innovativeness, and risk-taking independently or simultaneously affect EM behaviors.

CHAPTER 3

AN EMPIRICAL INVESTIGATION OF ENTREPRENEURIAL MARKETING DIMENSIONS: A CONFIRMATORY FACTOR ANALYSIS

3.1 Introduction

Entrepreneurial marketing (EM) originates from the interface between marketing and entrepreneurship. Marketing at the interface is change focused and opportunistic in nature (Collinson, 2002), involves extensive interplay with the environment (Hills and LaForge, 1992), and has customers as its focal point (Hisrich, 1992). As a result, EM emerges as a new marketing paradigm that helps firms to rethink their ways of doing marketing in highly competitive environments. Researchers have showed that EM behaviors can guide a firm in how to do marketing in the face of uncertainty (Read et al., 2009).

EM behaviors are different from traditional marketing behaviors (Morris et al., 2002b; Hills et al., 2008). Previous studies mention several characteristics of entrepreneurial marketing behaviors, such as calculated risk-taking (Carson and Grant, 1998), decision-making based on intuition and experience (Siu and Kirby, 1999), an inherent focus on the recognition of opportunities (Hills and Singh, 1998), having a flexible approach to markets (Sashittal and Jassawalla, 2001; Shaw, 1999), and exploiting smaller market niches (Sarathy et al., 1993; Stasch, 1999). These EM behaviors are frequently reported in entrepreneurial firms, such as small firms, young firms, and high-growth firms. However, no prior research has examined common factors underlying these behaviors.

This study's objective is to quantitatively examine EM behaviors found in prior research and to create a classification for these behaviors based on real data. We propose that there are six factors underlying EM behaviors and, as a result, these EM behaviors can be categorized into six dimensions. These six EM dimensions are investigated in real data using a confirmatory factor analysis. Then we compare our model with other theoretically-feasible alternative models to check whether the six-factor solution has the

best fit with the data. According to our knowledge, this study is the first attempt to quantitatively confirm EM dimensions in real data.

This study proceeds as follows. In the next section, we introduce our six-factor model and elaborate on each underlying dimension of EM behaviors. Then we provide descriptions of our data set and data analysis in methodology section. The results of our analysis are reported in the results section. In the last section we discuss our findings.

3.2 Entrepreneurial Marketing Behaviors and their six dimensions

EM emerges as a new marketing paradigm that helps firms rethink their ways of doing marketing. It is not suggested as a replacement, but rather as a complement to traditional marketing, in order for firms to compete effectively in highly competitive environments. Research suggests that the interface between marketing and entrepreneurship can help entrepreneurs to deal with change, identify viable opportunities, and develop their innovative skills (Collinson, 2002).

According to Hills et al. (2008), EM is defined as “a spirit, an orientation as well as a process of passionately pursuing opportunities and launching and growing ventures that create perceived customer value through relationships by employing innovativeness, creativity, selling, market immersion, networking and flexibility.” (p.3)

Entrepreneurial marketing covers all emerging new marketing practices, such as guerilla marketing, radical marketing, and expeditionary marketing (Morris et al., 2002b). Moreover, EM covers marketing in small firms (Carson et al., 1995), marketing at the early stage of a firms development (Gruber, 2004), and marketing of high growth firms (Hills and Hultman, 1999). EM behaviors found in these firms have several unique characteristics, such as calculated risk-taking, decisions based on intuition and experience, an inherent focus on the recognition of opportunities, a flexible approach to markets, and the exploitation of smaller market niches.

In a study aiming to investigate how entrepreneurial firms engage in their marketing practices, Hills and Hultman (1999) find several marketing behaviors that are distinctive to entrepreneurial firms. Those behaviors are non-implementation of the marketing mix concept, an emphasis on high quality products, a use of gut feeling and intuition in decision making, a use of networks and relationship in marketing, little engagement in formal market research, and an influence of personal goals over the firms' marketing goals. These behaviors are not new. Other studies have also reported similar behaviors (Hultman, 1999; Stokes, 2000a). Several characteristics of EM behaviors that are frequently found in previous studies are summarized in Hills and Hultman (2006). The characteristics are shown in the right column of Table III.

The reappearance of several EM behaviors across different studies urges us to examine the common factors underlying these behaviors, and whether we can create a classification for them. Based on the characteristics of EM behaviors reported by Hills and Hultman (1999) and Hills and Hultman (2006), this dissertation proposes that there are six common factors underlying EM behaviors. Those factors include growth orientation, opportunity orientation, two-way contacts with customers, value creation through relationships and alliances, informal marketing, and market immersion. Table III shows how EM behaviors summarized by Hills and Hultman (2006) are classified into these six factors. We elaborate on each factor as follows.

3.2.1 Growth Orientation

Entrepreneurial marketing is closely related to growth. The intention to grow a firm is what separates entrepreneurs from non-entrepreneurs (Carland et al., 1984). While small firms generally start small and stay small, entrepreneurial firms grow and strive to grow even further. Therefore, it is also acknowledged that entrepreneurial marketing is the marketing of small firms growing through entrepreneurship (Bjerke and Hultman, 2002).

TABLE III: DIMENSIONS OF ENTREPRENEURIAL MARKETING BEHAVIORS AND THEIR CHARACTERISTICS

EM Dimensions	Characteristics of EM Behaviors (Hills and Hultman, 2006)
Growth Orientation	Marketing decisions are linked to long-term performance Founder and other personalities are central to marketing Exploit smaller market niche
Opportunity Orientation	Inherent focus on recognition of opportunities Focused on proactively creating and exploiting markets Marketing strives to lead customers Innovation in products/services and strategies
Market Immersion	Customer knowledge based on market interaction Marketing decisions based on daily customer contact Reliance on experience A role for passion, zeal and commitment
Two-way Contacts with Customers	Marketing tactics are often two-way with customers Flexible, customization approach to market Speedy reaction to shifts in customer preference Marketing permeates all functional areas of the firm
Value creation through Relationships and Alliances	Use relationships to find customer value Calculated risk-taking in new ventures Marketing based on personal reputation, trust, credibility
Informal Marketing Research	Formal market research is rare Product development is informal with little research Reliance on intuition Planning, is done in short, incremental steps

Entrepreneurial marketing places an emphasis on growth and expansion rather than on short-term profits (Morris et al., 2002a). Entrepreneurial firms' marketing decisions are linked to long-term performance (Hills and Hultman, 2006). Successful entrepreneurs tend to have a long-term orientation toward opportunity creation and exploitation (Hills et al., 2008). Entrepreneurs' ambitions to grow their firms are usually captured by the firm's business model, which will later define that firm's competitive strategy and resource management. According to Morris et al. (2005), entrepreneurs who aim to grow will choose to make "a significant initial investment and also a substantial reinvestment in an attempt to grow the value of the firms to the level that generates a major capital gain for investors." (p.731)

A previous study found that the marketing of high-growth firms is different from that of non-growth firms. According to Hills and Hultman (1999), high-growth firms have a carefully and fully-defined target market, while non-growth firms have a relatively vague description of their target customers. While high-growth firms occupy niche markets of limited size, non-growth firms try to sell their products to everyone. Compared to non-growth firms, high-growth firms have a more balanced product-market orientation. That is, while firms emphasize the use of technology to deliver high quality products and services to their customers, they are also flexible in responding to their customers' demands and are able to provide superior customization of products. In addition, entrepreneurs in high-growth firms are found to have personal goals that are compatible with growth-oriented marketing.

In order to grow, firms can adopt several means to expand their business. Yu and Hills (2007) state that firms grow their business using word-of-mouth, referrals, and increasing repeat business. According to Hill and Rifkin (2000), entrepreneurs expand their customer base by creating communities of customers who are dedicated and loyal to the products. It is important to note that entrepreneurs may not choose to expand or grow their business in the ways that large firms do. Entrepreneurial firms are influenced

by the individuals who manage them and the goals of the firms are often created to match their personal motivations.

3.2.2 Opportunity Orientation

Entrepreneurial marketing places an emphasis on pursuing opportunities. Compared to traditional marketing, entrepreneurial marketing is more opportunity-driven. While traditional marketers are limited by the available resources, entrepreneurial marketers pursue opportunities regardless of the available resources (Morris et al., 2002b). Firms respond to emerging opportunities by continually improvising and redeploying their available resources (Sashittal and Jassawalla, 2001). Read et al. (2009) find that entrepreneurs are more likely than managers to identify and pursue opportunity. That is, they are willing to make product changes, reformulate the concept of the market, and create different market definitions. According to Hills and Singh (1998), entrepreneurs are opportunistic, and enjoy thinking about new opportunities. Entrepreneurs perceive themselves as having a “special alertness” toward opportunities, and see new opportunities “naturally” (p.254).

Entrepreneurial marketers proactively create new markets using innovation and creativity. They focus on creating a new category of products and seek to lead their customers through discontinuous innovation. Morris et al. (2002a) acknowledge that firms that practice entrepreneurial marketing take an innovative and creative approach to marketing. The marketing department in an entrepreneurial firm is central to innovation and houses ideas about new products (Schindehutte et al., 2008). Entrepreneurs are both Kirznerian marketers, who implement successful marketing models in new markets, and Schumpeterian marketers, who create new markets for new products (Hills and Hultman, 2006). A firm’s innovation is not only about its products, but can be also about its processes or strategies. According to McGowan and Rocks (1995), small firms are innovative in their customer services and promotional media. (Stasch, 1998) also finds

that firms are innovative in their marketing strategies. They use innovative strategies such as providing longer term protection, offering improved logistics, establishing new relationships, distributing directly to customers, and providing new services.

Entrepreneurial marketing thrives on change. While traditional marketing focuses on responding to changes in environment, entrepreneurial marketing emphasizes on proactively reshaping the environments. Zeithaml and Zeithaml (1984) report cases of firms using a concept called “environmental management” to change the context in which they operate. Using the environmental management concept, firms can use several strategies to alter their environments, such as establishing dependent relationship with suppliers and negotiating with other firms. Recent empirical studies have found that firms proactively create and exploit markets. Santos and Eisenhardt (2009) examine how new firms in different markets shape their organizational boundaries in their initial years. They find that firms take several steps to create their market boundaries. As a first step, a firm chooses an identity that represents the firm and the market at the same time. Then it takes control of the market by trying to occupy the whole market. The most important step that the firm takes is in not waiting for their potential competitors to make a move. Instead, they proactively establish a role for their potential competitors and bring them into an alliance.

Although opportunities can arise randomly, entrepreneurial marketers are known for proactively searching for new opportunities (Hills and Singh, 1998). Constantly searching for opportunities that are ignored by other firms makes entrepreneurial firms able to serve unsatisfied needs before their competitors can. Wiklund and Shepherd (2005) suggest that proactive firms are able to capture emerging opportunities because they are forward looking and have the will to become pioneers. Entrepreneurial marketers are found to proactively search for their first customers and sometimes create the need for their own products. Entrepreneurs do not only look for opportunities, but also create opportunities for themselves. According to Stasch (1999), firms create an interest in their products by

sending the products to potential customers in the first place. Entrepreneurial marketers' efforts to create opportunities for their products also exist in non-business contexts. Lindh (2005) gives the example of a museum that creates opportunities to present its products by inviting potential customers to host conferences or meetings at the museum. Increasing patronage to the museum helps promote its other products, e.g., art galleries, art training.

3.2.3 Two-way Contacts with Customers

While traditional marketing treats customers as an external source of intelligence and feedback, entrepreneurial marketing integrates their customers into the firm's operations by creating a two-way communication with its customers. Firms use a flexible and customizable approach to the market to satisfy customer demand. According to Schindehutte et al. (2008), entrepreneurial firms establish dyadic relationships with their customer base. Entrepreneurial marketers treat customers as active participants in their firms' marketing decision processes, and their innovations are considered customer-centric (Morris et al., 2002a). Therefore, customers' preferences play a major role in defining firms' product, price, distribution, and communication approaches.

To keep up with changes in customer' preferences, entrepreneurial firms have to be flexible, adaptive, and able to improvise. Flexibility helps firms to provide a speedy reaction to changes in customer preferences (Bjerke and Hultman, 2002). Previous studies report evidences of entrepreneurial marketers adapting or adjusting their products and strategies to suit their customers' preferences. In a study of highly successful entrepreneurs and representative entrepreneurs, Hills and Singh (1998) find that more than ninety percent of entrepreneurs are prepared to quickly adjust their products or services in order to meet customer demands. Hills and Hultman (1999) also find that high growth firms are substantially flexible in responding to their customers in order to provide superior customization of services and products. In a similar manner, Shaw (1999) reports

that entrepreneurs are flexible with their prices so that they can give lower prices to their key clients when needed. According to a study of marketing planning and implementation by Sashittal and Jassawalla (2001), firms are adaptive to day-to-day market events. Instead of being constrained by their current plans, firms make new promises to customers, modify their product designs, change their prices, and adjust their distributional arrangements (p.53).

Flexibility and adaptability in entrepreneurial marketing come from a firm's commitment to delivering superior quality products to customers (Hills and Hultman, 1999). To entrepreneurial marketers, customers are their top priority. Entrepreneurs are willing to find the best way to serve consumers, even if it may incur extra cost. Entrepreneurial marketers always have a vision regarding customer preferences in their minds and constantly think about how to improve customer value (Hills et al., 2008). Shaw (1999) reports that the owners and managers of firms typically work long hours to make sure that their work is completed on time and that they deliver high quality products and services. According to Sarathy et al. (1993), top managers are heavily and personally involved in marketing, almost to the exclusion of all other activities.

3.2.4 Value Creation through Relationships and Alliances

Marketing through networks does not receive much attention in traditional marketing, but it is an important concept in entrepreneurial marketing. Networks can provide not only information about the markets, but also access to potential customers. Resources from a firms' network can help manage risks and allocate resource more efficiently. Entrepreneurial firms' networks are not limited to suppliers and customers, but also include competitors.

Entrepreneurial marketing focuses on creating new value and exploring each marketing mix element in order to search for new sources of customer value (Hills et al., 2008). The main task of an entrepreneurial marketer is to "discover untapped sources of cus-

customer value and to create unique combinations of resources to produce value” (Morris et al., 2002a). Firms rely on their networks to obtain information that can be used to identify the untapped sources of customer value.

Entrepreneurial firms gather market information and gain access to potential customers through their networks (McGowan and Rocks, 1995; Shaw, 1999). Looking at the context of a museum, Lindh (2005) reports that a museum may operate joint projects with different organizations in order to gain access to potential customers. Knowing that good alliances are important to their success, entrepreneurs maintain good relationships with people in their networks. Gilmore et al. (1999) find that entrepreneurs spend a considerable amount of time and effort in maintaining good relationships with regular clients. Shaw (1999) finds that owners and managers of service firms use hospitality as a tool to build a good relationship with key customers. Doing so helps firms to acquire new contracts and maintain long-term relationships with customers (p.205).

Entrepreneurial firms can overcome their resource constraints by utilizing their networks’ resources. This is especially true for small or new firms whose marketing activities are constrained by their lack of resources. Morris et al. (2002a) mention that firms can leverage their resources through various activities, such as collaborative marketing programs with other firms, joint development projects, working with lead customers, and strategic alliances. Previous empirical studies indicate that firms utilize the resources of their networks. Stasch (1999) reports that new firms establish relationships with other firms in order to share marketing resources. A study by Shaw (1999) shows that firms are able to expand their resource base through bartering exchanges with their customers. In addition, Gilmore et al. (1999) report that firms sometimes work together with their competitors in the form of joint arrangement. Doing so benefits them because their competitors have skills and resources that they may not have. In addition, working together with competitors helps prevent customers from taking jobs to a company outside the domestic market (p.195). A study by Siu and Kirby (1999) found that firms also

exchange information with friendly competitors to keep themselves updated regarding overseas buyers.

Networking also helps create trust for small firms and/or new firms. According to Hills and Hultman (1999), small firms have a limited market size with only a small number of identifiable customers. Therefore, networking is a particularly important part of their marketing. Referrals from networks can help entrepreneurs to build good reputations and credibility, which are critical for a firm's survival. To create trust and build strong relationships with their customers, firms interact with their customers through group meetings, newsletters, training programs, and seminars Sarathy et al. (1993).

3.2.5 Informal Marketing Research

While traditional marketing encourages the use of a formal and analytical approach to marketing, entrepreneurial marketing is closely related to informal approaches to marketing. Under traditional marketing, firms use market research to guide their marketing decisions. Under entrepreneurial marketing, however, firms' marketing decisions rely on informal market research and informal marketing plans. Instead of conducting market research to discover customers' needs, entrepreneurial firms collect information about their customers through direct interactions with them. They adopt an informal approach to market planning which is adaptive and improvised. Moreover, their marketing decisions are affected by the personal influences of the individuals who manage the firms.

Prior research shows that entrepreneurs have a tendency not to use formal market research. A study by Hills and Hultman (1999) shows that only a few business owners carried out formal market research. Some entrepreneurs claim that formal market research does not tell them anything they do not already know (p.29). Although entrepreneurs indicate that market research is of value, they did not think that the market research is worth its costs (Spitzer et al., 1989). This evidence, therefore, encourages researchers to conclude that entrepreneurs have only a limited faith in formal market research.

Hills and Hultman (1999) suggest that the tendency not to conduct formal market research may come from the fact that entrepreneurs gain intuitive and rich understanding of the markets through constant direct contact with their customers. Prior studies show evidence of entrepreneurial firms acquiring market information through direct interactions with their customers. Lindh (2005) gives the example of a museum that constantly interacts with its customers by asking for their feedback regarding the museum's activities and sharing information regarding their projects. According to Siu and Kirby (1999), entrepreneurs collect market information through informal discussions with their customers. Entrepreneurs are reported to visit the customers personally and frequently in order to have face-to-face discussions with their customers (p.184). By paying close attention to customers' opinions during the discussions, entrepreneurs are able to identify viable market opportunities (Hills and Singh, 1998).

In traditional marketing, decisions are based on a formal plan which specifies scientific goals and decision rules (Morris et al., 2002a). Marketing decisions under entrepreneurial marketing, on the other hand, do not rely on a formal planning process. Lumpkin et al. (1998) reports that fewer than half of the firms in their study used formal business plans when they started their firms. Coviello et al. (2000) also find that small firms are less likely to rely on formal planning than larger firms. According to Sashittal and Jassawalla (2001), out of the forty firms in their study, seven of them had conducted market planning and eight of them did not have either formal or informal marketing plans on paper. Regardless of the level of formal planning, firms' marketing strategies are considered emergent and are adjusted at the time of implementation (p.53). The use of informal marketing planning may be affected by the fact that entrepreneurial firms operate in turbulent environments. A study by Glazer and Weiss (1993) shows that under turbulent market conditions, marketing teams that do not use formal market planning outperform teams that do use formal market planning.

Informal marketing decisions in entrepreneurial firms are often based on intuition. Owners/managers of entrepreneurial firms follow their instincts in making marketing decisions. Hills and Hultman (1999) report that entrepreneurs are strongly intuitive in their marketing decision-making and some of them state that instead of formal written marketing plan, they tend to “have their plans in their heads”. Hills and Singh (1998) acknowledge that entrepreneurs consider intuitive judgment to be an extremely important part of judging market potential. Some entrepreneurs think that they do not need to use formal marketing tools because they have experience and know the market well (Siu and Kirby, 1999). According to Carson and Grant (1998), entrepreneurs acquire experience regarding marketing mix elements over time. The entrepreneurs believe that this experience helps them to make effective and competent marketing decisions (p184).

The informal aspect of entrepreneurial marketing also covers the personal influence of owners/managers on firms’ marketing activities. Bjerke and Hultman (2002) note that entrepreneurial firms are operated by fewer dominant persons than large firms, and these dominant persons’ goals often guide their firm’s direction. Carson et al. (1995) also state that the personality of owners/managers of firms can influence the state of marketing in the entrepreneurial firms. Owners/managers’ backgrounds in and interpretations of marketing determine what marketing activities will be conducted. This is evident in a study by Sashittal and Jassawalla (2001), which indicates that a firm’s implementation of marketing strategies is based on its managers’ interpretation and skills.

3.2.6 Market Immersion

This dimension of entrepreneurial marketing behavior is closely related to the informal marketing dimension. Entrepreneurial marketers do not always behave in a rational and sequential manner, as is assumed by traditional marketing. Instead, they immerse themselves in the market and behave as if they live in the customer’ world. Entrepreneurs always have customers’ preferences present in their minds and are constantly thinking

about how to improve customer value (Hills et al., 2008). Shaw (1999) reports that the owners and managers of firms typically work long hours to make sure that their work is completed on time and that they deliver high quality products and services. According to Sarathy et al. (1993), top managers are heavily and personally involved in marketing, almost to the exclusion of other activities. Continuously thinking and living as if they are customers helps entrepreneurs to respond to customer demand better than their competitors. Market immersion helps entrepreneurs thoroughly understand the problems that their customers are facing and makes them able to identify the solutions that their customers seek.

Entrepreneurs have their own ways of developing new products or services for their customers. Some entrepreneurs rely on their experience. They think that they do not need to use formal marketing tools because they have experience and know the market well (Siu and Kirby, 1999). According to Carson and Grant (1998), entrepreneurs acquire experience of marketing mix elements over time. Entrepreneurs believe that their experience helps them to make effective and competent marketing decisions (p.184). Networking is also a crucial tool in market immersion activities. Entrepreneurs utilize their networks to stay close to their customers. Through alliances with suppliers and trade partners, entrepreneurs gather information regarding the market and changes in customers' preferences. Constant contact with networks is crucial to entrepreneurs because it helps them to keep up with the market when new information emerges.

In the sections that follow, we empirically examine these six dimensions of EM behaviors. The schematic representation of the proposed model is presented in Figure 1 below.

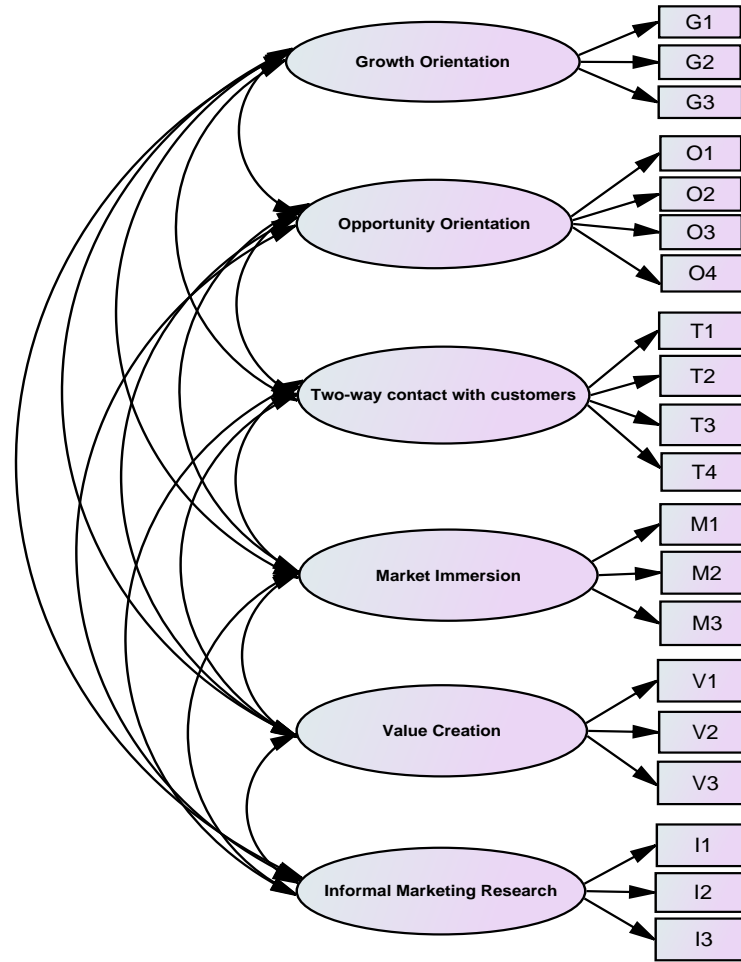


Figure 1: The proposed Six-Factor Model of EM

3.3 Methodology

3.3.1 Data Source

This study uses an archived dataset called the National Small Business Poll 2006. The dataset was collected for the National Federation of Independent Business (NFIB) Research Foundation by the executive interviewing group of The Gallup Organization. The interviews were conducted between November 14 and December 15, 2006 on a sample of 752 small business owners. Small business owner was defined as the owner of a business that employs at least one individual in addition to the owner(s) and no more than 249.

The NFIB Research Foundation draws a sampling frame for the survey from the files of the Dun and Bradstreet Corporation. A random stratified sample was used to compensate for the highly skewed distribution of small business owners by employee size of firm. Using a list-wise (casewise) missing data deletion, 673 observations remain for our analysis. Key characteristics of the sample are shown in Table IV.

TABLE IV: KEY CHARACTERISTICS OF THE SAMPLE^a

a. Size	1 – 9 employees	45.6
	10 – 250 employees	54.4
b. Age	<= 6 years	24.1
	> 6 years	75.1
c. Growth Rate	Decreased	11.9
(change in sales over 3 years)	1 – 10% growth	63.7
	> 10% growth	18.9
d. Sector	Commodity/Construction/Transportation	17.1
	Manufacturing	9.4
	Wholesale/Retail	17.8
	Financial services	8.5
	Professional services	20.7
	Other services	26.3

^a Note: The percentage is based on the sample of 673 observations and may not sum up to 100 due to missing values.

3.3.2 Measures

Firms' EM behaviors are measured by twenty variables. Five-point Likert scales anchored by "Strongly disagree"(1) and "Strongly agree"(5) were used for these variables. Each question was framed as follows: "Please tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statements about marketing as it is done in your business." The variables are categorized according to the entrepreneurial marketing behaviors that they measure. Growth-orientation, market immersion, value creation through alliance, and informal marketing are each measured by 3 variables, while opportunity-orientation and two-way contacts

with customers are each measured by 4 variables. Table V below shows the means and standard deviations of items measuring EM behaviors. A complete list of variables measuring each EM dimension is shown in Table VIII at the end of this chapter.

3.3.3 Analysis

This study uses AMOS 18.0 to examine the existence of six dimensions of EM behaviors. We performed a confirmatory factor analysis (CFA) to determine the fit between a hypothesized model and the sample data. CFA has an advantage over other analytic techniques, such as regression analysis, in that it allows the researcher to specify causal relationships between observed variables and latent factors taking into account measurement error.

The CFA model for EM behaviors hypothesizes a priori that (a) entrepreneurial marketing can be explained by six factors, including growth-orientation, opportunity-orientation, value creation through alliance, two-way contacts with customers, market immersion, and informal marketing, (b) each item-pair measure has a non-zero loading on the entrepreneurial factor that it was designed to measure (target loading), and a zero loading on all other factors (non-target loadings), (c) the six entrepreneurial marketing factors are correlated, and (d) the error/uniquenesses associated with each measure are uncorrelated.

To confirm a hypothesis stating that EM is a six-factor structure, this study has to confirm that the model containing six factors fits the sample data well. There are several criteria to evaluate if the model fits the data well. The most widely used index is the chi-square statistic. Other alternative goodness-of-fit indices that are typically used as adjuncts to the chi-square statistics are RMR, NFI, CFI, and RMSEA.

The root mean square residual (RMR) represents the average residual value derived from the fitting of the variance-covariance matrix for the hypothesized model to the variance-covariance matrix of the sample data. Since these residuals are relative to the

TABLE V: MEAN, STANDARD DEVIATION, AND DISTRIBUTIONS OF ITEMS MEASURING EM BEHAVIORS (N=673)

EM dimension	Items	Mean	Std. Dev.	Distribution of response options (percent)					
				SD ^a	Disagree	Neither	Agree	SA ^b	
Growth orientation									
	G1	4.25	1.13	5.2	6.7	3.1	27.6	57.4	
	G2	4.40	1.00	2.2	6.8	3.9	22.6	64.5	
	G3	4.34	1.03	3.6	5.8	3.1	28.1	59.4	
Opportunity Orientation									
	O1	4.01	1.17	5.9	8.8	5.6	38.0	41.6	
	O2	4.27	1.06	3.6	7.0	4.2	29.6	55.7	
	O3	3.54	1.33	11.7	14.7	7.7	39.2	26.6	
	O4	4.37	.89	3.0	2.1	3.7	37.4	53.8	
Two-way contacts									
	T1	4.21	1.09	3.9	7.9	4.0	31.9	52.3	
	T2	4.37	.99	2.8	5.6	3.7	27.0	60.8	
	T3	4.70	.74	1.3	2.5	.9	15.5	79.8	
	T4	4.44	.90	2.1	4.3	2.7	29.0	62.0	
Value creation									
	V1	4.08	1.19	7.0	7.4	2.8	35.8	47.0	
	V2	3.72	1.29	9.1	13.1	6.8	38.8	32.2	
	V3	3.88	1.22	7.9	9.1	6.7	40.3	36.1	
Informal Marketing									
	I1	3.21	1.42	16.3	21.8	7.3	33.6	21.0	
	I2	4.14	1.13	5.8	5.8	5.2	34.9	48.3	
	I3	3.82	1.24	7.7	11.7	5.8	40.3	34.5	
Market Immersion									
	M1	4.14	1.15	5.1	8.0	5.9	30.2	50.8	
	M2	3.13	1.40	19.2	18.6	8.5	37.4	16.3	
	M3	4.39	.99	3.4	4.5	3.4	27.3	61.4	

^a SD = Strongly Disagree

^b SA = Strongly Agree

sizes of the observed variance and covariances, the standardized RMR is used. The standardized RMR represents the average value across all standardized residuals, and ranges from zero to 1.00. In a well-fitting model, the value will be 0.05 or less. The Normed Fit Index (NFI) is an incremental index that researchers usually use, but it underestimates fit in small samples. Therefore, it is suggested that researchers should use the Comparative Fit Index (CFI) which takes sample size into account. Values for NFI and CFI range from zero to one and are derived from the comparison of a hypothesized model with the independence model. A value close to 0.95 is considered representative of a well-fitting model. The root mean square of approximation (RMSEA) takes into account the error of approximation in the population and identifies how well the model would fit the population covariance matrix if it were available. An RMSEA value of less than 0.05 indicates a good fit.

After conducting a CFA to examine the six-factor model, we will then perform a model comparison to test whether the six-factor model is better than alternative models. We will compare the six-factor model with theoretically-feasible five-factor and seven-factor models.

3.4 Results

3.4.1 The Six-factor Solution

This study analyzed the variance-covariance matrix of the sample data using a maximum likelihood minimization function. A schematic representation of this model is shown in Figure 6. Twenty items measuring EM practice are categorized into six EM dimensions based on the hypothesized model. The latent factors of EM were allowed to be correlated, based on a previous study which suggested that the components of EM are not independent (Morris et al., 2002a). Correlations between the items underlying each EM dimensions are shown in Table VII at the end of this chapter.

The goodness-of-fit indices of the six-factor model are shown in the first column of Table VI. The overall goodness-of-fit indices suggest that the six-factor solution has a good fit with the data with $CFI = 0.94$, $TLI = 0.93$, and $RMSEA = 0.026$. Although the chi-square statistic is significant, with $\chi^2 = 227.54$ ($p < 0.01$), suggesting that the model may not fit well with the data, the chi-square statistic is known to be statistically significant even when the model fits well with the data. Therefore, we rely on other goodness-of-fit indices and conclude that the model fits well with the sample data.

TABLE VI: FIT INDICES OF CONFIRMATORY FACTOR ANALYSIS OF ENTREPRENEURIAL MARKETING DIMENSION

Index	6 factor	5 factor	7 factor
CMIN	227.54	284.05	303.73
DF	156	162	151
CMIN/DF	1.46	1.75	2.01
BIC	579.17	596.62	687.93
CFI	0.94	0.90	0.87
NFI	0.84	0.80	0.78
TLI	0.93	0.88	0.84
RMSEA	0.026	0.033	0.039
RMR	0.048	0.06	0.065

Figure 2 displays the standardized factor loading estimates for the six-factor solution. All of the factor loading estimates were statistically significant ($p < 0.001$).

3.4.2 Model Comparison

To confirm a hypothesis stating that EM is a six-factor structure, this study has to show that the model with six factors fits the sample data better than alternative models. To verify that the six-factor solution has the best fit with the data, this study compares the proposed six-factor model with theoretically-feasible alternative models. Based on the

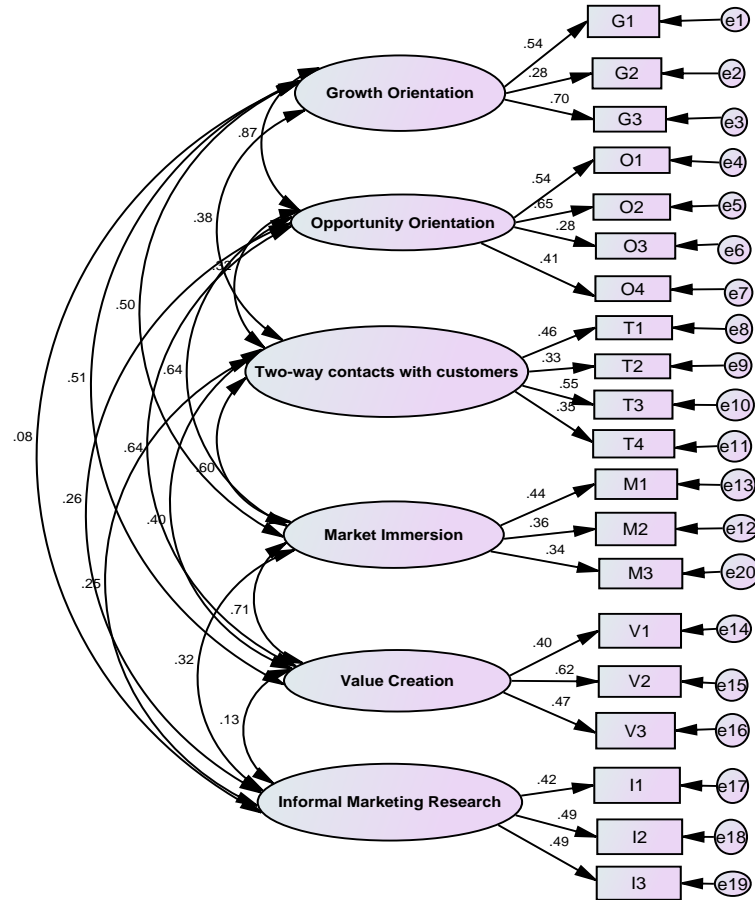


Figure 2: Six-Factor Confirmatory Factor Analysis Results

literature, the twenty items measuring EM behaviors are categorized into five and seven factors.

In particular, we test the hypothesis that EM is a six-factor construct comprising of six dimensions, against alternative hypotheses that a) entrepreneurial marketing is a five-factor structure comprising of five dimensions and b) entrepreneurial marketing is a seven-factor structure comprising of seven dimensions. Figure 3 shows the schematic representations of the five- and seven-factor models.

In the five-factor model, the twenty items measuring EM behaviors are categorized into five factors, namely growth-orientation, opportunity-orientation, value creation through alliance, two-way contacts with customers, and informal marketing. See the left panel

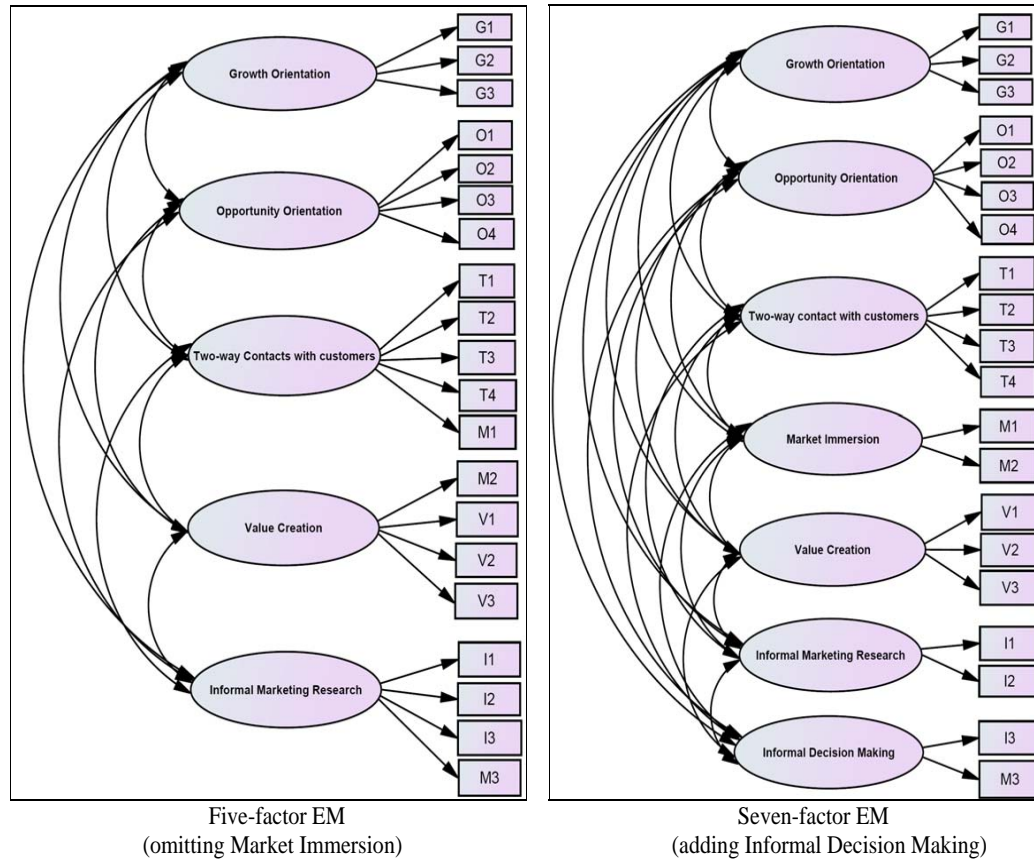


Figure 3: The alternative five- and seven-factor models

of Figure 3 for an illustration of the model. In the seven-factor model, the twenty items are categorized into seven factors, namely growth-orientation, opportunity-orientation, value creation through alliance, two-way contacts with customers, market immersion, informal marketing, and informal decision-making. See the right panel of Figure 3 for an illustration of the model.

We compare the six-factor model with the five- and seven-factor models to see whether the fit between the data and the models improves when the number of factors is altered. To confirm that there are six factors underlying EM, the analysis has to show that the six-factor solution provides a better fit with the data than the five- and the seven-factor solutions.

Table VI shows the fit indices of the five- and seven-factor models along with those from the six-factor model. Compared to the five-factor model and the seven-factor model, all of the fit indices suggest that the six-factor model has a better fit. The CFI is 0.90 when the EM is modeled with five dimensions, 0.94 when modeled with six dimensions, and 0.87 when modeled with seven dimensions. The TLI is 0.88 with five factors, 0.93 with six factors, and 0.84 with seven factors. The RMSEA is 0.033 with five factors, 0.026 with six factors, and 0.039 with seven factors. The chi-square, and the BIC also decrease substantially when the scale was modeled with six factors rather than five or seven factors. Based on these results, our proposed model is supported. That is, EM behaviors have six underlying factors: growth orientation, opportunity orientation, two-way contacts with customers, value creation through alliances, informal marketing, and market immersion.

3.5 Conclusions and Discussion

Although EM behaviors are widely reported in many studies, there is no common classification for these behaviors. When investigating firms' EM behaviors, researchers use different classifications to categorize them. The classifications researchers use vary from one study to another depending on the context, both in content and in number of dimensions (Morris et al., 2002a; Gruber, 2004; Shaw, 2004). As researchers in the field of entrepreneurial marketing continue to make progress by generating new knowledge on the EM concept, we believe that there is a need to create a common classification for EM behaviors.

This study examines the EM concept and proposes that there are six factors underlying EM behaviors. This proposal is based on the characteristics of EM behaviors reported in prior research Hills and Hultman (1999, 2006). The proposed model is then empirically investigated in a surveyed dataset using a confirmatory factor analysis (CFA). We find that our proposed six-factor model fits well with the data. Therefore, EM behaviors

are confirmed to have six underlying factors (dimensions). Additionally, the results also show that the six-factor model fits better with the data than theoretically-based five- or seven-factor models.

This study contributes to the knowledge accumulation in the field of entrepreneurial marketing in that it quantitatively examines the existence of six factors underlying EM behaviors. According to our knowledge, this is the first empirical work to confirm EM dimensions in real data. We believe that an empirically verified classification of EM behaviors should provide a foundation on which other researchers can build and test for a broader theory. Our findings need to be replicated using other sample data in order to confirm the six-factor structure of EM derived from the current study.

TABLE VII: CORRELATIONS BETWEEN 20 ITEMS MEASURING ENTREPRENEURIAL MARKETING

Item	G1	G2	G3	O1	O2	O3	O4	T1	T2	T3	T4	V1	V2	V3	I1	I2	I3	M1	M2	M3
G1																				
G2	.19																			
G3	.16	.39																		
O1	.13	.22	.31																	
O2	.17	.31	.43	.34																
O3	.07	.11	.20	.16	.18															
O4	.09	.16	.25	.25	.27	.11														
T1	.10	.21	.11	.10	.06	.04	.11													
T2	.00	.02	.07	.10	.11	-.03	.06	.11												
T3	.02	.09	.08	.09	.04	-.01	.08	.16	.11											
T4	.12	.15	.10	.07	.12	.04	.06	.25	.21	.22										
V1	.13	.15	.19	.15	.20	.03	.08	.09	.05	.04	.09									
V2	.10	.11	.26	.25	.25	.10	.15	.06	.13	.06	.15	.22								
V3	-.02	.09	.15	.15	.19	.07	.17	.12	.14	.03	.09	.23	.30							
I1	.00	-.02	-.03	.03	.02	.00	.03	.04	.01	-.03	.00	-.07	-.01	.03						
I2	.00	-.02	.04	.02	.09	.11	.07	.11	.12	.04	.02	-.03	.04	.08	.21					
I3	-.04	.06	.09	.07	.10	.07	.13	.15	.15	.03	.01	.02	.05	.13	.21	.23				
M1	.14	.16	.16	.22	.15	.06	.05	.13	.06	.09	.17	.13	.21	.08	.08	.05	.05			
M2	.02	.12	.11	.18	.11	.12	.05	.07	.06	.06	.08	.08	.22	.13	.03	.05	.12	.18		
M3	.08	.10	.06	.19	.13	.04	.12	.16	.04	.11	.11	.10	.13	.11	-.04	.08	.08	.16	.09	

TABLE VIII: MEASURES FOR ENTREPRENEURIAL MARKETING DIMENSIONS

EM dimensions	Measures
Growth Orientation	<p>(G1) Long-term growth is more important than immediate profit.</p> <p>(G2) Our primary objective is to grow the business.</p> <p>(G3) We try to expand our present customer base aggressively.</p>
Opportunity Orientation	<p>(O1) We constantly look for new business opportunities.</p> <p>(O2) Our marketing efforts lead customers, rather than respond to them.</p> <p>(O3) Adding innovative products or services is important to our success.</p> <p>(O4) Creativity stimulates good marketing decisions.</p>
Two-way Contacts with Customers	<p>(T1) Most of our marketing decisions are based on what we learn from day-to-day customer contact.</p> <p>(T2) Our customers require us to be very flexible and adapt to their special requirements.</p> <p>(T3) Everyone in this firm makes customers a top priority.</p> <p>(T4) We adjust quickly to meet changing customer expectations.</p>
Value Creation through Relationships and Alliances	<p>(V1) We learn from our competitors.</p> <p>(V2) We use our key industry friends and partners extensively to help us develop and market our products and services.</p> <p>(V3) Most of our marketing decisions are based on exchanging information with those in our personal and professional networks.</p>
Informal Marketing Research	<p>(I1) Introducing new products or services usually involves little formal market research and analysis.</p> <p>(I2) Our marketing decisions are based more on informal customer feedback than on formal market research.</p> <p>(I3) It is important to rely on gut feeling when making marketing decisions.</p>
Market Immersion	<p>(M1) Customer demand is usually the reason we introduce a new product and/or service.</p> <p>(M2) We usually introduce new products and services based on the recommendations of our suppliers.</p> <p>(M3) We rely heavily on experience when making marketing decisions.</p>

CHAPTER 4

ENTREPRENEURIAL MARKETING PRACTICE: SYSTEMATIC RELATIONSHIPS WITH FIRM AGE, FIRM SIZE, AND FOUNDERS

4.1 Introduction

Firms today operate in a rapidly-changing environment. With fierce competition and increasingly demanding customers, firms have a limited ability to forecast and define their market boundaries (Day and Montgomery, 1999). Traditional marketing may not be adequate for firms competing in this highly dynamic business environment. Recent studies propose firms must be more entrepreneurial in their marketing when dealing with market uncertainty and ambiguity (Read et al., 2009; Santos and Eisenhardt, 2009). Entrepreneurial marketing (EM) practices are documented in both real business practice, and in academic research. Researchers frequently find that EM is practiced by entrepreneurial firms, such as small firms and young firms. However, there is no empirical study of a systematic relationship between such characteristics and EM practice.

This research empirically examines EM practice in order to determine if a systematic relationship exists between firms' characteristics (i.e., age, size, and operator's status) and EM behaviors. The objective is to answer the question, "Do firms systematically practice EM?" This research question seeks evidence of EM practice to determine whether firms systematically (not randomly) practice EM.

This study contributes to the field of EM by investigating relationships between firms' characteristics and EM behaviors in a large surveyed dataset. Knowledge regarding entrepreneurial marketing is generated from existing literature that mainly uses case studies to report marketing practices. Results from this study will help to determine the robustness of the results generated in previous studies. This study uses confirmatory factor analysis which allows us to conduct an examination of EM practice through latent

factors, as opposed to the observed variables used in previous studies. The analysis helps to find new results regarding firms' EM practice that were not reported in prior research.

This paper proceeds as follows. The next section elaborates on the six dimensions of EM. Then the relationships between firm's characteristics and EM behaviors are introduced. Three hypotheses are developed for our analysis and then we explain the research method and present the results and their implications in the last section.

4.2 Entrepreneurial Marketing Dimensions

Hills and Hultman (2006) summarize several characteristics of EM behaviors that are frequently found in previous studies. This study categorizes those behaviors into six EM behaviors, including value creation through relationships and alliances, two-way contacts with customers, growth-orientation, opportunity-orientation, informal marketing, and market immersion. Each EM dimension will be elaborated as follows.

4.2.1 Growth Orientation

EM is the marketing of small firms growing through entrepreneurship (Bjerke and Hultman, 2002). Entrepreneurial firms' marketing decisions are linked to long-term performance. Entrepreneurs' ambitions to grow their firms are usually captured by their firms' business models, which will later define those firms' competitive strategies and resource management. According to Morris et al. (2005), entrepreneurs who aim to grow will choose to make "a significant initial investment and also a substantial reinvestment in an attempt to grow the value of the firms to the level that generates a major capital gain for investors" (p.731). In order to grow, firms adopt several means to expand their business, including word-of-mouth, referrals, and increasing repeat business. Entrepreneurs can also expand their customer base by creating communities of customers who are dedicated and loyal to the products (Hill and Rifkin, 2000).

4.2.2 Opportunity Orientation

EM places an emphasis on pursuing opportunities, regardless of the available resources. Firms respond to emerging opportunities by continually improvising and redeploying their resources. Although opportunity can arise randomly, entrepreneurial marketers are known for proactively searching for new opportunities. Being forward looking and having the will to become pioneers makes entrepreneurial firms able to serve unsatisfied needs and capture emerging opportunities before their competitors can. Innovation and creativity are crucial tools that help entrepreneurial firms to turn opportunities into realities. Innovation is not limited to products or services, but can be also include marketing processes or strategies. Firms focus on creating a new category of products and seek to lead their customers by discontinuous innovation.

4.2.3 Two-way Contacts with Customers

Entrepreneurial firms establish two-way communication with their customers. Entrepreneurial marketers treat customers as an active participant of firms' marketing decision process. Therefore, customers' preferences play a major role in defining a firm's product, price, distribution, and communication approaches. To keep up with changes in customers' preferences, firms use a flexible and customizable approach to the market. Firms quickly adjust their products or services in order to provide superior customization of products and services. Instead of being constrained by their plans, firms are willing to make new promises to customers, modify their product designs, and change their prices.

4.2.4 Value Creation through Alliances

Marketing through networks is an important concept in EM. Networks provide not only information about the markets, but also access to potential customers. Entrepreneurial firms' networks are not limited to suppliers and customers, but also to competitors. Firms resort to their network to obtain the information that can be used to identify untapped

sources of customer value. Resources from networks can also help firms manage their risks and allocate their resource more efficiently. This is especially true for small and new firms whose marketing activities are constrained by their lack of resources.

4.2.5 Informal Marketing Research

Marketing decisions under EM do not always rely on formal planning processes. Researchers found that entrepreneurial firms may not have formal business plans or formal market planning (Lumpkin et al., 1998; Coviello et al., 2000). Firms' marketing strategies are emergent and are adjusted at the time of implementation. Informal marketing decisions in entrepreneurial firms are based on intuition. Entrepreneurs are strongly intuitive in their marketing decision making and they consider intuitive judgment to be an extremely important way of judging market potential. Entrepreneurs gain intuitive and rich understanding of the markets through constant direct contact with their customers. They are able to identify viable market opportunities by paying close attention to their customers' opinions.

4.2.6 Market Immersion

Entrepreneurial marketers are immersed in the market and behave as if they live in their customers' world. They always have their customers' preferences in mind and are constantly thinking about how to improve customer value. Market immersion makes entrepreneurs understand the problems that their customers encounter thoroughly and allows them to respond to customer demand better. Different entrepreneurs have different channels for collecting information regarding market demand. Some entrepreneurs rely on their experience and believe that their experience helps them to make effective and competent marketing decisions. Some entrepreneurs rely on their networks and relationships. Through alliances, such as those with suppliers and trade partners, entrepreneurs are able to stay close to the market and keep up with changes in customers' preferences.

4.3 Entrepreneurial Marketing as Marketing by Entrepreneurial Firms

This study proposes that EM is practiced by entrepreneurial firms. Entrepreneurial firms is defined as small firms, young firms, and entrepreneurs operated firms. Following the behavioral perspective of entrepreneurship, this study defines entrepreneurs as individuals who found, own and operate new firms. Since new firms often start out small, entrepreneurs in this study covers individuals who operate small firms as well. Our analysis is in line with a study by Mintzberg (1973), which suggests that entrepreneurial strategic-making mode is often found in small or young firms and with a study by Khandwalla (1977) who finds that larger and/or older firms tend to have substantially more conservative philosophy than smaller or younger firms. Therefore, this study investigates the relationships between firm age, firm size, and founders and firms' EM behaviors. The following subsections will elaborate on relationships between EM and firm size, firm age, and founders.

4.3.1 Entrepreneurial Marketing in Young Firms

Young firms are considered entrepreneurial firms. They are at the beginning of their development stages, and are more likely to face uncertainty, ambiguity, and turbulent environment than older firms (Stinchcombe, 1965). Entrepreneurs in new firms sometimes lack understanding about the nature of markets. Therefore, it is not unexpected for new firms to face difficulty in implementing their marketing strategies. Researchers report that new firms find it difficult to develop distribution channels, choose the right product mix, create awareness of their products and services, and commercialize their products (Ram and Forbes, 1990; Sarathy et al., 1993). This study expects to find that marketing activities in new firms are conducted differently to those in older firms. To be more precise, this study suggests that new firms implement EM more than older firms.

Numerous studies find that marketing practices in new firms are different from marketing practices in established firms. EM behaviors are more evident in young firms than

in older firms (Gruber, 2004). According to Weinrauch et al. (1990), younger firms use different marketing techniques than older firms. Spitzer et al. (1989), who examine formal marketing planning and analysis in technology-oriented new firms, find that younger firms use less formal market research than older firms. In addition, new firms' networking activities evolve as firms age, and younger firms are found to use less formal market research than older firms (Hite and Hesterly, 2001). According to Teach and Tarpley (1989), executives in younger firms consider marketing activities to be more important, than executives in older firms. (Cunningham and Lischeron, 1991) also note that the entrepreneurial process usually occurs at an early stage of a firm's development.

H1: *Younger firms are more likely to practice EM than older firms.*

4.3.2 Entrepreneurial Marketing in Small Firms

Researchers recognize that marketing in small firms is distinct from marketing in large firms (Carson et al., 1995; Bjerke and Hultman, 2002; Coviello et al., 2000). Overall, small firms are considered more entrepreneurial than large firms because of several characteristics. First, small firms have restricted resources and capabilities compared to large firms, in terms of both financial and human resources; as a result, they cannot perform the same kind of marketing activities that large firms can. Secondly, small firms do not have formal organization structures or formal systems of communication. Their marketing planning is intuitive, loose and unconstructed. Thirdly, small firms have a simple and ad hoc marketing decision-making process. Small firms can make irregular changes in their decision-making pattern during their business engagement. Fourthly, small firms have fewer dominant decision makers than larger firms. Marketing decisions in small firms can be linked directly to the specific personal goals of owners/managers. Finally, small firms can quickly respond to their customers because they have a flatter organization structure than large firms; they are therefore closer to customers and can access customer information better than large firms. Empirical evidence also shows that mar-

keting activities in small firms and large firms are different. Small firms use less costly marketing strategies than large firms (Sriram and Sapienza, 1991). Weinstein (1994) also find that small firms use fewer approaches to define their markets than larger firms.

These above characteristics provide evidence suggesting that EM behaviors should be more prevalent in small firms than in large firms. Therefore, firm size should have a direct impact on EM behaviors.

H2: *Smaller firms are more likely to practice EM than larger firms.*

4.3.3 Entrepreneurial Marketing in Founder-operated Firms

Entrepreneurial firms are influenced by the individuals who operate them (Mintzberg, 1973; Reuber and Fischer, 1999; Runyan et al., 2008). According to upper echelons theory (Hambrick and Mason, 1984; Hambrick, 2007), top management's experiences, values, and personalities greatly influence their choices and organizations' performance. Values and beliefs of top management are critically important in the design of organizations (Khandwalla, 1977). They vitally affect the structure, function, and performance of the organization (p.430). Therefore, we believe that if the management are entrepreneurs, it is likely that firms' business strategy will also be entrepreneurial.

Although there is no agreement on a definition of entrepreneurship, researchers seem to agree on who entrepreneurs are. Based on the behavioral perspective of entrepreneurship, where entrepreneurship is defined as a process of new venture creation (Gartner, 1988; Low and MacMillan, 1988; Sharma and Chrisman, 1999), researchers seem to agree that entrepreneurs are the founders of new businesses.

Prior studies also find that the behavior of entrepreneurs is different from that of non-entrepreneurs. Carland et al. (1984) state that innovation is a factor that distinguishes entrepreneurs from non-entrepreneurs. Entrepreneurs use an innovative approach to manage their resources to obtain profit and growth, while non-entrepreneurs manage a business to achieve their own personal goals. According to prior studies, founders have

a higher need for achievement (Begley and Boyd, 1987), higher risk-taking propensity, greater tolerance of ambiguity, and higher self-efficacy than non-founders (Chen et al., 1998). In addition, Busenitz and Barney (1997) also find that entrepreneurs and managers behave differently, and that these differences are substantial.

The differences in founders and non-founders' behaviors are expected to influence a firm's level of entrepreneurialness and, ultimately, that firm's level of EM practice.

This study hypothesizes that firms that are operated by "entrepreneurs" (founders) are more likely to practice EM than firms that are operated by "non-entrepreneurs" (non-founders).

H3: *Firms that are operated by founders are more likely to practice entrepreneurial marketing than firms that are operated by non-founders.*

4.4 Method

4.4.1 Data Source

This study uses an archival dataset called the National Small Business Poll 2006. The dataset was collected for the National Federation of Independent Business (NFIB) Research Foundation by the executive interviewing group of The Gallup Organization. The interviews were conducted between November 14, 2006 and December 15, 2006 on a sample of 752 small business owners. Small business owner was defined as an owner of a business that employs at least one individual in addition to the owner(s) and no more than 249. The NFIB Research Foundation draws a sampling frame for the survey from the files of the Dun and Bradstreet Corporation. Stratified random sampling was used to compensate for the highly skewed distribution of small business owners by employee size of the firm. Using a list-wise (casewise) missing data deletion, 673 observations remain for the analysis. The key characteristics of the sample are shown in Table IX.

TABLE IX: KEY CHARACTERISTICS OF THE SAMPLE^a

a. Size	1 – 9 employees	45.6
	10 – 250 employees	54.4
b. Age	<= 6 years	24.1
	> 6 years	75.1
c. Growth Rate	Decreased	11.9
(change in sales over 3 years)	1 – 10% growth	63.7
	> 10% growth	18.9
d. Sector	Commodity/Construction/Transportation	17.1
	Manufacturing	9.4
	Wholesale/Retail	17.8
	Financial services	8.5
	Professional services	20.7
	Other services	26.3

^a Note: The percentage is based on the sample of 673 observations and may not sum up to 100 due to missing values.

4.4.2 Measures

EM behaviors are dependent variables in this study. They are measured by 20 variables. Five-point Likert scales anchored by “Strongly disagree”(1) and “Strongly agree”(5) were used for these variables. Each question was framed as follows: “Please tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statements about marketing as it is done in your business.” The variables are categorized according to the EM behaviors that they measure. Growth-orientation, market immersion, value creation through relationships and alliance, and informal marketing are each measured by 3 variables, while opportunity-orientation and two-way contacts with customers are each measured by 4 variables. A complete list of variables measuring each EM behavior is given in Table V in Chapter 3.

The first independent variable represents firm age. The question asks “How long have you owned or operated this business?” The response is the actual number of years the firms have been in business. This study categorizes firms into two categories: firms that

are six years old or younger and firms that are older than six years. Using this criterion, we identified 165 younger firms (24.5 percent) and 503 older firms (74.7 percent). Prior entrepreneurship research considers six years old or younger as a conventional operational definition of a new firm (Brush and Vanderwerf, 1992; Robinson and McDougall, 2001). The definition is based on a study by Phillips and Kirchhoff (1989), who investigate the dynamics of firm formation and growth to determine the survival rate of new firms. Phillips and Kirchhoff find that about two out of five firms survive for at least six years. We also investigate the robustness of the results when we change the cutoff. The findings were not substantially different from those found using the six-year cutoff (See Appendix B).

The second independent variable represents firm size. This study uses the number of employees as a proxy for firm size since it is the most common criterion used in the literature Ahire and Golhar (1996); Bonaccorsi (1992); Hornsby and Kuratko (1990); Wiklund and Shepherd (2005). The question asks “How many people, full-time and part-time, does your business currently employ, not including yourself?” The response gives the actual number of employees in the firms. This study uses a cutoff of 9 employees and divides firms into two groups: smaller firms (9 employees or fewer) and larger firms (greater than 9 employees). This cutoff level is consistent with the European Union definition of micro business, so it is useful for comparing smaller firms with larger firms. Using this criterion, we identify 307 smaller firms (45.6 percent) and 366 larger firms (54.4 percent). It is worth noting that prior studies use a number of different definitions for small business. Wiklund and Shepherd (2005) use a cutoff of 20 employees when investigating the impact of entrepreneurial orientation on firm performance, while Rauch et al. (2009) study the same effect using a cutoff of 50 employees. Bonaccorsi (1992) studies export behaviors of firms using a cutoff of 100 employees, while Hornsby and Kuratko (1990) examine human resource management using a cutoff of 150 employees. In addition, Ahire and Golhar (1996) focus on firms with 250 employees when examining

small firms' quality management. Several studies follow the U.S. Small Business Administration's (SBA) size standard and define small firms as firms that have fewer than 500 employees (Rauch et al., 2009; Golhar and Deshpande, 1997). Evidently, there is no consensus on the threshold by which to categorize a firm's size. We also investigated the robustness of the results. The findings were tested by the number of employees using a cutoff of 15 employees, and the findings were not substantially different from those found with a cutoff of 9 employees (See Appendix B).

The third independent variable represents the founding status of firms' operators. This study identifies if the operators are founders of the business. The question asks "Are you a founder or co-founder of the business?" The response options are "yes" and "no". This study categorizes firms into two groups: firms that are operated by founders and firms that are operated by non-founders. Using this criterion, we identify 445 founder-operated firms (66.1 percent) and 226 non-founder operated firms (33.6 percent). Based on Gartner (1988)'s idea that entrepreneurship is a process of new venture creation, this study treats founders of the new business as entrepreneurs and treats non-founders as non-entrepreneurs. Begley and Boyd (1987), who examine attributes of entrepreneurs and firm performance, differentiate founders from non-founders or successors who run firms which they did not found. In a study of entrepreneurial success, Rauch and Frese (2000) also distinguish founders who manage a firm from managers who work with other people's money, not their own.

4.4.3 Analysis

To check whether one group of firms is more likely to practice EM than another group, this study tests if the latent means of factors underlying EM in one group of firms are higher than the latent means of factors underlying EM in another group. This study uses AMOS 18 to conduct multigroup confirmatory factor analysis (CFA) to compare

the latent means. The schematic representation of the model is shown in Figure 6 in the Appendix.

There are three steps in conducting the analysis. The initial step is to test for configural invariance by fixing the number of factors and the factor-loading pattern to be the same across groups, with no other equality constraints imposed on any of the parameters. The model in this step is called a “configural model”. The fit from the configural model is used as a baseline value against which all subsequent invariance models are compared.

The second step is to test for measurement invariance. In this step, parameters in the measurement and structural components of the model are constrained to be equal across groups. The model in this step is called a “measurement model”, in which the factor loadings are constrained to be equal. Evidence of non-invariance across groups is based on the difference between the chi-square value of this model and the chi-square value of the configural model obtained from the initial step. This difference value is distributed as chi-square with degrees of freedom equal to the difference in the degrees of freedom. If the chi-square difference value is statistically significant, there is evidence of non-invariance across groups. Some researchers have argued that the chi-square difference test may be too stringent for invariance testing. Byrne (2010) refers to Cheung and Rensvold (2002)’s suggestion that it is reasonable to base invariance decisions on a difference in the Comparative Fit Index (CFI) rather than on chi-square values. A difference in CFI values of less than 0.01 is suggested to be evidence of invariance.

The third step is to test for latent mean differences. In this step, both the factor loadings and the observed variable intercepts are constrained to be equal. In the testing process, the latent factor means in one of the groups is freely estimated while the latent means of the other group are normalized to some fixed numbers. This study fixes the latent factor means of one group to be equal to zero, while the latent means of the reference groups are freely estimated. Of interest in this model are the latent mean estimates and the goodness-of-fit between the hypothesized model and the multigroup

data. Critical ratios associated with estimated parameters for the reference groups will reveal if the estimated parameters are statistically significant.

4.5 Results

4.5.1 Firm Age

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying EM dimensions between younger firms (firms that are six years old or younger) and older firms (firms that are seven years old or older). Our analysis gives mixed results. Younger firms are found to have higher latent means for factors underlying EM dimensions than older firms in some dimensions, while having lower latent means in others.

We run a configural model to test whether the pattern of factor loadings are comparable between the two groups. In particular, we evaluate the fit of the six-factor model simultaneously for younger and older firms. The top part of Table X shows goodness-of-fit indices of the model. The goodness-of-fit indices suggest that the six-factor model fits adequately with the sample data, with the CFI= 0.825, NNFI= 0.79, and RMSEA = 0.032. This suggests that the pattern of factor loadings of the EM items is similar for younger firms and older firms (See Table XI). For both types of firms, all the items loaded significantly ($p < 0.001$) on the six intended EM factors.

Results from the top part of Table X also show that the difference between the CFI index of the configural and measurement models for firm age was approximately 0.01. This suggests that the latent factors underlying EM have the same meaning for younger firms as for older firms, and so it is meaningful to compare their means. Additionally, the chi-square value for the model comparing latent factor means between the two groups was significant ($\chi^2 = 26.67$ with $df = 6$), suggesting that younger firms and older firms do not have the same factor means.

TABLE X: MULTIGROUP CFA FIT STATISTICS

Models	Goodness-of-fit index					
	χ^2	df	NFI	NNFI	CFI	RMSEA
Age_Models Compared						
Configural	539.53	320	0.67	0.79	0.825	0.032
Measurement weight	569.48	334	0.65	0.79	0.813	0.033
Measurement intercept (mean)	589.61	348	0.64	0.79	0.808	0.032
Nested model comparison (mean)	26.674	6				
Size_Models Compared						
Configural	500.44	316	0.70	0.83	0.856	0.029
Measurement weight	529.60	334	0.68	0.82	0.844	0.030
Measurement intercept (mean)	549.73	344	0.67	0.82	0.84	0.030
Nested model comparison (mean)	9.471	6				
Founder_Models Compared						
Configural	543.73	314	0.67	0.78	0.82	0.033
Measurement weight	558.14	328	0.66	0.79	0.82	0.032
Measurement intercept (mean)	571.14	342	0.65	0.80	0.82	0.032
Nested model comparison (mean)	4.156	6				

The results of the latent means comparison in Table XII show that younger firms have higher factor means than older firms in two dimensions, including growth-orientation and value creation through alliances. On average, a group of younger firms has a 0.19 unit higher mean for growth-orientation and a 0.09 unit higher mean for value creation through alliances than older firms. Based on these results, we can conclude that marketing in younger firms is aimed more at expanding their businesses and relies more on knowledge from the firms' networks to deliver value to their customers than marketing in older firms.

In contrast to our expectation, the results show that the group of younger firms has a mean of market immersion that is 0.21 units lower than the group of older firms. Since the market immersion dimension is measured by variables measuring whether firms use their suppliers, customer demand, and experience in introducing their products, a lower mean in this dimension implies that younger firms do not use information from their suppliers, customers, and experience as much as older firms when they introduce their products. This may be partly due to the fact that younger firms do not yet have a

TABLE XI: FACTOR LOADINGS OF ITEMS MEASURING EM BY TYPES OF FIRMS

Factor	Item	Type of firms					
		Old	Young	Small	Large	Non-founder	Founder
Growth Orientation	G1	0.60	0.42	0.60	0.46	0.43	0.56
	G2	0.31	0.19	0.31	0.23	0.24	0.30
	G3	0.70	0.57	0.74	0.68	0.61	0.73
Opportunity Orientation	O1	0.55	0.40	0.58	0.48	0.47	0.58
	O2	0.63	0.56	0.68	0.61	0.58	0.68
	O3	0.28	0.23	0.29	0.24	0.26	0.29
	O4	0.42	0.35	0.48	0.35	0.39	0.41
Market Immersion	M1	0.43	0.32	0.28	0.30	0.31	0.34
	M2	0.41	0.30	0.40	0.44	0.43	0.45
	M3	0.33	0.22	0.39	0.43	0.32	0.38
Two-way Contacts with Customers	T1	0.44	0.34	0.42	0.46	0.46	0.46
	T2	0.39	0.36	0.35	0.37	0.32	0.32
	T3	0.57	0.55	0.55	0.56	0.54	0.55
	T4	0.35	0.33	0.39	0.31	0.34	0.33
Value creation through Relationships and Alliances	V1	0.32	0.41	0.39	0.44	0.45	0.43
	V2	0.61	0.75	0.54	0.62	0.53	0.55
	V3	0.46	0.57	0.45	0.56	0.54	0.53
Informal Marketing Research	I1	0.40	0.41	0.35	0.39	0.40	0.41
	I2	0.48	0.46	0.43	0.56	0.45	0.46
	I3	0.51	0.51	0.47	0.57	0.51	0.53

TABLE XII: DIFFERENCES IN LATENT MEANS OF EM FACTORS BY FIRM AGE, USING A GROUP OF YOUNGER FIRMS (6 YEARS OR YOUNGER) AS REFERENCE^a

EM dimension	Younger firms		
	Mean difference	C.R.	
Growth Orientation	0.19	3.20	***
Opportunity Orientation	0.09	1.37	
Market Immersion	-0.21	-2.28	**
Two-way Contact with Customers	0.07	1.29	
Value Creation	0.09	1.72	*
Informal Marketing Research	-0.08	-0.98	

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

well-defined market boundary; therefore, they cannot rely on customer demand when making marketing decisions. In addition, firms that are technology-driven usually create and introduce their products in advance of customers' knowledge. This may imply that product development in younger firms is more technology-based rather than customer-based than product development in older firms.

4.5.2 Firm Size

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying the EM dimensions across firms of different sizes. Smaller firms are firms that have 9 employees or fewer, while larger firms are firms that have 10 employees or more. Our results did not show that smaller firms practice EM more than larger firms.

We run a configural model to test whether the pattern of factor loadings are comparable between the two groups. In particular, we evaluate the fit of the six-factor model simultaneously for smaller and larger firms. The middle part of Table X shows the goodness-of-fit indices for the model. The goodness-of-fit indices suggest that the six-factor model fits adequately with the sample data, with CFI= 0.856, NNFI= 0.83, and RMSEA = 0.029. This suggests that the pattern of factor loadings of the EM items

is similar for smaller firms and larger firms (See Table XI). For both types of firms, all items were loaded significantly ($p < 0.001$) on the six intended EM factors.

The results from the middle part of Table X show that the difference between the CFI index of the configural and the measurement models for firm size was approximately 0.01. This information leads us to conclude that the latent factors underlying EM dimensions have the same meaning for smaller firms as for larger firms. Therefore, it is meaningful to compare their means.

TABLE XIII: DIFFERENCES IN LATENT MEANS OF EM FACTORS BY FIRM SIZE, USING A GROUP OF SMALLER FIRMS (9 OR FEWER EMPLOYEES) AS REFERENCE^a

EM dimension	Smaller firms	
	Mean difference	C.R.
Growth Orientation	-0.11	-2.05 **
Opportunity Orientation	-0.02	-0.29
Market Immersion	-0.09	-1.59
Two-way Contact with Customers	0.02	0.28
Value Creation	-0.02	-0.41
Informal Marketing Research	0.05	0.78

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

The chi-square value for the model comparing latent factor means between the two groups, however, was not significant ($\chi^2 = 9.47$ with $df = 6$). Based on this information, the hypothesis that smaller and larger firms have the same factor means cannot be rejected. In other words, we accept that smaller firms do not practice more EM than larger firms.

A detailed investigation of the results in Table XIII shows that smaller firms have significantly lower means of growth-orientation dimension than larger firms. On average, the group of smaller firms has a mean for growth-orientation that is 0.11 units lower than the group of larger firms. This result, even though unexpected, is not totally surprising. Entrepreneurial firms are known to be influenced by their owners' or managers' personal

preferences when it comes to expanding their businesses (Hills and Hultman, 1999). Some owners/managers may prefer to expand their firms, while some do not want to handle complications that will come with having a larger company (e.g. dealing with more employees). Therefore, these results may imply that smaller firms are small because they prefer to stay small. We will investigate this hypothesis further in section 4.5.4.

4.5.3 Firm's Founders

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying EM dimensions across firms with different operator's status. Our analysis shows that firms that are operated by founders do not have significantly higher means for EM dimensions than firms that are operated by non-founders.

We run a configural model to test whether the pattern of factor loadings are comparable between the two groups. In particular, we evaluate the fit of the six-factor model simultaneously for founder-operated and non-founder-operated firms. The lower part of Table X shows the goodness-of-fit indices for the model. The goodness-of-fit indices suggest that the six-factor model fits adequately with the sample data, with the CFI= 0.82, NNFI= 0.78, and RMSEA = 0.033. This suggests that the pattern of factor loadings of the EM items is similar for founder operated and non-founder operated firms (See Table XI). For both types of firms, all items loaded significantly ($p < 0.001$) on the six intended EM factors.

Results from the lower part of Table X show that the CFI indices of the configural and measurement models are not different. This leads us to conclude that the latent factors underlying EM dimensions have the same meaning for founder-operated firms as for non-founder operated firms. Therefore, it is meaningful to compare their means.

The chi-square statistic for the measurement intercept model compared the latent factor means between the two groups, however, this was not significant ($\chi^2 = 4.156$ with $df = 6$). Based on this information, we cannot reject the hypothesis that founder-

operated firms and non-founder operated firms have the same factor means. In other words, we accept that firms operated by founders do not practice more EM than firms operated by non-founders.

A detailed investigation of our results, as given in Table XIV, shows that none of the differences in the means of the factors underlying EM in both types of firms were statistically significant. We find that firms operated by founders and non-founders practice EM at the same level. Therefore, a firm's founders may not be a good measure to identify the firm's EM practice.

TABLE XIV: DIFFERENCES IN LATENT MEANS OF EM FACTORS BY FOUNDING STATUS, USING A GROUP OF FOUNDER-OPERATED FIRMS (CURRENTLY OPERATED BY FOUNDER) AS REFERENCE^a

EM dimension	Founder-operated firms	
	Mean difference	C.R.
Growth Oriented	-0.05	-0.97
Opportunity Oriented	0.00	-0.05
Market Immersion	-0.02	-0.26
Two-way contact with customers	0.04	0.71
Value creation	-0.08	-1.38
Informal Marketing Research	0.03	0.38

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

4.5.4 Firm Size: A Further Investigation

We can see that the results from our hypothesis testing did not confirm all of the hypotheses. To our surprise, smaller firms do not practice more EM than larger firms in all dimensions, while younger firms are found to practice EM less than older firms in some dimensions. Therefore, a further detailed investigation is needed in order to clarify the impact of size and age on entrepreneurial marketing. We suggest that the impacts of firm age and size should be taken into account at the same time. The result showing

that larger firms are more growth-oriented in their marketing may imply that larger firms grow big because they want to grow, while smaller firms are small because they want to stay small. Therefore, a further investigation was conducted to find evidence that supports this claim.

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying EM dimensions in younger small firms and older small firms. Younger small firms are firms that have 9 employees or fewer and have been in business for 6 years or less, while older small firms are firms that have 10 employees or more and have been established for more than 6 years. The results are shown in Table XV.

TABLE XV: DIFFERENCES IN LATENT MEANS OF EM FACTORS IN SMALLER FIRMS, USING A GROUP OF YOUNGER SMALL FIRMS AS REFERENCE^a

EM dimension	Younger Small firms		
	Mean difference	C.R.	
Growth Orientation	0.30	3.79	***
Opportunity Orientation	0.15	1.89	*
Market Immersion	-0.35	-2.52	**
Two-way Contact with Customers	0.13	1.40	
Value Creation	0.20	2.69	***
Informal Marketing Research	0.01	0.08	

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

We can see that the relationship between firm size and growth orientation dimension of EM changes when firm age is also taken into account. On average, the younger small firms has a mean for growth orientation that is 0.30 units higher than that of older small firms. This finding, therefore, supports the argument that older small firms stay small because they do not aim to grow. This result is in line with a study by Hills and Hultman (1999). Hills and Hultman suggested that there are major reasons why entrepreneurs choose to not expand their businesses. First, entrepreneurs are afraid of losing control over their business. To manage larger number of employees, they would have to delegate control and

responsibility to their employees. This can create a discomfort for many entrepreneurs. Second, entrepreneurs are constrained by their own capacity and availability of resources (e.g. capital, cash, labor, and employees). As a result, they can neither set up higher marketing growth goals nor expand their businesses.

In addition, our results also show that younger small firms are more opportunity-oriented in their marketing and utilize their networks more than older small firms. On average, the group of younger small firms has a mean for opportunity orientation dimension that is 0.15 units higher and a mean for the value creation through alliances dimension that is 0.20 units higher than the group of older small firms. Recall that these results were not statistically significant when firm's age was not taken into account.

The results also show that younger small firms have lower means for the market immersion dimension of EM. This is probably due to the effect of firm age, where we find that younger firms do not use information from their suppliers, customers, and experience as much as older firms when they introduce their products. Since firms that are technology-driven usually create and introduce their products in advance of customers' knowledge, this may imply that the younger small firms in our sample are technology-driven firms. Alternatively, the reason behind this result may be even more straightforward; it may simply reflect the fact that younger small firms do not have as many suppliers and customers, or as much experience as older small firms do and so they use market immersion marketing activities less.

From the above results, we can conclude that relationships between firms' characteristics and firms' practice of EM are more complicated than originally anticipated.

4.5.5 Conclusions and Discussion

This study investigates the practice of EM in firms with different characteristics using multi-group confirmatory factor analyses. The objective was to find systematic relation-

ships between EM practice and the characteristics of the firm's age, the firm's size, and the status of the firm's operator.

The results partially support the argument that there is a systematic relationship between firm age and EM practice. Younger firms are found to use the growth orientation and value creation through alliances dimensions of EM more than older firms. Compared to marketing in older firms, marketing in younger firms aims more toward expanding the customer base and using information from firms' networks.

Our initial investigation did not show a systematic relationship between firm size and the practice of EM. Smaller firms did not use EM more than larger firms. When a further investigation is conducted, taking into account the impact of both firm age and firm size together, the results support the argument that larger firms grow larger because they are more growth-oriented, while smaller firms are small because they are less growth-oriented. These results have important implications for future research, in that the impact of firm size on EM practice may not be as simple as previously anticipated. These results may be influenced by other factors that are not taken into account simultaneously. Therefore, when investigating the impact of a firm's characteristics on entrepreneurial marketing, researchers should take into account the effects of other characteristics at the same time.

This study also investigates the relationship between a firm's operator's status and that firm's entrepreneurial marketing practices, but it did not find a systematic relationship between the two variables. Founder-operated firms did not have higher levels of EM practice than non-founder operated firms. This study treats founders as having high levels of entrepreneurship, and anticipates that entrepreneurship will affect their firms' entrepreneurial marketing practice.

The statistical insignificance and complications of some of the results of our analysis, therefore, suggest that a firm's characteristics alone may not be a good proxy for identifying the level of that firm's EM practice. Researchers may need to use other measures

that can represent the level of firm's entrepreneurship better, such as entrepreneurial orientation, when investigating what determines the level of a firm's EM practice.

The results in this study are not without their limitations. The impact of firm age, firm size, and operator's status on EM practice, although statistically significant, are not very large. Since the latent means of the factor underlying EM are based on a 5-point Likert scale, the biggest impact, of 0.21 units by firm age on the growth-orientation dimension, may still be considered small.

CHAPTER 5

ENTREPRENEURIAL MARKETING AS AN OUTCOME OF ENTREPRENEURIAL ORIENTATION

5.1 Introduction

Entrepreneurial marketing (EM) originates from an interface between marketing and entrepreneurship where its focus is on customers, opportunity, risk, and uncertainty (Collinson, 2002; Hills and LaForge, 1992; Hisrich, 1992). As a result, EM has emerged as a new marketing paradigm that helps firms to rethink their ways of doing marketing in highly competitive environment and guides firms in how to do marketing in the face of uncertainty. Evidence of EM is documented in both real business practice (Buskirk and Lavik, 2004) and in academic research (Coviello et al., 2000; Glazer and Weiss, 1993; Read et al., 2009; Sashittal and Jassawalla, 2001).

EM behaviors are different from traditional marketing behaviors (Morris et al., 2002b; Hills et al., 2008). Previous studies mention several characteristics of entrepreneurial marketing behaviors, such as calculated risk-taking (Carson and Grant, 1998), decisions based on intuition and experience (Siu and Kirby, 1999), an inherent focus on recognition of opportunities (Hills and Singh, 1998), flexible approaches to markets (Sashittal and Jassawalla, 2001; Shaw, 1999), and exploitation of smaller market niches (Stasch, 1999).

EM behaviors are believed to be more evident in smaller firms than in larger firms and in younger firms than older firms. Prior research claims that there are differences between marketing practices in small firms and large firms (Bjerke and Hultman, 2002; Carson et al., 1995; Coviello et al., 2000). Researchers also claim that age is an important factor in firm's marketing strategy and practices (Schwartz et al., 1993). This seems to suggest that size and age are determinants of EM. Nonetheless, the results of our second essay have shown that size and age may not be a good proxy to determine firms' levels of EM. In this study, we argue that EM behaviors are evident in firms that are both small

and young because those firms have high entrepreneurial orientation (EO). That is, EO, a construct widely used to measure entrepreneurship, is the determinant of EM.

The purpose of this study is to determine if there is a systematic relationship between firms' EO and EM behaviors. This study empirically investigates EM behaviors as an outcome of EO. In particular, we hypothesize that EO is an antecedent of EM behaviors. Firms with a higher level of EO are expected to engage in EM more than firms with lower levels of EO. That is, firms with a higher level of EO are expected to have higher means in the EM dimensions than firms with a lower level of EO.

We investigate in detail whether EO acts as a multidimensional construct, where all three dimensions of EO can independently affect EM, or as a unidimensional construct, where all three dimensions of EO simultaneously affect EM. In particular, this study examines how firms' innovativeness, proactiveness, and risk-taking affect their EM behaviors. The literature has not formed a consensus on the dimensionality of EO. Some studies treat EO as a unidimensional concept, while others treat EO as a multidimensional concept. To our knowledge, this study is the first to empirically link the dimensions of EO to EM behaviors. This study also investigates the moderating impact of firm size and firm age on the relationship between EO and EM behaviors. We expect to find that the relationship is stronger in smaller firms than in larger firms and in younger firms than in older firms.

This study proceeds as follows. We elaborate on the EM and EO constructs in the next section. Then the models illustrating relationships between EO and EM are proposed in section 5.3. In the methodology section, we introduce our data source and measures. Then our models are tested, and our analysis is reported in the results section. In this section, the relationship between EO and EM is first examined by multigroup confirmatory factor analysis, treating EO as an observed variable. Then, the relationship is examined by structural equation modeling, treating EO as an unobserved variable. In the final section, we discuss our conclusions and their implications.

5.2 Entrepreneurial Marketing and Entrepreneurial Orientation Constructs

5.2.1 Entrepreneurial Marketing Behaviors

Based on the characteristics of EM behaviors reported by Hills and Hultman (1999) and Hills and Hultman (2006), this dissertation suggests that there are six factors underlying EM behaviors, namely growth orientation, opportunity orientation, two-way contacts with customers, value creation through relationships and alliances, informal marketing research, and market immersion. We elaborate on each behavior as follows by treating each of the six dimensions of EM as latent factors underlying firms' EM practices. Each EM dimension will be briefly elaborated on briefly below. For more detail see Chapter 2.

Growth Orientation

EM is the marketing of small firms growing through entrepreneurship (Bjerke and Hultman, 2002). Entrepreneurial firms' marketing decisions are linked to their long-term performance. Entrepreneurs' ambitions to grow their firms are usually captured by the firms' business models, which will later define firms' competitive strategy and resource management. According to Morris et al. (2005), entrepreneurs who aim to grow will choose to make "a significant initial investment and also a substantial reinvestment in an attempt to grow the value of the firms to the level that generates a major capital gain for investors." (p.731) In order to grow, firms may adopt several means to expand their business including word-of-mouth, referrals, and increasing repeat business. Entrepreneurs can also expand their customer base by creating communities of customers who are dedicated and loyal to the products (Hill and Rifkin, 2000).

Opportunity Orientation

EM places an emphasis on pursuing opportunities, regardless of the available resources. Firms respond to emerging opportunities by continually improvising and redeploying

their resources. Although opportunities can arise randomly, entrepreneurial marketers are known for proactively searching for new opportunities. Being forward looking and having the will to become pioneers allows entrepreneurial firms to serve unsatisfied needs and to capture emerging opportunities before their competitors. Innovation and creativity are crucial tools that help entrepreneurial firms to turn opportunities into realities. A firm's innovation is not limited to its products or services, but can also be seen in its marketing processes or strategies. Firms focus on creating a new category of products and seek to lead their customers by discontinuous innovation.

Two-way Contacts with Customers

Entrepreneurial firms establish two-way communication with their customers. Entrepreneurial marketers treat customers as an active participant in their firms' marketing decision processes. Therefore, customers' preferences play a major role in defining these firms' product, price, distribution, and communication approaches. To keep up with changes in customer preferences, firms use a flexible and customizable approach to the market. Firms quickly adjust their products or services and provide superior customization of products and services. Instead of being constrained by their plans, firms are willing to make new promises to customers, modify their product designs, and change their prices.

Value Creation through Relationships and Alliances

Marketing through networks is an important concept in EM. Networks provide not only information about the markets, but also access to potential customers. Entrepreneurial firms' networks are not limited to suppliers and customers, but also include their competitors. Firms rely on their network to obtain information that can be used to identify untapped sources of customer value. Resources from networks can also help firms manage their risks and allocate their resource more efficiently. This is especially true for small and new firms whose marketing activities are constrained by their lack of resources.

Informal Marketing Research

Marketing decisions under EM do not always rely on formal planning processes. Researchers found that entrepreneurial firms may not have formal business plans or formal market planning (Lumpkin et al., 1998; Coviello et al., 2000). Firms' marketing strategies are emergent and adjusted at the time of implementation. Informal marketing decisions in entrepreneurial firms are based on intuition. Entrepreneurs are strongly intuitive in their marketing decision making and they consider intuitive judgment to be an extremely important part of judging market potential. Entrepreneurs gain an intuitive and rich understanding of the markets through direct constant contact with their customers. They are able to identify viable market opportunities by paying close attention to customers' opinions.

Market Immersion

Entrepreneurial marketers immerse themselves in the market and behave as if they live in their customers' world. They always have customers' preferences present in their minds and are constantly thinking about how to improve customer value. Market immersion helps entrepreneurs thoroughly understand the problems that their customers encounter and be able to respond to customer demand better. Different entrepreneurs have different channels for collecting information on market demand. Some entrepreneurs rely on their experience; they believe that their experience helps them to make effective and competent marketing decisions. Others rely on their networks and relationships; through alliances, such as those with suppliers and trade partners, entrepreneurs are able to stay close to the market and keep up with changes in customers' preferences.

5.2.2 Entrepreneurial Orientation and its Dimensions

Entrepreneurial orientation (EO) originates from the literature in strategic management as strategic postures that explain a firm's behavior. Researchers categorize firms ac-

cording to their strategic postures by placing them along a continuum ranging from conservative to entrepreneurial (Miller, 1983; Covin and Slevin, 1989; Covin, 1991). According to Miller (1983), an entrepreneurial firm is defined as the “one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with proactive innovations, beating competitors to the punch.” (p.771) According to this definition, an entrepreneurial firm can be described using three strategic postures: innovativeness, risk-taking, and proactiveness. These three strategic postures are important dimensions of EO.

Lumpkin and Dess (1996) define EO as “processes, practices, and decision-making activities that lead to new entry.” (p.136) Besides innovativeness, risk-taking and proactiveness, Lumpkin and Dess add two more dimensions of EO to those suggested by Miller (1983): competitive aggressiveness and autonomy. They define competitive aggressiveness as “the intensity of a firm’s effort to outperform rivals and its characterized by a strong offensive posture or aggressive response to competitive threats”, and autonomy as “independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion.”

To begin with, due to the availability of data, this study focuses on the proactiveness, innovativeness, and risk-taking dimensions of EO. We hope to investigate the impact of competitive aggressiveness and autonomy in the future. Each of these dimensions of EO are defined below. For more detail on each dimension of EO, please see Lumpkin and Dess (1996).

Innovativeness

Lumpkin and Dess (1996) define innovativeness as “a firms’ tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services or technological processes.” (p.142) Lumpkin and Dess mention that there are two types of innovativeness: product-market innovativeness and technolog-

ical innovativeness. While technological innovativeness is related to product and process development, engineering, research, and an emphasis on technical expertise and industry knowledge, product-market innovativeness is related to product design, market research, and advertising and promotion (p.143). Lumpkin and Dess indicate that it is hard to distinguish between these two types of innovativeness because there is a case that technological innovation is also developed to meet market demand. Innovativeness is suggested as an important means by which firms can exploit market opportunities because it leads to a higher rate of innovation (Wiklund and Shepherd, 2005). Innovativeness can be represented by a firm's values and beliefs toward innovation and an ability to successfully develop new products or processes (Hult et al., 2003).

Risk-taking

A willingness to take on a risky and uncertain project distinguishes entrepreneurs from hired employees. Risk has several meanings, among which is the possibility of a loss or negative outcome. Miller and Friesen (1982) define risk-taking as "the degree to which managers are willing to make large and risky resource commitments, i.e., those of which have a reasonable chance of costly failures." (p.923)

Entrepreneurial firms are characterized by their risk-taking behaviors. According to Lumpkin and Dess (1996), risk-taking behaviors range from nominal risk, such as depositing money in a bank, to high risk, such as bringing new products or services into new markets. Venkatraman (1989) indicate that a firm's resource allocation decisions and choices of products and markets reflect the extent of risk taken by that firm (p.949). Baird and Thomas (1985) state that firms take risk when they "venture into the unknown, commit a relatively large portion of assets, and borrow heavily." Similarly, Wiklund and Shepherd (2005) state that firms are considered risk-taking when they commit their resources to projects where the outcomes are unknown (p.75).

Risk taking can be viewed as both an individual-level construct and an organizational-level construct. This can cause a problem when measuring risk taking. Lumpkin and Dess mention that the degree of risk taking in firms may be misleading. Firms may take bold actions because risk-averse individuals within the firms have carefully planned how to overcome the risk.

Proactiveness

Venkatraman (1989) explains that proactive behavior is about “seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the nature or declining stages of life cycle.” (p.949) Agreeing with Venkatraman’s definition, Lumpkin and Dess (1996) define proactiveness as processes aimed at anticipating and acting on future needs by proactive behavior (p.146). They suggest that proactive firms do not adjust to changing environments, but instead take initiatives to change and shape their environment.

While Venkatraman emphasizes that proactiveness is about searching for market opportunities, Lumpkin and Dess make it clear that proactiveness is about leading not following. They state that a proactive firm is a leader rather than a follower because it has a desire to seize opportunities. Wiklund and Shepherd (2005) agree with this and state that proactive firms can capture emerging opportunities because they have a forward-looking perspective and the desire to be pioneers. While Miller (1983) implies that proactiveness means being first to come up with proactive innovation, Lumpkin and Dess (1996) believe that being a leader does not necessarily mean being the first to enter the market. Lumpkin and Dess make the criticism that Miller’s explanation of proactiveness may be too narrow and argue that a proactive firm does not necessarily have to be the first to innovate. The second firm that enters a market can be as novel, forward thinking, and fast as the first firm to enter (p.146).

5.3 Models

5.3.1 Entrepreneurial Orientation as an Antecedent of Entrepreneurial Marketing Behaviors

Researchers distinguish entrepreneurial firms from non-entrepreneurial firms using EO. Differences in behaviors of entrepreneurial firms and non-entrepreneurial firms are mentioned in previous studies. According to Miller and Friesen (1982), entrepreneurial firms always aggressively pursue innovation, while non-entrepreneurial firms create innovation only to respond to challenges in their environment. Miller (1983) states that an entrepreneurial firm engages in product innovation, takes risky actions, and comes up with proactive innovations, while a non-entrepreneurial firm imitates others' products, avoids risk, and responds to competitors.

Entrepreneurial marketing behaviors are apparent in entrepreneurial firms. Extant research has also reported that the marketing behaviors of entrepreneurial firms are different from the marketing behaviors of non-entrepreneurial firms. Covin (1991), who empirically examined how business activities are performed by entrepreneurial firms as compared to non-entrepreneurial firms, found that several marketing strategies of entrepreneurial firms differ significantly from those of non-entrepreneurial firms. Compared to non-entrepreneurial firms, entrepreneurial firms offer more extensive customer support and better product warranties, charge higher prices for their products, pay more attention to product quality, and are more concerned with industry and market trends (p.451). We believe that this is evidence suggesting that there is a systematic relationship between the level of a firm's EO and the firms' marketing behaviors.

It was not until recently that the relationship between entrepreneurial orientation and entrepreneurial marketing behaviors is conceptualized. Hills and Hultman (2006) suggest that EM behaviors are driven by EO. They state that while entrepreneurial marketers have the same concept of the 4Ps as traditional marketers, they apply the

concept differently. In Hills and Hultman's words, "it is not the concept of the 4-7Ps that is different in entrepreneurial marketing, but the content and the combination of the Ps applied to the market by entrepreneurs as compared to managers." (p.223)

Entrepreneurial orientation at an individual level also affects how a person performs his/her marketing activities. Researchers report that there are differences in marketing practices of entrepreneurs versus managers. Read et al. (2009) find that entrepreneurs and managers use different decision-making techniques. While entrepreneurs tend to use an effectual logic in their decisions regarding products, prices, and distribution, managers tend to rely more on predictive techniques. Compared to entrepreneurs, who are more likely to price high to maximize profits, managers are more likely to price low to attract more customers. Entrepreneurs are also more likely to make product changes, reformulate the concept of market, and create different market definitions (p.12).

This study suggests that a firm's EO drives its EM behaviors. The higher the level of EO, the higher the degree of EM practices become. The relationship is summarized in the following hypothesis.

Hypothesis 1: *Firms with a higher level of entrepreneurial orientation are more likely to practice entrepreneurial marketing than firms with a lower level of entrepreneurial orientation.*

5.3.2 Entrepreneurial Orientation Dimensionality: Multidimensional versus Unidimensional

This section formulates structural models linking EO dimensions to EM dimensions. We propose two formal models to analyze the relationship between EO dimensions and EM dimensions, one with unidimensional EO and the other one with multidimensional EO. Both models assume that EM is a consequence of EO.

The first model is a structural model that treats EO as a unidimensional construct. In particular, this unidimensional EO construct is represented by a latent variable. We

treat all six EM dimensions of EM behaviors as being consequences of this latent variable. This unidimensional model implicitly assumes that there is no need to distinguish between innovativeness, risk-taking, and proactiveness when analyzing the relationship between EO and EM. Figure 4 illustrates the relationship between EO dimensions and EM behaviors when EO is a unidimensional construct.



Figure 4: Entrepreneurial Orientation as a Unidimensional Construct

This model follows the literature influenced by Miller (1983), suggesting that entrepreneurial firms need to have a high level of all dimensions of EO at one time and that EO should be studied as a unidimensional concept (p.780). Researchers who treat EO as a unidimensional construct usually use an aggregated score of EO in their studies. This is the case for Miller and Friesen (1982), who measure a firm's EO as the average score of innovativeness and risk-taking. In a similar manner, Covin (1991) use the average scores of innovativeness, risk-taking, and proactiveness to measure EO when examining a firm's strategies and performance.

A study by Rauch et al. (2009) examines the impact of EO on firms' performance. Results from their analysis show that the magnitude of the relationship between EO and performance does not differ much whether EO is measured as an aggregate measure or by its sub-dimensions. Therefore, they suggest that an aggregated score of EO dimensions can be reasonably used to explain firm performance.

The first model leads to the following hypothesis.

Hypothesis 2A: *Proactiveness, Innovativeness, and Risk-taking simultaneously drive entrepreneurial marketing behavior.*

Covin et al. (2006), though supporting the use of an aggregate measure of EO as in Miller (1983), do not discourage researchers from using separate measures of EO. They state that although Miller uses the word "entrepreneurial" to describe firms that are concurrently risk-taking, innovative, and proactive, "he never argued that the three dimensions of EO cannot vary independently." (p.79-80) Therefore, Covin et al. notes that "intellectual advancement pertaining to EO will likely to occur as a function of how clearly and completely scholars can delineate the pros and cons of alternative conceptualizations of the EO construct and the condition under which the alternative conceptualizations may be appropriate." (p.80)

The second model is a structural model that treats EO as a multidimensional construct. In this model, each EO dimension is represented by a latent variable. Since there are three EO dimensions innovativeness, risk-taking, and proactiveness EO is therefore represented by three latent variables. Each of these EO dimensions is hypothesized to influence each EM dimension independently. Figure 5 illustrates the relationships between EO dimensions and EM behaviors when EO is treated as a multidimensional construct.

This model follows studies suggesting that each dimension of EO can vary independently (Lumpkin and Dess, 1996; Stetz et al., 2000; Kreiser et al., 2002a,b). Stetz et al. (2000) conduct a confirmatory factor analysis to test the independence of innovativeness, proactiveness, and risk-taking and find that these three dimensions of EO are independent

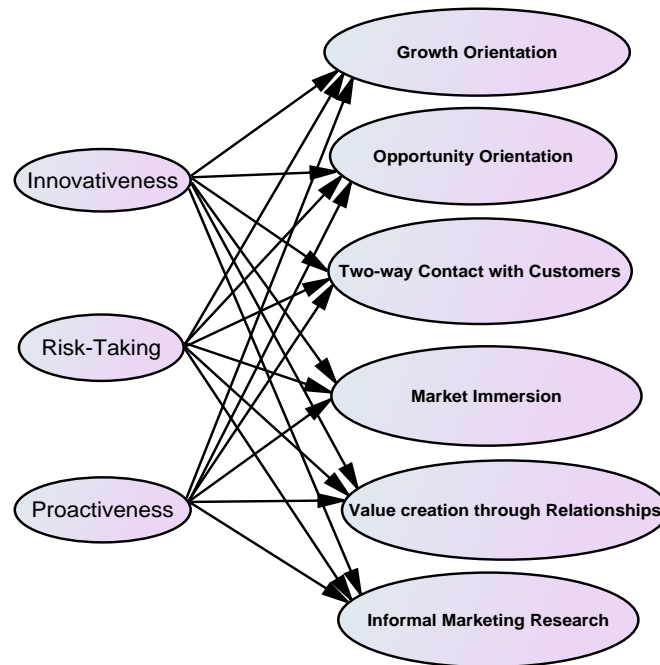


Figure 5: Entrepreneurial Orientation as a Multidimensional Construct

of each other. Using data from several countries, Kreiser et al. (2002b) also investigate the dimensionality of EO using a confirmatory factor analysis. They find that EO fits best with the data when it is measured as a three-dimensional construct instead of as a one-dimensional or a two-dimensional construct. Investigating EO's impact on firm performance, Kreiser et al. (2002a) find that the three dimensions of EO do not always covary. While innovativeness and proactiveness are found to be positively related to a firm's performance, risk-taking has a U-shaped curvilinear relationship with performance. Therefore, they suggest that each dimension of EO can have a different relationship with the outcome variables, and these relationships can be buried by the use of aggregate EO measure. Kreiser et al. suggest that the decision on whether to use aggregate measures of EO or not depends on whether the researchers expect to see a different relationship between the three dimensions of EO and other key variables. If the researchers want to emphasize the accuracy of the relationship between each EO dimension and the key

variables, they are encouraged to use separate measures for the three dimensions of EO (p.86).

Results from many studies also suggest that all dimensions of EO are typically not perfectly correlated; that is, firms do not necessarily have all of them high (or low) at one time. Brockhaus (1980) finds that a firm's risk-taking tendency may vary depending on the duration it has been in business. A study by Santos and Eisenhardt (2009) shows that firms use a proactive but non-innovative marketing strategy to define their market boundaries. In another study, innovative firms are reported to be cautious when they make their marketing decisions (Read et al., 2009). Morris et al. (2002b) suggest that innovativeness, proactiveness, and risk-taking can occur in different combinations and indicate that "not all the dimensions of entrepreneurial marketing need to be operating at once for entrepreneurial marketing to occur."

Although indicating that an aggregate score for EO dimensions can reasonably explain firms' performance, Rauch et al. (2009) also note that researchers can benefit from using an alternative approach to measuring EO. In particular, Rauch et al. indicate that a multidimensional measure of EO might be more appropriate in a study examining antecedences and consequences of EO. Since this study focuses on EM as an outcome of EO, we believe that it is appropriate to treat EO as a multidimensional construct.

The second model leads to the following hypothesis.

Hypothesis 2B: *Proactiveness, Innovativeness, and Risk-taking can independently drive entrepreneurial marketing behavior.*

5.3.3 The Moderating Roles of Firm Size and Firm age

Firm size

Evidence from prior studies suggests that it is important to investigate the indirect effect of a firm's size on its marketing behaviors. LaForge and Miller (1987) find not only a direct impact, but also an indirect impact of a firm's size on its marketing strategy.

They classify the moderating effects of firm size according to a framework proposed by Sharma et al. (1981), and use hierarchical regression analysis to investigate the impacts of a firm's size on the relationships between the environmental situation and its marketing strategies. They find that firm size has a moderating effect in eight out of thirteen models. The nature of the moderating impact of size varies according to the strategy variables. Therefore, we believe that there is a need to incorporate firm size into any study of marketing strategies in order to avoid misleading results.

Based on the above literature, this study hypothesizes that firm size moderates the relationships between each EO dimension and EM behavior. That is, the intensity of EO dimensions on EM behaviors can vary according to firm size. The next hypothesis is set up as follows.

Hypothesis 3: *The impact of entrepreneurial orientation on entrepreneurial marketing behavior is stronger in small firms than in larger firms.*

Under this hypothesis, firms that have the same level of EO but are different sizes may have different levels of EM. Moreover, firms that are the same size but which have different levels of EO may also have different levels of EM. This is different from hypothesizing that size has only a direct impact on EM behaviors. In that case, firms of the same size would practice the same EM regardless of their EO levels. According to the hypothesis proposed in section 5.3.2, EO has a positive impact on EM practice. However, this impact will be smaller in large firms than in small firms. In an extreme case where firm size is really big, the impact of EO in EM behavior may disappear.

Firm Age

We argue that a firm's age can have an indirect impact on the relationship between EO and EM behaviors. Prior studies indicate that a firm's age is correlated with its EO. Khandwalla (1977) find that older firms tend to have a substantially more conservative philosophy than younger firms and that risk-taking is negatively correlated with the age

of a firm. Schwartz et al. (1993) investigate marketing in high-tech firms, and find that older firms are less creative and innovative. They also find that established firms are less willing to take bold actions than younger firms. This is consistent with the finding of Brockhaus (1980) that the risk-taking propensity of entrepreneurs who have been in the markets longer is different from that of new entrepreneurs. In addition, researchers have found that firm age affects how firms do marketing. Teach et al. (1990) find that mature firms place an emphasis on different marketing activities than when they were new firms. This might be due to the fact that their EO level decreases after they have been established for a while.

Therefore, it is important to investigate the indirect impact of a firm's age on its marketing strategies, as well as the direct impact. This study hypothesizes that age has an indirect impact on the relationship between EO and EM behaviors. That is, the intensity of EO dimensions on EM behaviors can vary according to the firm's age. The next hypothesis is set up as follows.

Hypothesis 4: *The relationship between entrepreneurial orientation and entrepreneurial marketing is expected to be stronger in younger firms than in older firms.*

5.4 Methodology

5.4.1 Data

This study uses an archival dataset called the National Small Business Poll 2006. The dataset was collected for the National Federation of Independent Business (NFIB) Research Foundation by the executive interviewing group of The Gallup Organization. The interviews were conducted between November 14, 2006 and December 15, 2006 on a sample of 752 small business owners. Small business owner was defined as the owner of a business that employs at least one individual in addition to the owner(s) and no more than 249. The NFIB Research Foundation draws a sampling frame for the survey from the files of the Dun and Bradstreet Corporation. Stratified random sampling was used

to compensate for the highly skewed distribution of small business owners by employee size of firm. Using a list-wise (casewise) missing data deletion, 545 observations remain for the analysis.

5.4.2 Measures

The EM behaviors are the dependent variables in this study. They are measured by 20 variables using five-point Likert scales anchored by “Strongly disagree”(1) and “Strongly agree”(5). Each question was framed as follows: “Please tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statements about marketing as it is done in your business.” The variables are categorized according to the EM behaviors they measure. Growth-orientation, market immersion, value creation through relationships and alliance, and informal marketing research are each measured by 3 variables, while opportunity-orientation and two-way contacts with customers are each measured by 4 variables. A complete list of the variables measuring each EM behavior is shown in Table 3.6 in Chapter 3.

EO is measured by variables that have been extensively validated in prior research. Each EO dimension is measured by two items. Innovativeness is measured by how much firms place an emphasis on innovative products and how much they make drastic changes to their products. Proactiveness is measured by how often firms initiate actions to which competitors respond and how often they are the first to introduce their products. Risk-taking is measured by how inclined firms are toward behaving cautiously and how inclined they are toward taking high-risk projects. The response options for each item range from 1 (low level) to 3 (high level). A complete list of the variables measuring each EO dimension is given in Table XXIII at the end of this essay.

There are two moderating variables in this study, including firm size and firm age. We use the actual number of years the firms have been in business for firm age. The question asks “How long have you owned or operated this business?” This study categorizes firms

into two categories: firms that are six years old or younger and firms that are older than six years. Prior entrepreneurship research considers six years old or younger as the conventional operational definition of a new firm (Brush and Vanderwerf, 1992; Robinson and McDougall, 2001). The definition is based on a study by Phillips and Kirchhoff (1989) who investigated the dynamics of firm formation and growth to determine the survival rate of new firms. Phillips and Kirchhoff find that about two out of five firms survive at least six years. Using this criterion, we identify 134 younger firms and 408 older firms.

The second moderating variable represents firm size. This study uses number of employees as a proxy for firm size since it is the most common criterion used in the literature (Ahire and Golhar, 1996; Bonaccorsi, 1992; Hornsby and Kuratko, 1990; Wiklund and Shepherd, 2005). The question asks “How many people, full-time and part-time, does your business currently employ, not including yourself?” The response is the actual number of employees in the firms. This study uses a cutoff of 9 employees and divides firms into two groups: smaller firms (9 employees or fewer) and larger firms (greater than 9 employees). This cutoff level is consistent with the European Union definition of micro business, so it is useful in comparing the impact of EO on EM across smaller and larger firms. Using this criterion, we identify 239 smaller firms and 306 larger firms.

5.5 Analysis and Results

Relationships between each dimension of EO and each EM dimension are first investigated by multigroup confirmatory factor analysis (CFA) with EO treated as an observed variable. Then the relationships are investigated using structural equation modeling (SEM) with EO treated as an unobserved variable. We later examine the dimensionality of EO and the moderating roles of firm size and firm age using SEM. We use AMOS 18.0 to conduct all analyses.

5.5.1 Entrepreneurial Orientation's Impact on Entrepreneurial Marketing: The first look

This section first investigates the impact of EO on EM to see whether the group of firms with a high level of EO engages in more EM practice than the group of firms with a low level of EO. We conduct multigroup confirmatory factor analysis (multigroup CFA) to test whether the latent means for factors underlying EM in the group of firms with high EO are higher than the latent means for factors underlying EM in the group of firms with low EO. The schematic representation of the multigroup CFA model is shown in Figure 6.

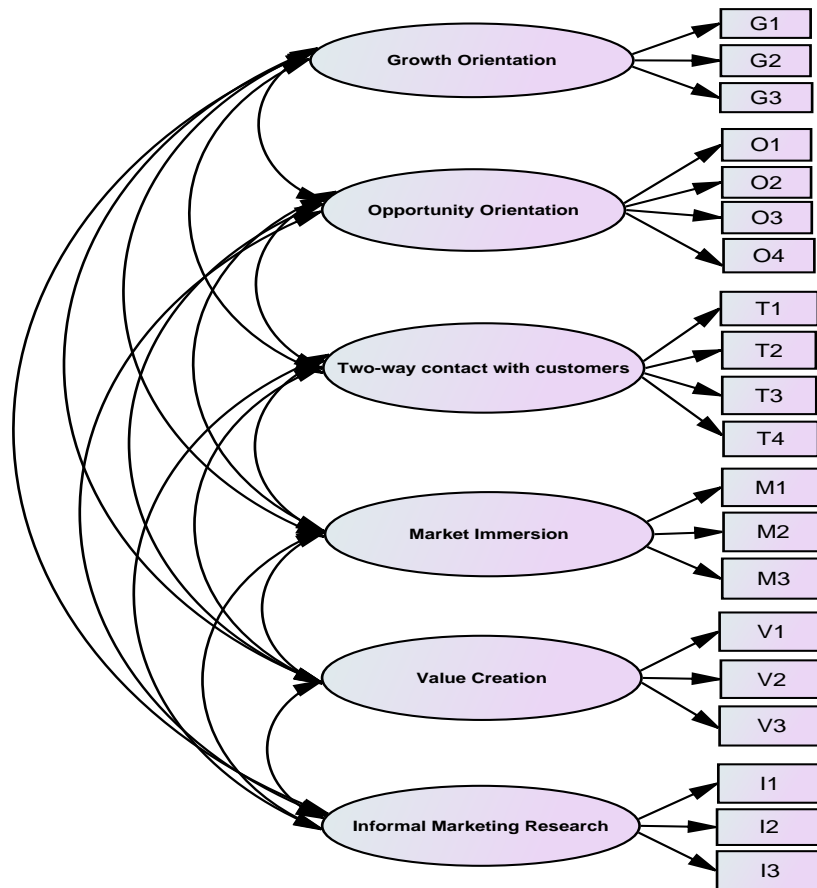


Figure 6: The Six-Factor Model of EM behaviors

To test this hypothesis, EO is treated as an observed variable. The scores of the two variables that measure the same dimension of EO are summed to create a summated score for each EO dimension. For each EO dimension, the sample is divided into two groups: the low EO group and the high EO group. Firms with a summated score of 2 or 3 are considered to be firms with a low level of EO, while firms with a summated score of 4, 5, or 6 are considered to have a high level of EO. We discuss our results according to each EO dimension below.

TABLE XVI: MEAN DIFFERENCES IN TWO-GROUP CONFIRMATORY FACTOR ANALYSIS BY EO DIMENSION^a

EM dimension	EO dimension		
	Innovativeness	Risk-taking	Proactiveness
Growth Orientation	0.18***	0.14***	0.18**
Opportunity Orientation	0.35***	0.31***	0.36***
Market Immersion	-0.02	0.03	0.07
Two-way Contact with Customers	0.04**	0.07	0.18**
Value Creation	0.05	0.10*	-0.13**
Informal Marketing Research	-0.24***	-0.05	-0.11

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

Innovativeness

The first two-group confirmatory factor analysis investigates the effect of innovativeness on EM. It compares the latent means for the EM dimensions in the group of firms that have an emphasis on innovative products and making drastic changes in their products (more innovative group) versus the latent means for the EM dimensions in the group of firms that have an emphasize on tested products and making minor changes to their products (less innovative group). Results show that, on average, the group of more innovative firms scores 0.35 units higher in opportunity-orientation dimension than tge group of less innovative firms (See the second column of Table XVI). That is, the group

of more innovative firms focuses on searching for new business opportunities and leading their customers through new products. Moreover, the group of more innovative firms also scores 0.18 units higher in the growth-orientation dimension than firms that are less innovative. That is, the group of firms that has an emphasis on innovative products and makes drastic changes to the products aims to expand their businesses and customer base, and create long-term growth, unlike the group of firms that relies on tested products.

We also find that the group of more innovative firms scores 0.24 units lower than a group of less innovative firms in the informal marketing research dimension. That is, more innovative firms rely less on informal market research or informal customer contacts when making marketing decisions. Although this is not what we expected, the results may be due to there being two opposite forces in more innovative firms. On one hand, more innovative firms are more likely to introduce products that are really new to customers (i.e. discontinuous products that can be both new to the market and new to the world) than less innovative firms. When introducing products that are really new, innovative firms are more likely to be technology-oriented and develop new products according to emerging technology, rather than customer demand. As a result, they rely less on informal customer contacts. On the other hand, more innovative firms may also be more customer-oriented and want to ensure that their products/services are not too advanced for their customers. Therefore, they conduct market tests and rely on formal market research rather than on informal market research. As a result, they use their gut-feeling less than a group of less innovative firms does. A future study that examines the differences between more innovative firms and less innovative firms should help to test these hypotheses.

Proactiveness

The second two-group confirmatory factor analysis compares the latent means for EM dimensions in the group of firms that initiate actions to which competitors respond and

that are often the first to introduce new products (more proactive group) with the latent means for EM dimensions in the group of firms that respond to initiatives taken by competitors and are seldom the first to introduce new products (less proactive group). As in the case of innovativeness, on average, the group of more proactive firms scores higher in the opportunity-orientation and growth-orientation dimensions than the group of less proactive firms (See the third column of Table XVI). The differences in the latent means for the two factors between the two groups are 0.36 and 0.18 units, respectively. In addition, the group of more proactive firms scores 0.18 units higher than the group of less proactive firms in two-way contacts with customers. That is, marketing in proactive firms is more flexible toward customer demand and can quickly be adapted to changes in customer expectations.

However, the group of more proactive firms scores 0.13 units lower than the group of less proactive firms in the value creation through alliances dimension. This implies that the group of more proactive firms relies less on their partners and networks when making marketing decisions. Although this is not an anticipated result, it is not totally surprising. Extant research has reported that highly proactive firms usually plan ahead and assign a given role to their potential rivals (Santos and Eisenhardt, 2009). That is, they consider their potential rivals as either alliances or competitors. This implies that they may not need inputs from relationships and alliances to market their products. As a result, they may not use inputs from their networks as much as less proactive firms do.

Risk-taking

The third two-group confirmatory factor analysis compares the latent means for EM dimensions in the group of firms that usually takes bold actions and high-risk projects (more risk-taking group) against the latent means for EM dimensions in a group of firms that behave cautiously and take on low-risk projects (less risk-taking group). The results show that, on average, the group of more risk-taking firms scores 0.31 units higher than

the group of less risk-taking firms in the opportunity-orientation dimension (See the fourth column of Table XVI). That is, marketing in firms that are inclined to take risks is aimed more at searching for new business opportunities than on marketing in firms that take cautious steps and do not want to take risks.

In contrast to the case of proactiveness, where more proactive firms rely less on their alliance than less proactive firms, more risk-taking firms rely more on their alliances in making marketing decisions than less risk-taking firms do. The difference in the estimated latent means between the group of more risk-taking firms and the group of less risk-taking firms is 0.10 units. This may imply that more risk-taking firms use their networks to mitigate risks that they encounter. The contrast in the effect of proactiveness and risk-taking on value creation through alliance needs a further investigation and suggests that each dimension of EO may affect EM dimension differently. From a broader perspective, this implies that we should treat EO as a multidimensional construct.

What we know now

Our preliminary analysis suggests that there is a systematic relationship between the level of a firm's EO and the level of a firm's EM. Firms with high levels of innovativeness, proactiveness, and risk-taking have higher means for the factors underlying growth-orientation and opportunity-orientation dimensions of EM behaviors. This suggests that marketing in firms that are more innovative, more proactive, and more willing to take risk focuses more on expanding their business, searching for new business opportunities, and leading customers through innovative products than marketing in firms that are less innovative, proactive, and willing to take risk.

We also find that not all dimensions of EO affect the same EM dimensions in the same direction. While high risk-taking firms utilize their network and alliances more than less risk-taking firms, it is the opposite in the case of more proactive firms versus less proactive firms. This implies that each EO dimension can affect EM behaviors differently and that

EO should be treated as a multidimensional construct. Therefore, in the next section, we will investigate whether EO should be treated as a multidimensional construct when it affects EM.

Our analysis also shows that innovativeness has a negative impact on the informal marketing research dimension of EM and that proactiveness has a negative impact on the value creation dimension of EM. The unanticipated results imply that it may not be the most accurate manner by which to represent EO dimensions by observed variables. Therefore, in the next section, we will further examine the relationships between EO and EM using latent factors to represent EO. Doing so may help to better clarify the influence of each EO dimension on EM behaviors.

5.5.2 Impact of Entrepreneurial Orientation on Entrepreneurial Marketing: Unidimensional or Multidimensional

In the previous section, we treated EO as an observed variable and used multigroup CFA to test the relationship between EO and EM. In this section, we treat EO as an unobserved variable and use structural equation modeling to test the same relationship. Furthermore, we also test EO's dimensionality. To test whether EO is a multidimensional or unidimensional construct affecting EM behaviors, this study tests two structural equation models.

In the first model, innovativeness, risk-taking and proactiveness are projected to simultaneously affect EM behaviors. That is, EO is treated as a unidimensional construct. In this model, six items measuring the three EO dimensions will affect EM behaviors through one latent factor called "EO". The schematic representation of the model is shown in Figure 7.

In the second model, innovativeness, risk-taking, and proactiveness are projected to independently affect each EM behavior. That is, EO is treated as a multi-dimensional construct. In this model, six items measuring EO will affect EM behaviors through three

latent factors called “innovativeness”, “proactiveness”, and “risk-taking”. The schematic representation of the model is shown in Figure 8.

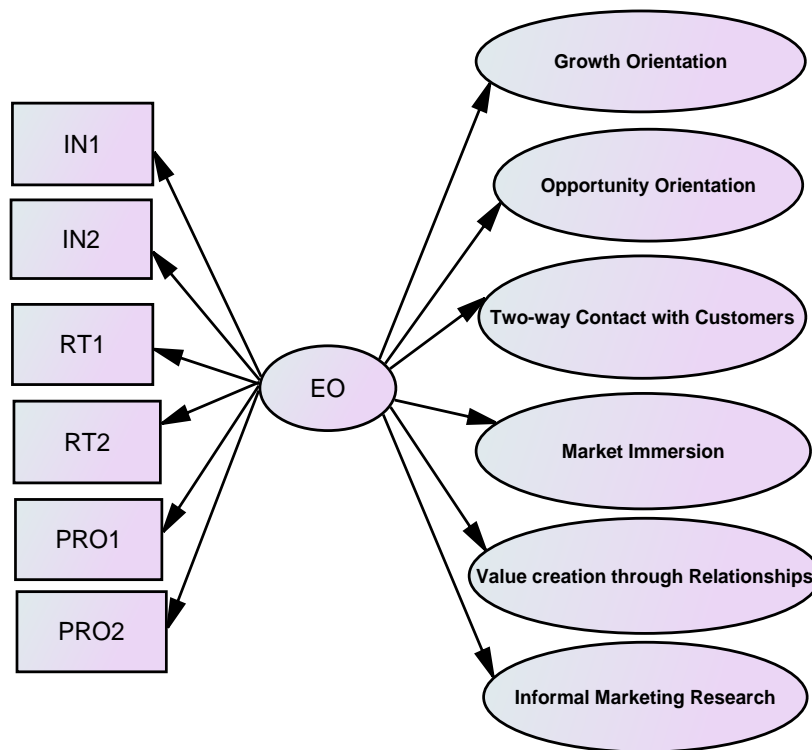


Figure 7: Structural Equation Model with EO as a Unidimensional Construct

The objective of SEM analysis is to determine the extent to which the hypothesized model is supported by the sample data. The proposed SEM models are analyzed using AMOS 18.0. The models are estimated using the maximum likelihood procedure, which is the most widely used. AMOS reports several goodness-of-fit indices which are used to determine the model’s fit; these include the chi-square statistic, the Tucker Lewis fit index (TLI), the root mean square error of approximation (RMSEA), and the Comparative Fit Index (CFI). Structural equation modeling also allows for an assessment of path loadings and whether or not they are significantly different from zero.

The multidimensional EO will be supported if the goodness-of-fit indices indicate that the SEM model depicting three sub-dimensions of EO has a better fit with the data than the SEM model with one EO dimension. Conversely, the unidimensional EO will

be supported if the goodness-of-fit indices indicate that the SEM model depicting EO as an aggregate measure has a better fit with the data. The supported model will later be used to test the moderating role of firm size and firm age.

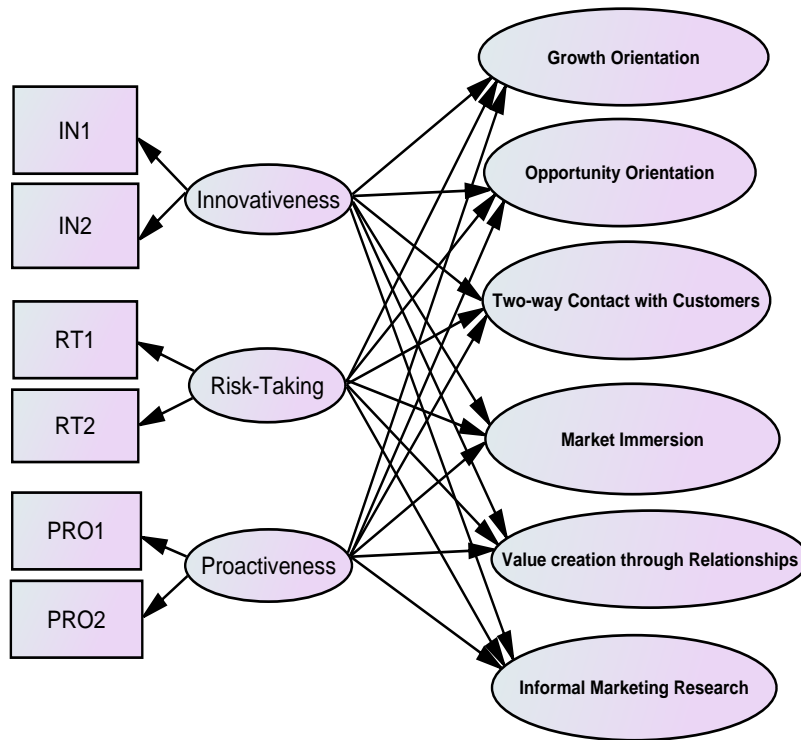


Figure 8: Structural Equation Model with EO as a Multidimensional Construct

We will report the results in the following order: first we report the path coefficients obtained from the SEM model with unidimensional EO and the SEM model with multidimensional EO; secondly, we compare the two models based on the fit indices indicating their fit with the data and decide which model is better; the third SEM model is used to justify the argument that EO should be treated as a multidimensional construct when it affects EM behaviors; finally, the moderating effects of firm size and firm age are investigated using the SEM model with multidimensional EO.

Unidimensional Entrepreneurial Orientation and Entrepreneurial Marketing behaviors

In this section, we look at the path coefficients in the model with unidimensional EO (See Table XVII). The results show that EO, as a latent variable, has a statistically significant positive impact on all dimensions of EM. This confirms the argument that EO makes firms approach traditional marketing differently and practice EM. The strongest impact of EO is on the opportunity orientation dimension (2.76), while the smallest and weakest impact is on informal marketing (0.36). From this model, we can conclude that firms that have a high level of EO will practice marketing that encourages the expansion of current business, exploring opportunities, keeping dyadic relationships with customers, collecting information through informal sources, and creating value using networks and market immersion.

However, treating EO as a unidimensional construct does not tell us in detail how each dimension of EO affects each dimension of EM behavior. Therefore, we look at the path coefficients illustrating the impacts of each EO dimension on each EM dimension in the multidimensional model in the next section.

TABLE XVII: PATH COEFFICIENTS IN THE STRUCTURAL EQUATION MODEL WITH UNIDIMENSIONAL EO^a

EM dimension	coefficient
Growth orientation	1.78***
Opportunity orientation	2.76***
Market immersion	1.56***
Two-way contact with customers	0.96***
Value creation	1.17***
Informal marketing Research	0.36*

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

Multidimensional Entrepreneurial Orientation and Entrepreneurial Marketing behaviors

Now, we look at the results from the SEM model that treats EO as a multidimensional construct. Treating EO as a multidimensional construct gives a clearer picture of how EO affects EM behaviors. We can see that the most significant effects of EO on EM behaviors found in unidimensional model come from the innovativeness dimension of EO (See Table XVIII). Based on the results from the unidimensional and multidimensional models, we conclude that Hypothesis 1 is supported. That is, EM behaviors are driven by EO. Firms with higher levels of EO engage in EM behaviors more than firms with lower levels of EO. The findings confirm that EO makes firms deviate from traditional marketing and approach marketing differently. We can also see that innovativeness dominates the other dimensions of EO in terms of its effects on EM behaviors. This can be seen in the number of significant relationships and the size of the relationship as well.

TABLE XVIII: PATH COEFFICIENTS IN THE STRUCTURAL EQUATION MODEL WITH MULTIDIMENSIONAL EO^a

EM dimension	EO dimension		
	Innovativeness	Risk-taking	Proactiveness
Growth orientation	3.33***	0.11	0.64***
Opportunity orientation	4.93***	0.29**	0.68***
Market immersion	4.18**	-0.05	-0.38
Two-way contact with customers	2.51**	-0.07	-0.08
Value creation	3.06**	0.08	-0.32*
Informal marketing Research	1.38**	-0.12	-0.33

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

The argument that EO is a multidimensional construct seems to be supported by the path coefficients in this model. In the model with multidimensional EO, we find that the path coefficients illustrating the impact of innovativeness, proactiveness and risk-taking do not always follow the same direction (See Table XVIII). While all the path

coefficients from innovativeness to EM behaviors are positive, this is not the case for risk-taking and proactiveness. The two EO dimensions have both positive and negative path coefficients to EM behaviors. Although the majority of these negative path coefficients are not statistically significant, the fact that the multidimensional model gives both positive and negative path coefficients is evidence suggesting that each dimension of EO can independently affect EM behaviors. That is, all dimensions of EO do not always have to affect EM behaviors simultaneously.

The results from TableXVIII also show that innovativeness dimension of EO significantly encourages all six dimensions of EM behaviors at a 0.05 significance level. The biggest impact of innovativeness is in opportunity-oriented behaviors, with a coefficient of 4.93, and the smallest impact of innovativeness is on informal marketing research dimension, with a coefficient of 1.38.

The risk-taking dimension of EO significantly encourages opportunity-oriented marketing behaviors at a 0.05 significance level. Compared to innovativeness's coefficient of 4.93, however, its coefficient is considerably smaller at 0.29. Although being risk-taking seems to lead to more growth-oriented marketing behaviors and more value creation through alliances, its influence on both these dimensions of EM is not statistically significant.

The proactiveness dimension of EO positively affects opportunity-oriented and growth-oriented marketing behaviors at a 0.05 significance level. A one unit increase in a firm's proactiveness leads to a 0.64 unit increase in growth-oriented behavior and a 0.68 unit increase in opportunity-oriented behavior. On the other hand, the results also suggest that there is a negative relationship between proactiveness and value creation through relationships and alliances ($p < 0.10$). This result is similar to the result we obtained through the use of multigroup CFA. It implies that firms in our sample may have products/services that can be marketed without help from from their relationships and al-

liances. We suggest that the relationship between firms' proactiveness and the use of their networks needs to be investigated further in future research.

Note that the impact of the innovativeness dimension of EO on EM behaviors is larger than the impacts of the risk-taking and proactiveness dimensions. The average size of the coefficients for innovativeness dimension is 3.23, while it is 0.12 for risk-taking dimension and 0.40 for proactiveness dimension. This underscores the importance of innovativeness on EM behaviors. Firms that place an emphasis on innovation, technologies, and research and development, and making changes to their products/services practice EM more than those that do not. Note also that all dimensions of EO have a positive impact on opportunity-oriented marketing behavior. This result emphasizes the close relationship between EM and its roots in the field of entrepreneurship where opportunity recognition is a crucial domain.

Models comparison

The fit indices for model comparison are shown in Table XIX below. The majority of the fit indices suggest that the structural equation model with multidimensional EO fits the data better than a structural equation model with unidimensional EO. The CFI index for the multidimensional model was 0.77, while it was 0.74 for the unidimensional model. The RMSEA index for the multidimensional model was 0.044, while it was 0.047 for the unidimensional model. In addition, the TLI or NNFI index for the multidimensional model was 0.74, while it was 0.71 for the unidimensional model.

However, the BIC index favors the unidimensional model (with a value of 1003.68) rather than the multidimensional model (with a value of 1015.99). In addition, the Standard RMR (SRMR) values for both models are equal. Therefore, we cannot make a clear-cut conclusion. EO may act as a multidimensional construct or a unidimensional construct when it affects EM behaviors.

TABLE XIX: FIT INDICES OF STRUCTURAL EQUATION MODEL WITH MULTIDIMENSIONAL EO VERSUS UNIDIMENSIONAL EO^a

Fit Index	Structural Equation Model with		
	Multi EO (all)	Uni EO	Multi EO (partial)
CFI	0.77	0.74	0.78
RMSEA	0.044	0.047	0.044
SRMR	0.06	0.06	0.06
TLI	0.74	0.71	0.75
BIC	1015.99	1003.68	967.09

^a Note: $n = 545$.

It is widely claimed that the BIC index gives bigger penalties to models with more parameters, meaning that models with more parameters get higher values of BIC. This may be the reason why the BIC value is lower for the unidimensional EO model. In order to justify the EO dimensionality, therefore, we create a third SEM model called partial multidimensional EO, which is based on the significant relationships between some EO dimensions and some EM dimensions in the original multidimensional model. In this model, there are relationships between some EO dimensions and some EM dimensions. That is, each EO dimension does not lead to all EM behaviors and each EM behavior is not necessarily driven by all EO dimensions. The schematic representation of the third model is shown in Figure 9. With fewer numbers of parameters to be estimated, the partial multidimensional model should win over the unidimensional model according to the BIC criteria. If that is the case, the argument that EO should be treated as a multidimensional construct will be supported.

The goodness-of-fit indices identifying the fit of the third SEM model with the data are shown in the fourth column of Table XIX. The goodness-of-fit indices that we obtain from the third SEM model show us that this partial multidimensional model fits best with the data, compared to the original multidimensional model (where each EO is anticipated to

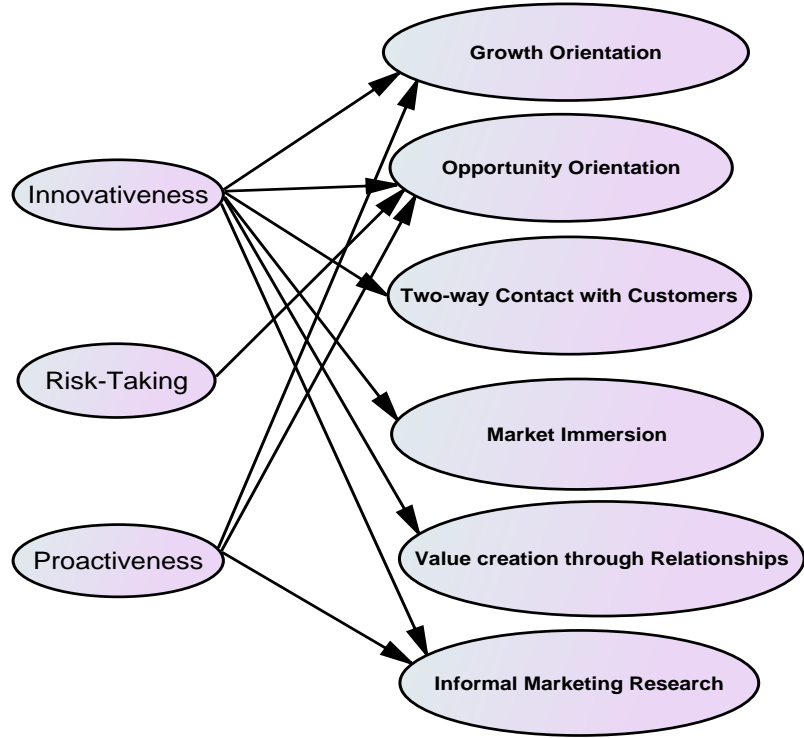


Figure 9: Structural Equation Model with EO as a Multidimensional Construct (Partial)

affect all EM behaviors) and the SEM model with unidimensional EO. This supports our argument that researchers should treat EO as a multidimensional construct when they investigate EO’s impact on EM behaviors. Table XX below shows the path coefficients from the partial multidimensional EO.

5.5.3 Moderating Role of Firm Size and Firm Age

The impacts of firm size and firm age on relationships between EO and EM are tested using SEM models with multidimensional EO. Note that in this section we use the original multidimensional model to test our hypothesis. This is due to the fact that firm size and firm age may affect relationships between each EO dimension and each EM dimension differently. If we had used the partial multidimensional model of EO to test the hypothesis, we might miss some significant relationships, because while some relationships are

TABLE XX: PATH COEFFICIENTS IN THE STRUCTURAL EQUATION MODEL WITH MULTIDIMENSIONAL EO (PARTIAL)^a

EM dimension	EO dimension		
	Innovativeness	Risk-taking	Proactiveness
Growth orientation	3.34***		0.84**
Opportunity orientation	5.08***	0.21**	1.01**
Market immersion	4.44**		
Two-way contact with customers	2.61**		
Value creation	3.54**		-0.19
Informal marketing research	1.36**		

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$, $n = 545$.

not significant in the full model, they might be significant in specific samples of the data when the dataset is split by age and size.

First, we test Hypothesis 3 to examine the moderating role of firm size. We expect to find that the impacts of all EO dimensions on EM behaviors are stronger in smaller firms than in larger firms. The results of our SEM models comparing the impact of EO on EM across both types of firms are shown in Table XXI below. The results show that size moderates the impact of innovativeness on two dimensions of EM behaviors. We find that the impact of innovativeness on opportunity orientation is stronger in smaller firms than in larger firms, with a path coefficient of 3.01 in smaller firms and 0.78 in larger firms. The effect of innovativeness on the growth orientation dimension of EM is 2.29 for smaller firms and 0.38 for larger firms. We find that size does not have a moderating impact on the relationships between proactiveness or risk-taking and EM. Based on these results, Hypothesis 3 is partially supported.

Next, we test Hypothesis 4 to examine the moderating role of firm age. We expect to find that the impacts of all EO dimensions on EM behaviors are stronger in younger firms than in older firms. The results of our SEM models comparing the impact of EO on EM across both types of firms are shown in Table XXII below.

TABLE XXI: PATH COEFFICIENTS ILLUSTRATING MODERATING EFFECT OF FIRM SIZE^a

EO/EM dimension	Smaller firms (n=239)	Larger firms (n=306)
Innovativeness		
Opportunity Orientation	3.20**	0.79***
Growth Orientation	2.52**	0.43**
Market Immersion	3.18**	-0.12
Value Creation	2.28**	-0.10
Two-way Contacts	1.15*	-0.20
Informal Marketing	1.19	-0.46**
Risk-taking		
Opportunity Orientation	0.33*	0.12
Growth Orientation	0.12	0.02
Market Immersion	-0.04	0.04
Value Creation	0.11	0.06
Two-way Contacts	0.09	-0.01
Informal Marketing	0.23	-0.05
Proactiveness		
Opportunity Orientation	1.04*	-21.13
Growth Orientation	0.86*	-11.56
Market Immersion	-0.02	-18.27
Value Creation	0.10	-7.93
Two-way Contacts	0.22	-14.60
Informal Marketing	-0.45	-7.80

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$, $n = 545$.

We find that age marginally ($p < 0.10$) moderates the impact of risk-taking on one dimension of EM behaviors. Although we expect to find a bigger effect of EO on EM in younger firms, this result is opposite to what we anticipated. The effect of innovativeness on opportunity-orientation in younger firms is 0.28, while it is 0.32 in older firms. Therefore, our Hypothesis 4 is not supported. We also find that firm age seems to support the effect of EO on EM in older firms more than in younger firms with a bigger number of significant relationships between the EO dimensions and the EM dimensions.

This is a surprising result, so we investigated further into the results. Note that the sample size for each group of firms in this section is 134 for younger firms and 408 for older firms. The unexpected results may have a number of reasons: first, that there is no variation in the level of innovativeness; or, secondly, the unbalanced sample. We investigate the first point further by comparing the average score of items measuring innovativeness between younger firms and older firms. We find that the scores are not statistically different. For the item measuring whether firms place an emphasis on innovation and technology, the average scores are 1.68 for younger firms versus 1.62 for older firms. For the item measuring whether firms have an emphasis on making drastic changes in their products, the average scores are 1.59 for younger firms versus 1.52 for older firms. As a result, we believe the unbalanced sample may be the reason. We test this assumption by arbitrary changing the cutoff level for firm age to 15 employees, so that we have a more balanced sample. Then, we conducted the test again to see the moderating impact of age one more time. The results show that, with a more balanced sample, firm age seems to moderate the effect of EO on EM behaviors. Nonetheless, the size of these coefficients is still smaller than in older firms.

Based on the above results, we conclude that the moderating impact of firm age on the relationship between EO and EM cannot be clearly identified. We see from our results in Chapter 4 that firm size and firm age interact with each other when they affect EM behaviors. The results in this section may imply that firm size and firm age may also interact with each other when they affect the relationship between EO and EM behaviors. Unfortunately, due to the limited availability of data, we cannot perform a comparison between younger small firms and older small firms using SEM without encountering the problem of underidentified models. Therefore, we leave the task of probing further into this issue to future research when there are enough observations in a new dataset to conduct an analysis using SEM and take into account the firm size and the firm age at the same time.

5.6 Conclusions and Discussion

This study examines the impact of entrepreneurial orientation (EO) on entrepreneurial marketing (EM) behaviors. In particular, we hypothesize that firms' EM behaviors are driven by EO. Firms with a higher level of EO are expected to engage in EM more than firms with a lower level of EO. That is, firms with a higher level of EO are expected to have higher means for EM dimensions than firms with a lower level of EO.

Relationships between the three dimensions of EO are first investigated using multi-group confirmatory factor analysis (CFA) and then using a structural equation modeling (SEM). This study contributes to the knowledge in the field of entrepreneurship and entrepreneurial marketing by linking EO, a widely used construct of entrepreneurship, to EM behaviors and quantitatively identifies EO as an antecedent of EM behaviors. By suggesting that EO should be treated as a multidimensional construct when affecting EM, we also expand the knowledge about the EO construct in the field of entrepreneurship.

Using multigroup CFA, we find that there is a systematic relationship between the level of a firm's EO and the level of its EM. Firms with higher levels of innovativeness, proactiveness, and risk-taking have higher means for the factors underlying growth-orientation and the opportunity-orientation dimensions of EM behaviors. However, we also see that firms with higher levels of innovativeness, proactiveness, and risk-taking have lower factor means for some dimensions. We also find that not all dimensions of EO affect the same EM dimensions in the same direction. This implies that EO should be treated as a multidimensional construct.

Furthermore, we also examine EO using structural equation modeling and treating EO as an unobserved variable. Results from our structural equation models show that all three dimensions of EO have a positive relationship with the growth-orientation and opportunity-orientation dimensions of EM. This is empirical evidence confirming a proposal in the previous literature that entrepreneurial firms aim to grow and expand their customer base rather than starting out small and staying small (Bjerke and Hultman,

2002). Entrepreneurial firms also look to exploiting opportunities and lead customers through their innovations (Hamel and Prahalad, 1991; Christensen et al., 2002). The firms can be growth-oriented and opportunity-oriented in their marketing activities because they are innovative, proactive, and willing to take risk. Note that by treating EO as a latent factor, we can see the impact of each EO dimension on EM dimensions more clearly. Innovativeness was shown to give mixed results when examining the use of a CFA, but it was shown to have statistically significant and positive impact on all dimensions of EM under structural equation modeling. This implies that the treatment of a variable and the use of different statistical techniques can critically affect the results.

We further test the dimensionality of EO when it affects EM using structural equation modeling. Our initial results suggest that EO should be treated as a multidimensional construct but this is not a clear-cut conclusion. While the majority of goodness-of-fit indices suggest the SEM model with multidimensional EO fits the data better than the SEM model with unidimensional EO, the BIC criteria suggests otherwise. Only when we adjust the model to account for partial relationships between some dimensions of EO and some dimensions of EM do all the goodness-of-fit indices completely support our hypothesis. Our findings support a seemingly new consensus among entrepreneurship research scholars who seem to suggest a direction toward multidimensional EO when researchers want to clarify relationships between each EO dimension and the variables of interest (Covin and Wales, 2011; Miller, 2011).

The fact that innovativeness has the strongest impact on EM, compared to proactiveness and risk-taking, has the significant implication that innovativeness is an essence of EM firms. This may reduce the importance of risk-taking, the dimension that has been thought to be an inherent quality of entrepreneurs. That is, in contrast to entrepreneurship literature which gives most importance to the risk-taking dimension of EO, risk-taking is not as important as it is suggested. The explanation may be that

entrepreneurs are not ordinary risk-takers, but are instead calculative risk-takers who have plan things in such a way as to leverage their risks (Morris et al., 2002b).

The fact that innovativeness is shown to be a main contributor to EM behaviors underscores its importance to EM. It is also a justification for why this dimension of EO receives so much attention from marketing scholars. Based on our results, we believe that it is innovativeness that distinguishes entrepreneurial marketers from non-entrepreneurial marketers. Without innovativeness, these firms' marketing activities would not have been entrepreneurial. This is in line with an earlier study which suggests that innovativeness makes firms search for new innovative product concepts that reshape their markets' and industries' boundaries (Hamel and Prahalad, 1991). The finding is also consistent with prior studies which claim that innovativeness is a source of growth (Hamel and Prahalad, 1991; Christensen et al., 2002).

Innovativeness in a firm is not limited to product innovation, but is also about strategies and business operation. According to Kumar et al. (2000), a unique business system that is hard to replicate and a discontinuous leap in the value proposition are two crucial dimensions of radical innovations and form a foundation for success in a market-driving strategy. Firms that are successful in their radical innovations seize an advantage from several marketing activities. They have visions that differ from traditional marketing, educate their customers on the existence of and how to consume their products, select employees who subscribe to the values of the organization, use word-of-mouth instead of advertising campaigns, and deliver values that overwhelm customers' expectations.

The fact that EM is largely driven by innovativeness suggests that EM is inherently innovative. This has a significant implication for non-innovative firms. That is, an optimum strategy for non-innovative firms that want to become innovative is to adopt EM and encourage the flow of innovative ideas. Since EM is a market-driving marketing strategy (Schindehutte et al., 2008), we believe that several activities suggested by Kumar et al. (2000) as a means to facilitate market-driving behaviors are also applicable to all

firms as a means to facilitate the flow of innovative ideas. Those activities include allowing for serendipity, selecting employees who match a firms' vision, establishing competitive teams to develop innovative ideas, and offering multiple channels for approval of new ideas.

TABLE XXII: PATH COEFFICIENTS ILLUSTRATING THE MODERATING EFFECT OF FIRM AGE^a

EO/ EM dimension	Six year cut-off		Fifteen year cut-off	
	Younger (n=134)	Older (n=408)	Younger (n=295)	Older (n=247)
Innovativeness				
Opportunity Orientation	11.65	0.61***	4.57**	5.96
Growth Orientation	3.15	0.35***	2.65**	4.73
Market Immersion	10.08	-0.09	3.89**	5.16
Value Creation	7.44	0.20**	2.30**	4.81
Two-way Contacts	4.94	-0.17	1.72**	4.14
Informal Marketing	5.99	-0.54***	0.98	2.17
Risk-taking				
Opportunity Orientation	0.28*	0.32*	0.25*	0.32
Growth Orientation	0.033	0.259	0.052	0.19
Market Immersion	0.18	-0.091	0.029	-0.19
Value Creation	0.19*	-0.075	0.066	0.06
Two-way Contacts	0.178	-0.091	0.057	-0.26
Informal Marketing	0.151	-0.036	-0.098	-0.15
Proactiveness				
Opportunity Orientation	0.05	7.62	0.21	1.65*
Growth Orientation	0.05	6.40	0.35**	1.38*
Market Immersion	-0.15	6.54	-0.32	-0.39
Value Creation	-0.27*	3.30	-0.37**	-0.51
Two-way Contacts	-0.06	4.74	-0.11	-0.11
Informal Marketing	-0.05	2.64	-0.24	-0.20

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$, $n = 545$.

TABLE XXIII: ITEMS MEASURING ENTREPRENEURIAL ORIENTATION DIMENSIONS

Item	Questions	Response Options
Innovativeness		
IN1	My business places a strong emphasis on	1) Tried and tested practices, equipment, and products/services 2) Innovation, technological leadership, and RnD 3) Equally, the same
IN2	In the last 3 years, changes in my products/services have been	1) Mostly of a minor nature 2) Usually quite dramatic 3) Equally, the same
Risk-Taking		
R1	My business is inclined toward	1) Low risk projects with certain and normal rates of return 2) High risk projects with chances of very high returns 3) Equally, the same
R2	Due to the nature of my business environment, is it best to	1) Explore potential opportunities gradually, through cautious behavior 2) Take wide-ranging bold actions to achieve the firm's objectives 3) Equally, the same
Proactiveness		
PRO1	My business typically	1) Responds to initiatives my competitors take 2) Initiates action to which my competitors respond 3) Equally, the same
PRO2	My business is —the first to introduce new products/services	1) Often 2) Seldom 3) Equally, the same

CHAPTER 6

CONCLUSIONS

Through three essays, this dissertation contributes to entrepreneurial marketing (EM) in three different ways.

First, we provide a framework to classify EM behaviors by proposing six factors underlying EM behaviors and confirming their existence empirically. These factors are i) growth-orientation, ii) opportunity orientation, iii) value creation through relationships and alliances, iv) two-way contacts with customers, v) informal marketing, and vi) market immersion. This classification should provide a foundation for further knowledge creation in the field of entrepreneurial marketing, just as the entrepreneurial orientation (EO) construct does for the field of entrepreneurship.

Secondly, we empirically test if EM is practiced by firms that share common characteristics. Those characteristics are firm age, firm size, and founders. This investigation aims at finding evidence that EM behaviors do not happen randomly, but are systematically related to firms' characteristics. Prior studies have found that EM behaviors are evident in small firms, young firms, and founder-operated firms, but none of them have tried to discover a systematic relationship between these characteristics.

Thirdly, we propose and empirically test a causal relationship between EO and EM. To our knowledge, this dissertation is the first attempt to explicitly address this relationship and to try to quantify the impact of EO on EM dimensions. This study also investigates whether EO acts as a multidimensional construct or a unidimensional construct when it affects EM behaviors. This study contributes to the field of entrepreneurship by linking EO, a widely-used construct for entrepreneurship, to EM. By suggesting that EO should be treated as a multidimensional construct when affecting EM, we expand the knowledge about the EO construct. This study also contributes to the field of entrepreneurial marketing in that it quantitatively identifies EO as an antecedent of EM behaviors.

We investigate our hypotheses using a large survey dataset. Results from this dissertation, therefore, should be able to confirm the robustness of findings in prior empirical studies, which usually examine EM practices using qualitative methods such as in-depth interviews or case studies. Incorporating results from analysis of survey data with the results from qualitative studies helps researchers to not only understand the subject matter in details, but also to be able to claim a systematic relationship among investigated variables. In addition, this study uses several statistical methods, such as multigroup confirmatory factor analysis (CFA) and structural equation modeling (SEM), to analyze the relationships between the variables in our models. In so doing, we follow a suggestion by Day and Montgomery (1999), who challenge marketing scholars to test complex, wide-ranging theories with many interdependencies using statistical methods.

In what follows, we briefly summarize the key findings in each of the three empirical essays (Chapters 3 to 5).

In the first essay, we verify a fundamental construct in the field of entrepreneurial marketing: the EM dimensions. To contribute to the knowledge accumulation in the field of entrepreneurial marketing, we quantitatively examine the existence of the six factors underlying EM behaviors. Based on the characteristics of EM behaviors found in prior research, this essay provides a classification of EM behaviors and proposes that there are six factors underlying EM behaviors. The proposed model is investigated on a survey dataset through the use of CFA. The results suggest that the six-factor model fits best with the data, compared to a theoretically-feasible five- or seven- factor models. Therefore, we conclude that there are six factors underlying EM behaviors, including growth orientation, opportunity orientation, value creation through relationships and alliances, two-way contacts with customers, informal marketing, and market immersion. These verified dimensions of EM behaviors are subsequently used as latent outcome variables in our analysis in the second and the third essays. To our knowledge, this essay is the first attempt to confirm EM dimensions in empirical data. Our findings need to

be replicated using other sample data in order to confirm the six-factor structure of EM derived from the current study.

In the second essay, we investigate how a firm's practice of EM is related to its characteristics. The objective is to find systematic relationships between firms' EM practice and firms' characteristics, including firm age, firm size, and firm founders. This study proposes that entrepreneurship influences firm's EM behaviors. Following the behavioral perspective, this study defines entrepreneurs as individuals who found, own and operate new firms.

We conduct several multi-group confirmatory factor analyses to compare the latent means for factors underlying the six dimensions of EM behaviors in younger firms versus older firms, smaller firms versus larger firms, and founder-operated firms versus non-founder operated firms. The results partially support the argument that there is a systematic relationship between firm age and EM practice. Younger firms are found to have higher means than older firms for factors underlying growth orientation and value creation through alliances dimensions of EM. That is, compared with marketing in older firms, marketing in younger firms is aimed more toward expanding the customer base and creating customer value through networks. This result is in line with prior studies in which firms in the early stages of their development are found to use several techniques, such as word-of-mouth, referrals, and creating communities of customers to expand their business (Hill and Rifkin, 2000; Hite and Hesterly, 2001; Yu and Hills, 2007).

Our initial investigation does not show a systematic relationship between firm size and the practice of EM. Smaller firms do not engage in EM practice more than larger firms. Surprisingly, smaller firms are found to engage less in growth-oriented marketing than larger firms do. When further investigation was conducted, taking into account both the impact of firm age and firm size at the same time, the results show that younger small firms are more entrepreneurial in their marketing than older small firms. This supports the argument that larger firms grow larger because they want to grow, while smaller firms

stay small because they do not want to grow, which in turn supports the argument that EM firms grow through entrepreneurship (Bjerke and Hultman, 2002). The interaction between firm age and firm size has important implications for future research in that the impact of firm size on EM practice may not be as simple as previously anticipated and results can be influenced by other factors that are not taken into account simultaneously. A prior study also finds that there is a U-shape relationship between firm size and firms' marketing practice (Mohan-Neill, 1993). Therefore, when investigating an impact of firm characteristics on EM behaviors, researchers should also take into account the interaction effects.

This essay also investigates a relationship between founders and firms' entrepreneurial marketing practice. However, we do not find a systematic relationship between the two variables. Founder-operated firms do not have a higher level of EM practice than non-founder operated firms. This study treats founders as representatives of entrepreneurs who have high level of entrepreneurship, and anticipates that the entrepreneurs' EO will affect firms' entrepreneurial marketing practices. Our findings, therefore, imply that founders are not a good indicator of entrepreneurial marketing practice. This result is in line with the finding of a previous study that EM "cannot be conceptualized solely in relation to the activities of owner-managers of SMEs." (Stokes, 2000a)

The statistical insignificance and complication of some of the results from our analysis, therefore, suggest that firms' characteristics alone may not be a good measure for identifying the level of a firm's EM practice. Adapting from what Stokes (2000a) suggests, this study states that EM cannot be conceptualized solely in relation to the activities of small firms, young firms, or founder operated firms. Researchers need to use another measure that can represent the level of firm's entrepreneurship better when investigating what determines level of firm's EM practice. We argue that it is entrepreneurial orientation (EO) that distinguishes entrepreneurial from non-entrepreneurial firms. This leads to the investigation in the third essay.

In the third essay, we propose that EO is a better measure of a firm's level of EM practice than its characteristics. We argue that small firms, young firms, and founder-operated firms are entrepreneurial because they have high levels of EO. Following the concept proposed in a previous study (Hills and Hultman, 2006), we hypothesize that firms' EM behaviors are driven by EO. Firms with a higher level of EO are expected to engage in EM more than firms with a lower level of EO. That is, firms with a higher level of EO are expected to have higher mean values for EM dimensions than firms with lower levels of EO. This essay investigates three dimensions of EO: innovativeness, proactiveness, and risk-taking. Our preliminary investigation treats EO dimensions as observed variables through the use of multigroup CFA. Then, we treat EO dimensions as latent variables and investigate their causal relationships with EM behaviors using SEM.

As for our preliminary results, the CFA analysis suggests that there is a systematic relationship between the level of a firm's EO and level of its EM. We find that firms with higher levels of innovativeness, proactiveness, or risk-taking have higher means for factors underlying growth-orientation and opportunity-orientation dimensions of EM behaviors. That is, they engage more in the marketing activities that are aimed at long-term growth and identifying new market opportunities. The results also show that there are a few negative relationships between some EO dimensions and some EM dimensions. This suggests that each dimension of EO can have different impacts on EM behaviors, and that researchers can treat EO as a multidimensional construct.

We further examine the relationship between EO and EM using SEM. Treating EO as a latent factor gives a clearer picture of the impact of each EO dimension on each EM dimension. Although the results from the multigroup CFA show that higher EO leads to lower EM in some dimensions, this negative relationship disappears when we treat EO as latent factors using SEM models. Innovativeness was shown to give mixed results when examined using CFA, but it was shown to have statistically significant and positive impact on all dimensions of EM when examined using SEM. This implies that a

treatment of variables and the research methodology used in a study can critically affect the result. Researchers should therefore take into account how they treat their variables and what methodology they use because this can affect their results significantly.

After investigating the relationship between EO and EM, we then examine whether EO acts as a unidimensional or multidimensional construct when it affects EM behaviors. Our initial results do not show that a model with multidimensional EO fits better with the data than a model with unidimensional EO. While the majority of the goodness-of-fit indices suggest that the SEM model with multidimensional EO fits the data better than the SEM model with unidimensional EO, some fitness criteria suggest otherwise. Therefore, we created another SEM model to account for only partial relationships between some dimension of EO and some dimensions of EM. Results from the third model show that all the goodness-of-fit indices used completely support the use of EO as a multidimensional construct. This finding is in line with a seemingly new consensus among entrepreneurship research scholars who seem to suggest a direction toward multidimensional EO when researchers want to clarify the relationships between each EO dimension and variables of interest (Covin and Wales, 2011; Miller, 2011). That is, researchers are encouraged to treat EO as a multidimensional construct when “the differences between the components are important for understanding entrepreneurial behavior.” (Miller, 2011)

Results from our structural equation models also show that all three dimensions of EO have positive relationships with growth orientation and opportunity orientation dimensions of EM. This is empirical evidence confirming a proposal in previous literature that firms that practice EM aim to grow and expand their customer base rather than starting out small and staying small. Entrepreneurial firms also look to exploit opportunities and to lead customers through their innovations. The firms can be growth-oriented and opportunity-oriented in their marketing activities because they are innovative, proactive, and willing to take risks.

The fact that innovativeness has the strongest impact on EM compared with proactiveness and risk-taking has a crucial implication. The significant relationship between innovativeness and all dimensions of EM behaviors suggests that innovativeness is an essence of EM firms. It is innovativeness that makes firms implement marketing practices that emphasize growth and business expansion, the search for new opportunities, the creation of two-way communications with customers, the use of information from networks, the reliance on informal market information, and market immersion. This result may reduce the importance of risk-taking, the dimension that has been thought to be an inherent quality of entrepreneurs. That is, in contrast to entrepreneurship literature, which treats risk-taking as of equal importance to other EO dimensions, EM literature may not treat risk-taking as important a factor as it is thought to be. The explanation for this may be that we cannot facilitate risk-taking because it is a quality that entrepreneurs either possess or do not possess. Entrepreneurs are not ordinary risk-takers, but instead are calculative risk-takers who have all things planned out to leverage their risks (Morris et al., 2002b). In contrast, firms can facilitate the occurrence of innovativeness within their organization. As a result, it has more influence on their business practice.

In addition, we also investigate the moderating roles of firm age and firm size on the relationship between EO and EM. While we find that the effect of EO on EM in small firms is larger than in larger firms, we do not find the effect of EO on EM in younger firms to be larger than the effect in older firms. In other words, firm size moderates the impact of EO on EM but firm age does not. Further investigation shows that the results illustrating the moderating role of firm age is influenced by an unbalanced split of the sample between younger and older firms. Therefore, we encourage future research to reinvestigate the moderating role of firm age and firm size with a bigger sample size.

Although this study covers several issues in entrepreneurial marketing and contributes to knowledge in the field, it is not without limitations. Due to limited availability of the data, we have not investigated the impacts of competitive aggressiveness and autonomy

dimensions of EO. As can be seen from our analysis, the different EO dimensions can have different effects on EM behaviors; therefore, future research should extend this study to investigate the impacts of competitive aggressiveness and autonomy dimensions on EM behaviors as well. In addition, we do not take into account the fact that the dimensions of EO may have interrelationships. Is it possible that innovativeness affects risk-taking and/or proactiveness before it affects EM practices? If that is the case, it could change the relationship between EO and EM found in this study.

This study also does not take into account firms' environmental conditions. Environmental changes can have a major impact on firms marketing activities (Deleersnyder, 2003). In the future, moderating factors, such as the level of environment hostility, should also be taken into account. According to Khandwalla (1977), an increase in environmental hostility has a negative impact on the use of market research when the hostility increases from a low to moderate level, but has a positive impact as the degree of hostility continues to increase.

Also, this study focuses only on firms in the United States. Firms in different countries may behave differently to US firms. It is often suggested that marketing practice is affected by national differences (Clark, 1990; Nakata and Sivakumar, 1996). One factor that contributes to these differences is cultural variability. According to Hofstede (1980), there are four dimensions of cultural variability: uncertainty avoidance, power distance, masculinity, and individualism. Future research should expand the scope of this study to replicate the results found in this study using cross-national data. We think that such a study would benefit the field of entrepreneurial marketing substantially.

Future research should also investigate firm performance as an outcome of EM practice. Previous studies suggest a relationship between marketing practice and firm performance (Cavusgil and Zou, 1994; Vorhies and Morgan, 2003; Morgan and Rego, 2006). In the EM context, Hills and Hultman (1999) find that growth firms practice EM more than non-growth firms. Also, in a turbulent environment, Glazer and Weiss (1993) find that

teams that engaged in informal planning significantly outperformed those that did not. Baum et al. (2000) also suggest that new firms can overcome the liability of their newness by using marketing through networking at the time of their founding. The examination of EM on performance should substantiate the reasons why firms should practice EM.

APPENDIX A

Descriptive Statistics of Variables Used

TABLE XXIV: DESCRIPTIVE STATISTICS OF ITEMS MEASURING EM BEHAVIORS

Item	Questionnaire Item	Min	Max	Total Sample (n=752)		Sample in Chapter 3-4 (n=673)		Sample in Chapter 5 (n=545)	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
G1	qn6k	1	5	4.24	1.14	4.25	1.13	4.30	1.08
G2	qn6p	1	5	4.34	1.07	4.40	1.00	4.43	.96
G3	qn29a	1	5	4.29	1.07	4.34	1.03	4.38	.97
O1	qn29b	1	5	3.95	1.20	4.01	1.17	4.05	1.15
O2	qn29g	1	5	4.23	1.10	4.27	1.06	4.36	.96
O3	qn29i	1	5	3.50	1.36	3.54	1.33	3.55	1.33
O4	qn29l	1	5	4.34	.92	4.37	.89	4.41	.85
T1	qn6o	1	5	4.18	1.11	4.21	1.09	4.19	1.10
T2	qn29f	1	5	4.36	1.01	4.37	.99	4.37	1.01
T3	qn6e	1	5	4.69	.75	4.70	.74	4.70	.73
T4	qn6h	1	5	4.40	.94	4.44	.90	4.46	.88
V1	qn6l	1	5	4.05	1.21	4.08	1.19	4.10	1.18
V2	qn29k	1	5	3.71	1.30	3.72	1.29	3.72	1.27
V3	qn29o	1	5	3.84	1.24	3.88	1.22	3.90	1.21
I1	qn29e	1	5	3.22	1.42	3.21	1.42	3.18	1.43
I2	qn29h	1	5	4.15	1.13	4.14	1.13	4.15	1.12
I3	qn29d	1	5	3.83	1.23	3.82	1.24	3.80	1.24
M1	qn6j	1	5	4.10	1.17	4.14	1.15	4.15	1.14
M2	qn29n	1	5	3.09	1.42	3.13	1.40	3.16	1.39
M3	qn6f	1	5	4.39	.98	4.39	.99	4.43	.92

TABLE XXV: MEANS, STANDARD DEVIATIONS, AND DISTRIBUTIONS OF ITEMS MEASURING EM BEHAVIORS (TOTAL SAMPLE)

EM dimension	Item	N	Mean	Std. Dev.	Distribution of response options (percent)					
					SD ¹	Disagree	Neither	Agree	SA ² Missing	
Growth Orientation	G1	749	4.24	1.14	5.2	7.0	3.1	27.7	56.6	.4
	G2	751	4.34	1.07	3.2	7.6	3.9	22.3	62.9	.1
	G3	750	4.29	1.07	4.1	6.4	3.2	28.3	57.7	.3
Opportunity Orientation	O1	739	3.95	1.20	6.6	9.4	5.6	37.1	39.5	1.7
	O2	749	4.23	1.10	4.3	7.2	4.4	29.7	54.1	.4
	O3	732	3.50	1.36	12.4	15.2	7.3	36.6	25.9	2.7
	O4	741	4.34	.92	3.3	2.0	4.3	36.8	52.1	1.5
Two-way Contacts with Customers	T1	750	4.18	1.11	4.1	8.2	4.4	31.8	51.2	.3
	T2	749	4.36	1.01	3.1	5.7	3.7	27.1	60.0	.4
	T3	750	4.69	.75	1.5	2.7	.8	15.0	79.8	.3
	T4	747	4.40	.94	2.1	5.7	2.4	28.9	60.2	.7
Value Creation through Relationships and Alliances	V1	749	4.05	1.21	7.4	7.7	2.8	36.3	45.3	.4
	V2	739	3.71	1.30	9.6	12.6	6.3	37.9	31.9	1.7
	V3	745	3.84	1.24	8.5	9.2	6.9	39.4	35.1	.9
Informal Marketing Research	I1	725	3.22	1.42	15.8	20.5	7.3	32.3	20.5	3.6
	I2	742	4.15	1.13	5.6	5.9	5.2	34.0	48.0	1.3
	I3	745	3.83	1.23	7.7	11.0	5.9	40.4	34.0	.9
Market Immersion	M1	734	4.10	1.17	5.2	8.4	6.1	29.4	48.5	2.4
	M2	730	3.09	1.42	20.1	17.6	8.5	35.5	15.4	2.9
	M3	750	4.39	.98	3.1	4.8	3.5	27.5	60.9	.3

¹ SD = Strongly Disagree
² SA = Strongly Agree

TABLE XXVI: MEANS, STANDARD DEVIATIONS, AND DISTRIBUTIONS OF ITEMS MEASURING EM BEHAVIORS (N=673)

EM dimension	Item	N	Mean	Std.Dev.	Distribution of response options (percent)				
					SD ¹	Disagree	Neither	Agree	SA ²
Growth Orientation	G1	673	4.25	1.13	5.2	6.7	3.1	27.6	57.4
	G2	673	4.40	1.00	2.2	6.8	3.9	22.6	64.5
	G3	673	4.34	1.03	3.6	5.8	3.1	28.1	59.4
Opportunity Orientation	O1	673	4.01	1.17	5.9	8.8	5.6	38.0	41.6
	O2	673	4.27	1.06	3.6	7.0	4.2	29.6	55.7
	O3	673	3.54	1.33	11.7	14.7	7.7	39.2	26.6
	O4	673	4.37	.89	3.0	2.1	3.7	37.4	53.8
Two-way Contacts with Customers	T1	673	4.21	1.09	3.9	7.9	4.0	31.9	52.3
	T2	673	4.37	.99	2.8	5.6	3.7	27.0	60.8
	T3	673	4.70	.74	1.3	2.5	.9	15.5	79.8
	T4	673	4.44	.90	2.1	4.3	2.7	29.0	62.0
Value Creation through Relationships and Alliances	V1	673	4.08	1.19	7.0	7.4	2.8	35.8	47.0
	V2	673	3.72	1.29	9.1	13.1	6.8	38.8	32.2
	V3	673	3.88	1.22	7.9	9.1	6.7	40.3	36.1
Informal Marketing Research	I1	673	3.21	1.42	16.3	21.8	7.3	33.6	21.0
	I2	673	4.14	1.13	5.8	5.8	5.2	34.9	48.3
	I3	673	3.82	1.24	7.7	11.7	5.8	40.3	34.5
Market Immersion	M1	673	4.14	1.15	5.1	8.0	5.9	30.2	50.8
	M2	673	3.13	1.40	19.2	18.6	8.5	37.4	16.3
	M3	673	4.39	.99	3.4	4.5	3.4	27.3	61.4

¹ SD = Strongly Disagree

² SA = Strongly Agree

TABLE XXVII: MEANS, STANDARD DEVIATIONS, AND DISTRIBUTIONS OF ITEMS MEASURING EM BEHAVIORS (N=545)

EM dimension	Item	N	Mean	Std.Dev.	Distribution of response options (percent)				
					SD ¹	Disagree	Neither	Agree	SA ²
Growth Orientation	G1	545	4.30	1.08	4.6	5.9	2.9	27.9	58.7
	G2	545	4.43	.96	1.8	6.2	3.9	23.5	64.6
	G3	545	4.38	.97	2.9	4.8	3.3	29.2	59.8
Opportunity Orientation	O1	545	4.05	1.15	5.7	7.7	6.1	36.7	43.9
	O2	545	4.36	.96	2.0	6.2	3.7	30.1	58.0
	O3	545	3.55	1.33	11.6	14.9	6.8	40.9	25.9
	O4	545	4.41	.85	2.4	2.2	2.9	36.7	55.8
Two-way Contacts with Customers	T1	545	4.19	1.10	4.0	8.3	4.2	32.1	51.4
	T2	545	4.37	1.01	3.3	5.3	3.9	26.4	61.1
	T3	545	4.70	.73	1.3	2.6	.6	16.3	79.3
	T4	545	4.46	.88	2.0	4.0	2.4	29.2	62.4
Value Creation through Relationships and Alliances	V1	545	4.10	1.18	6.4	7.7	2.9	35.6	47.3
	V2	545	3.72	1.27	8.6	13.4	6.6	40.0	31.4
	V3	545	3.90	1.21	7.7	8.8	6.6	40.0	36.9
Informal Marketing Research	I1	545	3.18	1.43	17.4	21.5	6.8	34.1	20.2
	I2	545	4.15	1.12	5.3	6.4	5.0	34.7	48.6
	I3	545	3.80	1.24	8.1	11.7	5.0	42.6	32.7
Market Immersion	M1	545	4.15	1.14	4.6	8.6	5.1	30.5	51.2
	M2	545	3.16	1.39	18.3	18.7	8.4	38.0	16.5
	M3	545	4.43	.92	2.6	3.7	3.3	28.6	61.8

¹ SD = Strongly Disagree² SA = Strongly Agree

TABLE XXVIII: DESCRIPTIVE STATISTICS OF ITEMS MEASURING ENTREPRENEURIAL ORIENTATION (EO)

Item	Questionnaire Item	Min	Max	Total Sample (n=752)		Sample in Chapter 3-4 (n=673)		Sample in Chapter 5 (n=545)	
				Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
IN1	qn30a	1	3	1.61	.81	1.62	.82	1.63	.84
IN2	qn30b	1	3	1.50	.84	1.51	.85	1.54	.86
R1	qn30e	1	3	2.24	.82	2.25	.82	2.26	.82
R2	qn30f	1	3	1.83	.95	1.85	.95	1.87	.96
PRO1	qn30c	1	3	1.51	.78	1.51	.79	1.50	.80
PRO2	qn30d	1	3	1.52	.82	1.53	.83	1.54	.83

TABLE XXIX: MEAN, STANDARD DEVIATION, AND DISTRIBUTIONS OF ITEMS MEASURING EO (TOTAL SAM-
PLE)

EO dimension	Item	N	Mean	Std.Dev.	Distribution of response options (percent)			
					Low	Equal	High	Missing
Innovativeness	IN1	715	1.61	.81	57.2	18.2	19.7	4.9
	IN2	743	1.50	.84	71.7	5.1	22.1	1.2
Risk-taking	R1	714	1.51	.78	64.0	13.7	17.3	5.1
	R2	730	1.52	.82	66.9	9.8	20.3	2.9
Proactiveness	PRO1	638	2.24	.82	21.0	22.2	41.6	15.2
	PRO2	718	1.83	.95	52.5	6.5	36.4	4.5

TABLE XXX: MEAN, STANDARD DEVIATION, AND DISTRIBUTIONS OF ITEMS MEASURING EO (N=673)

EO dimension	Item	N	Mean	Std.Dev.	Distribution of response options (percent)			
					Low	Equal	High	Missing
Innovativeness	IN1	651	1.62	.82	57.5	18.1	21.1	3.3
	IN2	665	1.51	.85	71.2	4.6	23.0	1.2
Risk-taking	R1	647	1.51	.79	64.9	13.2	18.0	3.9
	R2	664	1.53	.83	67.6	9.7	21.4	1.3
Proactiveness	PRO1	591	2.25	.82	21.7	22.9	43.2	12.2
	PRO2	653	1.85	.95	52.6	6.5	37.9	3.0

TABLE XXXI: MEAN, STANDARD DEVIATION, AND DISTRIBUTIONS OF ITEMS MEASURING EO (N=545)

EO dimension	Item	N	Mean	Std.Dev.	Distribution of response options (percent)		
					Low	Equal	High
Innovativeness	IN1	545	1.63	.84	60.0	16.7	23.3
	IN2	545	1.54	.86	70.5	5.3	24.2
Risk-taking	R1	545	1.50	.80	68.8	11.9	19.3
	R2	545	1.54	.83	68.1	10.1	21.8
Proactiveness	PRO1	545	2.26	.82	24.4	25.5	50.1
	PRO2	545	1.87	.96	53.0	6.8	40.2

TABLE XXXII: CORRELATIONS BETWEEN ITEMS MEASURING EM BEHAVIORS AND ITEMS MEASURING EO (N=673)

Item	IN1	IN2	R1	R2	PRO1	PRO2
G1	.05	.07	-.06	.06	.08	.07
G2	.07	.12	.08	.13	.07	.03
G3	.11	.12	.08	.09	.07	.13
I1	.18	.18	.09	.13	.05	.24
I2	.19	.18	.15	.16	.04	.18
I3	.07	.06	.03	.09	.05	.08
I4	.10	.07	.09	.12	.03	.15
T1	-.01	-.04	-.01	-.09	-.02	.03
T2	-.01	.05	.10	.02	.04	.03
T3	-.05	-.02	.00	-.05	.03	.00
T4	.07	.08	.09	.05	.04	.06
V1	.04	.04	.01	.02	-.13	.01
V2	.06	.15	.09	.08	-.02	.11
V3	-.01	.01	.03	.06	-.11	.01
I1	-.06	-.10	-.04	.01	.00	-.02
I2	-.07	-.08	.00	-.08	-.02	-.02
I3	-.11	.01	.06	.05	-.06	-.02
M1	.04	.01	-.01	.03	-.02	-.02
M2	-.01	.10	-.06	-.03	.02	.01
M3	-.01	-.05	.02	-.03	.01	.08

TABLE XXXIII: CORRELATIONS BETWEEN ITEMS MEASURING EM BEHAVIORS AND ITEMS MEASURING EO (N=545)

Item	IN1	IN2	R1	R2	PRO1	PRO2
G1	.05	.04	-.08	.05	.09	.08
G2	.05	.13	.09	.11	.06	.02
G3	.10	.12	.07	.08	.07	.15
I1	.18	.18	.07	.13	.06	.23
I2	.18	.16	.11	.11	.05	.17
I3	.07	.05	.03	.11	.04	.10
I4	.13	.05	.09	.11	.05	.15
T1	-.03	-.02	.01	-.08	-.02	.06
T2	-.02	.04	.07	.01	.05	.04
T3	-.05	-.01	.01	-.01	.05	-.01
T4	.07	.10	.07	.06	.04	.06
V1	.03	.07	-.03	-.01	-.14	.02
V2	.06	.14	.06	.07	-.03	.12
V3	-.03	-.03	.01	.05	-.12	-.01
I1	-.08	-.11	-.04	.00	.01	-.01
I2	-.09	-.12	-.01	-.09	-.04	-.03
I3	-.13	.00	.07	.03	-.06	-.02
M1	.03	.01	-.02	.06	-.03	-.01
M2	-.04	.11	-.04	-.02	.00	.00
M3	-.03	-.03	.04	.01	-.01	.08

TABLE XXXIV: DISTRIBUTIONS OF FIRMS BY FOUNDING STATUS, FIRM SIZE, AND FIRM AGE

	Total Sample		Sample in Chapter 3-4		Sample in Chapter 5	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Founding status						
Founder	502	66.8	445	66.1	355	65.1
Non-founder	247	32.8	226	33.6	189	34.7
Missing	3	.4	2	.3	1	.2
Total	752	100.0	673	100.0	545	100.0
Age(6 year cutoff)						
older than 6 years	565	75.1	503	74.7	408	74.9
6 years or younger	181	24.1	165	24.5	134	24.6
Missing	6	.8	5	.7	3	.6
Total	752	100.0	673	100.0	545	100.0
Size(9 employees cutoff)						
1-9 employees	351	46.7	307	45.6	239	43.9
10-250 employees	401	53.2	366	55.8	306	58.4
Total	752	100.0	673	100.0	545	100.0
Age(7years cutoff)						
8 years and older	545	72.5	485	72.1	394	72.3
7 years or younger	201	26.7	183	27.2	148	27.2
Missing	6	.8	5	.7	3	.6
Total	752	100.0	673	100.0	545	100.0
Size(15 employees cutoff)						
1-15 employees	513	68.2	454	67.5	360	66.1
16-250 employees	239	31.8	219	32.5	185	33.9
Total	752	100.0	673	100.0	545	100.0

TABLE XXXV: CORRELATIONS BETWEEN FIRM AGE, FIRM SIZE, FOUNDING STATUS AND ITEMS MEASURING EO (N=541)^a

Item	Age	Size	Founder	IN1	IN2	R1	R2	PRO1	PRO2
Age	1								
Size	0.03	1							
Founder	-0.07	.23**	1						
IN1	0.04	0.03	0.02	1					
IN2	0.04	-0.01	-0.01	.23**	1				
R1	.12**	-0.03	0.05	.17**	.195**	1			
R2	0.07	0.00	0.05	.26**	.228**	.32**	1		
PRO1	-0.06	-0.02	-0.03	0.08	0.04	0.05	0.07	1	
PRO2	-0.03	0.04	0.07	.27**	.17**	.10*	.21**	.19**	1

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

TABLE XXXVI: CORRELATIONS BETWEEN FIRM AGE AND ITEMS MEASURING EM BEHAVIORS (N=666)

Items	Age	G1	G2	G3	O1	O2	O3	O4	T1	T2	T2	T4	V1	V2	V3	I1	I2	I3	M1	M2	M3
Age	1																				
G1	-.02	1																			
G2	.09	.19	1																		
G3	.11	.17	.39	1																	
O1	-.01	.14	.21	.30	1																
O2	.05	.18	.31	.41	.32	1															
O3	-.03	.08	.12	.20	.15	.17	1														
O4	.07	.10	.16	.26	.25	.28	.11	1													
T1	-.02	.10	.21	.12	.11	.07	.04	.11	1												
T2	.01	.00	.02	.08	.11	.12	-.02	.06	.11	1											
T2	.05	.01	.09	.09	.09	.04	-.01	.08	.15	.11	1										
T4	.06	.12	.16	.10	.08	.13	.04	.06	.24	.21	.22	1									
V1	.09	.13	.15	.19	.15	.20	.03	.08	.09	.05	.03	.09	1								
V2	.03	.09	.11	.26	.25	.24	.10	.15	.06	.13	.06	.15	.22	1							
V3	.07	-.02	.09	.16	.16	.20	.07	.17	.12	.14	.03	.09	.22	.31	1						
I1	.01	.00	-.03	-.03	.03	.02	.01	.02	.04	.01	-.03	.00	-.07	-.01	.02	1					
I2	-.06	-.01	-.03	.04	.00	.08	.11	.07	.12	.12	.04	.02	-.03	.04	.08	.20	1				
I3	-.03	-.04	.06	.10	.07	.10	.07	.12	.15	.16	.03	.01	.02	.06	.13	.21	.22	1			
M1	-.03	.14	.17	.15	.21	.14	.05	.05	.14	.07	.10	.18	.13	.20	.09	.09	.05	.05	1		
M2	-.08	.02	.13	.13	.18	.12	.12	.05	.07	.06	.06	.08	.08	.23	.13	.03	.05	.12	.18	1	
M3	-.08	.09	.11	.05	.19	.13	.03	.13	.17	.05	.12	.11	.10	.13	.12	-.02	.09	.09	.15	.09	1

TABLE XXXVII: CORRELATIONS BETWEEN FIRM SIZE AND ITEMS MEASURING EM BEHAVIORS(N=666)

Items	Size	G1	G2	G3	O1	O2	O3	O4	T1	T2	T2	T4	V1	V2	V3	I1	I2	I3	M1	M2	M3
Size	1																				
G1	-.04	1																			
G2	-.02	.19	1																		
G3	-.09	.17	.39	1																	
O1	.05	.14	.21	.30	1																
O2	-.04	.18	.31	.41	.32	1															
O3	-.05	.08	.12	.20	.15	.17	1														
O4	.00	.10	.16	.26	.25	.28	.11	1													
T1	-.03	.10	.21	.12	.11	.07	.04	.11	1												
T2	-.02	.00	.02	.08	.11	.12	-.02	.06	.11	1											
T2	.08	.01	.09	.09	.09	.04	-.01	.08	.15	.11	1										
T4	.01	.12	.16	.10	.08	.13	.04	.06	.24	.21	.22	1									
V1	-.02	.13	.15	.19	.15	.20	.03	.08	.09	.05	.03	.09	1								
V2	-.01	.09	.11	.26	.25	.24	.10	.15	.06	.13	.06	.15	.22	1							
V3	-.01	-.02	.09	.16	.16	.20	.07	.17	.12	.14	.03	.09	.22	.31	1						
I1	.07	.00	-.03	-.03	.03	.02	.01	.02	.04	.01	-.03	.00	-.07	-.01	.02	1					
I2	-.04	-.01	-.03	.04	.00	.08	.11	.07	.12	.12	.04	.02	-.03	.04	.08	.20	1				
I3	.04	-.04	.06	.10	.07	.10	.07	.12	.15	.16	.03	.01	.02	.06	.13	.21	.22	1			
M1	-.08	.14	.17	.15	.21	.14	.05	.05	.14	.07	.10	.18	.13	.20	.09	.09	.05	.05	1		
M2	-.01	.02	.13	.13	.18	.12	.12	.05	.07	.06	.06	.08	.08	.23	.13	.03	.05	.12	.18	1	
M3	-.04	.09	.11	.05	.19	.13	.03	.13	.17	.05	.12	.11	.10	.13	.12	-.02	.09	.09	.15	.09	1

TABLE XXXVIII: CORRELATIONS BETWEEN FOUNDER AND ITEMS MEASURING EM BEHAVIORS(N=666)

Item	Found	G1	G2	G3	O1	O2	O3	O4	T1	T2	T2	T4	V1	V2	V3	I1	I2	I3	M1	M2	M3
Found	1																				
G1	.01	1																			
G2	-.03	.19	1																		
G3	-.05	.17	.39	1																	
O1	.05	.14	.21	.30	1																
O2	-.03	.18	.31	.41	.32	1															
O3	.02	.08	.12	.20	.15	.17	1														
O4	-.06	.10	.16	.26	.25	.28	.11	1													
T1	.00	.10	.21	.12	.11	.07	.04	.11	1												
T2	.02	.00	.02	.08	.11	.12	-.02	.06	.11	1											
T2	-.01	.01	.09	.09	.09	.04	-.01	.08	.15	.11	1										
T4	.06	.12	.16	.10	.08	.13	.04	.06	.24	.21	.22	1									
V1	-.06	.13	.15	.19	.15	.20	.03	.08	.09	.05	.03	.09	1								
V2	-.03	.09	.11	.26	.25	.24	.10	.15	.06	.13	.06	.15	.22	1							
V3	-.02	-.02	.09	.16	.16	.20	.07	.17	.12	.14	.03	.09	.22	.31	1						
I1	.03	.00	-.03	-.03	.03	.02	.01	.02	.04	.01	-.03	.00	-.07	-.01	.02	1					
I2	.00	-.01	-.03	.04	.00	.08	.11	.07	.12	.12	.04	.02	-.03	.04	.08	.20	1				
I3	.01	-.04	.06	.10	.07	.10	.07	.12	.15	.16	.03	.01	.02	.06	.13	.21	.22	1			
M1	-.02	.14	.17	.15	.21	.14	.05	.05	.14	.07	.10	.18	.13	.20	.09	.09	.05	.05	1		
M2	-.03	.02	.13	.13	.18	.12	.12	.05	.07	.06	.06	.08	.08	.23	.13	.03	.05	.12	.18	1	
M3	.02	.09	.11	.05	.19	.13	.03	.13	.17	.05	.12	.11	.10	.13	.12	-.02	.09	.09	.15	.09	1

TABLE XXXIX: DISTRIBUTIONS OF FIRMS BY INDUSTRY

Industry	NAICS code	Total Sample (n=752)		Sample in Chapter 3-4 (n=673)		Sample in Chapter 5 (n=545)	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Agriculture, forestry, fishing	11	27	3.6	23	3.4	22	4.0
Construction	23	77	10.2	66	9.8	49	9.0
Manufacturing	31	8	1.1	7	1.0	6	1.1
Manufacturing	32	22	2.9	17	2.5	14	2.6
Manufacturing	33	41	5.5	39	5.8	32	5.9
Wholesale	42	44	5.9	41	6.1	34	6.2
Retail	44	61	8.1	54	8.0	44	8.1
Retail	45	26	3.5	25	3.7	19	3.5
Transportation/warehousing	48	24	3.2	24	3.6	20	3.7
Transportation/warehousing	49	2	.3	2	.3	2	.4
Information	51	14	1.9	12	1.8	9	1.7
Finance and insurance	52	41	5.5	38	5.6	34	6.2
Real estate and leasing	53	22	2.9	19	2.8	17	3.1
Professional/scientific/ technical services	54	94	12.5	78	11.6	66	12.1
Administrative support/ security/waste management	56	56	7.4	51	7.6	40	7.3
Education services	61	4	.5	2	.3	2	.4
Health care and social services	62	54	7.2	47	7.0	35	6.4
Arts, entertainment, or recreation	71	11	1.5	11	1.6	8	1.5
Accommodations or food service	72	82	10.9	76	11.3	62	11.4
Other services (personal services)	81	40	5.3	39	5.8	28	5.1
Missing		2	.3	2	.3	2	.4
Total		752	100.0	673	100.0	545	100.0

TABLE XL: DISTRIBUTION OF FIRMS BY INDUSTRY AND EO LEVEL (COUNT, N=543)

Industry	NAICS code	Innovativeness		Proactiveness		Risk-taking		Total
		Low	High	Low	High	Low	High	
Agr, forestry, fishing	11	14	8	13	9	12	10	22
Construction	23	30	19	14	35	32	17	49
Manufacturing	31	5	1	3	3	5	1	6
Manufacturing	32	11	3	4	10	11	3	14
Manufacturing	33	14	18	9	23	24	8	32
Wholesale	42	18	16	9	25	23	11	34
Retail	44	30	14	14	30	32	12	44
Retail	45	10	9	5	14	10	9	19
Transportation/warehousing	48	13	7	10	10	12	8	20
Transportation/warehousing	49	1	1	2	0	2	0	2
Information	51	5	4	1	8	4	5	9
Finance and insurance	52	18	16	9	25	20	14	34
Real estate and leasing	53	9	8	6	11	7	10	17
Professional/scientific								
/technical services	54	34	32	19	47	42	24	66
Administrative support								
/security/waste management	56	29	11	13	27	20	20	40
Education services	61	1	1	1	1	0	2	2
Health care and social services	62	16	19	12	23	23	12	35
Arts, entertainment, or recreation	71	4	4	2	6	6	2	8
Accommodations or food service	72	41	21	18	44	38	24	62
Other services (personal services)	81	21	7	9	19	18	10	28
Total		324	219	173	370	341	202	543

TABLE XLI: DISTRIBUTION OF FIRMS BY INDUSTRY AND EO LEVEL (PERCENT, N=543)

Industry	NAICS code	Innovativeness		Proactiveness		Risk-taking	
		Low	High	Low	High	Low	High
Agr, forestry, fishing	11	4.3	3.7	7.5	2.4	3.5	5.0
Construction	23	9.3	8.7	8.1	9.5	9.4	8.4
Manufacturing	31	1.5	0.5	1.7	0.8	1.5	0.5
Manufacturing	32	3.4	1.4	2.3	2.7	3.2	1.5
Manufacturing	33	4.3	8.2	5.2	6.2	7.0	4.0
Wholesale	42	5.6	7.3	5.2	6.8	6.7	5.4
Retail	44	9.3	6.4	8.1	8.1	9.4	5.9
Retail	45	3.1	4.1	2.9	3.8	2.9	4.5
Transportation/warehousing	48	4.0	3.2	5.8	2.7	3.5	4.0
Transportation/warehousing	49	0.3	0.5	1.2	0.0	0.6	0.0
Information	51	1.5	1.8	0.6	2.2	1.2	2.5
Finance and insurance	52	5.6	7.3	5.2	6.8	5.9	6.9
Real estate and leasing	53	2.8	3.7	3.5	3.0	2.1	5.0
Professional/scientific							
/technical services	54	10.5	14.6	11.0	12.7	12.3	11.9
Administrative support							
/security/waste management	56	9.0	5.0	7.5	7.3	5.9	9.9
Education services	61	0.3	0.5	0.6	0.3	0.0	1.0
Health care and social services	62	4.9	8.7	6.9	6.2	6.7	5.9
Arts, entertainment, or recreation	71	1.2	1.8	1.2	1.6	1.8	1.0
Accommodations or food service	72	12.7	9.6	10.4	11.9	11.1	11.9
Other services (personal services)	81	6.5	3.2	5.2	5.1	5.3	5.0
Total		100	100	100	100	100	100

APPENDIX B

Impacts of firm's characteristics on Entrepreneurial Marketing Behaviors

B.1 A Robust test for impacts of firm age and firm size

In Chapter 4, we investigate the relationships between firm age, firm size, and the firms founder, using 7 years as the cut-off level for age and 9 employees as the cut-off level for firm size. In this section, we conduct a robust test on the findings in Chapter 4, using 6 years as the cut-off level for firm age and 15 employees as the cut-off level for firm size. Table XLII below shows the fit statistics of the models with a 6-year cut-off for firm age and a 15-employee cut-off for firm size.

TABLE XLII: MULTIGROUP CFA FIT STATISTICS

Models	Goodness-of-fit index					
	χ^2	df	NFI	TLI	CFI	RMSEA
Age Models Compared						
Configural	525.13	320	0.68	0.80	0.83	0.031
Measurement weight	555.69	334	0.66	0.80	0.82	0.032
Measurement intercept (mean)	580.37	348	0.64	0.80	0.81	0.032
Nested model comparison (mean)	32.802	6				
Size Models Compared						
Configural	597.53	320	0.65	0.75	0.79	0.036
Measurement weight	627.04	334	0.63	0.75	0.78	0.036
Measurement intercept (mean)	658.28	348	0.61	0.74	0.76	0.036
Nested model comparison (mean)	18.931	6				

B.1.1 Firm Age

A two-group CFA was conducted to compare the latent means for the factors underlying EM dimensions in younger firms (firms that are 7 years old or younger) with those in older firms (firms that are older than 7 years). As in the case of the 6-year cut-off, the analysis here also gives mixed results. Table XLIII shows that younger firms have higher means than older firms

in three dimensions, including growth-orientation, value creation through alliances, and two-way contact with customers. Note that the difference between the factors underlying two-way contact dimension was not statistically significant when using a 6-year cut-off, but is statistically significant here. As in the case of the 6 year cut-off, the results also show that the group of younger firms has a lower mean for the factors underlying market immersion than the group of older firms.

TABLE XLIII: DIFFERENCES IN LATENT MEANS OF ENTREPRENEURIAL MARKETING FACTORS BY FIRM AGE, USING A GROUP OF YOUNGER FIRMS (ESTABLISHED 7 YEARS OR LESS) AS REFERENCE^a

EM dimension	Younger firms		
	Mean difference	C.R.	
Growth Orientation	0.22	3.79	***
Opportunity Orientation	0.08	1.23	
Market Immersion	-0.19	-2.17	**
Two-way Contacts with Customers	0.09	1.68	*
Value Creation through Alliances	0.10	1.82	*
Informal Marketing	-0.07	-1.0	

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

B.1.2 Firm Size

A two-group confirmatory factor analysis was conducted to compare the latent means of factors underlying EM dimensions across smaller firms (firms with 15 employees or fewer) and larger firms (firms with more than 15 employees). As with the results obtained from using a 9-employee cut-off, our results do not show that smaller firms practice EM more than larger firms (see Table XLIV below). In addition to a lower mean for factors underlying growth-orientation dimension, like the cut-off of 9 employees, the group of smaller firms is also found to have a lower mean for factors underlying market immersion dimension.

TABLE XLIV: DIFFERENCES IN LATENT MEANS OF ENTREPRENEURIAL MARKETING FACTORS BY FIRM AGE, USING A GROUP OF SMALLER FIRMS (15 OR FEWER EMPLOYEES) AS REFERENCE^a

EM dimension	Smaller firms		
	Mean difference	C.R.	
Growth Orientation	-0.15	-2.88	***
Opportunity Orientation	-0.08	-1.25	
Market Immersion	-0.13	-2.17	**
Two-way Contacts with Customers	0.03	0.49	
Value Creation through Alliances	-0.08	-1.47	
Informal Marketing	0.06	0.96	

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

B.1.3 Firm Size: A further investigation

A two-group CFA was conducted to compare the latent means of factors underlying EM in younger small firms and older small firms. Younger small firms are firms that have 15 employees or fewer and have been in business for 7 years or less, while older small firms are firms that have 15 employees or fewer and have been established for more than 7 years. Results are shown in Table XLV.

As in the results obtained from using the 6-year and 9-employee cut-offs, when firm age is also taken into account, the relationship between firm size and growth-orientation changes direction from negative to positive. Note that while the difference between the means of factors underlying market immersion was statistically significant using the 6-year and 9-employee cut-offs, it is not significant in our investigation. The opposite is true for the differences in factors underlying two-way contacts with customers.

B.2 A MANOVA test for impacts of firm size, firm age, and founder on EM

The MANOVA analysis is performed as a guideline for our analysis in the second essay. In our analysis in this section, we use a 6-year cut-off for firm age and a 9-employee cut-off for firm

TABLE XLV: DIFFERENCES IN LATENT MEANS OF ENTREPRENEURIAL MARKETING FACTORS IN SMALLER FIRMS, USING A GROUP OF YOUNGER SMALL FIRMS AS REFERENCE^a

EM dimension	Younger Small firms		
	Mean difference	C.R.	
Growth Orientation	0.26	3.88	***
Opportunity Orientation	0.14	1.71	*
Market Immersion	-0.17	-1.6	
Two-way contacts with customers	0.08	1.86	*
Value creation through Alliances	0.16	2.54	**
Informal Marketing	0.05	0.48	

^a Note: *** = $p < 0.01$, ** = $p < 0.05$, * = $p < 0.10$.

size. The difference is that while we treat EM behaviors as latent factors in the second essay, we treat EM behaviors as observed variables in this section.

Table XLVI shows the results of this analysis. The results show that there are interaction effects between (a) firm size and firm age ($p < 0.05$) and (b) firm age and founder ($p < 0.10$) when these variables affect firm's EM behaviors.

Table XLVII below shows the results of an ANOVA test of between-subjects effects. Firm age interacts with firm size to affect the value creation (item V2, $p = 0.06$), informal marketing (item I2, $p = 0.01$), and market immersion (item M3, $p = 0.02$) dimensions of EM. Firm age interacts with founder to affect three EM dimensions including growth-orientation (item G2, $p = 0.08$), market immersion (item M3, $p = 0.02$), and two-way contacts with customers (item T4, $p = 0.05$).

Table XLVIII shows the estimated marginal means of items measuring EM by firm age and firm size. We find that *younger small* firms use their partners (mean=3.92 vs. 3.63), networks (mean=4.11 vs. 3.76), and their gut feeling (mean=4.04 vs. 3.77) more than *older small* firms. However, younger small firms are found to use their experience less than older small firms (mean=3.96 vs. 4.44).

Table XLIX shows the estimated marginal means of items measuring EM by firm age and founder. The results seem to suggest that *founders in younger firms* are more entrepreneurial

TABLE XLVI: MANOVA OF THE VECTOR OF 20 VARIABLES MEASURING EM BY FIRM AGE, FIRM SIZE, AND FOUNDER

Effect	Test	Value	F	Hypo df	Error df	Sig.
Intercept	Pillai's Trace	.99	2512.86	20	639	.00
	Wilks' Lambda	.01	2512.86	20	639	.00
	Hotelling's Trace	78.65	2512.86	20	639	.00
	Roy's Largest Root	78.65	2512.86	20	639	.00
Age	Pillai's Trace	.06	1.98	20	639	.01
	Wilks' Lambda	.94	1.98	20	639	.01
	Hotelling's Trace	.06	1.98	20	639	.01
	Roy's Largest Root	.06	1.98	20	639	.01
Size	Pillai's Trace	.05	1.54	20	639	.06
	Wilks' Lambda	.95	1.54	20	639	.06
	Hotelling's Trace	.05	1.54	20	639	.06
	Roy's Largest Root	.05	1.54	20	639	.06
Founder	Pillai's Trace	.04	1.42	20	639	.11
	Wilks' Lambda	.96	1.42	20	639	.11
	Hotelling's Trace	.04	1.42	20	639	.11
	Roy's Largest Root	.04	1.42	20	639	.11
Age * Size	Pillai's Trace	.05	1.62	20	639	.04
	Wilks' Lambda	.95	1.62	20	639	.04
	Hotelling's Trace	.05	1.62	20	639	.04
	Roy's Largest Root	.05	1.62	20	639	.04
Age * Founder	Pillai's Trace	.04	1.50	20	639	.07
	Wilks' Lambda	.96	1.50	20	639	.07
	Hotelling's Trace	.05	1.50	20	639	.07
	Roy's Largest Root	.05	1.50	20	639	.07
Size * Founder	Pillai's Trace	.04	1.29	20	639	.18
	Wilks' Lambda	.96	1.29	20	639	.18
	Hotelling's Trace	.04	1.29	20	639	.18
	Roy's Largest Root	.04	1.29	20	639	.18
Age*Size*Founder	Pillai's Trace	.02	.80	20	639	.71
	Wilks' Lambda	.98	.80	20	639	.71
	Hotelling's Trace	.03	.80	20	639	.71
	Roy's Largest Root	.03	.80	20	639	.71

TABLE XLVII: ANOVA TEST FOR THE EFFECTS OF FIRM SIZE, FIRM AGE, AND FIRM'S FOUNDERS ON EM

EM Dimension	Items	P-value by effect source			
		Age	Size	Age*Size	Age*Founder
Growth Orientation	G1	.42	.45	.95	.69
	G2	.10	.88	.58	.08
	G3	.05	.30	.35	.16
Opportunity Orientation	O1	.51	.90	.77	.20
	O2	.19	1.00	.28	.19
	O3	.44	.30	.58	.59
	O4	.14	.94	.97	.93
Value Creation	V1	.02	.80	.80	.92
	V2	.64	.58	.06	.15
	V3	.19	.73	.10	.16
Informal Marketing	I1	.63	.51	.84	.16
	I2	.07	.03	.18	.83
	I3	.66	.07	.01	.35
Market Immersion	M1	.23	.06	.53	.33
	M2	.09	.75	.20	.28
	M3	.00	.01	.02	.02
Two-way contacts	T1	.18	.29	.16	.53
	T2	.90	.89	.72	.73
	T3	.33	.08	.41	.73
	T4	.35	.68	.78	.05

TABLE XLVIII: ESTIMATED MARGINAL MEANS BY FIRM AGE AND FIRM SIZE

Item	Age	Size	Mean	Std. Err.	Lower Bound (95%CI)	Upper Bound (95%CI)
V2	older	larger	3.79	.08	3.64	3.95
		smaller	3.63	.11	3.42	3.84
	younger	larger	3.62	.14	3.34	3.90
		smaller	3.92	.16	3.61	4.23
V3	older	larger	3.91	.07	3.77	4.06
		smaller	3.76	.10	3.56	3.96
	younger	larger	3.87	.13	3.61	4.14
		smaller	4.11	.15	3.82	4.40
M3	older	larger	4.45	.06	4.34	4.57
		smaller	4.44	.08	4.28	4.59
	younger	larger	4.40	.11	4.19	4.61
		smaller	3.96	.12	3.72	4.19
I3	older	larger	3.87	.08	3.72	4.02
		smaller	3.77	.10	3.57	3.97
	younger	larger	3.50	.14	3.23	3.77
		smaller	4.04	.15	3.74	4.33

than *founders in older firms*. First, we find that founder-operated young firms are found to have higher means for the intention to grow than founder-operated old firms (mean=4.63 vs. 4.30). Next, founder-operated young firms are faster in adjusting to their customers demands than founder-operated old firms (mean= 4.67 vs. 4.42). The implication may be that the founders of younger firms are entrepreneurs who still want to grow their business, but founders of older firms may think that they have already done enough, are satisfied with their current business situation, and do not want to deal with the problems coming from having a bigger firm. Nonetheless, we find that founder-operated young firms rely less on their experience than founder-operated old firms (mean=4.38 vs. 4.43). This may imply that founders in older firms accumulate more experience than founders in younger firms.

TABLE XLIX: ESTIMATED MARGINAL MEANS BY FIRM AGE AND FOUNDING STATUS

Item	Age	Founder	Mean	Std. Err.	Lower Bound (95%CI)	Upper Bound (95%CI)
G2	older	non-founder	4.46	.09	4.29	4.63
		founder	4.30	.05	4.20	4.41
	younger	non-founder	4.46	.13	4.20	4.71
		founder	4.63	.10	4.43	4.84
T4	older	non-founder	4.38	.08	4.23	4.54
		founder	4.42	.05	4.32	4.51
	younger	non-founder	4.29	.12	4.06	4.52
		founder	4.67	.09	4.49	4.85
M3	older	non-founder	4.46	.09	4.30	4.63
		founder	4.43	.05	4.32	4.53
	younger	non-founder	3.97	.12	3.73	4.22
		founder	4.38	.10	4.19	4.58

APPENDIX C

Principal Component Analysis of EM factors

In a separate analysis, two principal component analyses (PCA) were conducted to confirm the existence of the six factors underlying the EM behaviors. The analyses were performed using PASW 18.0. The first PCA with an oblique rotation was performed on twenty items measuring EM. The results of the analysis are shown in Table L. The analysis retained the six factors with an Eigenvalue greater than one. This result supports the proposed model of six dimensions of EM behaviors.

TABLE L: FACTOR LOADINGS OF 20 ITEMS MEASURING EM

Item	factor1	factor2	factor3	factor4	factor5	factor6
G1	.41	-.12	.25	.15	.32	.34
G2	.63	-.05	.29	.01	.20	.08
G3	.73	.02	.09	-.23	.12	.00
O1	.55	.05	.02	-.22	.32	-.32
O2	.70	.10	.06	-.30	.12	-.04
O3	.40	.18	-.18	.05	.20	-.22
O4	.52	.18	.05	-.19	-.16	-.35
T1	.19	.20	.60	-.01	.11	-.13
T2	.00	.23	.43	-.47	-.15	.04
T3	.06	-.03	.54	-.01	.00	-.38
T4	.12	-.03	.70	-.17	.17	.07
V1	.26	-.20	.12	-.50	.21	.14
V2	.28	-.01	.05	-.62	.40	-.10
V3	.17	.14	.04	-.72	.05	-.14
I1	-.01	.64	-.02	.09	.18	.23
I2	.07	.67	.07	-.03	.01	-.12
I3	.11	.67	.07	-.17	-.01	-.15
M1	.21	.05	.24	-.08	.70	.00
M2	.11	.14	-.04	-.23	.60	-.22
M3	.17	.03	.21	-.05	.27	-.64

The second PCA with an oblique rotation was performed on the residuals of the same items after the effects of firm size, firm age and status of the firm's operator were taken out. (This is because EM behaviors are found in small firms rather than big firms, young firms rather

than older firms, and firms that are operated by entrepreneurs rather than firms operated by non-entrepreneurs.) The results are shown in Table LI. The residuals of the twenty items were also loaded into six factors. This result, therefore, also supports our hypothesized model that there are six factors underlying EM behaviors. Note that the residuals are obtained from a MANOVA analysis of the impact of firm age, firm size, and firm's founder on EM behaviors.

TABLE LI: FACTOR LOADINGS OF RESIDUALS OF ITEMS MEASURING EM

Item	factor1	factor2	factor3	factor4	factor5	factor6
G1	.35	-.11	-.01	.29	.31	.41
G2	.60	-.02	.20	.16	.24	.24
G3	.74	.02	.13	-.13	.14	.04
O1	.57	.03	.09	-.25	.25	.18
O2	.69	.09	.09	-.23	.09	.15
O3	.46	.13	-.01	-.03	.14	-.30
O4	.53	.19	.08	-.19	-.24	.24
T1	.17	.26	.49	.08	.09	.42
T2	.06	.22	.55	-.38	-.08	-.10
T3	.08	-.03	.66	.02	.03	.07
T4	.13	-.02	.68	-.02	.25	.15
V1	.23	-.17	-.02	-.39	.20	.48
V2	.32	-.02	.12	-.60	.39	.10
V3	.20	.15	.08	-.70	.03	.23
I1	-.04	.64	-.14	.11	.25	.00
I2	.07	.67	.12	-.08	-.05	-.03
I3	.15	.68	.11	-.17	-.04	.05
M1	.18	.09	.18	-.03	.69	.26
M2	.22	.11	.12	-.31	.59	-.17
M3	.15	.12	.18	-.15	.04	.63

Table LII below shows Alpha values of items measuring each EM dimension.

TABLE LII: ALPHA VALUES OF ITEMS MEASURING ENTREPRENEURIAL MARKETING FACTORS

EM dimension	Alpha value	number of items
Growth Orientation	0.49	3
Opportunity Orientation	0.51	4
Market Immersion	0.32	3
Two-way Contacts with Customers	0.45	4
Value Creation through Relationships and Alliances	0.50	3
Informal Marketing Research	0.45	3

APPENDIX D

A MANOVA test for an impact of EO on EM

Prior to conducting multigroup CFA in Chapter 5, we investigated the impact of EO on EM using Multivariate Analysis of Variance (MANOVA). Unlike multigroup CFA, where EM is treated as an unobserved variable, MANOVA treats EM as an observed variable. The results are shown in Table LIII below and suggest that innovativeness, proactiveness, and risk-taking have independent effects on EM behaviors ($p < 0.10$).

The results in Table LIV identify that innovativeness affects 4 dimensions of EM, proactiveness affects 5 dimensions of EM, and risk-taking affects 3 dimensions of EM. ($p < 0.10$). According to Table LV, higher levels of innovativeness, proactiveness, and risk-taking are associated with higher levels in the growth orientation and opportunity orientation dimensions of EM. In addition, higher scores for innovativeness and proactiveness are also found to be significantly related to higher scores in two-way contacts with customers. However, the results also show that higher scores for innovativeness are related to lower scores for informal marketing, and higher scores for proactiveness are related to lower scores value creation through relationships and alliances. Note that these results are consistent with the results obtained from our multigroup CFA in Chapter 5.

We also find some inconsistency between the results from the MANOVA test and those from the multigroup CFA test. While higher scores for risk-taking are associated with higher scores in informal marketing in the MANOVA, the result is not significant in multigroup CFA. Instead, a higher score for risk-taking is found to have higher means in factors underlying value creation through relationships and alliances dimension. Also, the significant association between proactiveness and market immersion dimension in this MANOVA study was not statistically significant in a multigroup CFA test. This emphasizes that the choice of statistical analysis can affect the results substantially.

TABLE LIII: MANOVA OF 20 ITEMS MEASURING EM BY THREE EO DIMENSIONS

Effect	Test	Value	F	Hypo df	Error df	p-value
Intercept	Pillai's Trace	.99	2252.50	20	518	.00
	Wilks' Lambda	.01	2252.50	20	518	.00
	Hotelling's Trace	86.97	2252.50	20	518	.00
	Roy's Largest Root	86.97	2252.50	20	518	.00
Innovative	Pillai's Trace	.08	2.18	20	518	.00
	Wilks' Lambda	.92	2.18	20	518	.00
	Hotelling's Trace	.08	2.18	20	518	.00
	Roy's Largest Root	.08	2.18	20	518	.00
Proactive	Pillai's Trace	.08	2.29	20	518	.00
	Wilks' Lambda	.92	2.29	20	518	.00
	Hotelling's Trace	.09	2.29	20	518	.00
	Roy's Largest Root	.09	2.29	20	518	.00
Risk-taking	Pillai's Trace	.06	1.66	20	518	.04
	Wilks' Lambda	.94	1.66	20	518	.04
	Hotelling's Trace	.06	1.66	20	518	.04
	Roy's Largest Root	.06	1.66	20	518	.04
In * Pro	Pillai's Trace	.04	1.04	20	518	.41
	Wilks' Lambda	.96	1.04	20	518	.41
	Hotelling's Trace	.04	1.04	20	518	.41
	Roy's Largest Root	.04	1.04	20	518	.41
In * Risk	Pillai's Trace	.04	1.01	20	518	.45
	Wilks' Lambda	.96	1.01	20	518	.45
	Hotelling's Trace	.04	1.01	20	518	.45
	Roy's Largest Root	.04	1.01	20	518	.45
Pro * Risk	Pillai's Trace	.03	0.73	20	518	.80
	Wilks' Lambda	.97	0.73	20	518	.80
	Hotelling's Trace	.03	0.73	20	518	.80
	Roy's Largest Root	.03	0.73	20	518	.80
In*Pro*Rk	Pillai's Trace	.04	1.13	20	518	.31
	Wilks' Lambda	.96	1.13	20	518	.31
	Hotelling's Trace	.04	1.13	20	518	.31
	Roy's Largest Root	.04	1.13	20	518	.31

TABLE LIV: ANOVA TEST FOR EFFECTS OF EO DIMENSIONS ON EM

EM Dimension	Item	P-value by effect source (EO dimension)		
		Innovativeness	Proactiveness	Risk-Taking
Growth Orientation	G1	.44	.00	.61
	G2	.80	.62	.06
	G3	.03	.10	.12
Opportunity Orientation	O1	.00	.01	.09
	O2	.00	.34	.02
	O3	.59	.04	.02
	O4	.97	.21	.00
Two-way contacts	T1	.60	.31	.81
	T2	.75	.10	.35
	T3	.44	.17	.64
	T4	.09	.05	.35
Value Creation	V1	.46	.12	.83
	V2	.16	.85	.25
	V3	.44	.01	.12
Informal Marketing	I1	.01	.34	.48
	I2	.03	.76	.67
	I3	.12	.23	.02
Market Immersion	M1	.81	.73	.38
	M2	.23	.41	.12
	M3	.36	.08	.54

TABLE LV: ESTIMATED MARGINAL MEANS OF ITEMS MEASURING EM BY LEVELS OF EO

EM Dimension	Item	Innovative		Proactiveness		Risk-taking	
		Low	High	Low	High	Low	High
Growth Orientation	G1			4.08	4.43		
	G2					4.36	4.55
	G3	4.31	4.52	4.33	4.50		
Opportunity Orientation	O1	3.86	4.22	3.88	4.19		
	O2	4.24	4.59			4.30	4.53
	O3			3.39	3.68	3.37	3.70
	O4					4.31	4.57
Two-way Contacts	T4	4.38	4.54	4.37	4.55		
Value Creation	V3			4.13	3.82		
Informal Marketing	I1	3.27	2.90				
	I2	4.23	3.98				
	I3					3.70	3.99
Market Immersion	M3			4.31	4.48		

APPENDIX E

An ANOVA Test for Relationship between Founding Status and Entrepreneurial Orientation

Based on the upper echelons theory stating that top management's decisions and choices impact firms' function (Hambrick, 2007; Hambrick and Mason, 1984; Waldman et al., 2004), we expect to find that founders have an impact on level of firms' entrepreneurial orientation. In this section, we investigate a relationship between founding status and levels of firms' EO. We investigate whether there is a difference between levels of EO in founder operated firms and levels of EO in non-founder operated firms.

TABLE LVI: ANOVA TEST FOR AN IMPACT OF FOUNDING STATUS ON ITEMS MEASURING EO

Item	Test	SS	df	Mean Square	F	Sig.
IN1	Between Groups	.22	1	.22	.31	.58
	Within Groups	378.52	542	.70		
	Total	378.73	543			
IN2	Between Groups	.00	1	.00	.00	.99
	Within Groups	397.34	542	.73		
	Total	397.34	543			
R1	Between Groups	1.02	1	1.02	1.60	.21
	Within Groups	344.98	542	.64		
	Total	345.99	543			
R2	Between Groups	1.06	1	1.06	1.55	.21
	Within Groups	372.20	542	.69		
	Total	373.26	543			
PRO1	Between Groups	.26	1	.26	.39	.53
	Within Groups	369.22	542	.68		
	Total	369.48	543			
PRO2	Between Groups	2.64	1	2.64	2.88	.09
	Within Groups	495.61	542	.91		
	Total	498.25	543			

Results of an analysis of variance (ANOVA) investigating relationships between founding status and levels of firms' EO are shown in Table LVI. We can see that founding status

has no statistically significant impact on most of the items measuring EO, except on item PRO2 ($p < 0.10$). The differences between means of items measuring each EO dimensions across founder-operated firms and non-founder operated firms are shown in Table LVII below. We find that founder-operated firms marginally have higher mean than non-founder operated firms in being the first to introduce new products or services (mean=1.92 vs. 1.78). The lack of relationships between founding status and many items measuring EO dimensions may explain why firms' level of entrepreneurial marketing practice is not predicted by founding status but by levels of firms' EO.

TABLE LVII: ESTIMATED MEANS OF ITEMS MEASURING EO ACROSS FOUNDER-OPERATED FIRMS VERSUS NON-FOUNDER OPERATED FIRMS

Item	Founder/Non-founder	N	Mean	Std. Dev.
IN1	non-founder operated firms	189	1.60	.82
	founder operated firms	355	1.65	.85
IN2	non-founder operated firms	189	1.53	.86
	founder operated firms	355	1.54	.85
R1	non-founder operated firms	189	1.44	.77
	founder operated firms	355	1.54	.81
R2	non-founder operated firms	189	1.48	.80
	founder operated firms	355	1.57	.84
PRO1	non-founder operated firms	189	2.29	.80
	founder operated firms	355	2.24	.84
PRO2	non-founder operated firms	189	1.78	.95
	founder operated firms	355	1.92	.96

APPENDIX F

National Small Business Poll 2006

Hello, this is _____ calling from The Gallup Poll. Today, we are talking with small business owners about topics in the news. For the survey today, it is important that I speak with the owner of this business. Is this person available?

- 1 Yes, respondent available - (Continue)
- 4 No such person - (Thank and terminate)
- 7 Respondent not available/Not a good time - (Set time to call back; Do NOT substitute anyone else)
- 8 (Soft refusal)
- 9 (Hard refusal) - (Thank and terminate)

S1. NAICS Code

- 11 Agriculture, Forestry, Fishing and Hunting
- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Education Services
- 62 Health Care and Social Assistance

71 Arts, Entertainment, and Recreation

72 Accommodation and Food Services

81 Repair and Maintenance Services or Personal Care Services

92 Public Administration

S2. How many people, full-time and part-time, does your business currently employ, NOT including your self? (Open ended and code actual number)

000 None (Thank and terminate)

001-250 (Continue)

251-997 (Thank and terminate)

998 DK (Thank and terminate)

999 Refused (Thank and terminate)

S3. Which best describes your position in this business? Are you the (read 1-3)?

a) Owner/Manager

b) Owner but NOT manager, OR

c) Manager but NOT owner

d) (DK)

e) (Refused)

(If code 1-3 in S3, continue; Otherwise, thank and terminate)

S4. Are you a founder or co-founder of the business?

a) Yes

b) No

c) (DK)

d) (Refused)

1. Does your business sell primarily to (read 1-4)?

1 The general public

2 Other businesses

3 Government or non-profit organizations, OR

4 A real mixture of two or more of these market groups

5 (DK)

6 (Refused)

(If code 2 in #1, continue; If code 3 in #1, skip to #3; Otherwise, skip to #4)

2. To a large number of businesses or just a very few?

1 Large number

2 Very few

3 (DK)

4 (Refused)

(All in #2, skip to #4)

3. To a large number of governments or non-profits or just a very few?

1 Large number

2 Very few

3 (DK)

4 (Refused)

4. Is your customer base (read 1-5)?

1 Virtually all repeat customers

2 Mostly repeat customers

3 A mix of repeat and non-repeat customers

4 Mostly non-repeat customers

5 Virtually all non-repeat customers

6 (DK)

7 (Refused)

5. Do you think that marketing and sales are (read 1-3)?

1 The same business concept

2 Somewhat different business concepts

3 Very different business concepts

4 (DK)

5 (Refused)

6. Please tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statements about marketing as it is done in your business. (Read and rotate A-P)

- 1 Strongly agree
- 2 Somewhat agree
- 3 Neither agree nor disagree
- 4 Somewhat disagree
- 5 Strongly disagree
- 6 (DK)
- 7 (Refused)

A. Our business doesn't need much marketing. Our products or services sell without having to do much.

B. It is more important to focus on what the customer buys now, rather than what the customer will buy in the future.

C. Our business has a separate, annual marketing budget item within the overall budget.

D. Our current customers are the firm's most important asset.

E. Everyone in this firm makes customers a top priority.

F. We rely heavily on experience when making marketing decisions.

G. We invest in building long-term relationships with our customers.

H. We quickly adjust to meet changing customer expectations.

I. It is more expensive to retain a current customer than to acquire a new one.

J. Customer demand is usually the reason we introduce a new product and/or service.

K. Long-term growth is more important than immediate profit.

L. We learn from our competitors.

M. It is easier to get new customers than it is to keep older ones.

N. A marketing plan is a critical business tool.

O. Most of our marketing decisions are based on what we learn from day-to-day customer contact.

P. Our primary objective is to grow the business.

7. How much does advertising, such as newspaper ads, direct mail, fliers, etc., contribute to generating your business's sales revenues? Would you say (read 1-4)?

- 1 A Little
- 2 Some

- 3 Quite a bit
- 4 A lot
- 5 (Don't formally advertise)
- 6 (DK)
- 7 (Refused)

(If code 2-4 in #7, continue; Otherwise, skip to #17)

8. Do you advertise extensively, some, or not at all (read and rotate A-J)?

- 1 Extensively
- 2 Some
- 3 Not at all
- 4 (DK)
- 5 (Refused)

A. In newspapers (If code 1 or 2 in #8-A, continue; Otherwise, skip to next appropriate item)

A1. Is that daily newspapers, weekly newspapers, or both?

- 1 Daily
- 2 Weekly
- 3 Both
- 4 (DK)
- 5 (Refused)

B. On television

C. In newsletters, organization's bulletins, etc.

D. Through direct mail

E. In magazines

(If code 1 or 2 in #8-E, continue; Otherwise, skip to next appropriate item)

E1. Is that trade magazines, general interest magazines, or both?

- 1 Trade
- 2 General interest
- 3 Both
- 4 (DK)

5 (Refused)

F. In fliers, circulars, handouts

G. On an Internet site or sites

(If code 1 or 2 in #8-G, continue; Otherwise, skip to the next appropriate item)

G1. Is that your Web site, the Web site of others, or both?

1 Respondent's Web site

2 Web site(s) of others

3 Both

4 (DK)

5 (Refused)

H. On radio

I. In Value packs and/or shoppers supplements

J. On outdoor signs off the premises

9. Which of these is the single most important method of advertising for your firm? (Open ended and code)

01 Other (list)

02 (Refused)

03 Newspapers

04 Television

05 Newsletters, organizational bulletins, etc.

06 Direct mail

07 Magazines

08 Fliers, circulars, handouts

09 Internet sites

10 Radio

11 Value packs and/or shoppers

12 Outdoor signs off the premises

10. Does your advertising tend to be (read 1-4)?

1 Steady throughout the year

2 Steady with periodic ups and downs

- 3 Varies enormously throughout the year
- 4 Confined to a season or short period
- 5 (DK)
- 6 (Refused)

11. Is your advertising material typically designed by someone in your firm, by an ad agency for you, by an advertiser on your behalf, or by someone else?

- 1 Respondent/Respondent's firm
- 2 Ad agency
- 3 Advertiser,(such as a newspaper or radio station)
- 4 Someone else
- 5 (DK)
- 6 (Refused)

12. Which best describes how you know whether or not your advertising has been effective?
(Read 1-5)

- 1 Formal measures of effectiveness
- 2 Feedback from people who have seen or heard it
- 3 Customer response to the specific ad message, such as bringing in a coupon or asking about a sale item
- 4 General feel for it
- 5 Have little idea if the advertising is effective
- 6 (Other)
- 7 (DK)
- 8 (Refused)

13. Does your business have its own logo or trademark?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

(If code 1 in #17, continue;Otherwise, skip to #19)

14. Is that logo or trademark registered with the government?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

15. How much does telemarketing contribute to generating your business's sales revenues?
Would you say (read 1-4)?

- 1 A little
- 2 Some
- 3 Quite a bit
- 4 A lot
- 5 (Don't telemarket)
- 6 (DK)
- 7 (Refused)

16. How much does free publicity, such as news stories, contribute to generating your
business's sales revenues? Would you say (read 1-4)?

- 1 A little
- 2 Some
- 3 Quite a bit
- 4 A lot
- 5 (Don't get free publicity)
- 6 (DK)
- 7 (Refused)

17. How much does changing prices, such as sales or specials, contribute to generating your
business's sales revenues? Would you say (read 1-4)?

- 1 A little
- 2 Some
- 3 Quite a bit
- 4 A lot
- 5 (Don't change prices as a marketing device)
- 6 (DK)

7 (Refused)

18. How much does word of mouth or referrals contribute to generating your business's sales revenues? Would you say (read 1-5)?

1 None

2 A little

3 Some

4 Quite a bit

5 A lot

6 (DK)

7 (Refused)

19. How much does personal selling contribute to generating your business's sales revenues? Would you say (read 1-4)?

1 A little

2 Some

3 Quite a bit

4 A lot

5 (Don't do personal selling)

6 (DK)

7 (Refused)

20. How much does trade shows or events contribute to generating your business's sales revenues? Would you say (read 1-4)?

1 A little Some

3 Quite a bit

4 A lot

5 (Don't participate in them)

6 (DK)

7 (Refused)

21. How much do changes in the mix of your goods and/or services contribute to generating your business's sales revenues? Would you say (read 1-5)?

1 None

- 2 A little
- 3 Some
- 4 Quite a bit
- 5 A lot
- 6 (DK)
- 7 (Refused)

22. How much does your physical location OR LOCATIONS contribute to generating your business's sales revenues? Would you say (read 1-4)?

- 1 A little
- 2 Some
- 3 Quite a bit
- 4 A lot
- 5 (Not important)
- 6 (DK)
- 7 (Refused)

23. Does your business have its own Internet Web site?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

(If code 1 in #27, continue; Otherwise, skip to #33)

24. How much does the Web site contribute to generating your business's sales revenues? Would you say (read 1-5)?

- 1 None
- 2 A little
- 3 Some
- 4 Quite a bit
- 5 A lot
- 6 (DK)
- 7 (Refused)

25. Is your Web site interactive, that is, does it respond or change to a customer's inquiry?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

26. Can customers place orders on your Web site and pay for them on a secure platform or environment in the site?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

27. Does your Web site provide you market intelligence, such as the number of people who clicked on a particular topic in your site?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

28. How often do you typically change the content on your Web site? (Read 1-4)

- 1 Daily or more frequently
- 2 Weekly
- 3 Monthly
- 4 Less frequently than monthly
- 5 (DK)
- 6 (Refused)

29. Please tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statements about marketing as it is done in your business. (Read and rotate A-P)

- 1 Strongly agree
- 2 Somewhat agree
- 3 Neither agree nor disagree

4 Somewhat disagree

5 Strongly disagree

6 (DK)

7 (Refused)

A. We aggressively try to expand our present customer base.

B. Adding innovative products or services is important to our success.

C. We face tough competitors in our markets.

D. It is important to rely on gut feeling when making marketing decisions.

E. Introducing new products or services usually involves little formal market research and analysis.

F. Our customers require us to be very flexible and adapt to their special requirements.

G. We consistently look for new business opportunities.

H. Our marketing decisions are based more on informal customer feedback than on formal market research.

I. Our marketing efforts try to lead customers, rather than respond to them.

J. We work hard to establish reputation, trust, and credibility with our customers.

K. We use our key industry friends and partners extensively to help us develop and market our products and services.

L. Creativity stimulates good marketing decisions.

M. We don't think about longer-term marketing objectives as much as we should.

N. We usually introduce new products and services based on the recommendations of our suppliers.

O. Most of our marketing decisions are based on exchanging information with those in our personal and professional network.

P. We have to work very hard to reach our sales goals.

30. As I read the following, please tell me which of the two statements describes your business more accurately, or if they both describe it equally. (Read and rotate A-F)

A. My business places a strong emphasis on (read 1-2).

1 Tried and tested practices, equipment, and products or services, OR

2 Innovation, technological leadership, and R&D

3 (Equally, the same)

4 (DK)

5 (Refused)

(If code 1 or 2 in #30-A, continue; Otherwise, skip to next appropriate item)

A1. Do think that way strongly or not so strongly?

1 Strongly

2 Not so strongly

3 (DK)

4 (Refused)

B. In the last three years, changes in my products or services have been (read 1-2).

1 Mostly of a minor nature, OR

2 Usually quite dramatic

3 (Equally, the same)

4 (DK)

5 (Refused)

(If code 1 or 2 in #30-B, continue; Otherwise, skip to next appropriate item)

B1. Do think that way strongly or not so strongly?

1 Strongly

2 Not so strongly

3 (DK)

4 (Refused)

C. My business is inclined toward (read 1-2).

1 Low risk projects with certain and normal rates of return,OR

2 High risk projects with chances of very high returns

3 (Equally, the same)

4 (DK)

5 (Refused)

(If code 1 or 2 in #30-C, continue;Otherwise, skip to next appropriate item)

C1. Do think that way strongly or not so strongly?

- 1 Strongly
- 2 Not so strongly
- 3 (DK)
- 4 (Refused)

D. Due to the nature of the business environment in which you operate, is it best to (read 1-2)?

1 Explore potential opportunities gradually, through cautious, incremental behavior, OR

2 Take wide-ranging bold actions to achieve the firm's objectives

3 (Equally, the same)

4 (DK)

5 (Refused)

(If code 1 or 2 in #30-D, continue; Otherwise, skip to next appropriate item)

D1. Do think that way strongly or not so strongly?

- 1 Strongly
- 2 Not so strongly
- 3 (DK)
- 4 (Refused)

E. My business typically (read 1-2).

1 Responds to initiatives my competitors take, OR

2 Initiates action to which my competitors respond

3 (Equally, the same)

4 (DK)

5 (Refused)

(If code 1 or 2 in #30-E, continue; Otherwise, skip to next appropriate item)

E1. Do think that way strongly or not so strongly?

- 1 Strongly
- 2 Not so strongly
- 3 (DK)

4 (Refused)

F. My business is (read 1-2) the first to introduce new products or services, administrative techniques, etc.

1 Often, OR

2 Seldom

3 (Equally, the same)

4 (DK)

5 (Refused)

(If code 1 or 2 in #30-F, continue; Otherwise, skip to next appropriate item)

F1. Do think that way strongly or not so strongly?

1 Strongly

2 Not so strongly

3 (DK)

4 (Refused)

DEMOGRAPHICS BEGIN HERE:

D1. Is your primary business activity (response in S1) or is it something else?

1 (Response in S1)

2 Something else

3 (DK)

4 (Refused)

D2. Is this business operated primarily from the home, including any associated structure, such as a garage or a barn?

1 Yes

2 No

3 (DK)

4 (Refused)

D3. How long have you owned or operated this business? (Open ended and code actual number of years)

01-96

97 Less than one year

98 (DK)

99 (Refused)

D4. EDUCATION: What is your highest level of formal education?

1 Did not complete high school

2 High school diploma/GED

3 Some college or an associate's degree

4 Vocational or technical school degree

5 College diploma

6 Advanced or professional degree

7 (DK)

8 (Refused)

D5. AGE: Please tell me your age. (Open ended and code actual age)

00 (Refused)

18-98

99 99+

D6. ZIP CODE: What is the zip code of your business? (Open ended and code all five digits of zip code)

99998 (DK)

99999 (Refused)

D7. Compared to your competitors over the last three years, do you think the overall performance of your business in terms of sales and net profits makes it a _____?

1 Low performer

2 Somewhat low performer

3 Moderate performer

4 Somewhat high performer

5 High performer

6 (Haven't been in business three years)

7 (DK)

8 (Refused)

D8. GENDER:

1 Male

2 Female

Again, this is _____, with The Gallup Organization of_____. I would like to thank you for your time. Our mission is to “help people be heard” and your opinions are important to Gallup in accomplishing this.

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