AN EMOTIONAL BUSINESS: THE ROLE OF EMOTIONAL INTELLIGENCE IN ENTREPRENEURIAL SUCCESS

Erin B. McLaughlin, B.S., M.B.A.

Dissertation Prepared for the Degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

May 2012

APPROVED:

Warren Watson, Major Professor
Lewis A. Taylor, III, Committee Member
Robert Pavur, Committee Member
Mark A. Davis, Coordinator of the Doctoral Program
Vicki L. Goodwin, Chair of the Department of Management
O. Finley Graves, Dean of the College of Business
James D. Meernik, Acting Dean of the Toulouse Graduate School
Successful entrepreneurial activity is important for a healthy economy and can be a major source of job creation. While the concept of entrepreneurship has been around for quite some time, researchers continue to explore the factors that underlie entrepreneurial performance. Specifically, researchers have sought to further examine why some entrepreneurial ventures are more successful than others.

The concept of emotional intelligence (EI) has gained the attention of researchers and practitioners alike. Practitioners have realized that employees can no longer be perceived as biological machines that are capable of leaving their feelings, norms, and attitudes at home when they go to work. Researchers are embracing the concept of emotional intelligence because of its relationship with efficiency, productivity, sales, revenues, quality of service, customer loyalty, employee recruitment and retention, employee commitment, employee health and satisfaction, and morale.

While there is considerable evidence documenting the effects of emotional intelligence on leadership performance, job performance in large firms, and educational performance, very little research has examined how emotional intelligence affects entrepreneurial performance and the variables that account for this relationship. Individuals in entrepreneurial occupations face business situations that necessitate unique skills and abilities in social interactions. Emotional intelligence has implications for entrepreneurial situations and social interactions.
such as negotiation, obtaining and organizing resources, identifying and exploiting opportunities, managing stress, obtaining and maintaining customers, and providing leadership.

The primary purpose of this study is to investigate emotional intelligence in the context of entrepreneurship. In addition, the study will shed light on the mediating effects of individual competencies, organizational tasks, and the environmental culture and climate. The results of the study provide insights for emotional intelligence researchers, entrepreneurship researchers, individuals with entrepreneurial aspirations, academic institutions, as well as government and financial entities that provide resources to new ventures.
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ACKNOWLEDGEMENTS

I would like to take this opportunity to thank my chair, Dr. Warren Watson, and my committee members, Dr. Lewis Taylor and Dr. Robert Pavur, for their support and guidance throughout the process. I would also like to extend a special thank you to Dr. Elizabeth Rozell for introducing me to Emotional Intelligence and the academic research process during my MBA.

Above all, a very special note of appreciation goes to my family, for providing continuous support and encouragement throughout my education. No matter what the accomplishment or hurdle was along the way, we celebrated or overcame it together, just like we always do.

-To my sister, Megan, who patiently listened and encouraged me throughout the process.

-To my parents, Patrick and Lana, for all of their many sacrifices to make sure my sister and I had every opportunity imaginable. My parents, both educators themselves, are truly an inspiration and unparalleled role models.

-To my fiancé, Brian, for your unwavering support in so many ways. You have waited very patiently and I look forward to starting a new chapter in our lives together.

I am so grateful for the love and support of my family, THANK YOU!
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CHAPTER I

INTRODUCTION

The field of entrepreneurship represents an increasingly dynamic productive force in the economy and resides at the forefront of adaptation and the growth of new markets (Gavron, Cowling, Holtham, & Westall, 1998). There are over 850,000 new businesses launched in the United States every year, and new entrepreneurs get credit for launching 84% of those businesses (Price, 2006; Zimmerer, Scarborough, & Wilson, 2007). Small firms in general and new firms in particular, contribute substantially to economic growth and economic prosperity for well-developed countries (Birch, 1987). Such economic growth is a direct result of an increase in the size of existing firms as well as the creation of new firms. Creating new economic entities, or entrepreneurship, is vital to the progression of organizations and economies (Aldrich, 1999). Entrepreneurial activity is a vital component of national economic growth and development (Kim, Aldrich & Keister, 2003). Entrepreneurship promotes innovation, fosters job creation, and encourages global competitiveness for firms and countries (Bednarzik, 2000).

The present economic situation has resulted in organizational downsizing and regular periods of unemployment, which have induced growing numbers of people to aspire to self-employment. Individuals are seeking entrepreneurial careers at an increasingly rapid rate, despite the financial, managerial, and personal challenges associated with entrepreneurial careers (Zimmerer et al., 2007). From an individual's perspective, creating a new firm is often developed as part of the entrepreneur's personal life strategy, as a means of earning a living (Littunen, 2000). For many individuals, self-employment represents both an escape from life in
traditional organizational bureaucracies and an opportunity to generate greater personal wealth (Walker & Webster, 2007). Self-employment offers opportunities for flexibility, independence, profits, and personal recognition. Thus, successful entrepreneurship today is about how well entrepreneurs manage themselves and others. Entrepreneurs in today's society must have the ability to be flexible and adapt to a constantly changing business society; and often to a greater extent than individuals operating in the context of larger firms who are, to some extent, more protected by the organization.

Statement of the Problem

Why are some entrepreneurial ventures more successful than others? Nearly every entrepreneur begins their new venture with hopes of great success, but nearly half of the 850,000 new businesses started every year in the United States close their doors within the first 12 months (Small Business Administration, 2010). A breakdown of these staggering statistics shows that only one-third of start-up firms in the United States survive at least two years, but less than half of the surviving businesses make it to the four year mark (Small Business Administration, 2010). Thus, it is evident that understanding factors relating to entrepreneurial success is critical for the field of entrepreneurship; particularly for the entrepreneur, the stakeholders, and the health of the economy as a whole (Lussier & Halabi, 2010; Pompe & Bilderbeek, 2005; Carter, Williams & Reynolds, 1997).

Early entrepreneurial research explored the role of biographical information and personality characteristics in entrepreneurial performance (e.g., Gartner, 1988). These studies found mixed results and researchers argued that future entrepreneurial research should explore other facets, such as skills and abilities (e.g., Baron & Markman, 2000), or needs and
opportunities (e.g., Davidsson, 1991). Entrepreneurial success has since been linked, in part, to cognitive abilities and social skills (e.g., Baron & Markman, 2000, 2003). Some of those skills include accurately perceiving others, making good first impressions, and persuading or influencing others in interpersonal interactions (e.g., Baron & Markman, 2000; Duck, 1994). Emotional intelligence (EI) encompasses many of these social and cognitive skills, as it is defined as the ability to identify, facilitate, understand and regulate your own emotions as well as the emotions of others (Mayer & Salovey, 1997). Thus, while EI encompasses many of the skills and abilities found to relate to entrepreneurial success, very little research in the field of entrepreneurship has explored the role of emotional intelligence.

While there is substantial evidence documenting the effects of emotional intelligence on leadership performance (e.g., Goleman, Boyatzis, & McKee, 2002; George, 2000), job performance in large firms (Matthews, Zeidner, & Roberts, 2002), and educational performance (e.g., Humphrey, Curran, Morris, Farrell & Woods, 2007), there is much less research examining how emotional intelligence affects entrepreneurial performance and the variables that account for this relationship. Individuals in entrepreneurial occupations face business situations that necessitate unique skills and abilities in social interactions (e.g., Baron & Markman, 2000; Chandler & Hanks, 1994; Begley & Boyd, 1987). Emotional intelligence has implications for entrepreneurial behaviors such as negotiation, obtaining and organizing resources, identifying and exploiting opportunities, managing stress, obtaining and maintaining customers, and providing leadership (e.g., Foo, Elfenbein, Tan & Aik, 2004; Mitchell, Busenitz, Bird, Galio, McMullen, Morse & Smith, 2006; Rozell, Pettijohn & Parker, 2004; Stein, 2009).
Providing a better understanding of the role of emotional intelligence in entrepreneurial success is a primary focus of this investigation. This study also explores the mediating role of individual, organizational, and environmental-level variables. A mediator is a third variable that intervenes between the independent and dependent variables; theoretically, a mediator facilitates the relationship between the other two variables (Hair, Black, Babin, Anderson & Tatham, 2006). Individual-level mediators explored include managerial and entrepreneurial competencies. Organizational-level mediators include interpersonal tasks; and environmental-level mediating variables include munificence and dynamism.

Because very little research on emotional intelligence has been conducted in the entrepreneurship realm, this study provides insight on the significance of studying EI in this field. Furthermore, while exploring the role of emotional intelligence in entrepreneurial performance, it is imperative that entrepreneurial success be addressed by the multiple forms that currently reside in the entrepreneurial literature. Emotional intelligence may play a role in any one, or multiple, performance measures (i.e., financial entrepreneurial firm success, relative firm success, and/or personal success). The mediating variables for this study were also chosen based on the previous literature. Other forms of competence (e.g., social competence, political competence) have been found to mediate the relationship between emotional intelligence and performance in various organizational contexts (e.g., Salovey, Brackett & Mayer, 2004); therefore, necessitating an investigation of the potential mediating role that entrepreneurship specific competencies play in the relationship between emotional intelligence and entrepreneurial success. Emotional intelligence has also been recognized as extremely important in interpersonal tasks (e.g., O'Boyle, Humphrey, Pollack, Hawver & Story, 2010;
Zeidner, Matthews & Roberts, 2009); thus, the potential mediating role of interpersonal tasks is also important to the investigation of the EI-entrepreneurial success relationship. Finally, environmental variables, such as dynamism and munificence, are exceedingly important in the performance and survival of entrepreneurial firms (e.g., Baron, 2000; Chandler & Hanks, 1994; Tang, 2008). Addressing the role of these environmental variables in the EI-entrepreneurial success relationship will provide better insight on the influence of resource availability and competition.

So what makes some entrepreneurs more successful than others? This research investigation seeks to address this question by investigating the role of emotional intelligence in entrepreneurial success. Three forms of entrepreneurial success are addressed (i.e., financial, relative to competitors, and personal success), as well as variables that may mediate the EI-entrepreneurial success relationship. The following section describes the theoretical foundation for the relationships proposed in this investigation.

Theoretical Perspectives

A General Theory of Entrepreneurship

The field of entrepreneurship focuses on how to create and grow new ventures through the discovery and exploitation of opportunities that bring goods and services into existence (Shepherd, 2004; Shane & Venkataraman, 2000; Venkataraman, 1997), and how to succeed (McGrath, 1999). The majority of studies on entrepreneurial success typically fall into one of two streams of research. The first stream of research centers on the characteristics of entrepreneurs themselves, their abilities to recognize opportunities, their strategies and resource acquisitions, as well as their organizing processes (Shane, 2003). The second stream
of entrepreneurial success research primarily focuses on contextual factors that are external to the entrepreneurial business itself. These factors include industry characteristics and the environment in which entrepreneurs operate successfully. Figure 1 depicts a general theory of entrepreneurship framework proposed by Shane (2003). This study focuses on the individual determinants, with an emphasis on emotional intelligence, in the organizational and environmental contexts.

**Figure 1.** A general theory of entrepreneurship framework.
Industry and Environmental Determinants

In one primary stream of entrepreneurial research, investigators seek to explain entrepreneurship by referencing the differences in the industries and the environment where entrepreneurs are found, typically seeking to identify situations in which entrepreneurial activity is most likely to occur or entrepreneurs are most likely to succeed. Shane (2003) provides a review of several industry differences seen throughout the literature on entrepreneurial activity. The first of these industry differences is knowledge conditions, which consists of research and development intensity (e.g., Klepper & Sleeper, 2005), locus of innovation (e.g., Klevorick, Levin, Nelson & Winter, 1995), size of innovating entities (e.g., Acs & Audretsch, 1989), and uncertainty in the industry (e.g., Audretsch, 1991). Demand conditions also constitute industry differences and include market size (e.g., Eisenhardt & Schoonhoven, 1995), market growth (e.g., Gimeno, Folta, Cooper & Woo, 1997), and market segmentation (e.g., Shane, 2003). The third dimension of industry differences includes industry life cycles, industry age, presence of a dominant design, and density of firms within an industry (Aldrich, 1999). Additionally, appropriability conditions, including strength of patents and the importance of complementary assets (e.g., Shane, 2001) constitute the fourth dimension of industry differences. The final industry difference is structure. Industry structure differences include such factors as cost of inputs (e.g., Baum & Oliver, 1991), capital intensity (e.g., Dean & Meyer, 1992), advertising intensity (e.g., Dorfman & Steiner, 1954), profitability of the industry, industry concentration (e.g., Dean, Brown & Bamford, 1998), and average firm size (Shane, 2001).
The environments in which successful entrepreneurial endeavors can be found are also important in entrepreneurial success research, in part because such contexts appear to have an influence on entrepreneurial activity and provide government officials the ability to influence entrepreneurial endeavors in form and size (Shane, 2003). There are three main facets of the environmental research in entrepreneurship. The first is the economic environment that includes the following: economic wealth (e.g., Grant, 1996), economic stability, capital availability (e.g., Audretsch & Acs, 1994), and taxation (e.g., Carroll, Holtz-Eakin, Rider & Rosen, 1989). The political environment constitutes the second dimension and includes political freedom (e.g., Hayek, 1945) and centralization of power (e.g., Shane & Venkataraman, 2000). The final dimension of the institutional environment influencing entrepreneurial activity is the social-cultural environment. The social-cultural environment consists of norms (e.g., Aldrich, 1990), beliefs and attitudes, and cultural differences (Shane, 2003).

Without the human component previous researchers have provided inadequate explanations for entrepreneurial success (e.g., Shane, 2003). Investigations of the industry and environment alone cannot offer a complete explanation of entrepreneurship because they lack exploration of the actions of the individual who is identifying and pursuing the opportunities (Shane, 2003). Other researchers also claim that the act of entrepreneurship cannot be detached from entrepreneurs, or individual determinants (e.g., Baron, 2004; Carland & Carland, 1988).

**Individual Determinants**

In 2003, Shane identified psychological and non-psychological factors that served as individual-level determinants of entrepreneurship. Psychological factors include aspects such
as motivation, risk-taking, and the desire for independence (e.g., Cromie, 1987; Boswell, 1973); core self-evaluation, including locus of control (e.g., Cromie & O’Donoghue, 1992) and self-efficacy (e.g., Bandura, 1997). Psychological factors such as cognition include overconfidence (e.g., Busenitz, 1999; Aldrich, 1999) and intuition (e.g., Allinson, Chell & Hayes, 2000). Non-psychological factors at the individual-level include opportunity costs, such as possible income forfeited (e.g., Johansson, 2000); social position, including social status and social ties (e.g., Aldrich, 1999); education (e.g., Reynolds, 1997); age (e.g., Long, 1982); and career experience, including experience in general business, experience in the industry, experience with start-up ventures, and experience through vicarious learning (Shane, 2003). Individual-level research includes constructs such as dissatisfaction with previous job or life experiences (e.g., Brockhaus, 1982), ability to create and sustain social networks and social capital (e.g., Baron, 2000, 2004), minority status (e.g., Hisrich & Brush, 1985), and various other constructs. Individuals engage in entrepreneurial behavior at particular times, and in response to particular situations; thus, it is more descriptive to account for entrepreneurial success by looking at the human aspects within environmental and organizational contexts (Carroll & Mosakowski, 1987).

Non-Psychological Factors

In seeking to explain entrepreneurial performance economists have naturally addressed tangible, non-psychological factors such as physical capital, natural resources, and labor (Tomer, 2003). Variables in these investigations include formal education, career experience, training, parental background, social status, and opportunity costs (e.g., Shane, 2003). Over the last thirty years entrepreneurship researchers have embraced human capital theory when using non-psychological factors to build models predicting entrepreneurial success (e.g., Chandler &

**Human capital theory.** Using the definition outlined by Becker (1964), human capital can be defined as the skills and knowledge individuals can acquire via investments in training, schooling, and other experiences. Attributes of human capital, such as education, experience, knowledge, and skills are argued throughout the literature as critical resources for entrepreneurial performance (e.g., Unger et al., 2009). The human capital-entrepreneurial success relationship has been well established in the literature and provides several arguments for how human capital can increase an owners’ ability to be successful (e.g., Bosma, van Praag, Thurik & de Wit, 2004; Cassar, 2006; Cooper, Gimeno-Gascon & Woo, 1994). For example, researchers contend that human capital plays a large role in entrepreneurial success due to the constantly changing knowledge-intensive occupation and work environment (e.g., Bosma et al., 2004). Researchers also claim that human capital enhances the owner’s ability to discover and exploit business opportunities, a key entrepreneurial task (Shane & Venkatraman, 2000). Other researchers contend that prior knowledge and experience can increase entrepreneurial alertness, which enables owners to discover entrepreneurial opportunities others may not see (Westhead, Ucbasaran & Wright, 2005). Chandler and Hanks (1994) suggest that human capital also affects an owner’s approach to exploiting such opportunities.

Additional research supporting the human capital-entrepreneurial success relationship contends that knowledge is useful in acquiring physical and financial capital resources (Brush, Greene & Hart, 2001). Furthermore, because financial capital is such a constraint for most entrepreneurial firms, increased human capital may partially compensate for the lack of
financial resources (Chandler & Hanks, 1994). Prior research evidence also reveals that human capital is positively related to business strategy and planning, which ultimately influences entrepreneurial success (Frese, Krauss, Keith, Escher, Grabarkiewicz, Luneng, Heers, Unger & Friedrich, 2007). Last, but not least, researchers have reported the significance of human capital in the ability to accumulate new knowledge and skills, such as education (e.g., Ackerman & Humphreys, 1990; Hunter, 1986). In sum, it is evident that entrepreneurs with greater human capital (greater knowledge and experience) should be more efficient and effective at running their businesses (Unger et al., 2009).

Nonetheless, while there is general consensus in the literature that there is a positive and significant relationship between human capital and entrepreneurial success, some authors feel the relationship is overemphasized (Baum & Silverman, 2004); and the magnitude of the human capital-entrepreneurial success relationship varies across studies (e.g., Duchesneau & Gartner, 1990; Davidsson & Honig, 2003; Gimeno et al., 1997). Reasons for the discrepancies include confounding factors (e.g., Gimeno et al., 1997), the emphasis of research in the latter stages of entrepreneurial development (e.g., Prisendorfer & Voss, 1990), and failure to incorporate social structure variables (e.g., Bates, 1990; Bruderl & Prisendorfer, 1998; Prisendorfer & Voss, 1990; Robinson & Sexton, 1994). Thus, future research on the human capital-entrepreneurial success relationship should consider theoretically derived mediators and moderators (Unger et al., 2009).

Recent studies are going beyond traditional measures of human capital and acknowledging intellectual, social, and emotional capital (e.g., Gratton & Ghoshal, 2003). Intellectual capital is in reference to learning capacity, cognitive complexity, as well as tacit and
explicit knowledge (Nahapiet & Ghoshal, 1998). Social capital is comprised of networks of relationships, trustworthiness, and socialability; networks that present opportunities for access to resources (Davidsson & Honig, 2003; Gratton & Ghoshal, 2003). Social capital can provide productive capacity used by organizations to achieve their goals (Tomer, 2003). Previous researchers have suggested that successful entrepreneurs have greater social intelligence than other individuals; they interact more effectively in social settings and when adapting to new social situations (e.g., Baron, 2000). Emotional capital (i.e., self-awareness, ambition, courage, integrity, resilience) allows individuals to translate their intellectual capital (i.e., knowledge) and social capital (i.e., relationships) into effective actions (Gratton & Ghoshal, 2003). As researchers continue to seek constructs beyond the traditional measures of human capital (i.e., education and experience), this study incorporates additional human capital constructs more recently recognized, such as abilities, skills, and knowledge (e.g., Gratton & Ghoshal, 2003). One important component of emotional capital, which has recently received considerable attention, is the human capital capacity of emotional intelligence (Tomer, 2003). Having discussed non-psychological factors, it is time to address the psychological, individual determinants of entrepreneurial success.

**Psychological Factors**

Psychology-based research in entrepreneurship has strong roots in motive theory, trait theory, and cognitive theory (Cross & Travaglione, 2003). Self-efficacy, a cognitive theory, has attempted to explain entrepreneurship as a series of definitive thought processes where entrepreneurs perceive their abilities to be greater than the norm and hence obtain greater outcomes (Neck, Neck, Manz & Godwin, 1999). Another cognitive theory, risk propensity
theory, addresses the successful decision making skills and confidence in taking risks that an entrepreneur possesses (Busenitz, 1999; Cross & Travaglione, 2003; Littunen, 2000).

The psychology of the entrepreneur. Research on the psychology of entrepreneurs has revealed a great deal in the last decade, with interest in entrepreneurial processes such as discovering opportunities, making complex decisions, solving unexpected problems, and operating new ventures (Baron & Ward, 2004). Previous researchers have highlighted the notion that entrepreneurs think differently than other individuals in many respects (Baron, 2000). Research on entrepreneurial psychology compares entrepreneurs and other professionals in the contents of their thoughts (e.g., Mitchell, Smith, Morse, Seawright, Perdeo & McKenzie, 2002) as well as the thought processes they use (e.g., Baron, 2000). In Baron and Ward (2004), specific thought processes were shown to differentiate entrepreneurs from other business professionals (i.e., willingness, arrangements, and abilities). Willingness included an entrepreneur’s commitment to starting the new venture; and arrangement of thoughts focused on resources, relationships, and entrepreneurial assets. Finally, thought processing abilities were concerned with the skills, knowledge, and capacities needed to undertake an entrepreneurial endeavor (Mitchell, Smith, Seawright & Morse, 2000; Mitchell et al., 2002).

Entrepreneurial intentions, a cognitive state preceding the decision to act (Krueger, 2000), also compares the thoughts and mental frameworks of entrepreneurs to those in other business capacities (Baron & Ward, 2004). Intentions to start a new venture are influenced by beliefs that the endeavor is desirable and feasible (e.g., Krueger, 1993). According to Baron and Ward (2004) research on entrepreneurial psychology has also investigated attributions (e.g.,
Gatewood, Shaver & Gartner, 2002) and engaging in counterfactual thinking, or what might have been (Baron, 2000).

Other researchers have investigated the role of cognitive biases and errors in entrepreneurial thinking (Alvarez & Busenitz, 2001; Busenitz & Barney, 1997). Evidence from these prior studies suggest that entrepreneurs’ thought processes are affected by errors and biases that may result in unrealistic expectations (e.g., overconfidence, Busenitz & Barney, 1997) and flawed decisions (Baron & Ward, 2004). Entrepreneurs may also be subject to other cognitive biases such as illusion of control and law of small numbers (Simon, Houghton & Aquino, 2000). Cognitive biases may also be significant in the initial decision to become an entrepreneur (e.g., Baron & Ward, 2004).

With opportunity recognition at the forefront of the entrepreneurial process, researchers have focused on the thought processes involved in opportunity recognition (e.g., Krueger, 2003). Gaglio and Katz (2001) take this notion a step further and suggest that successful entrepreneurs possess a mental framework, or cognitive schema, called entrepreneurial alertness, or being alert to opportunities. The authors contend that the complex, adaptive mental frameworks of entrepreneurs allows them to think outside of the box more than individuals lacking this ability (Galio & Katz, 2001). Other researchers recognize the role of information in recognizing opportunities, suggesting that entrepreneurs recognize opportunities better than other individuals because they have access to pertinent information or are better at utilizing the information they have (e.g., Shane, 2003). Baron and Ward (2004) conclude their discussion on the psychology of entrepreneurs by recognizing other factors that
are important in the entrepreneurial literature such as creativity and other aspects of learning (e.g., Corbett, 2002).

Emotions have also been intertwined in behavioral research in the workplace for several decades (e.g., George, 2000; Cross & Travaglione, 2003). Emotions interact with cognitive processes and behaviors; they are high intensity feelings that require attention (Forgas, 1992). Prior research evidence reveals that emotions can influence judgments, creativity, memory recall, as well as deductive and inductive reasoning (George, 2000). Because emotions can, and do, affect thought processes and behaviors their potential role in entrepreneurship is evident (Cross & Travaglione, 2003).

**Social and emotional intelligence.** An understanding of the evolution of emotional intelligence theory contributes to the current conceptualization. The roots of emotional intelligence (EI) stem from the concept of social intelligence that was first acknowledged by Thorndike in 1920. Thorndike defined social intelligence as “the ability to understand and manage men/women, boys/girls—to act wisely in human relations” (1920: p. 231). Gardner (1993) followed up on Thorndike's work and identified seven intelligence domains in his development of the Multiple Intelligence Theory. In Gardner's (1993) work on multiple intelligences, he recognized interpersonal and intrapersonal intelligences as two imperative aspects of the social intelligence outlined by Thorndike (1920). Specifically, intrapersonal intelligence deals with an individual and his or her ability to embody complex emotions and differentiate between feelings; while interpersonal intelligence in an individual's ability to make distinctions in the emotions of other people, including their moods, motivations, and even their intentions (Thorndike, 1920).
The concept of emotional intelligence (EI) has gained the attention of researchers and practitioners alike (e.g., Weisenger, 1998; Abraham, 1999). Practitioners have realized that employees can no longer be perceived as biological machines that are capable of leaving their feelings, norms, and attitudes at home when they go to work. The study of emotional intelligence has been a heavily researched topic in areas such as sociology and psychology, but has more recently moved into organizational behavior research as a result of an increased emphasis in studying how emotions relate to actions (e.g., Robbins & Judge, 2009). Management researchers are embracing the concept of social and emotional intelligences due to their applicability to workplace issues such as performance, job satisfaction, absenteeism, organizational commitment, intentions, and leadership issues (Rozell, Pettijohn, & Parker, 2002).

Emotional Intelligence Schools of Thought

The two main schools of thought on emotional intelligence are mental ability models (e.g., Mayer & Salovey, 1997) and mixed models (e.g., Goleman, 1995). Mental ability models explore the interplay of emotion and cognitive intelligence, recognizing abilities that allow individuals to be more emotionally adaptable in work and life contexts. Mixed models focus more on a variety of traits and talents. The divergence in conceptualizing emotional intelligence means that researchers have different perspectives on what constitutes EI, and different beliefs on what EI predicts.

In ability-based models, emotional intelligence is defined as a set of abilities concerning emotions and emotional information processing (Cote, Lopes, Salovey, & Miners, 2010). In the ability-based conceptualization, abilities are distinct from personality traits, which are enduring
personality characteristics that explain how people behave in various situations over time (McCrae & John, 1992). The ability-based approach is best assessed through maximal (not typical) performance (Petrides & Furnham, 2000); as mental abilities are a person's capacity to complete psychological tasks that meet a particular criterion, like accuracy or time constraints (Mayer, Roberts, & Barsade, 2008). Ability-based approaches center on the following skills and abilities: accuracy of emotional perception, use of emotional information in thinking, reasoning about emotions, and emotion management or regulation (e.g., Mayer & Salovey, 1997).

Mixed models are substantially different than ability-based models of emotional intelligence (Mayer, Salovey, & Caruso, 2004). Mixed models define emotional intelligence more broadly, combining emotions, motivational factors, and personality traits such as warmth, outgoingness, optimism, and persistence (Cote et al., 2010). Researchers pursuing the mixed model approach (e.g., Bar-On, 1997; Goleman, 1995, 1998) believe that emotional intelligence has a theoretical foundation in psychological research and personality characteristics. Mixed model approaches include attributes such as assertiveness, the need for achievement and flexibility (Bar-On, 1997). Goleman's (1995) mixed model approach to emotional intelligence is comprised of (1) knowing one's emotions, (2) managing emotions, (3) motivating oneself, (4) recognizing emotions in others, and (5) handling relationships. Specific attributes of motivation, as developed by Goleman (1995), include delaying gratification, stifling impulsiveness, and marshalling emotions. Goleman's claims for the predictive validity of his mixed model include success at work, home, and school; for instance, less aggressiveness, more popularity, improved learning, better cooperation, and more intimate relationships (Mayer et al., 2004).
To some degree, ability-based models and mixed models of emotional intelligence do overlap with other constructs (Mayer et al., 2004). For example, mental ability models overlap with complementary competencies such as empathic accuracy (Ickes, 1997), as well as social and/or emotional competence (e.g., Saarni, 1999; Mayer et al., 2004). Similarly, mixed models, on a much broader scale, overlap with concepts such as achievement motivation (e.g., McClelland, Atkinson, Clark, & Lowell, 1953), alexithymia (e.g., Bagby, Parker, & Taylor, 1994), emotional-responsiveness (e.g., Mehrabian & Epstein, 1972), optimism (e.g., Scheier & Carver, 1985), pleasant-unpleasant affectivity (e.g., Green, Goldman, & Salovey, 1993), practical intelligence (e.g., Sternberg, Wagner, Williams, & Horvath, 1995; Wagner & Sternberg, 1985), self-esteem (e.g., Blascovich & Tamaka, 1991), and subjective well-being (e.g., Andrews & Robinson, 1991). Additionally, mixed models overlap substantially with personality dimensions (e.g., McCrae & Costa, 1985) including warmth, assertiveness, trust, self-discipline, etc. (Mayer, Salovey, & Caruso, 2004). Nonetheless, researchers acknowledge that while both ability-based and mixed models of emotional intelligence may overlap with other measures, they do, in fact, predict job performance (e.g., Ashkanasy & Daus, 2005; Cherniss, 2010; O’Boyle et al., 2010).

According to Bar-On there are five basic components common to all EI models: 1) the ability to recognize, understand, and express emotions and feelings; 2) the ability to understand how others feel and relate to them; 3) the ability to manage and control emotions; 4) the ability to manage change, adapt and solve problems of a personal and interpersonal nature; and 5) the ability to regulate positive affect and be self-motivated (Bar-On, 2005).
Emotional Intelligence Perspectives

According to McEnrue and Groves (2006), ability-based models and mixed models can be broken down into four major perspectives. The primary ability-based model is that of Mayer and Salovey (1997), the four branch cognitive ability model. The other three major perspectives of EI are mixed models, including Goleman’s (1995, 1998) four dimension model, Bar-On’s (1997) five dimension trait-based model, and Dulewicz and Higgs' (1999, 2000) seven dimension model. These four major perspectives are summarized in table 1 below.

Table 1

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<th>Ability Model</th>
<th>Mixed Models</th>
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<td>Mayer and Salovey</td>
<td>Goleman</td>
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<td>Identify Emotions</td>
<td>Self-Awareness</td>
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<td>Facilitate Emotions</td>
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<td>Understand Emotions</td>
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Mayer and Salovey’s model. Although emotional intelligence research was not specifically published until 1990, general literature had at least referenced the concept as early as 1986 (a doctoral dissertation, never published, by Wayne Payne). By the late 1980s, psychologists, evolutionary biologists, psychiatrists, computer scientists, and others had identified a number of human capacities involved in identifying and understanding emotions. A means to organize these many research contributions was needed, and Salovey and Mayer (1990) proposed that the abilities together made up a unitary construct which they labeled
emotional intelligence. Thus, the first theoretical framework was introduced by academics Salovey and Mayer (Landy, 2005). In 1990, Salovey and Mayer conducted research on emotional intelligence, aesthetics, artificial intelligence, brain research, and clinical psychology in order to develop the formal theory and measurement of emotional intelligence (Mayer, 2001). The researchers defined emotional intelligence as the “ability to monitor one’s own and others’ feelings and emotions to discriminate among them and to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990: p. 189). They suggested that emotional intelligence could be divided into three broad areas, and further into sub-areas. Mayer and Salovey later recognized that their first definition connected abilities and feelings, instead of cognition about those feelings. Thus, in 1997 Mayer and Salovey added a fourth branch to their model and defined emotional intelligence as “the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in self and others” (Mayer & Salovey, 1997: p. 401). Mayer and Salovey’s (1997) conceptualization of emotional intelligence has been described as the most workable, contemporary definition (Matthews et al., 2002), and is often referred to as the most widely accepted scientific definition (Zeidner, Matthews & Roberts, 2004).

Goleman’s model. Goleman’s writing (e.g., 1995, 1998) has generated additional interest in the field of emotional intelligence primarily from the perspective of managers, individuals involved in leadership roles, and other practitioners (Mayer, 2001). Goleman’s model of EI is a mixed conceptual model. In 1995 Goleman published his first book, Emotional Intelligence, in which he described the concept of EI as abilities including self-control, zeal, persistence, and the ability to motivate oneself. Goleman adds later that emotional intelligence
abilities include “being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one’s emotions and keep distress from swamping the ability to think, to empathize, and to hope” (Goleman, 1995: p. 34).

In 1998 Goleman outlined a set of emotional competencies underlying the emotional intelligence concept. He defined emotional competence as a learned capability resulting in outstanding performance and leadership (Brown & Moshavi, 2005; Goleman, 1998). By integrating previous research Goleman (1998) presented twenty-five competencies, arranged in five clusters, which comprised his proposed model of emotional intelligence. The competencies and clusters consisted of the following:

2. Self-regulation cluster: Self-control, Trustworthiness, Conscientiousness, Adaptability, and Innovation
3. Motivation cluster: Achievement drive, Commitment, Initiative, and Optimism
4. Empathy cluster: Understanding others, Developing others, Service orientation, Leveraging diversity, and Political awareness
5. Social skills cluster: Influence, Communication, Conflict management, Leadership, Change catalyst, Building bonds, Collaboration and cooperation, and Team capabilities

Following this concept Goleman published another New York Times Bestseller with colleagues Boyatzis and McKee (2002) titled Primal Leadership: Learning to Lead with Emotional Intelligence. In this book the authors outline four domains of EI (1) self-awareness,
(2) self-management, (3) social awareness, and (4) relationship management. Goleman and colleagues emphasize that the first two domains (self-awareness and self-management) are about managing ourselves; and the final two domains (social awareness and relationship management) primarily concern capabilities in how we manage our relationships (Goleman et al., 2002).

The business management industry quickly embraced Goleman’s conceptualization of emotional intelligence, particularly the notion that EI is a learned competency which can increase with training and development (Goleman, 1998). Goleman’s conceptualization of emotional intelligence also gained footing in educational and psychological research (Dulewicz & Higgs, 2000) with its claims of being another determinant, besides general intelligence, that may better predict life success (Goleman, 1995). Nonetheless, critics of Goleman’s mixed model approach continue to raise concerns that this version of emotional intelligence, and the importance of personality-related traits, may yield no information beyond research of the Big Five personality traits (neuroticism, agreeableness, conscientiousness, openness to experience, and extraversion) or theories of motivation (Zeidner et al., 2004).

*Bar-On’s model.* The third theoretical model of emotional intelligence is from Bar-On (1997). This conceptual model is also a mixed model that defines emotional intelligence as, “an array of noncognitive capabilities, competencies, and skills that influence one’s ability to succeed in coping with environmental demands and pressures” (Bar-On, 1997: p. 12). This model focuses on innate personal qualities that enable emotional well-being (Brown & Moshavi, 2005), and are based on the following five dimensions: (1) intrapersonal skills; (2) interpersonal skills; (3) adaptation; (4) stress management; and (5) general emotion.
management. This model is grounded in the psychological literature of personality and is based on a wide array of traits and characteristics relating to success in various facets of life. The dimension of interpersonal skills includes self-regard, emotional self-awareness, assertiveness, independence, and self-actualization; interpersonal skills include empathy, social responsibility, and interpersonal relationships. The third set of skills in Bar-On’s model comprise the adaptability dimension and include reality-testing, flexibility, and problem-solving. The stress management dimension is comprised of stress tolerance and impulse control; while general emotion management consists of optimism and happiness (Bar-On, 2005).

In 2000 Bar-On and Parker devised the first self-report assessment available commercially to test emotional intelligence. This assessment was labeled the EQ-i, or Emotional Quotient Inventory, and it was the first self-report assessment published by a psychological test publisher. From this assessment Bar-On assisted in coining the term emotional quotient, or EQ—a counterpart to the intelligence quotient or IQ (Matthews et al., 2002).

Bar-On revised his model in 2005 and reconceptualized EI as an Emotional-Social Intelligence (ESI), defining it as, “a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands” (Bar-On, 2005: p. 3). In this reconceptualization Bar-On expresses that emotional intelligence and general intelligence together create a more balanced intelligence (EQ + IQ = Balanced IQ) (Mayer et al., 2000).
Dulewicz and Higgs’ model. The fourth major theoretical framework of emotional intelligence was developed by Dulewicz and Higgs’ (2000). This emotional intelligence framework is a mixed model consisting of the following seven dimensions: (1) self-awareness, (2) emotional resilience, (3) motivation, (4) interpersonal sensitivity, (5) influence, (6) intuitiveness, and (7) conscientiousness. Self-awareness is being aware of one’s feelings and managing them, emotional resilience is being able to maintain one’s performance when under pressure, and motivation is having the drive and energy to attain challenging goals or targets. The dimension of interpersonal sensitivity is showing sensitivity and empathy towards others, and influence is persuading others to accept one’s views or proposals. Finally, intuitiveness is making decisions using reason and intuition when appropriate, and conscientiousness is being consistent in one’s works and actions while behaving according to ethical standards (Dulewicz, Higgs & Slaski, 2003).

Dulewicz and Higgs’ (2000) study included an extensive review of the emotional intelligence literature to date, a longitudinal study of the personality characteristics and personal competencies of a group of managers over seven-years, and a content analysis to identify related traits based on the Job Competencies Survey. The Job Competencies Survey is a 16 personality factor test and an occupational personality questionnaire. In the Job Competencies Survey there are 40 competencies identified and divided into three subsets. Emotional competencies, those relating to EI, comprise the first subset. IQ competencies, those related to general intelligence, comprise the second set; and managerial competencies (MQ), those relating to managerial skills comprise the third and final subset (Dulewicz & Higgs, 2000).
In the longitudinal study, the three scales together accounted for 71% of the total variance in company advancement (Dulewicz & Higgs, 1999).

After conducting these studies, Dulewicz and colleagues (2003) went on to develop the Emotional Intelligence Questionnaire (EIQ). This questionnaire was developed to measure EI directly through self-completion or through a 360-degree format. Dulewicz and Higgs define emotional intelligence as “a) being aware of and managing one’s own feelings and emotions; b) being sensitive to and influencing others; c) sustaining one’s motivation; and d) balancing one’s motivation and drive with intuitive, conscientious, and ethical behavior” (2003: p. 47). The Dulewicz and Higgs’ theoretical framework has primarily revolved around the correlation of individual success and advancement, as well as leadership effectiveness (Dulewicz & Higgs, 2002).

Summary of the Pertinent Theories

The field entrepreneurship has moved to multi-level models with the understanding that neither the individual-centric approach, nor the industry/environmental-centric approach, alone is adequate. The entrepreneurial phenomenon cannot be explained by just individual or just industry/environmental constructs in the absence of one another (Shane, 2003). As Baron (2004) states, entrepreneurial performance can be explained by (1) willingness to start an enterprise, (2) ability to identify opportunities, or (3) success of the enterprise. While it is evident that many new ventures fail within the first few years of founding (Small Business Administration, 2010), the factors that influence the success of entrepreneurial firms is still not readily understood. Thus, a central question in the field of entrepreneurship remains: What factors play a role in the success of entrepreneurial ventures?
Purpose of the Research and Research Questions

The primary purpose of this study is to investigate emotional intelligence in the context of entrepreneurship. This study focuses on the general question of the field of entrepreneurship that continues to plague researchers: Why are some entrepreneurial ventures more successful than others? In addition, the study sheds light on the mediating effects of individual competencies, organizational tasks, and the environmental culture and climate.

The results of this research provide additional insight for individuals with entrepreneurial aspirations, as well as academic and government institutions that provide resources to new ventures (Carter & Van Auken, 2006). Furthermore, findings from the study have the potential to provide important information for entrepreneurs that can be used in the designing of organizational strategies that ensure growth, profitability, and organizational success. Many researchers and practitioners believe that emotional intelligence is improved through education and training programs (e.g., Beaujean, Davidson & Madge, 2006; Akers & Porter, 2003; Cherniss & Caplan, 2001) and it is expected that results from this study will assist in developing better training and learning programs, by providing the opportunity for educators to enhance their curriculums.

Therefore, the following questions are presented:

1) Does emotional intelligence play a meaningful role in entrepreneurial success?

   a. Is there a significant correlation between emotional intelligence and financial entrepreneurial firm success?
b. Is there a significant correlation between emotional intelligence and relative entrepreneurial firm success?

c. Is there a significant correlation between emotional intelligence and the perception of personal success in entrepreneurial occupations?

2) Do individual-level constructs mediate the EI-success relationship? Specifically, does competence mediate the relationship?

   a. Does managerial competence mediate the relationship between emotional intelligence and entrepreneurial success?

   b. Does entrepreneurial competence mediate the relationship between emotional intelligence and entrepreneurial success?

3) Do venture organizational tasks mediate the emotional intelligence-entrepreneurial success relationship?

   a. Do interpersonal tasks mediate the relationship between emotional intelligence and entrepreneurial success?

4) Do environmental variables mediate the emotional intelligence-entrepreneurial success relationship?

   a. Does munificence mediate the relationship between emotional intelligence and entrepreneurial success?

   b. Does dynamism mediate the relationship between emotional intelligence and entrepreneurial success?
Significance and Contributions

A broad perspective on the meaning of education indicates that being educated means not only being cognitively intelligent, knowledgeable, and well versed in the sciences, humanities, and arts; but also having social intelligence, being kind, caring, considerate, responsible, trustworthy, conscientious, honest, and prosocial in interpersonal interactions (Elias, Hunter & Kress, 2001). Further, prior research evidence reveals that individuals can enjoy happier and more fulfilled lives if they are aware of their own emotions, the emotions of other people, and if they are able to regulate those emotions effectively (e.g., Mayer & Salovey, 1997). Thus, the contributions of this study are abundant and exist from a research perspective as well as a practitioner perspective.

Contributions to Research

From the research perspective this study contributes to the field of entrepreneurship by assessing the influence of emotional intelligence on entrepreneurial success. While researchers have used substantial resources to explore the role of emotional intelligence in general workplace performance, leadership, teams, and education, they have spent much less time exploring the role of emotional intelligence in the entrepreneurial context (e.g., Cross & Travaglione, 2003; Rhee & White, 2007), particularly ability-based emotional intelligence. Nonetheless, emotional intelligence has implications for entrepreneurial behaviors such as negotiations, obtaining and organizing resources, identifying and exploiting opportunities, obtaining and maintaining customers, leading the organization, and other interpersonal activities.
This study also contributes to the emotional intelligence literature. Because EI has such strong roots and ties to social intelligence, theoretically differentiating the two constructs continues to challenge researchers (Gardner, 1993); nonetheless, the emotional intelligence perspective remains another tool that scholars can use in their efforts to understand and predict performance. Therefore, this study adds and contributes to the understanding of emotional intelligence and assists in the building of a nomological network to support this stream of research.

Additionally, by addressing multiple measures of entrepreneurial success (financial, relative, and personal), this study adds to the literature on these critical components of entrepreneurial performance. From a research perspective, emotional intelligence may provide another explanation for various measures of entrepreneurial success. Dividing entrepreneurial success into multiple measures provides a more thorough explanation for the contribution of emotional intelligence in the field of entrepreneurship.

Practical Implications

Several practical implications for the study of these relationships warrant further discussion as well. For instance, this study seeks answers to the age old question, why are some entrepreneurs more successful than others in starting and operating new ventures? Previous efforts to answer this question have typically focused on external factors, like the number of competing businesses (Baron & Markman, 2000); or personality traits, like agreeableness and conscientiousness (e.g., Warwick & Nettelbeck, 2004). Following the work of Baron and colleagues (e.g., Baron & Ward, 2004; Baron & Markman, 2000) this study proposes that entrepreneurial cognition and social skills (abilities that assist in the effective
interaction with others, like emotional intelligence) may be fundamental to entrepreneurial success. Furthermore, because emotional intelligence abilities can be taught, learned, and/or acquired (e.g., Beaujean et al., 2006) individuals pursuing emotional intelligence training and education may reap important benefits when it comes to entrepreneurial behaviors such as negotiation, obtaining and organizing resources, identifying and exploiting opportunities, obtaining and maintaining customers, as well as providing leadership and organization. Thus, this study contributes to the notion that emotional intelligence skills can be enhanced and provides another perspective on a potentially valuable set of skills for entrepreneurs.

Contributions from this study may also be of high utility for educators. Currently, many entrepreneurship courses emphasize entrepreneurial management and planning skills, but overlook entrepreneurial skills like emotional control, creativity, and relational abilities. The skills taught tend to be technical, lacking attention to cognition and belief systems of the entrepreneur (Kickul & D’Intino, 2005). Thus, emotional intelligence abilities should be considered when educators design and assess entrepreneurial curriculum, as these constructs can change and improve with attention, training, and practice (D’Intino, Goldsby, Houghton & Neck, 2007). Support for the research questions in this study would confirm the need to create supportive classrooms that focus on key entrepreneurial skills and allow individuals to launch successful businesses in a competitive, global climate.

Study Layout

The remainder of this dissertation is organized into four additional chapters, outlined as follows. Chapter II provides the research model and a literature review of the predictor variable (emotional intelligence), criterion variable (entrepreneurial success), and mediating
variables (managerial competence, entrepreneurial competence, interpersonal tasks, munificence, and dynamism). Specifically, I address the role of emotional intelligence in workplace performance, leadership, education, interpersonal relationships, job satisfaction, organizational attitudes and behaviors, negotiations, teamwork and groups, problem solving and decision making. Building on previous research addressing the role of emotional intelligence in these areas of performance, I propose a research model that sheds light on the emotional intelligence-success relationship in the entrepreneurial context. After reviewing the pertinent literature, I then summarize the chapter and close with support for a series of hypotheses concerning the association between emotional intelligence and entrepreneurial success.

In chapter III I discuss the research methods that are necessary to test the proposed hypotheses. Specifically, I describe the data collection technique and the research design. I then discuss threats to validity, reliability, and relevance; as well as providing a detailed description of the questionnaires used. Statistical power, effect size, and sample size are discussed before outlining the pilot study and discussing the pilot study analysis. I close chapter III with a summary of the pilot study and any necessary changes to the main study. Chapter IV presents the detailed analyses of the main study and an interpretation of the results. The dissertation closes, in chapter V, with a discussion of the implications for research and practice along with suggestions for future research.
CHAPTER II

LITERATURE REVIEW

Emotional Intelligence

The interest in emotional intelligence in the workplace rests on the belief that EI plays an important role in innovation, efficiency, productivity, the development of talent, sales, revenues, quality of service, customer loyalty, employee recruitment and retention, employee commitment, morale, health and satisfaction, and client or student outcomes (Cherniss, 2001). Previous researchers have explored the role of emotional intelligence in a range of organizational activities, recognizing that the integration of explicit knowledge and tacit emotional abilities may lead to greater success (Zeidner et al., 2009). In this chapter, the conceptual claims and empirical evidence of research on emotional intelligence in the workplace are addressed.

The relationship between emotional intelligence and the success of entrepreneurial ventures are explored. The mediating role of individual competence, namely managerial competence and entrepreneurial competence, are examined; along with venture organizational tasks, namely interpersonal activities; and environmental level variables, namely dynamism and munificence. The relationships among these variables are depicted in the research model displayed in Figure 2. The remainder of this chapter is dedicated to a thorough discussion of the constructs and the relationships presented in the research model.
Emotional intelligence is defined as “the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990: p. 189). Over the past 30 years, the concept of emotional intelligence (EI) has gained the attention of researchers and practitioners alike (e.g., Weisenger, 1998; Abraham, 1999). Practitioners have realized that employees can no longer be perceived as biological machines that are capable of leaving their feelings, norms, and attitudes at home when they go to work. Thus, individuals must have more than just intellectual ability and great ideas, they must also possess certain human characteristics and personal qualities (Cross & Travaglione, 2003), such as emotional intelligence.
The Study of Emotions

The study of emotions has been an extensively researched topic in areas such as sociology and psychology, but has more recently moved into business management research as a result of an increased emphasis in studying how emotions relate to performance (e.g., Joseph & Newman, 2010; Mayer et al., 2008; Law, Wong & Song, 2004; Grandey, 2000). Previous researchers have identified emotions as being associated with the following: selection and hiring practices in jobs with substantial social interaction (e.g., Goleman, 1995); positive emotions have been found to enhance problem solving in the decision making process (e.g., Forgas, 1989); positive emotions lead to greater creativity and the ability to come up with more ideas in the brainstorming process (e.g., George & Zhou, 2007). Organizations that promote more positive emotions at work are likely to have more motivated workers (e.g., Erez & Isen, 2002); effective leaders rely on emotional appeals to help convey their messages (e.g., Lewis, 2000); and skilled negotiators are able to use emotional intelligence for their poker face (Ferris, Treadway, Kolodinsky, Hochwarter, Kacmar, Douglas, & Frink, 2005). Furthermore, worker's emotional states influence customer service, which influences levels of repeat business and levels of customer satisfaction (Tsai & Huang, 2002). Finally, when leaders display positive emotions subordinates are more positive and tend to cooperate better (Robbins & Judge, 2009).

Researchers are embracing the concept of emotional intelligence due to its applicability to many of these same workplace issues, including performance, job satisfaction, absenteeism, organizational commitment, and leadership issues (Rozell et al., 2002). The remarkable growth of emotional intelligence in the literature has also been fueled by the claims that EI may be as
strong a predictor of job performance as cognitive intelligence, or IQ (e.g., Cherniss, 2010; Mayer et al., 2008). The following sections address the role of emotional intelligence in various work contexts.

Emotional Intelligence and Workplace Performance

There has been increasing evidence that high levels of emotional intelligence are positively associated with job performance (e.g., Law et al., 2004; Greenstein, 2001; O’Boyle et al., 2010; Rozell et al., 2002; Van Rooy & Viswesvaran, 2004). Prior research evidence reveals that emotional intelligence influences workplace success via interpersonal relationships with colleagues, the strategies individuals use to manage stress and workplace conflict, and overall job performance (e.g., Ashkanasy & Daus, 2005). In the organizational setting much of the interest in EI revolves around the assumption that emotional intelligence plays a role in workplace productivity, profitability, and enhancing the overall quality of work and life (e.g., Goleman, 1995, 1998; Mayer & Salovey, 1997; Matthews, Emo, Zeidner & Roberts, 2006; Mayer et al., 2000; Zeidner et al., 2009). According to Cooper (1997), greater emotional intelligence enables individuals to build stronger relationships, enjoy greater health, lead more effectively, and achieve greater career success. The roots of emotional intelligence in the organizational context can be traced to classic management theory and practice where strategies for assessment greatly revolved around cognitive abilities (e.g., social awareness) found to be predictive of successful performance in managerial positions (Gowing, 2001). Since such early psychological assessments researchers have further vindicated the significance of social and emotional skills in the prediction of occupational performance (e.g., Jordan, Ashkanasy & Ascough, 2007; Cherniss, 2000; Boyatzis, 1982; Howard & Bray, 1988; O’Boyle et al., 2010).
Workplace behaviors affected by emotional intelligence include innovation, service quality, employee commitment, customer loyalty, teamwork, and talent development (Zeidner et al., 2004).

Evidence of the EI-workplace performance relationship can be depicted by a recent meta-analysis conducted by Van Rooy and Viswesvaran (2004). The authors investigated the results of 57 previous studies, concluding that EI was a predictor of effective performance. More specifically, the study showed that 5% of the variance in workplace performance was indeed attributable to EI (Van Rooy & Viswesvaran, 2004).

Several empirical research investigations support the emotional intelligence-workplace performance relationship. For example, in a study of the successes and failures of American presidents (from Franklin Roosevelt to Bill Clinton) emotional intelligence was the key quality that differentiated the successful from the unsuccessful (Greenstein, 2000). In a study by Spencer and Spencer (1993), at L’Oreal, sales agents selected on the basis of certain emotional competencies significantly outsold salespeople selected using the company’s old selection procedure. On an annual basis salespeople selected on the basis of emotional competence sold over $90,000 more than other salespeople, resulting in a revenue increase of over $2.5 million. Salespeople selected on the basis of emotional competence also had 63% fewer turnovers during the first year than those selected in a typical way (Spencer & Spencer, 1993). Researchers claim that emotional intelligence contributes to such workplace success because it affects an individual’s ability to succeed when coping with environmental pressures and demands (Bar-On, 1997).
Throughout the literature, general abilities predict approximately 10-30% of the criterion variance in job performance (e.g., Jensen, 1998). This leaves approximately 70-90% of the variance in successful job performance unaccounted for due to other variables. Nonetheless, many replicated findings have pointed to cognitive variables, such as EI, as major contributors in better understanding job performance. According to Matthews, Zeidner, and Roberts’ (2002) book titled Emotional Intelligence: Science and Myth, the concept of EI has received considerable attention because it is also claimed to be useful when evaluating regular functioning, and the well-being of individuals who are at critical stages of their careers (i.e., selection, placement, training, promotion).

**Emotional Intelligence and Leadership**

Evidence from studies conducted over the last several decades reveal that EI plays an important role in leadership performance (e.g., Wong & Law, 2002). Advocates of EI argue that without it a person can have outstanding training, a highly analytical mind, a compelling vision, and an endless supply of ideas, but still not make a great leader (Goleman, 1998). Researchers (e.g., George, 2000) contend that leaders with greater emotional intelligence are better able to appraise and influence the emotions of their followers. Such abilities enable leaders to acquire more support for their goals, objectives and vision, as they can use intense emotions to direct followers’ attention to projects needing immediate attention (Zeidner et al., 2004). Leaders with greater emotional intelligence can infuse enthusiasm, optimism, and excitement in the work environment while anticipating the followers’ reactions to changes (George, 2000). Finally, greater emotional intelligence from a leader is said to create a work environment based
on trust and cooperation via the creation of high quality interpersonal relationships (e.g., George, 2000; Schutte, Malouff, Bobik, Coston, Greeson, Jedlicka, Rhodes & Wendorf, 2001).

Several empirical studies have investigated the role of EI in leadership. For instance, Spencer, McClelland and Kelner (1997) studied more than 300 top-level executives from 15 global companies and showed that six emotional intelligence competencies distinguished star executives from the average. Boyatzis (1982) found that accurate self-assessment, a foundation of identifying emotions in EI, was associated with superior performance among several hundred managers from 12 different organizations.

McClelland (1999) studied a large beverage firm using standard methods to hire division presidents. In this study 50% of the division presidents left within two years, mostly due to poor performance. When they started selecting based on emotional competencies only 6% left in two years. Furthermore, division leaders with emotional competencies outperformed their targets by 15 to 20%; those who lacked them under-performed by almost 20% (McClelland, 1999).

In their 2002 book Primal Leadership Goleman, Boyatzis and McKee labeled an emotionally intelligent leader as a resonant leader. They went on to discuss that resonant leaders have the ability to delve into the emotionality of their constituents and are thus able to better understand the perspectives of their followers. Depending on the situation, resonant leaders are more flexible in their leadership styles, they are better able to adapt to negative outcomes, as well as being more capable of establishing and maintaining high-quality relationships (Ciarrochi, Chan, Caputi, & Roberts, 2001). Therefore, EI enables leaders to read cues from others that allow them to deliver the necessary leadership mode (Goleman et al.,
The opposite of a resonant leader is a dissonant leader; one who lacks the aforementioned synchronization with followers. A dissonant leader lacks empathy and exhausts the peace, hope, and happiness of others (Goleman et al., 2002). Followers of dissonant leaders become exhausted and easily burn out while trying to get their leader to understand their perspectives (Goleman et al., 2002). A dissonant leader is unable to adapt to stressful life events, thus facing greater depression and hopelessness (Ciarrochi et al., 2001).

Emotional Intelligence and Transformational Leadership

Emotional intelligence has also been extensively researched in the context of transformational leadership specifically. A core component of emotional intelligence and transformational leadership is empathy. Empathetic leaders can sense the needs of others, listen to what followers say (and do not say), and are able to read the reactions of others (Goleman et al., 2002). Transformational leaders are often recognized as those with an innate ability to empathize; thus, research on the role of emotional intelligence in transformational leader performance is also abundant.

Researchers claim that the relationship between transformational leadership and emotional intelligence is intuitive (e.g., Dulewicz, Young & Dulewicz, 2005), and empirical investigations support the relationship. According to Ashforth and Humphrey (1995), transformational leadership provides a good example of just how valuable emotions can be in leadership effectiveness. These authors suggest that transformational leaders are able to arouse followers’ emotions in order to inspire commitment and dedication to the changes of the organization (Ashforth & Humphrey, 1995). For example, shared vision is claimed to be a characteristic of transformational leaders (Burns, 1978), and leaders who possess greater
emotional intelligence are better able to stimulate enthusiasm and more clearly articulate their goals, objectives, and shared vision (Goleman, 1998). Previous research exploring the relationships between emotional intelligence, transformational leadership, and performance has shown that leaders possessing high scores on EI and/or transformational leadership demonstrate superior performance (Mandell & Pherwani, 2003).

In order to be an effective transformational leader an individual must be able to identify or relate emotionally with others (Hoffman & Frost, 2006). In a study of 32 managers from large firms in the Northeastern part of the United States, Mandell and Pherwani (2003) found that a person with high EI was more inclined to demonstrate transformational leader attributes. A significant difference (p<.05) was found between emotional intelligence and transformational leadership style; thus their regression analysis provided evidence that transformational leadership could be predicted by using a managers’ emotional intelligence score (Mandell & Pherwani, 2003).

An empirical investigation of 49 managers in a large pulp and paper organization was conducted by Barling, Slater, and Kelloway (2000) which concluded that emotional intelligence was associated with the following three aspects of transformational leadership style: (1) idealized influence, (2) inspirational motivation, (3) and individualized consideration. The study used Bar-On’s (1997) mixed model assessment to unveil the transformational leadership-EI relationship; the researchers suggest that leaders with greater emotional intelligence are viewed by their subordinates as displaying more leader behaviors (Barling et al., 2000). Leban and Zulauf (2004) paralleled their results by assessing emotional intelligence with an ability based model, finding significant relationships between EI and the same three aspects of
transformational leadership mentioned above. Thus, EI can be linked to three of the four elements of transformational leadership regardless of the theoretical framework (ability-based or trait-based) used to examine it.

In closing, theoretical and empirical investigations have provided evidence of a positive relationship between emotional intelligence and transformational leadership. Studies show that emotional intelligence may play an important role in leadership performance by emphasizing collaborative relationships and bringing to the forefront the role of emotions in leadership styles.

**Emotional Intelligence and Education**

Theory and empirical research also supports the role of emotional intelligence in educational performance and outcomes. In this context, researchers and practitioners contend that students in today's society may have adequate cognitive abilities, but are lacking emotional intelligence (e.g., Zeidner et al., 2009). Some authors (e.g., Romasz, Kantor & Elias, 2004) take it to the next level and contend that acquiring social and emotional skills is actually a prerequisite for students to be able to benefit from the traditional academic material presented in classrooms (Humphrey et al., 2007). Whatever the view, there is a consensus among researchers that greater levels of EI can be helpful in acquiring knowledge and developing cognitive abilities (Capara, Barbaranelli, Pastorelli, Bandura & Zimbardo, 2000).

Emotional intelligence is thought to be directly predictive of educational success (Hawkins, Smith & Catalano, 2004). Zins, Payton, Weissberg, and O’Brien (2007) suggest that students with high-levels of emotional intelligence not only have higher achievement in the classroom, but that such students are also more motivated to learn. Researchers have also
provided empirical evidence that emotional competence can help students pay attention in the classroom and better retain the material presented (Trentacosta, Izard, Mostow & Fine, 2006). In a study of 263 first and second grade students enrolled in two elementary schools, multiple regression analysis provided evidence that emotional knowledge predicted attentional competence. Emotional intelligence was predictive of scores on standardized achievement tests (e.g., Malecki & Elliot, 2002; Welsh, Park, Widaman & O’Neil, 2001) and increased performance in reading and spelling assessments (e.g., Feshback & Feshback, 1987). Additional experimental work by Feshback and Cohen (1988) provided evidence that empathy training in youth has positive effects on school achievement and self-esteem; and decreased feelings of aggression. In a study by Denham (2006), elementary school children showed consistent relationships between social and emotional competencies and school achievement. A review of studies by Halberstadt and Hall (1980) concluded that a positive relationship exists between emotional awareness and cognitive outcomes in youth. Emotional intelligence was also associated in the literature with prosocial behaviors like empathy (Hawkins et al., 2004). Researchers contend that a child’s ability to understand emotions creates the foundation for utilizing emotions effectively and for social adaptation (e.g., Izard, 1971, 2002). Trentacosta and colleagues (2006) take this one step further and explain that children who successfully process emotional signals in an academic environment are indeed more likely to effectively complete tasks at school; meanwhile, children with less emotional understanding may suffer from poor relationships and greater disruptive behaviors with their teachers and peers. Thus, individuals with less emotional understanding have greater difficulty maintaining their concentration when it comes to school tasks. Less emotional intelligence is also likely to
increase stress and distractions that create inattentive classroom behaviors (Izard, 1991; Izard, Fine, Schultz, Mostow, Ackerman & Youngstrom, 2001).

In a longitudinal study conducted by Aronson (2000) the EI-education relationship was investigated by analyzing students over the course of twelve years. Children were studied at age 4 for their ability to control impulse behaviors and delay immediate gratification (self-motivation and managing self). Ten years later the same students, now adolescents, were analyzed in a follow-up study. The results indicated that the children with greater self-control, or self-regulation, early in life (age 4) were more verbally fluent, rational, able to concentrate, and more self-assured than the children with less self-control (Shoda, Mischel & Peake, 1990). Furthermore, the adolescents with less self-control at age 4 were more likely to have less self-confidence, to be short-tempered, and powerless when faced with stress (Shonda et al., 1990).

Another follow-up was conducted when the children were in high-school, as teenagers. Those initially delaying gratification (at age 4) were found to have greater academic motivation and an increased eagerness to learn; they were also more able to reason, organize, and express their ideas, as depicted by their higher SAT scores (Shoda et al., 1990).

Matthews, Zeidner and Roberts (2002) contend that EI plays an important role in schools as a mechanism for increasing interest in social-emotional learning. Yet, the extent to which emotional intelligence translates into an enhanced education continues to raise questions (Matthews et al., 2006). In a meta-analysis of over 300 studies that assessed the benefits of social and emotional learning (SEL) programs, the benefits of SEL programs showed the following: students were ranked at least 10% higher on achievement tests, students had higher GPAs, students had significantly better attendance records, students liked school more
overall, students showed more constructive classroom behaviors than their counterparts, and students were less likely to have been disciplined or suspended (Matthews et al., 2006).

The concept of more constructive, and less disruptive classroom behaviors, has attracted even more attention in recent years. Statistics on school violence, bullying, dropouts, and youth suicide are on the rise; as is childhood depression, emotion-related illnesses, and expressions of fear and hopelessness in youth (McCombs, 2004). Thus, researchers and practitioners seek answers to these escalating statistics. Previous researchers have demonstrated that correlates of classroom bullying and antisocial behaviors are associated with a lack of empathy and a lack of self-regulatory skills (Olweus, 2001); providing evidence that social and emotional learning be the missing piece in education (Elias, Zins, Weissberg, Frey, Greenberg, Haynes, Kessler, Schwab-Stone & Shriver, 1997).

Empirical evidence has also shown that low EI is a key ingredient to various deviant behaviors that are linked to emotional deficiencies (Roberts & Strayer, 1996). For example, Petrides, Fredrickson and Furnham (2004) studied 650 eleventh grade students in Britain and found that EI was negatively associated with deviant school behaviors such as being expelled from school. In a sample of youth in North America researchers Trinidad and Johnson (2002) found EI to be negatively associated with deviant behaviors such as tobacco and alcohol use at school.

Additionally, researchers suggest that the process of learning is in and of itself social in nature; meaning that a variety of classroom learning elements are relational or social and thus necessitate emotional skills (Elias et al., 2001). Emotional intelligence skills that may promote learning include self-control and effective self-regulation. Social skills like forming constructive
learning partnerships and avoiding damaging antisocial behaviors may also promote learning (Hawkins et al., 2004).

In closing, complex economic and cultural changes may necessitate emotional and social curriculum in order to assist in the successful academic performance of children and adults. While emotional and social skills have not always been considered key elements of education in the past, they may now be as critical as basic knowledge in reading, writing, and math (Greenberg, Kusche & Riggs, 2004). Furthermore, according to Hawkins and colleagues (2004), cognitive and emotional abilities are no longer mutually exclusive, but rather they can be instilled simultaneously.

**Emotional Intelligence and Interpersonal Relationships**

Individuals with greater emotional intelligence have been referred to as being more socially competent, as having more quality social relationships, and for being more prosocial or interpersonally sensitive (e.g., Brackett, Warner & Bosco, 2005; Brackett, Rivers & Salovey, 2011; Lopes, Salovey, Cote & Beers, 2005; Lopes, Salovey & Straus, 2003; Lopes, Brackett, Nezlek, Schutz, Sellin & Salovey, 2004; Schutte et al., 2001). Researchers suggest that emotional intelligence has the ability promote positive social functioning and more productive interpersonal relationships by enabling individuals to better detect emotional states, see the perspectives of others, improve communication, and regulate behaviors (Brackett et al., 2011). Emotional intelligence has been found to be positively associated with supportive interpersonal relationships between individuals and their friends and parents; while negative associations have been identified between emotional intelligence and antagonistic or conflictual relationships with friends and family (e.g., Lopes et al., 2004; Lopes et al., 2005). Individuals
with greater emotional intelligence have also been found to show greater emotional closeness to others, making others feel comfortable, depending on others, and having others depend on them (Kafetsios, 2004).

Mayer, Salovey, and Caruso (2000, 2004), and Ogilvie and Carsky (2002) emphasized the role of emotional intelligence in daily life, and expressed that EI may serve as a good indicator of success or failure in interpersonal relationships. The authors specifically addressed leader-to-follower and peer-to-peer relationships, suggesting that self-awareness, self-control, and emotional mastery significantly improved interpersonal relationships, and the overall human interactions (e.g., Mayer et al., 2000, 2004; Ogilvie & Carsky, 2002; Schutte et al., 2001).

Social interaction is also dependent upon self-regulation and impulse control. Self-regulation and impulse control includes managing personal goals, developing strategies to attain those goals, and handling the obstacles that arise during the process, including one's emotional reactions (Matthews, Zeidner & Roberts, 2002). Researchers (e.g., Goleman, 1998; Zeidner et al., 2004) suggest that individuals with greater emotional intelligence better succeed at the communication of their thoughts, goals, ideas, and intentions by expressing them in appealing and assertive ways. Furthermore, that the developing, sustaining, and maintaining of quality collaborative relationships are associated with emotional intelligence abilities (Matthews et al., 2006).

*Emotional Intelligence and Job Satisfaction*

Emotional intelligence has also been linked to greater job satisfaction (e.g., Kafetsios & Zampetakis, 2008; Sy, Tram & O’Hara, 2006). Researchers contend that individuals with greater emotional intelligence are better able to appraise and manage the emotions of others (Zeidner
et al., 2009). Such abilities allow high EI individuals to foster interpersonal interactions that can boost the morale of the group, contributing to overall well-being and satisfaction (Sy et al., 2006). Additionally, individuals with greater emotional intelligence are better able to regulate their own emotions in order to reduce job stress (Kafetsios & Zampetakis, 2008). Finally, supervisors that have greater EI are better able to help other workers manage their emotions and foster a work environment that can enhance overall job satisfaction (Sy et al., 2006).

Empirical investigations to support this claim have been conducted by several researchers. For instance, Slaski and Cartwright (2003) used the EQ-i to study 224 managers from a supermarket chain in the United Kingdom. To assess performance line managers were asked to evaluate the frequency of specific behaviors, such as setting goals and objectives or evaluating policies and procedures. Relationships existed between emotional intelligence and the following: quality of work satisfaction ($r = 0.41$), morale ($r = 0.55$), distress ($r = -0.57$), and general mental health ($r = .50$). But only a moderate positive relationship existed between emotional intelligence and managerial performance ($r = 0.22$).

In another empirical study, Sy, Tram, and O’Hara, (2006) collected data from nine restaurants, consisting of 187 employees, all from the same restaurant franchise. Results from this study concluded that employee emotional intelligence was positively associated with performance and job satisfaction (Sy et al., 2006). Additionally, manager’s emotional intelligence was more positively correlated with job satisfaction when employees had lower emotional intelligence, but not for employees with lower performance (Sy et al., 2006). Therefore, researchers have suggested that individuals with high emotional intelligence use their abilities to appraise and manage others emotions, which ultimately helps them to foster
interactions that boost morale (Sy et al., 2006). High EI individuals may also be better able to reduce job stress by regulating their emotions as well as helping others to manage their emotions, which buffer them from negative events, ultimately increasing job satisfaction (Sy et al., 2006).

**Emotional Intelligence and Positive Organizational Attitudes and Behaviors**

A few articles (e.g., Jordan, Ashkanasy & Hartel, 2002) have also linked emotional intelligence to organizational citizenship behaviors (i.e., workplace attitudes and actions that benefit working relationships and ultimately contribute to an overall positive working climate). Theoretically, Abraham (2005) argues that emotional intelligence should augment organizational citizenship behaviors and enhance overall organizational commitment. Jordan, Ashkanasy and Hartel (2002), on the other hand, contend that attitudes and commitment to an organization are mediated by EI; more specifically, that individuals with greater emotional intelligence are more likely to generate high affective commitment. Nevertheless, these theoretical models have not be tested empirically, thus validity remains in question (Matthews et al., 2006).

Other empirical investigations that support the EI-affective outcomes relationship include the relationships between emotional intelligence and the following: a) altruistic behavior, career commitment, and affective commitment to the organization (Carmeli & Josman, 2006); b) interpersonal sensitivity and prosocial tendencies (Lopes et al., 2005); c) altruism and compliance (Carmeli & Josman, 2006); d) satisfaction with other group members and with communication within their group (Lopes et al., 2005); e) job dedication (Law et al., 2004); f) customer orientation (Rozell et al., 2004); g) conflict resolution styles (Jordan & Troth,
Researchers suggest that emotional intelligence also plays an important role in negotiations, as EI has the ability to influence information acquisition, decision-making soundness, and tactical manipulation of one’s own and/or other’s emotions (Fulmer & Barry, 2004). A negotiator’s verbal and nonverbal expressions provide cues that may assist in the initiation, influence, problem solving, and conclusion phases of the negotiation process (Morris & Keltner, 2000). Additionally, self-control of one’s own emotions may assist an individual in compartmentalizing their emotions and avoiding potential impairments in the information gathering and processing phases (Fulmer & Barry, 2004). With regard to the role of emotional intelligence in decision-making soundness, research theorists have suggested that differences exist in the cognitive and emotional evaluation of risk, with emotional evaluation being more likely to lead to behavior (e.g., Loewenstein, Weber, Hsee & Welch, 2001). According to Fulmer and Barry, “the emotional intelligence model proposed by Salovey and colleagues incorporates both self-awareness and self-regulation of emotion, which suggests that emotionally intelligent negotiators are better positioned to recognize emotional responses for what they are, to control the situations which are known to give rise to strong or blinding emotions, and possibly to override those emotions when they are maladaptive” (2004: p. 259). Finally, emotional intelligence has the ability to affect tactical manipulation of one’s own emotions and/or the emotions of others. Fulmer and Barry (2004) suggest that negotiators with higher emotional intelligence may be more likely to operate strategically and seize any opportunities to influence
or manipulate an opponent's emotions; this is referred to in the early development of EI as the
dark side of emotional intelligence (Salovey & Mayer, 1990). Negotiators with high emotional
intelligence may be able to use emotion management tactics or compartmentalize the extreme
emotional reactions of others to reach their own goals in the negotiation process (e.g.,
Thompson, Nadler & Kim, 1999).

Empirical evidence to support the claims on the role of emotional intelligence in the
negotiation process have been provided by Foo, Elfenbein, Tan, and Aik (2004), who found that
individuals with greater emotional intelligence did, indeed, report a more positive negotiation
experience. A sample of 164 students in an undergraduate course on Management and
Organizations participated in the negotiation exercise to evaluate the objective and subjective
outcomes of negotiation (Foo et al., 2004). The authors suggest that the more positive
experiences in the negotiation process, experienced by individuals with greater emotional
intelligence, may be due to the fact that individuals with greater EI are typically more satisfied
with their interpersonal relationships (Law et al., 2004; Lopes et al., 2003).

Other Emotional Intelligence Relationships

Emotional intelligence has also been claimed to be useful in team-based projects and
group development; this is largely due to an effective team knowing each other's strengths and
weaknesses and leveraging them whenever possible (Bar-On, 1997). Researchers suggest that
emotional intelligence is indeed related to the social skills that are imperative for teamwork
(e.g., Bar-On, 1997), and individuals with greater emotional intelligence are especially skilled at
creating and completing projects filled with feelings and aesthetics (Sjoberg, 2001; Zeidner et
al., 2004). In a study by Jordan, Ashkanasy, Hartel and Hooper (2002) results indicated that the
low emotional intelligence groups performed at a lower level initially, but over time they
increased their performance to the level of the teams with high emotional intelligence. The
authors suggest that the gap in team performance, based on emotional intelligence abilities,
may diminish for both process and goal criteria over time.

Emotional intelligence has also been linked to problem solving abilities and decision
making skills. In a study by Schutte, Scheuttpelz, and Malouff (2000) the authors compared
individuals with varying levels of EI in terms of their problem solving abilities and showed that
those with greater emotional intelligence were better able to solve difficult or frustrating
problems, when compared to low EI individuals. The results of their study illustrate the second
branch of Mayer and Salovey’s (1997) model of emotional intelligence, the ability to use
emotions to facilitate thought. The link between emotional intelligence and decision making is
evident from previous literature as well. Damasio (1994) claimed that rationality is best served
by emotions, which are necessary for sound judgment and decision making processes.
Furthermore, emotions are commonly viewed in the literature as useful resources which may
help us interpret and manage our social environments when making decisions (Matthews et al.,
2006).

Using the Ability-Based Model

The two primary schools of thought on emotional intelligence include ability-based
models (e.g., Mayer & Salovey, 1997; Salovey & Mayer, 1990) and mixed models (e.g.,
Goleman, 1995, 1998). While ability-based models of emotional intelligence investigate the
interaction of emotion and cognitive intelligence, mixed models classify EI as a combination of
personality measures, affect, and intellect (Petrides & Furnham, 2001). Mixed model
definitions are the source of many criticisms in the EI literature (e.g., Joseph & Newman, 2010; Locke, 2005; Matthews et al., 2002; Murphy, 2006; Zeidner, 2004). Mixed models are criticized for being overly redundant with personality traits, therefore failing to be justified as a distinct construct (Conte, 2005; Daus & Ashkanasy, 2003; Van Rooy, Dilchert, Viswesvaran & Ones, 2006). Empirical results support these claims and provide evidence that mixed models of EI demonstrate considerable overlap with the Big Five personality traits (e.g., Daus & Ashkanasy, 2003; McRae, 2000). McRae (2000) further suggests that Bar-On and Goleman's measures included personality traits and social competence that substantially exceeded Mayer and Salovey's original conceptualization of emotional intelligence. In addition, mixed model questionnaire measures in early empirical research failed to meet reliability and psychometric property standards (e.g., Davies, Stankov & Roberts, 1998); nonetheless, more recent empirical research provides evidence that mixed model measures are improving (e.g., Conte, 2005). As a result of these criticisms researchers have concluded that mixed models of EI are profoundly flawed based on a lack of empirical support and exceedingly broad conceptualizations (e.g., McEnrue & Groves, 2006). Of the four major perspectives of EI, previously discussed in chapter I, only Mayer and Salovey's (1997) four branch model is ability-based. Thus, the remainder of this dissertation focuses on the ability-based model of emotional intelligence as developed by Mayer and Salovey (1997).

Mayer and Salovey's Ability-based Model

According to Mayer and Salovey (1990, 1997) emotional intelligence is a multi-dimensional construct consisting of four dimensions, also referred to as branches. The four dimensions are as follows: (1) identifying emotions, (2) facilitating emotions, (3) understanding
emotions, and (4) regulating emotions. Each dimension is discussed in the following paragraphs in greater depth.

**Identifying emotions**

Identifying or perceiving emotions is the initial and most basic of the four dimensions. It is the nonverbal reception and expression of emotion and includes several skills such as the ability to identify feelings, express emotions accurately, and to differentiate between real and phony emotional expressions (Mayer, Salovey, & Caruso, 2000). Furthermore, emotions tend to appear in facial expressions, tone of voice, body language, and even works of art (Salovey & Mayer, 1990). Emotions researchers, evolutionary biologists, specialists in nonverbal behavior, and others have made tremendous strides in understanding how human beings recognize and express emotions. They have pointed out that emotional expressions evolved in animal species as a form of critical social communication; and that facial expressions such as happiness, sadness, anger, and fear are universally recognizable in humans (Mayer & Salovey, 1997). This branch of emotional intelligence pertains to the ability to correctly interpret one’s own emotions, as well as the emotions of others.

**Facilitating Emotions**

Salovey and Mayer (1990) identified the second dimension as using emotions to facilitate thought. This is the capacity of emotions to enter into and guide the cognitive system and to promote thinking. The emotional facilitation of thought includes the ability to use emotions to redirect attention to important events and to generate emotions that facilitate decision-making (Salovey & Mayer, 1990). It is also the ability to generate emotions which can assist in judgment and memory processes, the ability to produce moods which assist in generating
consideration from multiple perspectives, and the production of emotional states which encourage different thinking styles (Brackett et al., 2011).

**Understanding Emotions**

This dimension is an assessment of an individual’s ability to understand emotions and to reason with emotional knowledge (Kerr, Garvin & Heaton, 2006). An individual who understands the complexities of emotions can better handle challenging situations, because the ability to comprehend the cause of emotions gives insight into human nature, particularly regarding relationships (Salovey & Mayer, 1990). Understanding emotions is the ability to comprehend complex emotions, the ability to recognize the causes of emotions, and the ability to understand relationships among emotions (Mayer et al., 2000). It includes basic skills such as labeling emotions, being aware of similarities and differences that exist between actual emotions and emotional labels, as well as interpreting the origins and meanings of emotions (Brackett et al., 2011).

**Regulating emotions**

The fourth dimension of the emotional intelligence model (Salovey & Mayer, 1990) involves the ability to manage both one’s own emotions and the emotions of others, by preventing, reducing, enhancing, or modifying emotional responses (Brackett et al., 2011). Managing emotions includes the ability to remain aware of and open to a range of emotions; the ability to determine whether an emotion is clear or typical; and the ability to solve emotion-laden problems by working through the emotions, as opposed to suppressing negative emotions (Mayer et al., 2000). This branch involves analyzing a situation and making decisions
regarding the usefulness and appropriateness of an emotion; whether to engage in the emotion or detach from the emotion based on its perceived utility (Brackett et al., 2011).

Researchers (e.g., Brackett & Mayer, 2003; Mayer et al., 2000; Salovey & Grewal, 2005) contend that the ability-based emotional intelligence model is a form of intelligence. Mayer, Caruso and Salovey (2000) identify three criteria of an intelligence construct: (1) it must consist of mental abilities; (2) the mental abilities must meet certain correlational criteria; and (3) the mental abilities must develop with age. After numerous empirical studies, a scale was developed to test an individual's level of emotional intelligence (Mayer et al., 2000). This test is known as the Multifactor Emotional Intelligence Scale (MEIS) and is similar in format to mental ability tests such as IQ tests (Matthews et al., 2002). Empirical studies were conducted and showed (1) that a moderate and significant correlation existed between emotional intelligence, as measured by the MEIS, and general intelligence; and (2) that a moderate and significant correlation existed between EI and verbal intelligence (Mayer et al., 2000). Thus, supporting the notion that EI is related to other intelligences. Finally, a study of emotional intelligence in adolescents and adults provided evidence that adults performed at a much higher level than adolescents, meeting the third criteria of an intelligence construct (Mayer, Caruso & Salovey, 2000). With EI meeting the conceptual, correlational, and developmental criteria outlined above, Mayer, Salovey and colleagues concluded that emotional intelligence can be considered a form of general intelligence.

*Summary*

The concept of emotional intelligence has consistently shown to be positively associated with differences in performance. If EI research is to be validated empirical evidence must be
present across a multitude of occupations where EI distinguishes between high and low
performers and predicts career success (Zeidner et al., 2004). The aforementioned studies have
provided theoretical and empirical evidence for the relationship between emotional
intelligence and performance. Research on the role of emotional intelligence in workplace
performance has emerged in the literature from areas such as leadership, education,
interpersonal relationships, job satisfaction, positive organizational attitudes and behaviors,
teamwork and groups, negotiations, problem solving, and decision making.

Entrepreneurial Success

Successful entrepreneurial activity is important for a healthy economy and can be a
major source of job creation (Jackson & Rodkey, 1994). While the concept has been around for
quite some time researchers for the past several decades continue to seek the factors that
underlie entrepreneurship. Drawing on the general theory of entrepreneurship proposed by
Shane (2003), this study focuses on entrepreneurial success.

Research at the onset of entrepreneurial investigations sought to understand
biographical information and the personality characteristics of entrepreneurs. These studies
were often criticized for lacking a clear paradigm guiding the research (Bygrave, 1989), and
failed to yield consistent results or a clear picture of entrepreneurial individual characteristics
(Gartner, 1988). Thus, researchers (e.g., Carland & Carland, 1988; Carland, Hoy & Carland,
1988) argued that entrepreneurial investigations on individual characteristics should continue,
but new approaches were also needed. In 1991 Davidsson reviewed the entrepreneurship
literature and suggested that the three key determinants of continued entrepreneurship
(success) were abilities, need, and opportunities. Along these same lines, researchers (e.g.,
Baron & Markman, 2000) have emphasized that exploring entrepreneurial abilities can be a more useful approach to understanding entrepreneurial actions than using the personality traits of entrepreneurs, because abilities can change more easily than personality traits. Thus, more information on abilities that could be useful in entrepreneurial success are important, yet have not been thoroughly investigated.

Entrepreneurial success has been linked to cognitive and social skills, at least in part (e.g., Baron & Markman, 2000, 2003); and psychological researchers have attempted to assist in the identification of cognitive and social factors that affect entrepreneurial success as well as techniques that assist in coping with the lack of social or cognitive abilities (Baron, 2000). Through this process psychologists have suggested training social and interpersonal skills that may be vital to the entrepreneurial process. Several skills and abilities have been identified as determinants of successful interaction with others (e.g., Baron & Markman, 2000), including accurately perceiving others, making good first impressions, and the ability to persuade or influence others (Duck, 1994).

Social skills have been listed as key ingredients to the formation of new ventures (Vesper, 1990), and empirically linked to entrepreneurial success. For instance, a study conducted by Duchseneau and Gartner (1990) provided evidence that entrepreneurs successfully communicating with others were more likely to have successful companies than entrepreneurs without the strong communication skills. In a study of entrepreneurs’ social skills, adaptability and perception were found to be significant predictors of financial success for high-tech and cosmetic companies (Baron & Markman, 2000). Along these same lines, Baron and Markman (2000) found that an entrepreneur’s social skills were particularly vital.
when interacting with venture capitalists in positive business relationships. The research by Baron and Markman (2000) was a follow-up to Baron’s earlier research (1993) which concluded that entrepreneurs with greater social skills were better able to obtain funding, attract and hire desired employees, establish and maintain effective relationships, and conduct favorable arrangements with suppliers, current customers, and potential customers.

*Measures of Entrepreneurial Success*

Previous researchers suggest that success is a multidimensional construct that is difficult to measure (e.g., Brush & VanderWerf, 1992; Chandler & Hanks, 1993, 1994; Zahra, Neubaum & El-Hagra, 2002). For instance, new ventures are usually private organizations with no obligation to disclose performance information; therefore, traditional measures of financial performance are often unavailable (e.g., Chandler & Hanks, 1993; Sandberg, 1986), or business owners are unwilling to share this information with outsiders (e.g., Dess & Robinson, 1984). Other research studies have concluded that some traditional measures are not appropriate when studying entrepreneurial ventures because of enormous and erratic growth rates, or small starting capital (e.g., Walsh & White, 1981). Thus, conventional financial measures of performance (e.g., ROI and ROA) may also have inherent challenges. Additionally, objective measures such as survival or breakeven points are often difficult because of the need for a longitudinal sample design. Thus, the use of multiple indicators to gauge performance is recommended (e.g., Sandberg, 1986; Zahra et al., 2002). Chandler and Hanks (1993) recognize the inherent challenges in entrepreneurial research and identify three of the most common approaches to estimating entrepreneurial performance when only self-reported data is available. They are (1) measuring objective firm performance in broad categories; (2) using
subjective measures of firm performance in relation to competitors; and (3) subjective measures of owner satisfaction with the firm's performance (Chandler & Hanks, 1993).

Throughout the literature entrepreneurial firm success is measured both objectively and subjectively. Objective measurement is typically examined by analyzing hard numbers or financial measures; where subjective performance is assessed more in terms of personal beliefs or views (e.g., Reijonen, 2008). Subjective measures are often self-report measures at the firm and/or individual levels of analysis (Haber & Reichel, 2005), such as the entrepreneurs' perspective on financial (e.g., growth, profitability) and non-financial (e.g., job satisfaction, product quality) dimensions. For this investigation entrepreneurial success is operationalized as firm success based on financial information; subjective firm success, using perceptions of competitive position; and subjective personal success, all of which our outlined in the following paragraphs.

Financial Firm Success

Financial firm success can be measured by different indicators that reflect distinct dimensions (Venkatraman & Ramanujam, 1986). Financial measures seen throughout the literature include areas such as growth, profitability, turnover, return on investment, and number of employees (e.g., Honig, 1998; Walker & Brown, 2004). In a meta-analysis by Combs, Crook and Shook (2005) three performance dimensions emerged; they were profitability, growth, and stock market performance. In many studies (including this one) stock market performance cannot be analyzed because entrepreneurial firms are often studied before going public (Eisenhardt & Schoonhoven, 1990; Frese et al., 2007).
Relative Firm Success

Many researchers suggest that subjective performance measures are appropriate in entrepreneurial settings due to difficulties in acquiring financial measures (e.g., Dess & Robinson, 1984; Gupta & Govindarajan, 1984; Chandler & Hanks, 1993) associated with the absence of publicly available information and lack of financial disclosure from privately held small businesses (e.g., Dess & Robinson, 1984; Sapienza, Smith & Gannon, 1988). Researchers have taken different approaches to overcoming these difficulties. One approach was proposed by Gupta and Govindarajan (1984) who argued that subjective firm performance could be measured by asking respondents to state the importance and satisfaction with their relative firm on several performance measures.

Another commonly used technique for assessing entrepreneurial performance is to ask founders to compare the performance of their companies with their closest competitors (e.g., Abeele & Christiaens, 1986; Dess & Robinson, 1984; Sapienza et al., 1988). According to Porter (1980) firms are aware of the activities their competitors are undertaking. This contention was empirically supported in the entrepreneurship realm by Brush and Vanderwerf (1992), competitors are aware of the performance of new ventures similar to their own. Nonetheless, firm performance data of new ventures is often closely guarded and founders may not have an accurate depiction of the performance of their competitors.

Other supporters of relative performance measures contend that objective financial measures alone insufficiently predict firm success (e.g., Reijonen, 2008). Researchers contend that business owners should be the initial starting point for analyzing success (e.g., Stenberg, 2004; Simpson, Tuck & Bellamy, 2004; Poole, Langan-Fox & Omoder, 1993) because objective
financial measures may be inappropriate, misleading, and even meaningless for entrepreneurs who each have their own views of success (Simpson et al., 2004).

**Personal Success**

Subjective measures of success seen throughout the literature include personal satisfaction, pride in the job, personal achievement, and lifestyle flexibility (Reijonen, 2008). Used in the entrepreneurial literature as a surrogate for objective performance measures, personal success is a measure of performance where organizations are successful to the extent that the interests of the stakeholders’ are indeed satisfied (Murphy & Callaway, 2004), with the business owner being the most important stakeholder in the entrepreneurial venture. Cooper and Artz (1995) identify personal success, or entrepreneurial satisfaction as it is sometimes called, as fundamental to measuring success and critical to investment and continuance decisions of the entrepreneur. While substantial research in the organizational behavior field has linked satisfaction and voluntary job turnover (e.g., Mathieu & Zajac, 1990), fewer researchers have explored the consequences of satisfaction for business owners (Cooper & Artz, 1995); even though the consequences of satisfaction are far more substantial for new venture owners than large corporation employees (Murphy & Callaway, 2004).

Personal success is viewed throughout the literature as a basic measure of subjective performance (e.g., Cooper & Artz, 1995). Perceptions of success facilitate decisions individual entrepreneurs make with regard to investing time and money, and can influence interpersonal interactions. One explanation in industrial and organizational psychology addressing job satisfaction is discrepancy theory. According to this theory, satisfaction is determined by a gap which exists between individual personal standards (e.g., what an individual wants or feels
entitled to) and actual experiences. In 1986 Michalos found that 90% of studies investigating discrepancy theory’s existence reported a significant relationship between what individuals have and what they want to have; thus providing strong support for discrepancy theory.

Personal success can also be viewed as a measure of entrepreneurial success as it provides a foundation for which individual entrepreneurs make decisions on whether or not to invest more money and/or time, whether to cut back, or even to close shop. Additionally, it might influence if entrepreneurs work effectively with customers, buyers, suppliers, and other employees in interpersonal interactions (e.g., Cooper & Artz, 1995; Schutte et al., 2001).

Summary

Entrepreneurs do not merely work for companies, they are part of the firm; entrepreneurs have often invested a great deal of time and energy into seeing the venture through to fruition, in making the decisions to operate on a daily basis, and in overall commitment to the organization (e.g., Chandler & Hanks, 1994). An entrepreneur’s intense commitment means they may also experience more powerful emotions in connection with the activities required by the venture (Baron, 2000). Nonetheless, some of the complexities of multi-level entrepreneurial research can be minimized because "all revolves around the entrepreneur...its goals are his/her goals, its strategy his/her vision of its place in the world" (Mintzberg, 1988: p. 534). Thus, while measuring entrepreneurial success does present challenges, using multiple measures and approaches to assess performance can be a valuable way to confront the difficulties associated with acquiring new venture performance information (Chandler & Hanks, 1993).
Linking Emotional Intelligence and Entrepreneurial Success

Empirical evidence supports the contention that the ability to interact effectively with others is vital to success in many facets of life and across many contexts (Baron, 2000). For example, social skills have been identified for their positive association with personal adjustment, job interviews, negotiations, performance reviews, educational performance, and leadership outcomes (Baron, 2000; O'Boyle et al., 2010; Robbins & DeNisi, 1994).

While previous research provides some evidence by which the emotional intelligence-job performance relationship unfolds, explanations for the role that emotions play in entrepreneurial success are few. Two specific studies have clearly addressed the relationship between emotional intelligence and entrepreneurial performance. In a study by Cross & Travaglione (2003), five Austrian entrepreneurs were studied via in-depth interviews. From the results the authors suggest that entrepreneurs with greater overall emotional intelligence make for successful individuals in work contexts as well as social environments. Furthermore, the researchers (Cross & Travaglione, 2003) found support for their hypothesis that entrepreneurs exhibited greater levels of EI than the norm, and also showed that entrepreneurs exhibited high levels of each of the three sub-dimensions originally proposed by Salovey & Mayer (1990). The Goleman model was also integrated into the structured interviews and the researchers found support for extraordinary levels of emotional intelligence as developed in mixed models of EI (Cross & Travaglione, 2003).

Another empirical investigation was conducted by Rhee and White (2007) who used a mixed model approach to explore the emotional intelligence of entrepreneurial venture leaders. The respondents were asked to complete the Emotional Competency Inventory
(Boyatzis, Goleman & Rhee, 2000; Boyatzis & Sala, 2004), including 72 questionnaire items that measure eighteen mixed model emotional competencies. Participants of this study included 161 members of the Young Entrepreneur's Organization (YEO) who demonstrated high levels of self-confidence, trustworthiness, achievement orientation, service orientation, change catalyst, teamwork and collaboration. While this empirical investigation provided some support for the importance of emotional intelligence in the context of entrepreneurship, no additional evidence has emerged; furthermore, this study did not address emotional intelligence from the ability-based perspective.

While additional studies have not specifically addressed ability-based emotional intelligence in the entrepreneurial context other support for the relationship between emotional intelligence and entrepreneurial success is available. Previous researchers have provided evidence that aspects of social intelligence are critical to entrepreneurial success (e.g., Baron, 2000). For example, emotional intelligence may play a critical role in an entrepreneur's ability to present to investors (i.e., bankers, angel investors, venture capital firms, friends, and family) in order to obtain financing, gain new customers, and/or maintain current customers. Emotional intelligence abilities may be particularly crucial for negotiations, the selection of employees or partners, and the attracting and handling of customers, employees, suppliers, and partners (e.g., Foo et al., 2004; Fulmer & Barry, 2004). Therefore, emotional intelligence may enable effective interaction with others, which increases the likelihood of favorable performance.

Empirical evidence to support the claims that greater social abilities increase entrepreneurial success can be found in the work by Baron and Markman (2000). These
authors proposed that greater social competence in entrepreneurial individuals would lead to
greater financial performance; and their results concluded that social perception and
adaptability were significant predictors of financial performance for new firms in the cosmetic
industry (Baron & Markman, 2000). Thus, providing support for the contention that
entrepreneurs’ social intelligence influences the financial success of new ventures.

Emotional intelligence is a dimension of social intelligence (e.g., Gardner, 1999; Mayer
et al., 2004) and pertains to the ability to be socially adaptable in a wide range of social
situations and to behave appropriately in such situations. Results of previous studies have
provided evidence that social adaptability has a positive relationship with firm performance
(e.g., Baron & Markman, 2003). The ability to adapt to rapidly changing situations and
demands may also be advantageous for entrepreneurs. In new ventures it is quite common for
entrepreneurs to have to interact with individuals from diverse backgrounds and operate in a
variety of social situations. Thus, in accordance with theory, and the aforementioned studies
on emotional intelligence, there will be a positive relationship between emotional intelligence
and entrepreneurial success.

Hypotheses addressing the relationship between emotional intelligence and
entrepreneurial success were developed on the basis of previous research findings concerning
the influence of social and political skills (e.g., Baron & Tang, 2008; Pfeffer, 1992; Riggio &
Riggio, 2001). Political skill is defined as “the ability to effectively understand others at work
and to use such knowledge to influence others to act in ways that enhance one's personal
311). Aspects of political skill are closely related to emotional intelligence (e.g., social
adaptability, social perception, expressiveness) and can thus be viewed as complementary social skills (e.g., Ferris et al., 2005; Harris, Kacmar, Zivnuska & Shaw, 2007), which can be used for important entrepreneurial tasks, such as obtaining capital.

Expressiveness, another social skill, is the ability to express feelings and reactions clearly and openly; and has been identified as closely related to emotional intelligence and exerting interpersonal influence (e.g., Cialdini, 2000). Interpersonal relations are a huge part of entrepreneurial activities so the significance of emotional intelligence in entrepreneurial success is evident. For example, entrepreneurs must often convince customers to buy their product or service, or investors to lend money to their ideas. Thus, emotional intelligence, specifically the entrepreneur’s ability to express and/or regulate emotions, will be positively related to entrepreneurial success.

Emotional intelligence involves perceiving others accurately and previous researchers suggest that social perception predicts favorable outcomes in various business contexts. For example, social perception can predict positive interviewer ratings (e.g., Kacmar, Carlson, & Bratton, 2003) and more positive performance evaluations from supervisors (e.g., Harris et al., 2007). Perceiving others accurately, a component of emotional intelligence, is directly related to entrepreneurial activities as well; such activities include successful negotiations, selecting superior partners, and hiring top-quality employees (Baron & Tang, 2008). Thus, an entrepreneur’s emotional intelligence, specifically their accuracy in perceiving others (competitors), will be positively related to entrepreneurial success.

According to Kafetsios and Zampetakis (2008) emotional awareness, associated with emotional intelligence, is expected to benefit social and interpersonal relationships which affect
the experience of emotions and stress in the workplace. Individuals with greater emotional intelligence are better able to use their abilities to appraise and manage the emotions of other people (Sy et al., 2006). Individuals with greater EI are also better able to use their emotional intelligence skills to cultivate positive personal interactions, which helps boost personal morale, the morale of others, and contributes to the feelings of personal success and job satisfaction (Shimazu, Shimazu, & Odahara, 2004). Additionally, being aware of one’s emotions can help an individual in better identifying sources of frustration or stress, and in regulating such emotions to reduce the stress and to perform better in the workplace (Sy et al., 2006). Individuals with greater emotional intelligence abilities are better able to understand their causes of stress and devise strategies to handle the negative consequences of the stress (Cooper & Sawf, 1997). Empirical support for these contentions can be found in the research conducted by Sy and colleagues (2006) who observed a positive relationship between job satisfaction and ability-based emotional intelligence among employees and their managers. In closing, the hypotheses that address the relationship between emotional intelligence and entrepreneurial success were derived from literature reviews on social skills (e.g. Baron & Markman, 2000; Matthews et al., 2006), political skills (e.g., Baron & Tang, 2008; Pfeffer, 1992; Riggio & Riggio, 2001; Harris et al., 2007), and human capital (e.g., Unger, Rauch, Frese & Rosenbusch, 2009).

Hypothesis 1: There is a positive correlation between emotional intelligence and entrepreneurial success

Hypothesis 1a: There is a positive correlation between emotional intelligence and financial entrepreneurial firm success

Hypothesis 1b: There is a positive correlation between emotional intelligence and relative entrepreneurial firm success
Hypothesis 1c: There is a positive correlation between emotional intelligence and personal entrepreneurial success

Mediating Variables

Having presented the aforementioned hypotheses, I turn my attention to the possible mediators of the relationship between emotional intelligence and entrepreneurial success. According to Baron and Kenny, “the mediator function of a third variable represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest” (1986: p. 1173). Stated differently, a mediator is a third variable that intervenes between the independent and dependent variables (Hair et al., 2006). A mediator accounts for the relationship (fully or partially) between the independent variable (emotional intelligence) and dependent variable (entrepreneurial success). Theoretically, a mediator facilitates the relationship between the other two variables (Hair et al., 2006).

Previous researchers have indicated that various constructs (e.g., competence, confidence, coping, creativity, decision making, interpersonal skills) that may account for some, if not all, of the relationship between emotional intelligence and performance. Furthermore, some authors feel that the linear effect models, on the relationship between emotional intelligence and workplace performance, are overly simplistic and incomplete (Cote & Miners, 2006). Authors Van Rooy & Viswesvaran (2004) found support for this contention with their meta-analysis of emotional intelligence and workplace performance, these authors suggest that mediating variables may exist in the relationship and should be further investigated in future research.
Individual Competence

Introduced in the management literature in the early 1980s by Boyatzis, competence has become widespread in the field as a way to describe types of knowledge, skills, and personal abilities associated with superior performance and leadership (e.g., Martin & Staines, 1994). Researchers suggest that social competence important in the business context (e.g., Baron, 2000; Baron & Markman, 2000) as well. For example, an individual’s capacity to effectively interact with others contributes to positive outcomes in job interviews, yearly performance reviews, and negotiations (Robbins & DeNisi, 1994).

Social competence is also important in the entrepreneurial context and may play an important role in entrepreneurial success. Entrepreneurs deal with interpersonal relationships both inside and outside of their organizational walls. Within the venture entrepreneurs often have to get along with partners or employees. Outside of the organization entrepreneurs must interact with bankers, investors, prospective customers, and potential employees. Baron (2000) contends that the ability to interact with others both inside and outside of the organization increases the chances of favorable outcomes in face-to-face contexts, such as acquiring financing or gaining new customers.

Previous researchers have suggested that job performance may be attained through various competencies and intelligences via multiple complementary mechanisms (e.g., Law et al., 2004; Man, Lau & Chan, 2002; Mitchelmore & Rowley, 2010). First, because working individuals interact with others (i.e., customers, clients, coworkers, supervisors, financial institutions), public display of emotions through facial expressions, vocal cues, and body language are all signals that provide important information about goals, attitudes, and
intentions (Rafaeli & Sutton, 1987). The ability to read, understand, interpret, and regulate such displays of emotion can be converted into greater performance for those with high emotional intelligence. For example, Law, Wong and Song (2004) found that employees could enhance their task performance when they accurately detected their coworkers’ emotions and used that information to facilitate interpersonal interactions.

Regulating emotions may also influence social networks and the overall quality of social relationships (e.g., Wong & Law, 2002). Previous researchers have found that individuals who display genuine emotions through their facial, vocal, and bodily expressions tend to acquire more favorable reactions from others when compared to individuals displaying fake or phony emotional expressions (e.g., Grandey, 2003). Using emotional intelligence abilities may enable individuals to create better social networks and overall social relationships which they can use to elicit advice and social support from, ultimately enhancing their performance (e.g., Sparrowe, Linden, Wayne & Kraimer, 2001; Wong & Law, 2002).

Emotional intelligence also includes the use of emotions to facilitate thought, which provides a third mechanism for which EI may enhance performance. This mechanism includes the effects of emotions on the thought processes and actions of individuals (Cote & Miners, 2006). The ability to manage emotions in thought and action enables individuals to increase their motivation and the overall quality of the decisions (Law et al., 2004).

Early studies on emotional intelligence and other cognitive competencies have provided support for the relationships with job performance in an independent and complementary linear way (e.g., Goleman, 1998; Mayer et al., 2000). Furthermore, previous empirical results (e.g., Cote & Miners, 2006; Law et al., 2004; Man et al., 2002; Wong & Law, 2002) show that the
relationship between emotional intelligence and performance may be accounted for, at least to some degree, by other competencies. In the proposed model, emotional intelligence and cognitive competencies, namely managerial and entrepreneurial competencies, are related yet distinct constructs within a similar content domain (Cote & Miners, 2006).

Managerial Competence

The increasing need to improve management capability to sustain business performance has drawn attention to the managerial competence perspective (Boam & Sparrow, 1992). The foundation of managerial competence research is identifying characteristics of effective managers that enable organizations to be successful (Mintzberg, 1973). Building on the research of McClelland (1973), Boyatizis (1982) defined managerial competencies as underlying characteristics of a person resulting in superior job performance.

Since the work of Boyatizis (1982) researchers have explored the competencies of outstanding managers. For example, Schroder (1989) developed three classes of competencies: entry level competencies, basic competencies, and high performance competencies. Entry level competencies consist of individual characteristics, and basic competencies consist of knowledge and skills needed to perform the functions of managing; while high performance competencies include behaviors that produce superior workgroup performance in complex organizational environments. Essential competencies in managerial roles include conceptual competence, which entails coordinating the firms’ activities (Pavett & Lau, 1983; Schein, 1987); and human competence, which involves working with others, understanding others, and motivating other working in groups or as individuals (Pavett & Lau, 1983).
Entrepreneurial Competence

The competency approach is a common method of studying entrepreneurial characteristics (e.g., Chandler & Jansen, 1992; Man et al., 2002; Sony & Inman, 2005). The classic entrepreneurial role consists of scanning the environment, selecting promising opportunities, and formulating strategies (e.g., Chandler & Jansen, 1992; Mintzberg & Waters, 1982; Thompson & Strickland, 1989). Competencies required to effectively perform the entrepreneurial role include recognizing and seizing opportunities (e.g., MacMillan, Siegel & SubbaNarisimha, 1985; Timmons, Muzyka, Stevenson & Bygrave, 1987), which have been shown to influence venture performance (e.g., Hofer & Sandberg, 1987). Another critical competency of the entrepreneurial role is the drive to see the venture through the initial phases of creation (Hofer & Sandberg, 1987; Schein, 1987). Seeing the venture through is particularly important when venture capitalists are making financing decisions (Chandler & Jansen, 1992; MacMillan et al., 1985). Man, Lau and Chan (2002) define entrepreneurial competencies as characteristics that encompass personality traits, skills, and knowledge all of which are the total ability of the entrepreneur to successfully perform a job. The six major entrepreneurial competencies are identified as the following: (1) opportunity, (2) organizing, (3) strategic, (4) relationship, (5) commitment, and (6) conceptual competencies (Man et al., 2002).

Empirical researchers have provided evidence of significant positive relationships between both managerial and entrepreneurial competencies and firm performance (e.g., Baum, Locke & Smith, 2001; Chandler & Hanks, 1994; Chandler & Jansen, 1992). In a study of new venture founders, Chandler and Jansen (1992) surveyed 84 manufacturing firms and 50
service firms in the state of Utah. The manufacturing firms produced a range of products from ceramic pottery, upholstered furniture, and animal kennels to medical equipment and electronic instruments. While service firms were comprised of restaurants, nursing homes, and security systems. From their results the authors suggest that new venture founders’ self-reported competencies were correlated with firm performance, indicating that “the most successful founders—those whose firms showed higher levels of growth and earnings—perceived themselves as competent” (Chandler & Jansen, 1992: p. 233). Therefore, competence is a key component that may account for some of the relationship between the abilities of the founder and firm performance (e.g., Stuart & Abetti, 1990). Thus,

*Hypothesis 2:* Managerial competence mediates the relationship between emotional intelligence and entrepreneurial success

*Hypothesis 2a:* Managerial competence mediates the relationship between emotional intelligence and financial entrepreneurial firm success

*Hypothesis 2b:* Managerial competence mediates the relationship between emotional intelligence and relative entrepreneurial firm success

*Hypothesis 2c:* Managerial competence mediates the relationship between emotional intelligence and personal entrepreneurial success

*Hypothesis 3:* Entrepreneurial competence mediates the relationship between emotional intelligence and entrepreneurial success

*Hypothesis 3a:* Entrepreneurial competence mediates the relationship between emotional intelligence and financial entrepreneurial firm success

*Hypothesis 3b:* Entrepreneurial competence mediates the relationship between emotional intelligence and relative entrepreneurial firm success
Hypothesis 3c: Entrepreneurial competence mediates the relationship between emotional intelligence and personal entrepreneurial success

Venture Organizational Tasks

Previous researchers have provided support for the mediating effect of job roles on the relationship between emotional intelligence and performance (O’Boyle et al., 2010). According to Baron (2007) affect and emotions may have an effect on the performance of entrepreneurial ventures based on the specific tasks the entrepreneur must endure. While entrepreneurial tasks are varied and constantly changing (e.g., Shane, 2003) they are often influenced by affect and emotions (e.g., Forgas, 2000). Baron reviews the literature and reminds us that previous researchers have provided evidence that affect and emotions have “strong effects on creativity (which may play an important role in opportunity recognition; e.g., Isen, 1993), on persuasion (which may influence entrepreneurs’ success in acquiring essential resources), on decision making and judgments (which play a key role in the formation of effective business models and strategies; e.g., Ireland, Hitt, & Sirmon, 2003), and on the formation of productive working relationships with others (e.g., Diener & Seligman, 2002; Harker & Keltner, 2001)” (2008, p. 329).

Interpersonal Tasks

O’Boyle, Humphrey, Pollack, Hawver and Story (2010) contend that emotional intelligence may be particularly important in sales jobs, the service sector, or in other roles where interpersonal interaction is necessary on a regular basis. This concept has previously been brought to the forefront by Zeidner, Matthews, and Roberts (2009), who assert that emotional intelligence is particularly important in certain people-oriented occupations. In
nearly every work setting, including the entrepreneurial context, individuals have to cooperate and interact with others in order to complete their work tasks (O'Boyle et al., 2010).

Empirical researchers have provided support for the mediating effect of job roles on the relationship between emotional intelligence and success. For instance, Wong and Law (2002) provided empirical evidence to support the contention that the predictive power of emotional intelligence was dependent on the emotional demands employees experienced on the job. In their study of 146 middle-level managers in the Hong Kong government, the authors found that emotional intelligence and job performance were significantly correlated, and that the relationship was mediated by emotional labor. Emotional labor is when an individual finds it necessary to alter his or her emotional expression in an effort to fulfill the display rules of the situation or organization (e.g., Ashforth & Humphrey, 1993).

Cote & Miners (2006), on the other hand, were unable to find support for the role of emotional demands on the emotional intelligence-performance relationship. In a study of 175 full-time employees of a large public university, the results of the study indicated no evidence that emotional intelligence predicted job performance differently when the emotional demands of the jobs were different. Nonetheless, the authors advise additional research exploring the effects of the nature of the job on the emotional intelligence-job performance relationship (Cote & Miners, 2006).

Therefore, because activities performed in the entrepreneurial role involve highly interpersonal activities (e.g., negotiating and obtaining financing) it is believed that the emotional intelligence-entrepreneurial success relationship will be enhanced when the daily operations of the entrepreneurial venture consist of highly interpersonal tasks. Thus,
Hypothesis 4: Interpersonal tasks mediate the relationship between emotional intelligence and entrepreneurial success.

Hypothesis 4a: Interpersonal tasks mediate the relationship between emotional intelligence and financial entrepreneurial firm success.

Hypothesis 4b: Interpersonal tasks mediate the relationship between emotional intelligence and relative entrepreneurial firm success.

Hypothesis 4c: Interpersonal tasks mediate the relationship between emotional intelligence and personal entrepreneurial success.

Environmental Factors

Over the last forty years researchers have used a considerable amount of resources to explore the influence of the environment on the strategies, structures, processes, and outcomes of firms as environments are a major contingency faced by firms (e.g., Dess & Beard, 1984; Keats & Hitt, 1988; Korunka, Frank, Lueger & Mugler, 2003; Naffziger, Hornsby & Kuratko, 1994; Tang, 2008). Following the work of Dess and Beard (1984) dimensions of the environment include munificence, dynamism, and complexity. These environmental dimensions were identified from the original six as outlined by Aldrich (1979). Previous researchers have identified significant relationships between the aforementioned environmental dimensions and performance, strategy, and structure of organizations (e.g., Keats & Hitt, 1988). The two primary environmental variables considered to exist in the entrepreneurship literature are dynamism and munificence. For this study, these variables are investigated for their role in the relationship between emotional intelligence and entrepreneurial success.
Previous literature emphasizes how crucial a conducive environment is in developing an entrepreneurial venture (e.g., Tang, 2008). Entrepreneurs are confronted with work environments that are often new, unpredictable, complex, and consist of a great deal of pressure and constraints (e.g., Dess & Beard, 1984; Baron, 2000). Because an entrepreneurs’ commitment to the organizational endeavors are intense, they often experience powerful emotions in connection with their activities (Baron, 2000). Furthermore, previous researchers have asserted that individuals can use their emotional intelligence abilities to successfully cope with environmental demands. Thus, these are exceedingly important abilities to harness in stressful work conditions (Bar-On, 1997), such as entrepreneurship.

**Munificence**

Environmental munificence is the extent to which critical resources exist in the environment (Castrogiovanni, 1991; Dess & Beard, 1984; Pfeffer & Salancik, 1978; Randolph & Dess, 1984; Staw & Szwajkowski, 1975; Tushman & Anderson, 1986). In a theoretical assessment of environmental munificence Castrogiovanni (1991) outlines three distinct types of munificence, namely capacity, growth/decline, and opportunity/threat. Capacity is the level of resources the firm has available. Growth/decline is the change in capacity; and opportunity/threat is the amount of unexploited capacity (Castrogiovanni, 1991).

Munificence effects the survival and growth of firms as well as the ability of new firms to enter into the environment (Castrogiovanni, 1991; Randolph & Dess, 1984). Environmental munificence is directly related to the firm’s ability to acquire resources that influence performance, because the greater the resources available (munificence) the greater the opportunity for a firm to acquire those resources (Bruno & Tyebjee, 1982). In a munificent
environment, or when there is an abundance of resources available, there is greater room for organizational flexibility (e.g., Starbuck, 1992) and a broader range of strategic options available to the firm (e.g., Romanelli, 1987). Additionally, in an environment with an abundance of resources, an organization can develop slack resources (Cyert & March, 1963). Slack resources are of extreme value to entrepreneurial firms because it allows them to allocate resources to innovation, new strategic processes, and structures (Cyert & March, 1963).

On the other hand, in a non-munificent environment, the lack of available resources intensifies the competition (Dess & Beard, 1984; Hofer, 1975; Porter, 1980; Yasai-Ardekani, 1989). Researchers have suggested that environmental munificence is conceptually the opposite of environmental hostility (Miller & Friesen, 1983). The scarcity of resources and increased competition adversely affect profitability, slack resources, and even survival (e.g., Child, 1972), requiring firms to focus more on resource conservation than new innovation, strategies and structures (e.g., Goll & Rasheed, 2004). Additionally, scarce resources often cause changes in the behaviors of members of the firms and in intraorganizational characteristics such as budgets, planning systems, equipment and facilities (Koberg, 1987).

Researchers have explored the influence of environmental munificence on organizational strategies (e.g., Koberg, 1987) structures (e.g., Yasai-Ardekani, 1989), and processes (Miller & Friesen, 1983). Highly munificent environments enable firms to accumulate slack resources making it easier for firms to successfully operate (e.g., Bruno & Tyebjee, 1982), while less munificent environments require additional efforts and abilities of the individuals operating the firm in order to access the scarce environmental resources (e.g., Koberg, 1987).
Thus, munificence may account for some of the relationship between EI and entrepreneurial success.

The role of environmental munificence on the performance of entrepreneurial firms has received considerable attention throughout the entrepreneurship literature (e.g., Castrogiovanni, 1991; Dess & Beard, 1984); and has provided evidence to support the importance of environmental munificence in entrepreneurial success, namely the ability to take advantage of slack resources to pursue innovation, new strategies and structures (e.g., Goll & Rasheed, 2004). In an empirical study conducted by Chandler and Hanks (1994), the authors remind us that entrepreneurial businesses, due to their small size and often limited resources, are considerably less protected from the influences of the environment. In this empirical investigation the influence of the environment was operationalized as munificence, or resource availability and the sample consisted of 115 manufacturing businesses started between 1980 and 1991 in northwest Pennsylvania. The results of the empirical study concluded that the environment the founder’s experienced did indeed effect the growth and sales volume of the emerging manufacturing firms. With their findings the authors encourage additional multi-level research to be conducted to explore the role of resource availability in the relationship between entrepreneurial abilities and venture performance (Chandler & Hanks, 1994).

Emotional intelligence skills are likely to be important in less munificent environments, as individuals can use their EI abilities to acquire the sought after resources that enable their firm to continue to grow, profit, and survive. In highly munificent environments, where resources that facilitate entrepreneurial ventures are high, entrepreneurial success is expected to be greater regardless of the entrepreneur’s emotional intelligence. In such highly munificent
environments the abundant resources can enhance the performance of the organization and help the entrepreneur achieve his or her goals. When munificence is low the entrepreneur must leverage his or her own abilities to acquire the much sought after resources. Therefore, the ability to identify, facilitate, understand, and regulate emotions in negotiations, purchasing and/or buying decisions, and other interpersonal relationships will enable an entrepreneur to achieve greater success. Thus, it is proposed that the positive association between emotional intelligence and entrepreneurial success is mediated by environmental munificence.

**Hypothesis 5:** Munificence mediates the relationship between emotional intelligence and entrepreneurial success

**Hypothesis 5a:** Munificence mediates the relationship between emotional intelligence and financial entrepreneurial firm success

**Hypothesis 5b:** Munificence mediates the relationship between emotional intelligence and relative entrepreneurial firm success

**Hypothesis 5c:** Munificence mediates the relationship between emotional intelligence and personal entrepreneurial success

**Dynamism**

Dynamism was defined by Miller and Friesen (1983: p. 222) as the “rate of change and innovation in an industry as well as the uncertainty or unpredictability of the actions of competitors and customers.” The unpredictable nature of dynamic environments increases the level of uncertainty experienced by firms, and the individuals that operate those organizations (e.g., Dess & Beard, 1984; Duncan, 1972; Hmieleski & Baron, 2009). Many researchers suggest that dynamic environments form a fertile context for emerging entrepreneurial opportunities
(e.g., Hmieleski & Baron, 2009; Kirzner, 1997; Shane & Venkataraman, 2000). Nonetheless, entrepreneurial ventures competing in highly dynamic environments must have great flexibility to adapt and survive (e.g., Lichenstein, Dooley & Lumpkin, 2006). Environments of high dynamism are quickly changing, which increases the risk and unpredictability; where environments of low dynamism may indicate an economic slowdown, or simply a well-established industry (D’Aveni, 1994).

Previous research in the field of entrepreneurship has extensively addressed the influence of dynamic and stable environments on entrepreneurial firm success (e.g., Wiklund & Shepherd, 2005). The emphasis in this stream of literature is that dynamic environments benefit entrepreneurial firms by allowing them to capitalize on their abilities and respond quickly to changing environmental conditions, which provides them with a competitive advantage (Davis, 2007).

Due to the uncertainty and risk (i.e., financial capital) needed to compete with an entrepreneurial business, individuals owning and operating firms in highly dynamic environments are often faced with major challenges (Hmieleski & Baron, 2009). Such challenges consist of information processing burdens (e.g., Chandler et al., 2005; Tushman, 1979) including distress and anxiety (Markman Baron & Balkin, 2005). Thus, because entrepreneurs function in environments that change rapidly and are often unpredictable, they are unable to rely on well-learned cognitive scripts or prescribed sets of procedures; entrepreneurs often face intense time pressures causing premature decision-making and acting on incomplete information (Baron, 2007). In such situations, feelings, emotions, and affect can have powerful effects on cognitions and behaviors (e.g., Forgas, 1995, 2000; Forgas & George,
and emotional intelligence can help reduce such effects (e.g., Nikolaou & Tsaousis, 2002; Petrides et al., 2004). Feelings, emotions, and affect also have strong influences on decision-making strategies in highly dynamic environments, particularly for entrepreneurs who are often under intense time pressures (Baron, 2007; Forgas & George, 2001).

Empirical support can be found in the research conducted by Ensley, Pearce, and Hmieleski (2006). Their study surveyed 258 individuals serving on top management teams in 164 of the 1999 Inc. 500 firms. The authors note, as mentioned above, that high uncertainty—the difference between the projected outcomes and the actual outcomes—create challenges with regard to the availability of information (Simon, 1955) and the information processing burdens (e.g., Chandler, Honig & Wiklund, 2005; Tushman, 1979). Their results conclude that environmental dynamism does indeed have a significant positive effect on the relationship between transformational leadership and new venture performance. Because transformational leadership behavior was found to be more effective in more dynamic environments, the authors reemphasize how important such skills and abilities can be in situations where routine cognitive scripts are unavailable (Ensley et al., 2006).

Entrepreneurs making decisions in dynamic environments need to be able to handle the stress and anxiety associated with time pressures and limited information which can impede on cognitive processing and effect their ability to quickly acquire and process pertinent information (Fiedler, 2001). Therefore, entrepreneurs with greater emotional intelligence will be particularly good at leading their ventures in dynamic environments because emotional intelligence positively influences an entrepreneur's capacity to make decisions quickly and effectively. Environmental dynamism will mediate the EI-entrepreneurial success relationship
which will enable the entrepreneur to use his or her emotions to facilitate thoughts and make effective decisions in a more timely fashion. Highly dynamic environments do not always allow individuals to rely on cognitive scripts, but instead require skills, such as emotional intelligence, that enable a person to read others verbal and non-verbal cues to make quick, effective decisions under time constraints and unpredictability. Thus, the relationship between emotional intelligence and entrepreneurial success is mediated by environmental dynamism.

Hypothesis 6: Dynamism mediates the relationship between emotional intelligence and entrepreneurial success

Hypothesis 6a: Dynamism mediates the relationship between emotional intelligence and financial entrepreneurial firm success

Hypothesis 6b: Dynamism mediates the relationship between emotional intelligence and relative entrepreneurial firm success

Hypothesis 6c: Dynamism mediates the relationship between emotional intelligence and personal entrepreneurial success

Chapter Summary

A general consensus is apparent in the literature: emotional Intelligence is positively associated with work performance (e.g., Baron & Markman, 2000). Nonetheless, a gap exists in the literature with regard to studying this relationship in the entrepreneurial context. Additional research also needs to explore the mediating mechanisms that account for the relationship between emotional intelligence and entrepreneurial success; such mechanisms exist at the individual, organizational, and environmental levels. The individual level mediators of particular interest in this study are managerial and entrepreneurial competencies.
organizational level mediator under investigation is interpersonal activities; and the environmental mediators under investigation are munificence and dynamism.

The research model (Figure 2) associated with this study indicates a direct relationship between the predictor variable, emotional intelligence, and the dependent variable, entrepreneurial success. As previously discussed, entrepreneurial success is assessed in three distinct ways: (1) financial entrepreneurial firm success; (2) relative entrepreneurial firm success; and (3) personal entrepreneurial success. The hypotheses associated with each of the relationships are summarized in table 2.

Table 2

<table>
<thead>
<tr>
<th>Table of Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: There is a positive correlation between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>H1a: There is a positive correlation between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>H1b: There is a positive correlation between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>H1c: There is a positive correlation between emotional intelligence and personal entrepreneurial success</td>
</tr>
<tr>
<td>H2: Managerial competence mediates the relationship between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>H2a: Managerial competence mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>H2b: Managerial competence mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>H2c: Managerial competence mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
<tr>
<td>H3: Entrepreneurial competence mediates the relationship between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>H3a: Entrepreneurial competence mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>H3b: Entrepreneurial competence mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>H3c: Entrepreneurial competence mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
</tbody>
</table>

*table continues*
Table 2 (continued).

<table>
<thead>
<tr>
<th>H4:</th>
<th>Interpersonal tasks mediate the relationship between emotional intelligence and entrepreneurial success</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4a:</td>
<td>Interpersonal tasks mediate the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>H4b:</td>
<td>Interpersonal tasks mediate the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>H4c:</td>
<td>Interpersonal tasks mediate the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
<tr>
<td>H5:</td>
<td>Munificence mediates the relationship between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>H5a:</td>
<td>Munificence mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>H5b:</td>
<td>Munificence mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>H5c:</td>
<td>Munificence mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
<tr>
<td>H6:</td>
<td>Dynamism mediates the relationship between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>H6a:</td>
<td>Dynamism mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>H6b:</td>
<td>Dynamism mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>H6c:</td>
<td>Dynamism mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
</tbody>
</table>
CHAPTER III  
METHODS

The purpose of this study was to examine the relationship between emotional intelligence and entrepreneurial success. In addition, the study examines how individual competence, venture organizational tasks, and environmental variables mediate the EI-entrepreneurial success relationship. Chapter III provides a detailed explanation of how the study was conducted with an emphasis on the following four questions: (1) Who are the participants of the study; (2) What materials are needed to conduct the study; (3) What data will be collected; and (4) What is required of the participants. This chapter also addresses the potential threats to reliability and validity. The final sections in this chapter outline the pilot study conducted.

Research Design

This section outlines the validity and reliability of this investigation. The study employed a quantitative research method to examine the relationship between emotional intelligence and entrepreneurial success. First, the variables for the study were identified and the items used to measure the variables were located in the relevant literature. The survey was then submitted to the Institutional Review Board (IRB) for approval. A pilot study was conducted to assess the survey distribution method, the data collection process, and analyze the data. Final modifications were then be made to the instrument before conducting the main study. For this investigation addressed the relationships among the variables in a natural occupational setting.
Validity

Each of the variables and relationships theoretically discussed in chapters 1 and 2 are operationally defined in this chapter. Validity is defined by Hair, Black, Babin, Anderson, and Tatham (2006) as the extent to which research is accurate. Validity refers to the extent to which a test measures what one wants to measure (Cooper & Schindler, 2008). Measures were used from previous studies with evidence of validity and reliability to reduce mono-method bias. Artifactual bias is also a concern due to self-reported responses from common sources for both predictor and criterion variables (Podsakoff & Organ, 1986); such a threat to validity is also known as common method variance (Campbell & Fiske, 1959; Fiske, 1982). Statistical procedures used to address common method variance include post hoc analyses such as Harman's one-factor test and partial correlation procedures. Additionally, scale reordering was employed to reduce the effects of consistency artifacts; scale reordering is the altering of the design of the questionnaire so the dependent and independent variables are randomly placed throughout the questionnaire (Podsakoff & Organ, 1986).

Internal Validity

Internal validity, also known as rigor (Taylor, Goodwin & Cosier, 2003), is important in the measurement of a construct. Internal validity consists of construct validity and criterion-related validity. Construct validity is the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure, and thus deals with the accuracy of measurement (Hair et al., 2006). Construct validity assesses if the survey, and the items comprising the survey, do in fact measure what is intended. Criterion-related
validity measures how well one variable, or a set of variables, can predict an outcome based on information available from other variables.

Evidence of construct and criterion-related validity are composed of the following four components: (1) convergent validity, (2) discriminant validity, (3) nomological validity, and (4) face validity (Hair et al., 2006). Convergent validity is the extent to which different assessment methods concur in their measurement of the same trait (i.e., construct); ideally, these values should be moderately high (Byrne, 1961). Discriminant validity is the extent to which a construct is truly distinct from other constructs; ideally these values should demonstrate minimal convergence. High discriminant validity provides evidence that a construct is unique and captures some phenomena other measures do not. Nomological validity is the degree to which a construct does indeed behave as it should within a system of related constructs (Bagozzi, 1980). Nomologically valid items are those that are most predictive; this study used previously validated items and scales to address nomological validity. Finally, face validity ensures that, on its face, the operationalization is a good translation of the construct (Huck, 2008). To ensure construct validity for the operationalized constructs, previously validated measures were used throughout this study. These items were selected based on the thorough literature review discussed in the first two chapters.

External Validity

External validity, also known as relevance (Taylor et al., 2003), is the generalizability of the results beyond this specific study (Hair et al., 2006). In an effort to conduct this initial entrepreneurial investigation, founders, co-founders, and owners involved in the daily operations of their entrepreneurial ventures were gathered from across the United States to
represent the population of interest. The range of data on gender, age, race, ethnicity, education, and geographic location of the entrepreneurs helps to enhance the generalizability of the findings.

Reliability

Reliability refers to how well the instrument consistently yields similar results (Crohnbach, 1951; Hair et al., 2006). Using reliability analysis enables the researcher to determine the extent to which the items of a questionnaire are related to one another, obtain an index of the internal consistency of the scale as a whole, and identify problem items that should be extracted from future studies using the scale (Byrne, 1961). Cronbach’s alphas were used to determine the reliability of the variables used in this dissertation. Cronbach’s alpha is a statistical procedure that involves correlating test items with each other; a score of .70 is considered acceptable, but the higher the score the better the evidence that items in the instrument are measuring the same construct (Nunnally, 1978; Nunnally & Bernstein, 1994).

Data Collection

Of particular difficulty in entrepreneurial investigations is the collection of data from practicing entrepreneurs. Therefore, the survey was distributed via a networking project conducted in an introductory Entrepreneurship course. While students in the course are working on business plans for hypothetical new ventures they have the opportunity to interview practicing entrepreneurs to get a better understanding of experiences in the field. The entrepreneurs are then asked to complete the survey and the students are introduced to research methods in the classroom.
Participants

The sample drawn from the target population consisted of entrepreneurs from multiple firms located across the United States. All entrepreneurs are either firm founders or owners participating in the daily operations of the business. The study of entrepreneurs located throughout the United States and in various businesses aligns with the purpose of this study, an investigation on the role of emotional intelligence in entrepreneurial success.

Procedures

Data for this investigation was collected via the use of a survey. The survey approach was appropriate for this study because the nature of the constructs presented in the theoretical model. Entrepreneurs participating in the study provided contact information and consent to participate in the study. The primary investigator followed up with a random sample of the participating entrepreneurs to ensure the sample population. The returned surveys were checked for accuracy and any necessary modifications were submitted to the IRB for final approval. Data was then entered into SPSS and statistically analyzed for the reporting of the pilot study results.

Construct Measures

The items used in the development of the questionnaire are based upon theoretically derived, previously validated instruments. The survey was approved by the IRB with all rules governing the use of human subjects in research. The survey was pre-tested with a sample of 307 entrepreneurs participating in a pilot study of the instrument.

The primary independent variable in the research model (Figure 2) was emotional intelligence. The primary dependent variable was entrepreneurial success, which was further
broken down into financial firm success, relative firm success, and personal success. The mediating variables consisted of individual competence (managerial and entrepreneurial), venture organizational tasks (interpersonal), as well as dynamism and munificence. The measures for each of these variables are described in detail in the next section.

**Independent Variable: Emotional Intelligence**

The independent variable under investigation in this study is emotional intelligence. Because there are several approaches to the theoretical framework of EI, previous researchers have provided several validated measures of ability-based emotional intelligence and mixed model emotional intelligence (see chapters 1 and 2). The remainder of this dissertation employs ability-based measures of emotional intelligence.

Law, Wong and Song (2004) provided empirical evidence in support of self-report measures of emotional intelligence. The authors further explain that self-report EI measures are reasonably valid if their development is based on the four dimensions proposed by Mayer and Salovey (1997). For this study, the Wong Law Emotional Intelligence Scale (WLEIS) was used to collect data on this construct.

**Wong Law Emotional Intelligence Scale (WLEIS)**

The Wong Law Emotional Intelligence Scale (WLEIS) is a validated questionnaire which measures 16 items that belong to the four major emotional intelligence dimensions (Wong & Law, 2002); namely, identifying, facilitating, understanding, and regulating emotions (Mayer & Salovey 1997). This scale was chosen for several reasons. First, it assesses both overall emotional intelligence as well as the four specific emotional intelligence branches identified by Mayer and Salovey’s (1997) model. Second, the Wong Law Emotional Intelligence Scale (WLEIS)
is the most widely used and supported self-report measure of EI (e.g., Mayer et al., 2000). Furthermore, the WLEIS was developed specifically for organizational research purposes.

Reliability of the WLEIS is high, with coefficient alphas for each of the four branches (identifying, facilitating, understanding, and regulating) at 0.89, 0.88, 0.76, and 0.85, respectively (Wong & Law, 2002). Each of the four dimensions contains four items. A sample item from the identifying emotions dimension is: *I really understand what I feel*; and from the regulation of emotions dimension: *I am able to control my temper and handle difficulties rationally*. The response format was a 7-point Likert-type scale with anchors at 1 (*strongly disagree*) and 7 (*strongly agree*).

**Dependent Variables: Entrepreneurial Success**

The dependent variables in this study are financial entrepreneurial firm success, relative entrepreneurial firm success, and personal entrepreneurial success. Validated items from previous research studies were used for each of these variables (e.g., Chandler & Hanks, 1993; Zahra et al., 2002). Several challenges exist when assessing new venture performance or success. New venture performance is a complex and multidimensional construct that is tough to measure (Brush & VanderWerf, 1992; Chandler & Hanks, 1993, 1994; Zahra et al., 2002). For instance, new ventures are usually private organizations with no obligation to disclose performance information; therefore, traditional measures of financial performance are often unavailable (e.g., Chandler & Hanks, 1993; Sandberg, 1986), or business owners are unwilling to share this information with outsiders (e.g., Dess & Robinson, 1984). Other research studies have concluded that some traditional measures are not appropriate when studying entrepreneurial ventures because of enormous and erratic growth rates, or small starting
capital (e.g., Walsh and White, 1981). Thus, conventional financial measures of performance (e.g., ROI and ROA) may also have inherent challenges. Additionally, objective measures such as survival or breakeven points are often difficult because of the need for a longitudinal sample design. Thus, the use of multiple indicators to gauge performance is recommended (e.g., Sandberg, 1986; Zahra et al., 2002).

Chandler and Hanks (1993) recognize the inherent challenges in entrepreneurial research and identify the three most common approaches to estimating entrepreneurial performance when only self-reported data is available. They are (1) measuring financial firm performance in broad categories; (2) using subjective measures of firm performance in relation to competitors; and (3) subjective measures of owner satisfaction with the firm's performance (Chandler & Hanks, 1993).

*Financial Entrepreneurial Firm Success*

Items measuring financial entrepreneurial firm success were adopted from Chandler and Hanks (1993). Previous researchers have suggested that information on performance from privately held entrepreneurial firms is more easily obtained when requested in broad categories (e.g., Begley & Boyd, 1987; Chandler & Hanks, 1993; Chandler & Jansen, 1992). While measurement precision is sacrificed, to some degree, it does overcome many of the challenges associated with the unwillingness to disclose financial information.

Financial entrepreneurial firm success is measured in broad categories of growth and business volume. The three items used to measure growth include the following: (1) perceived growth in market share; (2) change in cash flow; and (3) sales growth. The three items used to measure business volume include (1) earnings, (2) sales, and (3) net worth (Chandler & Hanks,
The evaluation of psychometric properties from previous investigations indicates that these scales are valid and reliable for research involving financial entrepreneurial firm success (e.g., Chandler & Hanks, 1993). Chandler and Hanks (1993) used confirmatory factor analysis and all coefficient alphas met or exceeded the .70 recommended for research purposes (Nunnally & Bernstein, 1994). Specifically, the coefficient alpha for the growth scale was .72, and .81 was the coefficient alpha for the business volume scale.

**Relative Entrepreneurial Firm Success**

Entrepreneurial firm success can be measured objectively or subjectively; several previous studies have used subjective data to capture a company's performance (e.g., Covin & Slevin, 1990; Dess & Robinson, 1984; Zahra et al., 2002). Porter (1980) contends that competitors are aware of the performance of other firms within their industries; and Brush and Vanderwerf (1992) substantiate this claim in the entrepreneurial realm by providing evidence that competitors are indeed aware of the performance indicators of new ventures within their industries. Researchers have asked entrepreneurs to subjectively evaluate the performance of their companies relative to other competitors in the industry that are at or near the same age and stage of development (e.g., Abeele & Christiaens, 1986; Chandler & Hanks, 1993; Dess & Robinson, 1984; Gupta & Govindarajan, 1984; Sapienza et al., 1988).

For this study respondents were asked to use a seven-point Likert-type scale, with anchors at *substantially lower* and *substantially higher* to subjectively compare their firm's performance to their closest competitor (same industry) that was at or near the same age and stage of development as their firm (Chandler and Hanks, 1993). The eight items included the following: (1) sales growth, (2) return on sales, (3) cash flow, (4) return on investment, (5) net
profits, (6) return on assets, (7) growth in market share, and (8) growth in net worth of the company. Previous research conducted by Chandler and Hanks (1993) found that all items in the performance relative to competitors scale loaded on the same factor and had a coefficient alpha of .93; thus, there was a high level of internal consistency and it was appropriate to combine the items forming a single scale measuring performance relative to competitors.

**Personal Entrepreneurial Success**

Subjective performance measures are useful when objective data is difficult to obtain (Dess & Robinson, 1984) and may provide some insights into perceptions of satisfaction with company performance (e.g., Bantel, 1998; Covin & Slevin, 1990; Zahra et al., 2002). To operationalize personal entrepreneurial success respondents were asked to assess several dimensions of satisfaction, on a Likert-type scale, as outlined by Cooper and Artz (1995). Two of the items assessed the entrepreneurs' satisfaction with their firm's sales and with their profits, or with specific performance areas. A third item asked the responding entrepreneur to assess their overall personal satisfaction with their venture. The fourth item assessed the entrepreneurs' willingness to start the same business again, which also targets the overall satisfaction. Cooper and Artz (1995) conducted a factor analysis and found the four items represented one underlying factor. Thus, validated items from previous research studies were used to measure personal entrepreneurial success. The Cronbach's alpha in Cooper and Artz (1997) investigation was .78, indicating an acceptable level of internal consistency.

**Mediating Variables**

Individual competence is addressed by measuring managerial and entrepreneurial competencies. Venture tasks are assessed by measuring the amount of time each
entrepreneur spends on various interpersonal activities; and environmental mediators include the assessment of munificence and dynamism. Validated items from previous research studies were used to measure the mediating variables, and their detailed descriptions are provided below.

**Individual Competence**

Individual competencies were assessed using measures developed by Chandler and Jansen (1992), which provided evidence that self-assessments of managerial and entrepreneurial competencies were significantly related to performance of the firm. Empirical support for the strong positive relationships between perceived competencies and actual competencies was provided by Gist (1987); as well as the performance appraisal literature, which has identified self-ratings of competence and performance to be useful and valid (e.g., Latham & Wexley, 1981). Chandler and Jansen (1992) provided evidence of the discriminant, convergent, and external validity for the individual competence scales used in this study, which are discussed in greater depth in the following sections. The two individual competencies (managerial and entrepreneurial) have been identified in previous research as necessary in selecting opportunities and allocating/using resources (Chandler & Hanks, 1994).

*Managerial competence.* Managerial competence was measured using the following six-item scale developed by Chandler and Jansen (1992): (1) I make resource allocation decisions that achieve maximum results; (2) One of my greatest strengths is achieving results by organizing and motivating people; (3) One of my greatest strengths is organizing resources and coordinating tasks; (4) One of my greatest strengths is my ability to supervise, influence, and lead people; (5) One of my greatest strengths is my ability to delegate effectively; and 6) One of
my greatest strengths is my ability to keep this organization running smoothly. Cronbach’s alpha for this scale was 0.84, indicating acceptable internal consistency. Respondents were asked to respond to the six items on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Entrepreneurial competence. Entrepreneurial competence was also measured using a six-item scale developed by Chandler and Jansen (1992). The items consisted of the following: (1) I accurately perceive unmet consumer needs; (2) I spend considerable time and energy looking for products or services that will provide real benefits to my customers; (3) One of my greatest strengths is identifying goods and services people want; (4) One of my greatest strengths is my ability to seize high-quality opportunities; (5) I have an extremely strong internal drive to see this venture through to fruition; (6) One of my greatest strengths is my ability to develop goods and services that are technically superior. The coefficient alpha for this scale is 0.70, which also indicates acceptable internal consistency. Again, the entrepreneurs responded to the six items on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Venture Organizational Tasks

Because activities performed in the entrepreneurial role involve highly interpersonal activities (e.g., negotiating and obtaining financing) venture organizational tasks are assessed as a potential mediator in this study. Furthermore, empirical evidence has provided support that interpersonal activities affect business performance (e.g., Watson, Ponthieu & Critelli, 1995; Watson, Stewart & BarNir, 2003; Watson, Cooper, Pavur & Torres, 2011). Thus, interpersonal tasks are assessed using the scale developed by Watson, Stewart, and BarNir (2003).
Interpersonal activities. The scale developed by Watson and colleagues (2003) was used to measure small businesses, and is comprised of ten items that represent two dimensions (i.e., relational activities and task activities). Relational activities consist of five items which include coordinating interaction, demonstrating flexibility, openly sharing information, being cooperative, and focusing on common goals. The authors report a Cronbach’s alpha for the five items (in the United States) at 0.80. The task activities also consisted of five items including goal setting, improvement procedures, problem-solving efficiency, quality standards, and effective leadership functions. Cronbach’s alpha for the five task activities was 0.82 (in the United States). Anchors for the 7-point Likert-type scale ranged from 1 (not very often, if at all) to 7 (extremely often).

Environmental Factors

Due to the implications of measuring privately held entrepreneurial firms in multiple industries, subjective assessments were necessary (Chandler & Hanks, 1994) for measuring munificence and dynamism. Typical measures such as the stock price-earnings ratio (Castrogiovanni, 1991) are not available because the entrepreneurial ventures are privately held, not publically traded. Thus, it is evident that finding suitable objective measures of the environment can be difficult in this entrepreneurial context (Chandler & Hanks 1994). Previous researchers have provided support for subjectively measuring the task environment (e.g., Castrogiovanni, 1991). Researchers assert that the task environment can be subjectively measured via expert knowledge (e.g., Weick, 1969), and that the perceptions of business founders or managers (experts) can serve as indicators of these environmental variables (Chandler & Hanks, 1994).
Munificence. Munificence is the availability of financial, physical, human, and technological resources used to help firms achieve their goals (Hofer & Schendel, 1978); thus, respondents were asked to assess 18 items based on whether accessibility to the resources placed their firm at an advantage or disadvantage. For example, one item lists the following resource: *expertise in customer relations*. Respondents are asked to respond to each item on a Likert-type scale from 1 (*great disadvantage*) to 7 (*great advantage*). The Cronbach’s alpha for the 18 items was 0.86 (Chandler & Hanks, 1994).

Dynamism. Previous research (e.g., Dess & Beard, 1984; Miller & Friesen, 1983) has operationalized dynamism in various ways, as little consensus has transpired around a single measure. For this study dynamism was operationalized using the scale developed by Paswan, Dant and Lumpkin (1998). The environmental dynamism scale consists of three subdimensions; namely industry, competition, and consumer. Industry dynamism consisted of the following three items: (1) changes in mix of products/services carried in the industry are; (2) changes in sales strategies in the industry are; and (3) changes in sales promotion/advertising strategies in the industry are. Competition dynamism consisted of three items as well, including: (1) changes in competitor’s mix of products/services are; (2) changes in competitor’s sales strategies are; and (3) changes in competitor’s sales promotion/advertising strategies are. Finally, consumer dynamism consisted of (1) changes in consumer preferences in product/service features are; (2) changes in consumer preferences in loyalty are; and (3) changes in consumer preferences in product quality/price are. Anchors for this 7 point Likert-type scale ranged from 1 (*very infrequent*) to 7 (*very frequent*). The reliability for industry
dynamism was 0.80, for competition dynamism 0.87, and for consumer dynamism 0.72, all indicating acceptable reliabilities.

Pilot Study

A pilot study was conducted in Spring 2011. Data collected from the pilot study sample was used to make adjustments to the final survey before conducting the main study. The following sections outline the pilot study.

Survey Process and Response Rate

As previously discussed, the data used in this study came from surveys completed by entrepreneurs currently involved in the daily operations of their businesses. Students participating in the networking project assigned in the introductory Entrepreneurship course conducted 346 interviews with practicing entrepreneurs; thus, the original sample consisted of 346 potential respondents. Of the 346 entrepreneurs 307 chose to participate in the survey in its entirety. Thus, the resulting response rate was approximately 88.7%.

Characteristics of the Pilot Study Sample

Several items were used to measure the descriptive characteristics of the sample. Items included age, gender, ethnicity, contact information, position in the firm, participation in the daily operations, number of other business owned, number of years as an entrepreneur, years of work experience, years of managerial experience, functional areas of work experience, highest level of education obtained, primary area of post high-school education, city and state of business operation, years in operation, number of full-time employees, partners in the business, relationship of partners in the business, purpose for establishing the business, and if a written plan for the business exists. Table 3, provided below, is an overview of the descriptive
characteristics of the sample in order to provide a better understanding the demographic and background information of the respondents. As depicted, ages ranged from to 19 to 72 in the pilot study sample. Nearly 32% of the sample was women, and 68% men. The ethnicity demographic included 128 Hispanic entrepreneurs (41.7%), 112 Caucasian entrepreneurs (36.5%), 33 African Americans (10.7%), 14 Asian entrepreneurs (4.6%) and 19 that classified themselves in the Other category (6.2%). With regard to education, 27% of the respondents earned a high school diploma as their highest form of education, 6.8% earned Vocational degrees, 10.1% earned an Associate's degree, 40.4% earned a Bachelor's degree, 11.1% achieved an education at the Master’s degree level, and 3.6% earned a Doctorate.

Table 3

| Demographic Characteristics of the Pilot Study Sample |
|----------------|----------------|
| **Demographics** | **N** | **%** |
| Gender | | |
| Male | 210 | 68.4 |
| Female | 97 | 31.6 |
| Ethnicity | | |
| Caucasian | 112 | 36.5 |
| African American | 33 | 10.7 |
| Hispanic | 128 | 41.7 |
| Asian | 14 | 4.6 |
| Other | 19 | 6.2 |
| Age | | |
| 19-25 | 34 | 11.2 |
| 26-35 | 59 | 19.4 |
| 36-45 | 63 | 20.7 |
| 46-55 | 99 | 32.5 |
| 56-65 | 41 | 13.5 |
| 66-75 | 8 | 26.3 |

*table continues*
Table 3 (continued).

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Diploma</td>
<td>84</td>
<td>27.0</td>
</tr>
<tr>
<td>Vocational/Technical School</td>
<td>21</td>
<td>6.8</td>
</tr>
<tr>
<td>Associate’s Degree</td>
<td>31</td>
<td>10.1</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>124</td>
<td>40.4</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>34</td>
<td>11.1</td>
</tr>
<tr>
<td>Doctorate</td>
<td>11</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Analytical Procedures

Descriptive statistics and psychometric properties of the data were analyzed prior to evaluating the relationships among the variables. Factor structures of the existing scales used in this study are well established in the literature and the measures have been regarded as valid and reliable. Bivariate correlations were then analyzed to assess the convergent and discriminant validity of the constructs. Finally, regression analysis was used to test the hypotheses in order to determine whether emotional intelligence influences financial entrepreneurial firm success, relative entrepreneurial firm success, and personal entrepreneurial success; and to what extent the relationships are mediated by managerial competence, entrepreneurial competence, interpersonal activities, munificence, and dynamism.

Descriptive Statistics

Table 4 provides the means, standard deviations, and correlations for all of the primary variables of this investigation. The correlations provided are Pearson product-moment correlation coefficients via the use of interval data. Significant correlations exist between all of the variables at the 0.01 level (2-tailed), except the correlation between interpersonal activities
and relative entrepreneurial success, as well as the correlation between emotional intelligence and relative entrepreneurial success, which are both significant at the 0.05 level (2-tailed).

Table 4

**Pilot Study Descriptive Statistics**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Std Dev</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EI</td>
<td>5.74</td>
<td>0.81</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>2. Financial Success</td>
<td>5.23</td>
<td>1.21</td>
<td>.482**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Relative Success</td>
<td>4.95</td>
<td>1.4</td>
<td>.114*</td>
<td>.388**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Personal Success</td>
<td>4.5</td>
<td>1.26</td>
<td>.378**</td>
<td>.963**</td>
<td>.370**</td>
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<td>5. Man. Competence</td>
<td>5.85</td>
<td>1.02</td>
<td>.668**</td>
<td>.431**</td>
<td>.162**</td>
<td>.322**</td>
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<td>6. Ent. Competence</td>
<td>5.75</td>
<td>0.93</td>
<td>.634**</td>
<td>.530**</td>
<td>.196**</td>
<td>.421**</td>
<td>.712**</td>
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<td>7. Interpersonal</td>
<td>5.67</td>
<td>1.02</td>
<td>.409**</td>
<td>.400**</td>
<td>.115*</td>
<td>.338**</td>
<td>.476**</td>
<td>.448**</td>
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<td>8. Munificence</td>
<td>5.35</td>
<td>1.02</td>
<td>.436**</td>
<td>.400**</td>
<td>.223**</td>
<td>.335**</td>
<td>.484**</td>
<td>.505**</td>
<td>.350**</td>
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<td>9. Dynamism</td>
<td>5.95</td>
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<td>.339**</td>
<td>.148**</td>
<td>.266**</td>
<td>.426**</td>
<td>.474**</td>
<td>.630**</td>
<td>.390**</td>
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</tr>
</tbody>
</table>

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

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

**Reliability Coefficients**

Reliability coefficients for the measures are within acceptable limits, as described by Nunally and Bernstein (1994). Table 5 lists the reliability coefficients from previous studies and from this study. As depicted below, the measures demonstrate consistent reliability across the previous studies and this dissertation.

Table 5

**Pilot Study Reliability Coefficients**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Previous α</th>
<th>Current α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
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<td></td>
</tr>
<tr>
<td>Identify</td>
<td>0.89</td>
<td>0.91</td>
</tr>
<tr>
<td>Facilitate</td>
<td>0.88</td>
<td>0.87</td>
</tr>
<tr>
<td>Understand</td>
<td>0.76</td>
<td>0.74</td>
</tr>
<tr>
<td>Regulate</td>
<td>0.85</td>
<td>0.71</td>
</tr>
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</table>

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

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

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Table 5 (continued).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Previous α</th>
<th>Current α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Success Growth</td>
<td>0.72</td>
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<tr>
<td>Business Volume</td>
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</tr>
<tr>
<td>Relative Success</td>
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<tr>
<td>Personal Success</td>
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<td>Managerial Competence</td>
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<td>Entrepreneurial Competence</td>
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<td>0.86</td>
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<td>Interpersonal</td>
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<tr>
<td>Relational</td>
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<td>0.78</td>
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<tr>
<td>Task</td>
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<td>Munificence</td>
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<td>Dynamism</td>
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<tr>
<td>Industry</td>
<td>0.76</td>
<td>0.81</td>
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<tr>
<td>Competition</td>
<td>0.79</td>
<td>0.91</td>
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<tr>
<td>Consumer</td>
<td>0.80</td>
<td>0.82</td>
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</table>

Hypothesis Testing

Direct Relationships

Hypotheses 1a through 1c address the relationship between emotional intelligence and entrepreneurial success, namely financial, relative, and personal success. Hypothesis 1a proposed that emotional intelligence was positively related to financial entrepreneurial firm success. As depicted in table 4, emotional intelligence correlated positively with financial entrepreneurial firm success ($r = .482, p < .01$). A simple regression analysis was conducted providing evidence of support for Hypothesis 1a, the relationship between emotional intelligence and financial entrepreneurial firm success ($F[1, 305] = 92.071, R^2 = .232, p < .01$). Thus, Hypothesis 1a was supported.

Hypothesis 1b states that emotional intelligence is positively related to relative entrepreneurial firm success. Emotional intelligence correlated positively with relative
entrepreneurial success \((r = .114, p < .05)\). Support for Hypothesis 1b was also provided from a simple regression analysis of the relationship between EI and relative entrepreneurial firm success \(F[1, 305] = 4.009, R^2 = .013, p < .05\). Thus, Hypothesis 1b was supported.

Hypothesis 1c proposes that emotional intelligence is directly related to personal entrepreneurial success, and table 4 depicts a positive correlation \((r = .378, p < .01)\). A simple regression provided support for Hypothesis 1c, emotional intelligence positively predicted personal entrepreneurial success \(F[1, 305] = 50.690, R^2 = .143, p < .01\). Thus, Hypothesis 1c was supported.

**Indirect Relationships: Mediation**

As previously discussed, a mediator is a third variable that intervenes between the independent and dependent variables (Hair et al., 2006). A mediator accounts for the relationship (fully or partially) between the independent variable (emotional intelligence) and dependent variable (entrepreneurial success). Theoretically, a mediator facilitates the relationship between the other two variables (Hair et al., 2006). According to Baron and Kenny (1986), four conditions should be met for evidence of mediation. Figure 3 provides a visual depiction of the steps, analysis, and equations. First, the independent variable of interest (emotional intelligence) should account for significant variance in the dependent variable (entrepreneurial success). Second, the independent variable must be significantly related to the proposed mediators (managerial competence, entrepreneurial competence, interpersonal activities, munificence, and dynamism). Third, the independent variable should account for significant variance in the dependent variable. If significant relationships exist in steps 1 through 3, then it is necessary to proceed to step 4; in step 4 multiple regression analysis is run.
with the independent variable and the mediator predicting the dependent variable. Some form of mediation is supported if the effect of the mediator on the dependent variable remains significant after controlling for the independent variable. If both the independent variable and the mediating variable still significantly predict the dependent variable then partial mediation is supported. If the independent variable is no longer significant when the mediator is controlled then findings support full mediation (Hair et al., 2006).

<table>
<thead>
<tr>
<th>Testing for Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image.png" alt="Diagram" /></td>
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</table>

<table>
<thead>
<tr>
<th>1</th>
<th>Simple Regression analysis X predicting Y to test path h</th>
<th>[ Y = B_0 + B_1X + e ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Simple Regression analysis X predicting M to test path f</td>
<td>[ M = B_0 + B_1X + e ]</td>
</tr>
<tr>
<td>3</td>
<td>Simple Regression analysis M predicting Y to test significance of path g</td>
<td>[ Y = B_0 + B_2M + e ]</td>
</tr>
<tr>
<td>4</td>
<td>Multiple regression analysis X and M predicting Y</td>
<td>[ Y = B_0 + B_1X + B_2M + e ]</td>
</tr>
</tbody>
</table>

**Figure 3.** Baron and Kenny’s (1986) steps in testing for mediation.

*Managerial competence.* To determine whether managerial competence was a mediator of entrepreneurial success predicted by emotional intelligence, Baron and Kenny’s (1986) four step regression analysis procedure was used. First, a simple regression analysis was run with emotional intelligence (X) predicting financial entrepreneurial success (Y) to test for a
direct effect. The regression analysis demonstrated that emotional intelligence explained a significant amount of variance in financial entrepreneurial firm success \( (R^2 = .232, F[1, 305] = 92.07, B = .717, t = 9.60, p < .01) \) and in managerial competence \( (R^2 = .447, F[1, 305] = 246.31, B = .763, t = 15.69, p < .01) \). Hence, the first and second conditions for mediation were supported. For the third requirement of mediation, managerial competence must be related to financial entrepreneurial firm success, and results indicate that this condition was also met \( (R^2 = .186, F[1, 305] = 69.479, B = .562, t = 8.335, p < .01) \). For full mediation to exist, the predictor variable (EI) should have no effect when the mediator (managerial competence) is controlled, this was not the case, indicating only partial mediation \( (R^2 = .253, F[2, 304] = 51.563, B = .257, t = 2.954, p < .01) \). Mediation tests were then run to determine that 20.67% of the total effect between EI and financial entrepreneurial firm success is mediated by managerial competence. Thus, Hypothesis 2a is supported.

Steps 1-4 were repeated to analyze relative entrepreneurial success. A simple regression analysis demonstrated that emotional intelligence (X) predicted relative entrepreneurial success (Y) providing support for EI explaining a significant amount of variance in relative entrepreneurial firm success \( (R^2 = .013, F[1, 305] = 4.009, B = .177, t = 2.002, p < .05) \). Second, emotional intelligence was found to be significantly related to managerial competence \( (R^2 = .447, F[1, 305] = 246.31, B = .763, t = 15.69, p < .01) \). Third, managerial competence was also significantly related to relative entrepreneurial firm success \( (R^2 = .026, F[1, 305] = 8.258, B = .221, t = 2.874, p < .01) \). In step 4, relative entrepreneurial success is regressed on managerial competence and emotional intelligence \( (R^2 = .026, F[2, 304] = 4.124, B = .212, t = 2.049, p < .05) \). Because the relationship between emotional intelligence (IV) and relative entrepreneurial
success (DV) is no longer significant when managerial competence (mediator) is controlled, findings support full mediation. Thus, Hypothesis 2b is supported.

The analyses were then repeated to analyze personal entrepreneurial success. Emotional intelligence was significantly related to personal entrepreneurial success ($R^2 = .143$, $F[1, 305] = 50.690$, $B = .648$, $t = 7.120$, $p < .01$) and managerial competence ($R^2 = .447$, $F[1, 305] = 246.31$, $B = .763$, $t = 15.69$, $p < .01$). Managerial competence was also found to be significantly related to personal entrepreneurial success ($R^2 = .103$, $F[1, 305] = 35.177$, $B = .483$, $t = 5.931$, $p < .01$), thus meeting the first three requirements of Baron and Kenny’s (1986) regression analysis procedures for mediation. In step 4 the analysis of emotional intelligence and managerial competence predicting personal entrepreneurial success provides support for partial mediation at the 0.10 level ($R^2 = .151$, $F[2, 304] = 27.072$, $B = .188$, $t = 1.762$, $p < .10$). Mediation tests indicated that 22.16% of the total effect between EI and personal entrepreneurial success is mediated by managerial competence. Thus, Hypothesis 2c is marginally supported.

Entrepreneurial competence. As previously stated, emotional intelligence explains a significant amount of variance in financial entrepreneurial firm success ($R^2 = .232$, $F[1, 305] = 92.07$, $B = .717$, $t = 9.60$, $p < .01$). Emotional intelligence also explains a significant amount of variance in entrepreneurial competence ($R^2 = .402$, $F[1, 305] = 204.896$, $B = .794$, $t = 14.314$, $p < .01$); hence, the first two requirements of mediation have been met. Next, entrepreneurial competence was found to explain a significant amount of variance in financial entrepreneurial firm success ($R^2 = .281$, $F[1, 305] = 119.389$, $B = .631$, $t = 10.927$, $p < .01$). Partial mediation was supported when financial entrepreneurial success was regressed on emotional intelligence and
entrepreneurial competence ($R^2 = .563, F[2, 304] = 70.424, B = .448, t = 6.140, p < .01$).

Mediation tests were then run to determine that 49.55% of the total effect between EI and financial entrepreneurial firm success is mediated by entrepreneurial competence. Thus, Hypothesis 3a is supported.

Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success ($R^2 = .013, F[1, 305] = 4.009, B = .177, t = 2.002, p < .05$), and in entrepreneurial competence ($R^2 = .402, F[1, 305] = 204.896, B = .794, t = 14.314, p < .01$). Entrepreneurial competence also explains a significant amount of variance in relative entrepreneurial success ($R^2 = .039, F[1, 305] = 12.223, B = .244, t = 3.496, p < .01$). Full mediation was supported because the relationship between emotional intelligence and relative entrepreneurial success was no longer significant when entrepreneurial competence was controlled ($R^2 = .039, F[2, 304] = 6.122, B = .257, t = 2.853, p < .01$). Thus, Hypothesis 3b is supported.

Again, emotional intelligence was significantly related to personal entrepreneurial success ($R^2 = .143, F[1, 305] = 50.690, B = .648, t = 7.120, p < .01$) and entrepreneurial competence ($R^2 = .402, F[1, 305] = 204.896, B = .794, t = 14.314, p < .01$). Entrepreneurial competence is also significantly related to personal entrepreneurial success ($R^2 = .178, F[1, 305] = 65.864, B = .578, t = 8.116, p < .01$), thus meeting the first three requirements. The analysis of emotional intelligence and entrepreneurial competence predicting personal entrepreneurial success provides support for partial mediation ($R^2 = .198, F[2, 304] = 37.517, B = .417, t = 4.584, p < .01$). Mediation tests indicated that 51.12% of the total effect between EI and personal
entrepreneurial success is mediated by entrepreneurial competence. Thus, Hypothesis 3c is supported.

**Interpersonal activities.** Emotional intelligence explains a significant amount of variance in financial entrepreneurial firm success ($R^2 = .232, F[1, 305] = 92.07, B = .717, t = 9.60, p < .01$) and interpersonal activities ($R^2 = .167, F[1, 305] = 61.328, B = .511, t = 7.831, p < .01$).

Interpersonal activities was found to explain a significant amount of variance in financial entrepreneurial firm success ($R^2 = .160, F[1, 305] = 57.950, B = .476, t = 7.612, p < .01$). Partial mediation was supported when financial entrepreneurial success was regressed on emotional intelligence and interpersonal activities ($R^2 = .281, F[2, 304] = 59.450, B = .290, t = 4.565, p < .01$). Mediation tests were then run to determine that 20.67% of the total effect between EI and financial entrepreneurial firm success is mediated by interpersonal activities. Thus, Hypothesis 4a is supported.

Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success ($R^2 = .013, F[1, 305] = 4.009, B = .177, t = 2.002, p < .05$), and in interpersonal activities ($R^2 = .167, F[1, 305] = 61.328, B = .511, t = 7.831, p < .01$). Interpersonal activities also explain a significant amount of variance in relative entrepreneurial success ($R^2 = .013, F[1, 305] = 4.058, B = .143, t = 2.014, p < .05$). In step 4 the results of the regression were no longer significant when emotional intelligence and interpersonal activities were regressed on relative entrepreneurial success ($R^2 = .019, F[2, 304] = 2.869, B = .082, t = 1.311, p = .191$). Thus, Hypothesis 4b is not supported.

Again, emotional intelligence was significantly related to personal entrepreneurial success ($R^2 = .143, F[1, 305] = 50.690, B = .648, t = 7.120, p < .01$) and interpersonal activities ($R^2
Interpersonal activities was also significantly related to personal entrepreneurial success ($R^2 = .114$, $F[1, 305] = 39.361$, $B = .465$, $t = 6.274$, $p < .01$), thus meeting the first three requirements. The analysis of emotional intelligence and interpersonal activities predicting personal entrepreneurial success provides support for partial mediation ($R^2 = .183$, $F[2, 304] = 34.049$, $B = .303$, $t = 3.882$, $p < .01$). Mediation tests indicated that 23.90% of the total effect between EI and personal entrepreneurial success is mediated by interpersonal activities. Thus, Hypothesis 4c is supported.

**Munificence.** Emotional intelligence explains a significant amount of variance in financial entrepreneurial firm success ($R^2 = .232$, $F[1, 305] = 92.07$, $B = .717$, $t = 9.60$, $p < .01$) and munificence ($R^2 = .190$, $F[1, 305] = 71.400$, $B = .545$, $t = 8.450$, $p < .01$). Munificence was found to explain a significant amount of variance in financial entrepreneurial firm success ($R^2 = .160$, $F[1, 305] = 58.001$, $B = .476$, $t = 7.616$, $p < .01$). Partial mediation was supported when financial entrepreneurial success was regressed on emotional intelligence and munificence ($R^2 = .276$, $F[2, 304] = 58.069$, $B = .279$, $t = 4.326$, $p < .01$). Mediation tests were then run to determine that 21.21% of the total effect between EI and financial entrepreneurial firm success is mediated by munificence. Thus, Hypothesis 5a is supported.

Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success ($R^2 = .013$, $F[1, 305] = 4.009$, $B = .177$, $t = 2.002$, $p < .05$), and in munificence ($R^2 = .190$, $F[1, 305] = 71.400$, $B = .545$, $t = 8.450$, $p < .01$). Munificence also explains a significant amount of variance in relative entrepreneurial success ($R^2 = .050$, $F[1, 305] = 15.965$, $B = .277$, $t = 3.996$, $p < .01$). Partial mediation was supported
when relative entrepreneurial success was regressed on emotional intelligence and munificence \( (R^2 = .050, F[2, 304] = 8.015, B = .266, t = 3.446, p < .01) \). Mediation tests were run to determine that 81.83% of the total effect between EI and relative entrepreneurial success is mediated by munificence. Thus, Hypothesis 5b is supported.

Again, emotional intelligence was significantly related to personal entrepreneurial success \( (R^2 = .143, F[1, 305] = 50.690, B = .648, t = 7.120, p < .01) \), and munificence \( (R^2 = .190, F[1, 305] = 71.400, B = .545, t = 8.450, p < .01) \). Munificence was also significantly related to personal entrepreneurial success \( (R^2 = .112, F[1, 305] = 38.618, B = .460, t = 6.214, p < .01) \), thus meeting the first three requirements. The analysis of emotional intelligence and munificence predicting personal entrepreneurial success provides support for partial mediation \( (R^2 = .179, F[2, 304] = 33.032, B = .289, t = 3.651, p < .01) \). Mediation tests indicated that 24.32% of the total effect between EI and personal entrepreneurial success is mediated by munificence. Thus, Hypothesis 5c is supported.

**Dynamism.** Emotional intelligence explains a significant amount of variance in financial entrepreneurial firm success \( (R^2 = .232, F[1, 305] = 92.07, B = .717, t = 9.60, p < .01) \) and dynamism \( (R^2 = .102, F[1, 305] = 34.491, B = .382, t = 5.873, p < .01) \). Dynamism was found to explain a significant amount of variance in financial entrepreneurial firm success \( (R^2 = .115, F[1, 305] = 39.506, B = .420, t = 6.285, p < .01) \). Partial mediation was supported when financial entrepreneurial success was regressed on emotional intelligence and dynamism \( (R^2 = .270, F[2, 304] = 56.229, B = .256, t = 3.986, p < .01) \). Mediation tests were then run to determine that 13.64% of the total effect between EI and financial entrepreneurial firm success is mediated by dynamism. Thus, Hypothesis 6a is supported.
Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success \( (R^2 = .013, F[1, 305] = 4.009, B = .177, t = 2.002, p < .05) \), and in dynamism \( (R^2 = .102, F[1, 305] = 34.491, B = .382, t = 5.873, p < .01) \). Dynamism also explains a significant amount of variance in relative entrepreneurial success \( (R^2 = .022, F[1, 305] = 6.854, B = .192, t = 2.618, p < .01) \). Partial mediation was supported when relative entrepreneurial success was regressed on emotional intelligence and dynamism \( (R^2 = .027, F[2, 304] = 4.206, B = .161, t = 2.088, p < .05) \). Mediation tests were run to determine that 34.87% of the total effect between EI and relative entrepreneurial success is mediated by dynamism. Thus, Hypothesis 6b is supported.

Again, emotional intelligence was significantly related to personal entrepreneurial success \( (R^2 = .143, F[1, 305] = 50.690, B = .648, t = 7.120, p < .01) \), and dynamism \( (R^2 = .102, F[1, 305] = 34.491, B = .382, t = 5.873, p < .01) \). Dynamism was also significantly related to personal entrepreneurial success \( (R^2 = .071, F[1, 305] = 23.134, B = .380, t = 4.810, p < .01) \), thus meeting the first three requirements. The analysis of emotional intelligence and dynamism predicting personal entrepreneurial success provides support for partial mediation \( (R^2 = .166, F[2, 304] = 30.249, B = .231, t = 2.925, p < .01) \). Mediation tests indicated that 13.65% of the total effect between EI and personal entrepreneurial success is mediated by dynamism. Thus, Hypothesis 6c is supported.

Results of the pilot study analysis are reported in the tables below. Table 6 depicts the results of each step of Baron and Kenny’s (1986) mediation analysis procedure. Table 7 displays a summary of the mediation statistics for the proposed relationships, and table 8 summarizes the hypotheses.
Table 6

_Pilot Study Baron and Kenny Mediation Analysis_

<table>
<thead>
<tr>
<th><strong>EI and Financial Success with Mediators</strong></th>
<th>R</th>
<th>R^2</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Success regressed on EI</td>
<td>0.482</td>
<td>0.232</td>
<td>0.000</td>
</tr>
<tr>
<td>Managerial Competence regressed on EI</td>
<td>0.668</td>
<td>0.447</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Success regressed on Man. Competence and EI</td>
<td>0.503</td>
<td>0.253</td>
<td>0.000</td>
</tr>
</tbody>
</table>

| Financial Success regressed on EI         | 0.482 | 0.232 | 0.000  |
| Entrepreneurial Comp regressed on EI      | 0.634 | 0.402 | 0.000  |
| Financial Success regressed on Ent. Competence and EI | 0.563 | 0.317 | 0.000  |

| Financial Success regressed on EI         | 0.482 | 0.232 | 0.000  |
| Interpersonal regressed on EI             | 0.409 | 0.167 | 0.000  |
| Financial Success regressed on Interpersonal and EI | 0.530 | 0.281 | 0.000  |

| Financial Success regressed on EI         | 0.482 | 0.232 | 0.000  |
| Munificence regressed on EI               | 0.436 | 0.190 | 0.000  |
| Financial Success regressed on Munificence and EI | 0.526 | 0.276 | 0.000  |

| Financial Success regressed on EI         | 0.482 | 0.232 | 0.000  |
| Dynamism regressed on EI                  | 0.319 | 0.102 | 0.000  |
| Financial Success regressed on Dynamism and EI | 0.520 | 0.270 | 0.000  |

<table>
<thead>
<tr>
<th><strong>EI and Relative Success with Mediators</strong></th>
<th>R</th>
<th>R^2</th>
<th>Prob&gt;F</th>
</tr>
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<tbody>
<tr>
<td>Relative Success regressed on EI</td>
<td>0.114</td>
<td>0.013</td>
<td>0.046</td>
</tr>
<tr>
<td>Managerial Competence regressed on EI</td>
<td>0.668</td>
<td>0.447</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on Man. Competence and EI</td>
<td>0.163</td>
<td>0.026</td>
<td>0.017</td>
</tr>
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</table>

| Relative Success regressed on EI          | 0.114 | 0.013 | 0.046  |
| Entrepreneurial Competence regressed on EI | 0.634 | 0.402 | 0.000  |
| Relative Success regressed on Ent. Competence and EI | 0.197 | 0.039 | 0.002  |

| Relative Success regressed on EI          | 0.114 | 0.013 | 0.046  |
| Interpersonal regressed on EI             | 0.409 | 0.167 | 0.000  |
| Relative Success regressed on Interpersonal and EI | 0.136 | 0.019 | 0.058  |

| Relative Success regressed on EI          | 0.114 | 0.013 | 0.046  |
| Munificence regressed on EI               | 0.436 | 0.190 | 0.000  |
| Relative Success regressed on Munificence and EI | 0.224 | 0.050 | 0.000  |

_table continues_
Table 6 (continued).

<table>
<thead>
<tr>
<th>Model Description</th>
<th>Sobel Z-test</th>
<th>p-value</th>
<th>Total Effect Mediated</th>
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<td>Relative Success regressed on EI</td>
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<td>0.013</td>
<td>0.046</td>
</tr>
<tr>
<td>Dynamism regressed on EI</td>
<td>0.319</td>
<td>0.102</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on Dynamism and EI</td>
<td>0.164</td>
<td>0.027</td>
<td>0.016</td>
</tr>
</tbody>
</table>

**EI and Personal Success with Mediators**

<table>
<thead>
<tr>
<th>Model Description</th>
<th>Sobel Z-test</th>
<th>p-value</th>
<th>Total Effect Mediated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.378</td>
<td>0.143</td>
<td>0.000</td>
</tr>
<tr>
<td>Managerial Competence regressed on EI</td>
<td>0.668</td>
<td>0.447</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Man. Competence and EI</td>
<td>0.389</td>
<td>0.151</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.378</td>
<td>0.143</td>
<td>0.000</td>
</tr>
<tr>
<td>Entrepreneurial Competence regressed on EI</td>
<td>0.634</td>
<td>0.402</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Ent. Competence and EI</td>
<td>0.445</td>
<td>0.198</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.378</td>
<td>0.143</td>
<td>0.000</td>
</tr>
<tr>
<td>Interpersonal regressed on EI</td>
<td>0.409</td>
<td>0.167</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Interpersonal and EI</td>
<td>0.428</td>
<td>0.183</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.378</td>
<td>0.143</td>
<td>0.000</td>
</tr>
<tr>
<td>Munificence regressed on EI</td>
<td>0.436</td>
<td>0.190</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Munificence and EI</td>
<td>0.423</td>
<td>0.179</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.378</td>
<td>0.143</td>
<td>0.000</td>
</tr>
<tr>
<td>Dynamism regressed on EI</td>
<td>0.319</td>
<td>0.102</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Dynamism and EI</td>
<td>0.407</td>
<td>0.166</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 7

**Pilot Study Mediation Statistics**

<table>
<thead>
<tr>
<th>Model Description</th>
<th>Sobel Z-test</th>
<th>p-value</th>
<th>Total Effect Mediated</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI→ Man. Competence → Financial Success</td>
<td>2.903</td>
<td>0.004</td>
<td>0.273</td>
</tr>
<tr>
<td>EI→ Ent. Competence → Financial Success</td>
<td>5.643</td>
<td>0.000</td>
<td>0.496</td>
</tr>
<tr>
<td>EI→ Interpersonal Tasks → Financial Success</td>
<td>3.944</td>
<td>0.000</td>
<td>0.207</td>
</tr>
<tr>
<td>EI→ Dynamism → Financial Success</td>
<td>3.298</td>
<td>0.001</td>
<td>0.136</td>
</tr>
<tr>
<td>EI→ Munificence → Financial Success</td>
<td>3.851</td>
<td>0.000</td>
<td>0.212</td>
</tr>
<tr>
<td>EI→ Man. Competence → Relative Success</td>
<td>2.031</td>
<td>0.042</td>
<td>0.915</td>
</tr>
<tr>
<td>EI→ Ent. Competence → Relative Success</td>
<td>2.798</td>
<td>0.005</td>
<td>1.155</td>
</tr>
<tr>
<td>EI→ Interpersonal Tasks → Relative Success</td>
<td>1.293</td>
<td>0.196</td>
<td>0.293</td>
</tr>
</tbody>
</table>

table continues
Table 7 (continued).

| EI ➔ Dynamism ➔ Relative Success | 1.967 | 0.049 | 0.349 |
| EI ➔ Munificence ➔ Relative Success | 3.191 | 0.001 | 0.818 |
| EI ➔ Man. Competence ➔ Personal Success | 1.751 | 0.080 | 0.222 |
| EI ➔ Ent. Competence ➔ Personal Success | 4.366 | 0.000 | 0.511 |
| EI ➔ Interpersonal Tasks ➔ Personal Success | 3.478 | 0.001 | 0.224 |
| EI ➔ Dynamism ➔ Personal Success | 2.618 | 0.009 | 0.136 |
| EI ➔ Munificence ➔ Personal Success | 3.351 | 0.008 | 0.243 |

Table 8

**Pilot Study Summary of Hypothesis Testing**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Support</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>S</td>
<td>.482 correlation significant at .01 level</td>
</tr>
<tr>
<td>1b</td>
<td>S</td>
<td>.114 correlation significant at .05 level</td>
</tr>
<tr>
<td>1c</td>
<td>S</td>
<td>.378 correlation significant at .01 level</td>
</tr>
<tr>
<td>2a</td>
<td>S</td>
<td>27.32% of total effect mediated</td>
</tr>
<tr>
<td>2b</td>
<td>S</td>
<td>91.47% of total effect mediated</td>
</tr>
<tr>
<td>2c</td>
<td>MS</td>
<td>22.16% of total effect mediated</td>
</tr>
<tr>
<td>3a</td>
<td>S</td>
<td>49.55% of total effect mediated</td>
</tr>
<tr>
<td>3b</td>
<td>S</td>
<td>100% of total effect mediated</td>
</tr>
<tr>
<td>3c</td>
<td>S</td>
<td>51.12% of total effect mediated</td>
</tr>
<tr>
<td>4a</td>
<td>S</td>
<td>20.67% of total effect mediated</td>
</tr>
<tr>
<td>4b</td>
<td>NS</td>
<td>insignificant indirect effects</td>
</tr>
<tr>
<td>4c</td>
<td>S</td>
<td>23.90% of total effect mediated</td>
</tr>
<tr>
<td>5a</td>
<td>S</td>
<td>21.21% of total effect mediated</td>
</tr>
<tr>
<td>5b</td>
<td>S</td>
<td>81.83% of total effect mediated</td>
</tr>
<tr>
<td>5c</td>
<td>S</td>
<td>24.32% of total effect mediated</td>
</tr>
<tr>
<td>6a</td>
<td>S</td>
<td>13.64% of total effect mediated</td>
</tr>
<tr>
<td>6b</td>
<td>S</td>
<td>34.87% of total effect mediated</td>
</tr>
<tr>
<td>6c</td>
<td>S</td>
<td>13.65% of total effect mediated</td>
</tr>
</tbody>
</table>

S = Support; NS = No Support; MS = Marginal Support

**Summary and Revisions to the Main Study**

A pilot study allows a researcher to address the potential hazards of a study before collecting and analyzing the main study data. Conducting a pilot study allowed me to assess the
distribution method and response rate of entrepreneurs for this study. The pilot study also provided me with the opportunity to assess potentially obscure items and analyze the power and sample size necessary for the main study. Finally, the ability to analyze the hypothesized relationships in the entrepreneurial setting provided insight into potential relationships and results.

Based on the pilot study data collection and analysis, three changes to the survey were made before conducting the main study. First, and foremost, definitions were provided for the financial entrepreneurial success measures. As previously discussed, 346 entrepreneurs were interviewed as part of the course networking assignment and 307 entrepreneurs completed the survey in its entirety. Of the 39 entrepreneurs who either chose not to take the survey at all, or skipped entire sections of the survey, 18 skipped the financial firm success questions. As recommended by previous entrepreneurial researchers (e.g., Begley & Boyd, 1987; Chandler & Hanks, 1993; Chandler & Jansen, 1992), financial success questions were asked in broad categories in order to minimize confidentiality concerns. Thus, a follow-up was conducted with the entrepreneurs who chose not to complete the financial success section. Of their responses, several said they were unclear about what questions like perceived growth in market share and net worth actually meant. It became evident that several entrepreneurs had skipped this section or items in this section because of a need for further clarification, not because of confidentiality concerns. Upon further reflection, less than 60% of the entrepreneurs in the pilot study had an education at a Bachelor’s Degree level or higher, which may represent the need for further clarification of these financial items. The remainder of the survey was
assessed for similar concerns, but the need for additional clarification of other constructs was not evident or warranted.

The second change that took place before conducting the main study was the addition of a demographic question. The pilot study survey asked the following three questions: 1) Have you started or owned ANOTHER business? (Yes/No); 2) How many OTHER businesses have you previously owned? (fill in the blank, numerical); and 3) How many OTHER businesses do you currently own? (fill in the blank, numerical). Upon reflection, asking the number of businesses owned and the number of businesses started are not the same question. It may be more important, in the entrepreneurial context, to address the number of other businesses an individual has started, as opposed to the number of other businesses he or she owns.

The final change made to the survey before conducting the main study is simply reducing the number of personal identification questions asked. The first 37 questions of the survey ask the entrepreneur personal questions about themselves and their business; specifically asking for contact information such as their name, phone number, email address, name of the student conducting the interview, name of their business, business address, city and state. This information was requested in order to follow-up with the entrepreneurs on response rate, clarifications, and to follow up with a random sample to verify that the students did indeed conduct the interviews. While all personally identifiable information is removed from the surveys after the follow-up (each survey is given a randomly assigned number from that point forward), it was the cause of apprehension for some entrepreneurs and is not all necessary for the data analysis. Thus, for the main study the entrepreneur will have the option of submitting a phone number or email address for a follow-up; he or she will not be required
to submit the name of the business (industry, type of product/service, and functional area of working career are all addressed in other questions); and the respondent will only need to provide the city/state in which the business operates.

This chapter described the research design and methodology used for this dissertation. An analysis of the pilot study identified minor survey modifications that were addressed before conducting the main study. Chapter IV discusses the hypothesis testing and results of the main study.
CHAPTER IV

RESULTS

The overarching research question of this study is: Why are some entrepreneurial ventures more successful than others? More specifically, what is the role of emotional intelligence in the entrepreneurial context? The first section of this chapter explains the survey instrument, describing the demographic characteristics of participants, the data collection process, and the response rate. A description of the variables used in the study is then provided. Pearson correlation coefficients were computed to evaluate the relationship between all variables; means and standard deviations for the variables are also presented. The chapter concludes with the results of the regression analyses and hypotheses testing.

Data Collection

Like the pilot study, the survey was distributed via a networking project conducted in an introductory Entrepreneurship course. While students in the course are working on business plans for hypothetical new ventures they have the opportunity to interview practicing entrepreneurs to get a better understanding of experiences in the field. The entrepreneurs interviewed are then asked to complete the survey and the students are introduced to research methods in the classroom.

Participants

Participants in this study included 609 entrepreneurs from multiple firms located across the United States. The participating entrepreneurs were either firm founders or owners who participate in the daily business operations. The study of entrepreneurs located throughout the
United States and in various businesses aligns with the purpose of this study, an investigation on the role of EI in entrepreneurial success.

**Procedures**

Students participating in the networking project conducted 683 interviews with practicing entrepreneurs. Of the 683 entrepreneurs interviewed 609 chose to participate in the survey in its entirety; thus, resulting in a response rate of approximately 89.17%. The entrepreneurs completing the survey in its entirety were comprised of 400 males (65.7%) and 209 females (34.3%). The ages of the entrepreneurs ranged from 19 years old to 78 years old. The ethnicity demographic included 292 Caucasian entrepreneurs (47.9%), 169 Hispanic (27.8%), 91 African American (14.9%), 28 Asian (4.6%), and 29 entrepreneurs that classified themselves in the Other category (4.8%). With regard to education, 154 entrepreneurs earned a high school degree as their highest form of education (25.3%), 50 earned a vocational or technical certificate (8.2%), 68 respondents earned an Associate's degree (11.2%), 237 earned a Bachelor's degree (38.9%), 75 earned a Master's degree (12.3%), and 23 entrepreneurs participating in the study had earned a Doctoral degree (3.8%). Table 9 details the demographic characteristics of the participating entrepreneurs.

Table 9

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>400</td>
<td>65.7</td>
</tr>
<tr>
<td>Female</td>
<td>209</td>
<td>34.3</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>292</td>
<td>47.9</td>
</tr>
<tr>
<td>African American</td>
<td>91</td>
<td>14.9</td>
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</table>

*table continues*
Table 9 (continued).

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>169</td>
<td>27.8</td>
</tr>
<tr>
<td>Asian</td>
<td>28</td>
<td>4.6</td>
</tr>
<tr>
<td>Other</td>
<td>29</td>
<td>4.8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-25</td>
<td>61</td>
<td>10.2</td>
</tr>
<tr>
<td>26-35</td>
<td>126</td>
<td>20.8</td>
</tr>
<tr>
<td>36-45</td>
<td>127</td>
<td>20.6</td>
</tr>
<tr>
<td>46-55</td>
<td>190</td>
<td>31.3</td>
</tr>
<tr>
<td>56-65</td>
<td>85</td>
<td>14.1</td>
</tr>
<tr>
<td>66+</td>
<td>18</td>
<td>3.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Diploma</td>
<td>154</td>
<td>25.3</td>
</tr>
<tr>
<td>Vocational/Technical School</td>
<td>50</td>
<td>8.2</td>
</tr>
<tr>
<td>Associate’s Degree</td>
<td>68</td>
<td>11.2</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>237</td>
<td>38.9</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>75</td>
<td>12.3</td>
</tr>
<tr>
<td>Doctorate</td>
<td>23</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Construct Measures

The items used in the survey are based upon theoretically derived, previously validated instruments. The survey was approved by the IRB with all rules governing the use of human subjects in research. The primary independent variable in the research model was emotional intelligence. The primary dependent variable was entrepreneurial success, which was further broken down into financial entrepreneurial firm success, relative entrepreneurial firm success, and personal entrepreneurial success. The mediating variables consisted of individual competence (managerial and entrepreneurial), venture organizational tasks (interpersonal), as well as dynamism and munificence. The measures for each of these variables are described in detail in the next section.
Independent Variable: Emotional Intelligence

Law, Wong and Song (2004) provided empirical evidence in support of self-report measures of emotional intelligence. The authors further explain that self-report EI measures are reasonably valid if their development is based on the four dimensions proposed by Mayer and Salovey (1997). For this study, the Wong Law Emotional Intelligence Scale (WLEIS) was used to collect data on this construct.

Wong Law Emotional Intelligence Scale (WLEIS)

The Wong Law Emotional Intelligence Scale (WLEIS) is a validated questionnaire which measures 16 items that belong to the four major emotional intelligence dimensions (Wong & Law, 2002); namely, identifying, facilitating, understanding, and regulating emotions (Mayer & Salovey 1997). This scale was chosen for several reasons. First, it assesses both overall emotional intelligence as well as the four specific emotional intelligence branches identified by Mayer and Salovey’s (1997) model. Second, the Wong Law Emotional Intelligence Scale (WLEIS) is the most widely used and supported self-report measure of EI (e.g., Mayer et al., 2000). Furthermore, the WLEIS was developed specifically for organizational research purposes.

Reliability of the WLEIS is high, with coefficient alphas for each of the four branches (identifying, facilitating, understanding, and regulating) at 0.89, 0.88, 0.76, and 0.85, respectively (Wong & Law, 2002). Each of the four dimensions contains four items. A sample item from the identifying emotions dimension is: I really understand what I feel; and from the regulation of emotions dimension: I am able to control my temper and handle difficulties rationally. The response format was a 7-point Likert-type scale with anchors at 1 (strongly disagree) and 7 (strongly agree).
Dependent Variables: Entrepreneurial Success

The dependent variables in this study are financial entrepreneurial firm success, relative entrepreneurial firm success, and personal entrepreneurial success. Validated items from previous research studies were used for each of these variables (e.g., Chandler & Hanks, 1993; Zahra et al., 2002). Several challenges exist when assessing new venture performance or success. New venture performance is a complex and multidimensional construct that is tough to measure (Brush & VanderWerf, 1992; Chandler & Hanks, 1993, 1994; Zahra et al., 2002). For instance, new ventures are usually private organizations with no obligation to disclose performance information; therefore, traditional measures of financial performance are often unavailable (e.g., Chandler and Hanks, 1993; Sandberg, 1986), or business owners are unwilling to share this information with outsiders (e.g., Dess & Robinson, 1984). Other research studies have concluded that some traditional measures are not appropriate when studying entrepreneurial ventures because of enormous and erratic growth rates, or small starting capital (e.g., Walsh and White, 1981). Thus, conventional financial measures of performance (e.g., ROI and ROA) may also have inherent challenges. Additionally, objective measures such as survival or breakeven points are often difficult because of the need for a longitudinal sample design. Thus, the use of multiple indicators to gauge performance is recommended (e.g., Sandberg, 1986; Zahra et al., 2002).

Chandler and Hanks (1993) recognize the inherent challenges in entrepreneurial research and identify the three most common approaches to estimating entrepreneurial performance when only self-report data is available. They are (1) measuring financial firm performance in broad categories; (2) using subjective measures of firm performance in relation
to competitors; and (3) subjective measures of owner satisfaction with the firm’s performance (Chandler & Hanks, 1993).

**Financial Entrepreneurial Firm Success**

Items measuring financial entrepreneurial firm success were adopted from Chandler and Hanks (1993). Previous researchers have suggested that information on performance from privately held entrepreneurial firms is more easily obtained when requested in broad categories (e.g., Begley & Boyd, 1987; Chandler & Hanks, 1993; Chandler & Jansen, 1992). While measurement precision is sacrificed, to some degree, it does overcome many of the challenges associated with the unwillingness to disclose financial information.

Financial entrepreneurial firm success was measured in broad categories of growth and business volume. The three items used to measure growth include the following: (1) perceived growth in market share; (2) change in cash flow; and (3) sales growth. The three items used to measure business volume include (1) earnings, (2) sales, and (3) net worth (Chandler & Hanks, 1993). The evaluation of psychometric properties from previous investigations indicates that these scales are valid and reliable for research involving financial entrepreneurial firm success (e.g., Chandler & Hanks, 1993). Chandler and Hanks (1993) used confirmatory factor analysis and all coefficient alphas met or exceeded the .70 recommended for research purposes (Nunnally & Bernstein, 1994). Specifically, the coefficient alpha for the growth scale was .72, and .81 was the coefficient alpha for the business volume scale.

**Relative Entrepreneurial Firm Success**

Entrepreneurial firm success can be measured objectively or subjectively; several previous studies have used subjective data to capture a company’s performance (e.g., Covin &
Slevin, 1990; Dess & Robinson, 1984; Zahra et al., 2002). Porter (1980) contends that competitors are aware of the performance of other firms within their industries; and Brush and Vanderwerf (1992) substantiate this claim in the entrepreneurial realm by providing evidence that competitors are indeed aware of the performance indicators of new ventures within their industries. Researchers have asked entrepreneurs to subjectively evaluate the performance of their companies relative to other competitors in the industry that are at or near the same age and stage of development (e.g., Abeele & Christiaens, 1986; Chandler & Hanks, 1993; Dess & Robinson, 1984; Gupta & Govindarajan, 1984; Sapienza et al., 1988).

For this study respondents were asked to use a seven-point Likert-type scale, with anchors at substantially lower and substantially higher to subjectively compare their firm’s performance to their closest competitor (same industry) that was at or near the same age and stage of development as their firm (Chandler and Hanks, 1993). The eight items included the following: (1) sales growth, (2) return on sales, (3) cash flow, (4) return on investment, (5) net profits, (6) return on assets, (7) growth in market share, and (8) growth in net worth of the company. Previous research conducted by Chandler and Hanks (1993) found that all items in the performance relative to competitors scale loaded on the same factor and had a coefficient alpha of .93; thus, there was a high level of internal consistency and it was appropriate to combine the items forming a single scale measuring performance relative to competitors.

Personal Entrepreneurial Success

Subjective performance measures are useful when objective data is difficult to obtain (Dess & Robinson, 1984) and may provide some insights into perceptions of satisfaction with company performance (e.g., Bantel, 1998; Covin et al., 1990; Zahra et al., 2002). To
operationalize personal entrepreneurial success respondents were asked to assess several
dimensions of satisfaction, on a Likert-type scale, as outlined by Cooper and Artz (1995). Two
of the items assessed the entrepreneurs’ satisfaction with their firm’s sales and with their
profits, or with specific performance areas. A third item asked the responding entrepreneur to
assess their overall personal satisfaction with their venture. The fourth item assessed the
entrepreneurs’ willingness to start the same business again, which also targets the overall
satisfaction. Cooper and Artz (1995) conducted a factor analysis and found the four items
represented one underlying factor. Thus, validated items from previous research studies were
used to measure personal entrepreneurial success. The Cronbach’s alpha in Cooper and Artz
(1997) investigation was .78, indicating an acceptable level of internal consistency.

*Mediating Variables*

Individual competence was addressed by measuring managerial and entrepreneurial
competencies. Venture tasks were assessed by measuring the amount of time each
entrepreneur spends on various interpersonal activities; and environmental mediators include
the assessment of munificence and dynamism. Validated items from previous research studies
were used to measure the mediating variables, and their detailed descriptions are provided
below.

*Individual Competence*

Individual competencies were assessed using measures developed by Chandler and
Jansen (1992), which provided evidence that self-assessments of managerial and
entrepreneurial competencies were significantly related to performance of the firm. Empirical
support for the strong positive relationships between perceived competencies and actual
competencies was provided by Gist (1987); as well as the performance appraisal literature, which has identified self-ratings of competence and performance to be useful and valid (e.g., Latham & Wexley, 1981). Chandler and Jansen (1992) provided evidence of the discriminant, convergent, and external validity for the individual competence scales used in this study, which are discussed in greater depth in the following sections. The two individual competencies (managerial and entrepreneurial) have been identified in previous research as necessary in selecting opportunities and allocating/using resources (Chandler & Hanks, 1994).

Managerial competence. Managerial competence was measured using the following six-item scale developed by Chandler and Jansen (1992): (1) I make resource allocation decisions that achieve maximum results; (2) One of my greatest strengths is achieving results by organizing and motivating people; (3) One of my greatest strengths is organizing resources and coordinating tasks; (4) One of my greatest strengths is my ability to supervise, influence, and lead people; (5) One of my greatest strengths is my ability to delegate effectively; and 6) One of my greatest strengths is my ability to keep this organization running smoothly. Cronbach’s alpha for this scale was 0.84, indicating acceptable internal consistency. Respondents were asked to respond to the six items on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Entrepreneurial competence. Entrepreneurial competence was also measured using a six-item scale developed by Chandler and Jansen (1992). The items consisted of the following: (1) I accurately perceive unmet consumer needs; (2) I spend considerable time and energy looking for products or services that will provide real benefits to my customers; (3) One of my greatest strengths is identifying goods and services people want; (4) One of my greatest
strengths is my ability to seize high-quality opportunities; (5) I have an extremely strong internal drive to see this venture through to fruition; and (6) One of my greatest strengths is my ability to develop goods and services that are technically superior. The coefficient alpha for this scale is 0.70, which also indicates acceptable internal consistency. Again, the entrepreneurs responded to the six items on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Venture Organizational Tasks

Because activities performed in the entrepreneurial role involve highly interpersonal activities (e.g., negotiating and obtaining financing) venture organizational tasks were assessed as a potential mediator in this study. Furthermore, empirical evidence has provided support that interpersonal activities affect business performance (e.g., Watson, Ponthieu & Critelli, 1995; Watson, Stewart & BarNir, 2003; Watson, Cooper, Pavur & Torres, 2011). Thus, interpersonal tasks were assessed using the scale developed by Watson, Stewart, and BarNir (2003).

*Interpersonal activities.* The scale developed by Watson and colleagues (2003) was used to measure small businesses, and is comprised of ten items that represent two dimensions (i.e., relational activities and task activities). Relational activities consist of five items which include coordinating interaction, demonstrating flexibility, openly sharing information, being cooperative, and focusing on common goals. The authors report a Cronbach’s alpha for the five items (in the United States) at 0.80. The task activities also consisted of five items including goal setting, improvement procedures, problem-solving efficiency, quality standards, and effective leadership functions. Cronbach’s alpha for the five task activities was 0.82 (in the
United States). Anchors for the 7-point Likert-type scale ranged from 1 (*not very often, if at all*) to 7 (*extremely often*).

**Environmental Factors**

Due to the implications of measuring privately held entrepreneurial firms in multiple industries, subjective assessments were necessary (Chandler & Hanks, 1994) for measuring munificence and dynamism. Typical measures such as the stock price-earnings ratio (Castrogiovanni, 1991) are not available because the entrepreneurial ventures are privately held, not publically traded. Thus, it is evident that finding suitable objective measures of the environment can be difficult in this entrepreneurial context (Chandler & Hanks 1994). Previous researchers have provided support for subjectively measuring the task environment (e.g., Castrogiovanni, 1991). Researchers assert that the task environment can be subjectively measured via expert knowledge (e.g., Weick, 1969), and that the perceptions of business founders or managers (experts) can serve as indicators of these environmental variables (Chandler & Hanks, 1994).

**Munificence.** Munificence is the availability of financial, physical, human, and technological resources used to help firms achieve their goals (Hofer & Schendel, 1978); thus, respondents were asked to assess 18 items based on whether accessibility to the resources placed their firm at an advantage or disadvantage. For example, one item lists the following resource: *expertise in customer relations*. Respondents are asked to respond to each item on a Likert-type scale from 1 (*great disadvantage*) to 7 (*great advantage*). The Cronbach’s alpha for the 18 items was 0.86 (Chandler & Hanks, 1994).
Dynamism. Previous research (e.g., Dess & Beard, 1984; Miller & Friesen, 1983) has operationalized dynamism in various ways, as little consensus has transpired around a single measure. For this study dynamism was operationalized using the scale developed by Paswan, Dant and Lumpkin (1998). The environmental dynamism scale consists of three subdimensions; namely industry, competition, and consumer. Industry dynamism consisted of the following three items: (1) changes in mix of products/services carried in the industry are; (2) changes in sales strategies in the industry are; and (3) changes in sales promotion/advertising strategies in the industry are. Competition dynamism consisted of three items as well, including: (1) changes in competitor’s mix of products/services are; (2) changes in competitor’s sales strategies are; and (3) changes in competitor’s sales promotion/advertising strategies are. Finally, consumer dynamism consisted of (1) changes in consumer preferences in product/service features are; (2) changes in consumer preferences in loyalty are; and (3) changes in consumer preferences in product quality/price are. Anchors for this 7 point Likert-type scale ranged from 1 (very infrequent) to 7 (very frequent). The reliability for industry dynamism was 0.80, for competition dynamism 0.87, and for consumer dynamism 0.72, all indicating acceptable reliabilities.

Analytical Procedures

Descriptive statistics and psychometric properties of the data were analyzed prior to evaluating the relationships among the variables. Factor structures of the existing scales used in this study are well established in the literature and the measures have been regarded as valid and reliable. Bivariate correlations were then analyzed to assess the convergent and discriminant validity of the constructs. Finally, regression analysis was used to test the
hypotheses in order to determine whether emotional intelligence influences financial entrepreneurial firm success, relative entrepreneurial firm success, and personal entrepreneurial success; and to what extent the relationships are mediated by managerial competence, entrepreneurial competence, interpersonal activities, munificence, and dynamism.

**Descriptive Statistics**

Pearson Product-Moment correlation coefficients were analyzed to address the bivariate relationships among the variables. Table 10 presents the means, standard deviations and correlation coefficients for the primary variables of investigation in this study. Significant correlations exist between all of the variables at the 0.01 level.

Table 10

**Descriptive Statistics**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Std Dev</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EI</td>
<td>5.86</td>
<td>0.93</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Financial Success</td>
<td>5.43</td>
<td>1.16</td>
<td>.497**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Relative Success</td>
<td>5.56</td>
<td>0.81</td>
<td>.292**</td>
<td>.313**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Personal Success</td>
<td>5.22</td>
<td>1.33</td>
<td>.375**</td>
<td>.960**</td>
<td>.247**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Man. Competence</td>
<td>5.72</td>
<td>0.92</td>
<td>.778**</td>
<td>.579**</td>
<td>.429**</td>
<td>.452**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ent. Competence</td>
<td>5.76</td>
<td>1.04</td>
<td>.722**</td>
<td>.561**</td>
<td>.433**</td>
<td>.443**</td>
<td>.907**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Interpersonal</td>
<td>5.96</td>
<td>0.89</td>
<td>.486**</td>
<td>.415**</td>
<td>.566**</td>
<td>.346**</td>
<td>.591**</td>
<td>.573**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Munificence</td>
<td>5.51</td>
<td>1.03</td>
<td>.304**</td>
<td>.341**</td>
<td>.600**</td>
<td>.270**</td>
<td>.474**</td>
<td>.493**</td>
<td>.675**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>9. Dynamism</td>
<td>5.92</td>
<td>0.97</td>
<td>.456**</td>
<td>.309**</td>
<td>.583**</td>
<td>.208**</td>
<td>.512**</td>
<td>.554**</td>
<td>.744**</td>
<td>.671**</td>
<td>-</td>
</tr>
</tbody>
</table>

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

**Reliability Coefficients**

Reliability coefficients examine the internal consistency of the scales using Cronbach’s alpha. The results indicate all scales have a high degree of internal consistency, since the alpha
values are greater than Nunnally’s (1978) level of acceptability criterion of .70. Table 11 provides the reliability coefficients from the original studies and the current study.

Table 11

<table>
<thead>
<tr>
<th>Measure</th>
<th>Previous α</th>
<th>Current α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify</td>
<td>0.89</td>
<td>0.93</td>
</tr>
<tr>
<td>Facilitate</td>
<td>0.88</td>
<td>0.90</td>
</tr>
<tr>
<td>Understand</td>
<td>0.76</td>
<td>0.72</td>
</tr>
<tr>
<td>Regulate</td>
<td>0.85</td>
<td>0.75</td>
</tr>
<tr>
<td>Financial Success</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>0.72</td>
<td>0.92</td>
</tr>
<tr>
<td>Business Volume</td>
<td>0.81</td>
<td>0.86</td>
</tr>
<tr>
<td>Relative Success</td>
<td>0.93</td>
<td>0.76</td>
</tr>
<tr>
<td>Personal Success</td>
<td>0.78</td>
<td>0.88</td>
</tr>
<tr>
<td>Managerial Competence</td>
<td>0.84</td>
<td>0.82</td>
</tr>
<tr>
<td>Entrepreneurial Competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>0.70</td>
<td>0.90</td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational</td>
<td>0.80</td>
<td>0.88</td>
</tr>
<tr>
<td>Task</td>
<td>0.82</td>
<td>0.91</td>
</tr>
<tr>
<td>Munificience</td>
<td>0.86</td>
<td>0.94</td>
</tr>
<tr>
<td>Dynamism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>0.76</td>
<td>0.91</td>
</tr>
<tr>
<td>Competition</td>
<td>0.79</td>
<td>0.93</td>
</tr>
<tr>
<td>Consumer</td>
<td>0.80</td>
<td>0.91</td>
</tr>
</tbody>
</table>

Hypothesis Testing

The research model in Figure 4 addresses the relationships among the variables and depicts the hypotheses analyzed. The following sections provide additional information the statistical methods used to analyze the research model. The direct relationships are covered in the next section, followed by the indirect, or mediated, relationships.
Direct Relationships

Hypotheses 1a through 1c address the relationship between emotional intelligence and entrepreneurial success, namely financial, relative, and personal success. Hypothesis 1a proposed that emotional intelligence was positively related to financial entrepreneurial firm success. As depicted in table 10, emotional intelligence correlated positively with financial entrepreneurial firm success ($r = .497, p < .01$). A simple regression analysis was conducted providing evidence of support for Hypothesis 1a, the relationship between emotional intelligence and financial entrepreneurial firm success ($F[1, 607] = 199.13, R^2 = .247, p < .01$). Thus, Hypothesis 1a was supported.

Hypothesis 1b states that emotional intelligence is positively related to relative entrepreneurial firm success. Emotional intelligence correlated positively with relative entrepreneurial success ($r = .292, p < .01$). Support for Hypothesis 1b was also provided from a
simple regression analysis of the relationship between EI and relative entrepreneurial firm success ($F[1, 607] = 56.549, R^2 = .086, p < .01$). Thus, Hypothesis 1b was supported.

Hypothesis 1c proposes that emotional intelligence is directly related to personal entrepreneurial success, and table 10 depicts a positive correlation ($r = .375, p < .01$). A simple regression provided support for Hypothesis 1c, emotional intelligence positively predicted personal entrepreneurial success ($F[1, 607] = 99.019, R^2 = .140, p < .01$). Thus, Hypothesis 1c was supported.

**Indirect Relationships: Mediation**

As previously discussed, a mediator is a third variable that intervenes between the independent and dependent variables (Hair et al., 2006). A mediator accounts for the relationship (fully or partially) between the independent variable (emotional intelligence) and dependent variable (entrepreneurial success). Theoretically, a mediator facilitates the relationship between the other two variables (Hair et al., 2006). According to Baron and Kenny (1986), four conditions should be met for evidence of mediation. Figure 5, below, provides a visual depiction of the steps, analysis, and equations. First, the independent variable of interest (emotional intelligence) should account for significant variance in the dependent variable (entrepreneurial success). Second, the independent variable (emotional intelligence) must be significantly related to the proposed mediators (managerial competence, entrepreneurial competence, interpersonal activities, munificence, and dynamism). Third, the independent variable should account for significant variance in the dependent variable. If significant relationships exist in steps 1 through 3, then it is necessary to proceed to step 4; in step 4 multiple regression analysis is run with the independent variable and the mediator predicting
the dependent variable. Some form of mediation is supported if the effect of the mediator on the dependent variable remains significant after controlling for the independent variable. If both the independent variable and the mediating variable still significantly predict the dependent variable then partial mediation is supported. If the independent variable is no longer significant when the mediator is controlled then findings support full mediation (Hair et al., 2006).

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simple Regression analysis X predicting Y to test path h</td>
<td>[ Y = B_0 + B_1X + e ]</td>
</tr>
<tr>
<td>2</td>
<td>Simple Regression analysis X predicting M to test path f</td>
<td>[ M = B_0 + B_1X + e ]</td>
</tr>
<tr>
<td>3</td>
<td>Simple Regression analysis M predicting Y to test significance of path g</td>
<td>[ Y = B_0 + B_1M + e ]</td>
</tr>
<tr>
<td>4</td>
<td>Multiple regression analysis X and M predicting Y</td>
<td>[ Y = B_0 + B_1X + B_2M + e ]</td>
</tr>
</tbody>
</table>

*Figure 5.* Baron and Kenny’s (1986) steps in testing for mediation.

*Managerial competence.* To determine whether managerial competence was a mediator of entrepreneurial success predicted by emotional intelligence, Baron and Kenny’s (1986) four step regression analysis procedure was used. First, a simple regression analysis was run with emotional intelligence (X) predicting financial entrepreneurial success (Y) to test for
direct effect. The regression analysis demonstrated that emotional intelligence explained a significant amount of variance in financial entrepreneurial firm success ($R^2 = .247, F[1, 607] = 199.133, B = .497, t = 14.111, p < .01$) and in managerial competence ($R^2 = .605, F[1, 607] = 939.247, B = .778, t = 30.500, p < .01$). Hence, the first and second conditions for mediation were supported. For the third requirement of mediation, managerial competence must be related to financial entrepreneurial firm success, and results indicate that this condition was also met ($R^2 = .336, F[1, 607] = 306.592, B = .579, t = 17.510, p < .01$). For full mediation to exist, the predictor variable (EI) should have no effect when the mediator (managerial competence) is controlled, this was not the case, indicating only partial mediation ($R^2 = .341, F[2, 606] = 156.812, B = .488, t = 9.298, p < .01$). Mediation tests were then run to determine that 76.37% of the total effect between EI and financial entrepreneurial firm success is mediated by managerial competence. Thus, Hypothesis 2a is supported.

Steps 1-4 were repeated to analyze relative entrepreneurial success. A simple regression analysis demonstrated that emotional intelligence (X) predicted relative entrepreneurial success (Y) providing support for EI explaining a significant amount of variance in relative entrepreneurial firm success ($R^2 = .086, F[1, 607] = 56.549, B = .293, t = 7.520, p < .01$). Second, emotional intelligence was found to be significantly related to managerial competence ($R^2 = .605, F[1, 607] = 939.247, B = .778, t = 30.500, p < .01$). Third, managerial competence was also significantly related to relative entrepreneurial firm success ($R^2 = .186, F[1, 607] = 137.606, B = .431, t = 11.731, p < .01$). In step 4, relative entrepreneurial success is regressed on managerial competence and emotional intelligence ($R^2 = .191, F[2, 606] = 70.879, B = .517, t = 8.831, p < .01$). Because the relationship between emotional intelligence (IV) and
relative entrepreneurial success (DV) is no longer significant when managerial competence (mediator) is controlled, findings support full mediation. Thus, Hypothesis 2b is supported.

The analyses were then repeated to analyze personal entrepreneurial success. Emotional intelligence was significantly related to personal entrepreneurial success ($R^2 = .140, F[1, 607] = 99.019, B = .375, t = 9.951, p < .01$) and managerial competence ($R^2 = .605, F[1, 607] = 939.247, B = .778, t = 30.500, p < .01$). Managerial competence was also found to be significantly related to personal entrepreneurial success ($R^2 = .204, F[1, 607] = 155.886, B = .452, t = 12.485, p < .01$), thus meeting the first three requirements of Baron and Kenny’s (1986) regression analysis procedures for mediation. In step 4 the analysis of emotional intelligence and managerial competence predicting personal entrepreneurial success provides support for partial mediation ($R^2 = .206, F[2, 606] = 78.449, B = .407, t = 7.064, p < .01$). Mediation tests indicated that 84.54% of the total effect between EI and personal entrepreneurial success is mediated by managerial competence. Thus, Hypothesis 2c is supported.

*Entrepreneurial competence.* As previously stated, emotional intelligence explains a significant amount of variance in financial entrepreneurial firm success ($R^2 = .247, F[1, 607] = 199.133, B = .497, t = 14.111, p < .01$). Emotional intelligence also explains a significant amount of variance in entrepreneurial competence ($R^2 = .521, F[1, 607] = 660.343, B = .722, t = 25.697, p < .01$); hence, the first two requirements of mediation have been met. Next, entrepreneurial competence was found to explain a significant amount of variance in financial entrepreneurial firm success ($R^2 = .315, F[1, 607] = 279.436, B = .561, t = 16.716, p < .01$). Partial mediation was supported when financial entrepreneurial success was regressed on emotional intelligence and entrepreneurial competence ($R^2 = .333, F[2, 606] = 151.140, B = .423, t = 8.827, p < .01$).
Mediation tests were then run to determine that 61.46% of the total effect between EI and financial entrepreneurial firm success is mediated by entrepreneurial competence. Thus, Hypothesis 3a is supported.

Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success ($R^2 = .086, F[1, 607] = 56.549, B = .293, t = 7.520, p < .01$), and in entrepreneurial competence ($R^2 = .521, F[1, 607] = 660.343, B = .722, t = 25.697, p < .01$). Entrepreneurial competence also explains a significant amount of variance in relative entrepreneurial success ($R^2 = .188, F[1, 607] = 139.768, B = .434, t = 11.822, p < .01$). Full mediation was supported because the relationship between emotional intelligence and relative entrepreneurial success was no longer significant when entrepreneurial competence was controlled ($R^2 = .189, F[2, 606] = 70.189, B = .466, t = 8.759, p < .01$). Thus, Hypothesis 3b is supported.

Again, emotional intelligence was significantly related to personal entrepreneurial success ($R^2 = .140, F[1, 607] = 99.019, B = .375, t = 9.951, p < .01$) and entrepreneurial competence ($R^2 = .521, F[1, 607] = 660.343, B = .722, t = 25.697, p < .01$). Entrepreneurial competence is also significantly related to personal entrepreneurial success ($R^2 = .197, F[1, 607] = 148.595, B = .443, t = 12.190, p < .01$), thus meeting the first three requirements. The analysis of emotional intelligence and entrepreneurial competence predicting personal entrepreneurial success provides support for partial mediation ($R^2 = .203, F[2, 607] = 77.098, B = .361, t = 6.898, p < .01$). Mediation tests indicated that 51.12% of the total effect between EI and personal entrepreneurial success is mediated by entrepreneurial competence. Thus, Hypothesis 3c is supported.
**Interpersonal activities.** Emotional intelligence explains a significant amount of variance in financial entrepreneurial firm success ($R^2 = .247, F[1, 607] = 199.133, B = .497, t = 14.111, p < .01$) and interpersonal activities ($R^2 = .236, F[1, 607] = 187.617, B = .486, t = 13.697, p < .01$). Interpersonal activities was found to explain a significant amount of variance in financial entrepreneurial firm success ($R^2 = .173, F[1, 607] = 126.601, B = .415, t = 11.252, p < .01$).

Partial mediation was supported when financial entrepreneurial success was regressed on emotional intelligence and interpersonal activities ($R^2 = .287, F[2, 606] = 121.738, B = .228, t = 5.800, p < .01$). Mediation tests were then run to determine that 22.26% of the total effect between EI and financial entrepreneurial firm success is mediated by interpersonal activities. Thus, Hypothesis 4a is supported.

Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success ($R^2 = .086, F[1, 607] = 56.549, B = .293, t = 7.520, p < .01$), and in interpersonal activities ($R^2 = .236, F[1, 607] = 187.617, B = .486, t = 13.697, p < .01$). Interpersonal activities also explain a significant amount of variance in relative entrepreneurial success ($R^2 = .323, F[1, 607] = 288.193, B = .569, t = 16.976, p < .05$). In step 4 the results of the regression were no longer significant when emotional intelligence and interpersonal activities were regressed on relative entrepreneurial success ($R^2 = .324, F[2, 606] = 144.106, B = .558, t = 14.556, p <.05$). Mediation tests indicated that 92.33% of the total effect between EI and personal entrepreneurial success is mediated by interpersonal activities. Thus, Hypothesis 4b is supported.

Again, emotional intelligence was significantly related to personal entrepreneurial success ($R^2 = .140, F[1, 607] = 99.019, B = .375, t = 9.951, p < .01$) and interpersonal activities ($R^2
Interpersonal activities was also significantly related to personal entrepreneurial success \( (R^2 = .120, F[1, 609] = 82.386, B = .346, t = 9.077, p < .01) \), thus meeting the first three requirements. The analysis of emotional intelligence and interpersonal activities predicting personal entrepreneurial success provides support for partial mediation \( (R^2 = .175, F[2, 606] = 64.425, B = .214, t = 5.078, p < .01) \).

Mediation tests indicated that 27.81% of the total effect between EI and personal entrepreneurial success is mediated by interpersonal activities. Thus, Hypothesis 4c is supported.

**Munificence.** Emotional intelligence explains a significant amount of variance in financial entrepreneurial firm success \( (R^2 = .247, F[1, 607] = 199.133, B = .497, t = 14.111, p < .01) \) and munificence \( (R^2 = .092, F[1, 607] = 61.811, B = .304, t = 7.862, p < .01) \). Munificence was found to explain a significant amount of variance in financial entrepreneurial firm success \( (R^2 = .116, F[1, 607] = 79.773, B = .341, t = 8.932, p < .01) \). Partial mediation was supported when financial entrepreneurial success was regressed on emotional intelligence and munificence \( (R^2 = .287, F[2, 606] = 121.776, B = .209, t = 5.805, p < .01) \). Mediation tests were then run to determine that 12.79% of the total effect between EI and financial entrepreneurial firm success is mediated by munificence. Thus, Hypothesis 5a is supported.

Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success \( (R^2 = .086, F[1, 607] = 56.549, B = .293, t = 7.520, p < .01) \), and in munificence \( (R^2 = .092, F[1, 607] = 61.811, B = .304, t = 7.862, p < .01) \). Munificence also explains a significant amount of variance in relative entrepreneurial success \( (R^2 = .361, F[1, 607] = 143.078, B = .601, t = 18.451, p < .01) \). Partial mediation was supported
when relative entrepreneurial success was regressed on emotional intelligence and munificence
\( R^2 = .374, F[2, 606] = 179.980, B = .564, t = 16.658, p < .01 \). Mediation tests were run to
determine that 58.56% of the total effect between EI and relative entrepreneurial success is
mediated by munificence. Thus, Hypothesis 5b is supported.

Again, emotional intelligence was significantly related to personal entrepreneurial
success \( R^2 = .140, F[1, 607] = 99.019, B = .375, t = 9.951, p < .01 \), and munificence \( R^2 = .092, \\
F[1, 607] = 61.811, B = .304, t = 7.862, p < .01 \). Munificence was also significantly related to
personal entrepreneurial success \( R^2 = .073, F[1, 607] = 47.914, B = .270, t = 6.922, p < .01 \), thus
meeting the first three requirements. The analysis of emotional intelligence and munificence
predicting personal entrepreneurial success provides support for partial mediation \( R^2 = .167, \\
F[2, 606] = 60.869, B = .173, t = 4.435, p < .01 \). Mediation tests indicated that 14.01% of the
total effect between EI and personal entrepreneurial success is mediated by munificence. Thus,
Hypothesis 5c is supported.

**Dynamism.** Emotional intelligence explains a significant amount of variance in financial
entrepreneurial firm success \( R^2 = .247, F[1, 607] = 199.133, B = .497, t = 14.111, p < .01 \) and
dynamism \( R^2 = .208, F[1, 607] = 159.079, B = .456, t = 12.613, p < .01 \). Dynamism was found to
explain a significant amount of variance in financial entrepreneurial firm success \( R^2 = .309, F[1, \\
607] = 64.206, B = .309, t = 8.013, p < .01 \). Partial mediation was supported when financial
entrepreneurial success was regressed on emotional intelligence and dynamism \( R^2 = .256, F[2, \\
606] = 104.081, B = .105, t = 2.654, p < .01 \). Mediation tests were then run to determine that
9.58% of the total effect between EI and financial entrepreneurial firm success is mediated by
dynamism. Thus, Hypothesis 6a is supported.
Support was previously provided for emotional intelligence explaining a significant amount of variance in relative entrepreneurial success ($R^2 = .086, F[1, 607] = 56.549, B = .293, t = 7.520, p < .01$), and in dynamism ($R^2 = .208, F[1, 607] = 159.079, B = .456, t = 12.613, p < .01$). Dynamism also explains a significant amount of variance in relative entrepreneurial success ($R^2 = .346, F[1, 607] = 319.145, B = .588, t = 17.865, p < .01$). Partial mediation was supported when relative entrepreneurial success was regressed on emotional intelligence and dynamism ($R^2 = .347, F[2, 606] = 159.781, B = .575, t = 15.510, p < .01$). Mediation tests were run to determine that 88.59% of the total effect between EI and relative entrepreneurial success is mediated by dynamism. Thus, Hypothesis 6b is supported.

Again, emotional intelligence was significantly related to personal entrepreneurial success ($R^2 = .140, F[1, 607] = 99.019, B = .375, t = 9.951, p < .01$), and dynamism ($R^2 = .208, F[1, 607] = 159.079, B = .456, t = 12.613, p < .01$). Dynamism was also significantly related to personal entrepreneurial success ($R^2 = .043, F[1, 607] = 27.319, B = .208, t = 5.227, p < .01$), thus meeting the first three requirements. The analysis of emotional intelligence and dynamism predicting personal entrepreneurial success does not provide support for mediation ($R^2 = .142, F[2, 606] = 50.133, B = .047, t = 1.101, p = .271$). Thus, Hypothesis 6c is not supported.

Results of the pilot study analysis are reported in the tables below. Table 12 depicts the results of each step of Baron and Kenny’s (1986) mediation analysis procedure. The Sobel mediation statistics are discussed in table 13. Table 14 summarizes the hypotheses testing and Table 15 rank orders the hypotheses based on the total effect mediated.
Table 12

*Baron and Kenny Mediation Analysis*

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R^2</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EI and Financial Success with Mediators</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Success regressed on EI</td>
<td>0.497</td>
<td>0.247</td>
<td>0.000</td>
</tr>
<tr>
<td>Managerial Competence regressed on EI</td>
<td>0.778</td>
<td>0.605</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Success regressed on Man. Comp and EI</td>
<td>0.584</td>
<td>0.341</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Success regressed on EI</td>
<td>0.497</td>
<td>0.247</td>
<td>0.000</td>
</tr>
<tr>
<td>Entrepreneurial Comp regressed on EI</td>
<td>0.722</td>
<td>0.521</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Success regressed on Ent. Competence and EI</td>
<td>0.577</td>
<td>0.333</td>
<td>0.000</td>
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<tr>
<td>Financial Success regressed on EI</td>
<td>0.497</td>
<td>0.247</td>
<td>0.000</td>
</tr>
<tr>
<td>Interpersonal regressed on EI</td>
<td>0.486</td>
<td>0.236</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Success regressed on Interpersonal and EI</td>
<td>0.535</td>
<td>0.287</td>
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</tr>
<tr>
<td>Financial Success regressed on EI</td>
<td>0.497</td>
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<td>0.000</td>
</tr>
<tr>
<td>Munificence regressed on EI</td>
<td>0.304</td>
<td>0.092</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Success regressed on Munificence and EI</td>
<td>0.535</td>
<td>0.287</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Success regressed on EI</td>
<td>0.497</td>
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<td>0.000</td>
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<tr>
<td>Dynamism regressed on EI</td>
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<td>0.000</td>
</tr>
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<td>Financial Success regressed on Dynamism and EI</td>
<td>0.506</td>
<td>0.256</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>EI and Relative Success with Mediators</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative Success regressed on EI</td>
<td>0.293</td>
<td>0.086</td>
<td>0.000</td>
</tr>
<tr>
<td>Managerial Competence regressed on EI</td>
<td>0.778</td>
<td>0.605</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on Man. Competence and EI</td>
<td>0.584</td>
<td>0.341</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on EI</td>
<td>0.293</td>
<td>0.086</td>
<td>0.000</td>
</tr>
<tr>
<td>Entrepreneurial Competence regressed on EI</td>
<td>0.722</td>
<td>0.521</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on Ent. Competence and EI</td>
<td>0.435</td>
<td>0.189</td>
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<tr>
<td>Relative Success regressed on EI</td>
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<td>0.086</td>
<td>0.046</td>
</tr>
<tr>
<td>Interpersonal regressed on EI</td>
<td>0.486</td>
<td>0.236</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on Interpersonal and EI</td>
<td>0.569</td>
<td>0.324</td>
<td>0.058</td>
</tr>
<tr>
<td>Relative Success regressed on EI</td>
<td>0.293</td>
<td>0.086</td>
<td>0.046</td>
</tr>
<tr>
<td>Munificence regressed on EI</td>
<td>0.304</td>
<td>0.092</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on Munificence and EI</td>
<td>0.612</td>
<td>0.374</td>
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Table 12 (continued).

<table>
<thead>
<tr>
<th></th>
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<th>R^2</th>
<th>Prob &gt; F</th>
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</thead>
<tbody>
<tr>
<td>Relative Success regressed on EI</td>
<td>0.293</td>
<td>0.086</td>
<td>0.046</td>
</tr>
<tr>
<td>Dynamism regressed on EI</td>
<td>0.456</td>
<td>0.208</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative Success regressed on Dynamism and EI</td>
<td>0.589</td>
<td>0.347</td>
<td>0.016</td>
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</table>

**EI and Personal Success with Mediators**

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R^2</th>
<th>Prob &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.375</td>
<td>0.140</td>
<td>0.000</td>
</tr>
<tr>
<td>Managerial Competence regressed on EI</td>
<td>0.778</td>
<td>0.605</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Man. Competence and EI</td>
<td>0.403</td>
<td>0.206</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.375</td>
<td>0.140</td>
<td>0.000</td>
</tr>
<tr>
<td>Entrepreneurial Competence regressed on EI</td>
<td>0.722</td>
<td>0.521</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Ent. Competence and EI</td>
<td>0.450</td>
<td>0.203</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.375</td>
<td>0.140</td>
<td>0.000</td>
</tr>
<tr>
<td>Interpersonal regressed on EI</td>
<td>0.486</td>
<td>0.236</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Interpersonal and EI</td>
<td>0.419</td>
<td>0.175</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
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<td>0.140</td>
<td>0.000</td>
</tr>
<tr>
<td>Munificence regressed on EI</td>
<td>0.304</td>
<td>0.092</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Munificence and EI</td>
<td>0.409</td>
<td>0.167</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on EI</td>
<td>0.375</td>
<td>0.140</td>
<td>0.000</td>
</tr>
<tr>
<td>Dynamism regressed on EI</td>
<td>0.456</td>
<td>0.208</td>
<td>0.000</td>
</tr>
<tr>
<td>Personal Success regressed on Dynamism and EI</td>
<td>0.377</td>
<td>0.142</td>
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</tbody>
</table>

Table 13

**Mediation Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Sobel Z-test</th>
<th>p-value</th>
<th>Total Effect Mediated</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI ➔ Man. Competence ➔ Financial Success</td>
<td>8.894</td>
<td>0.000</td>
<td>0.764</td>
</tr>
<tr>
<td>EI ➔ Ent. Competence ➔ Financial Success</td>
<td>8.348</td>
<td>0.000</td>
<td>0.615</td>
</tr>
<tr>
<td>EI ➔ Interpersonal Tasks ➔ Financial Success</td>
<td>5.341</td>
<td>0.000</td>
<td>0.223</td>
</tr>
<tr>
<td>EI ➔ Dynamism ➔ Financial Success</td>
<td>4.670</td>
<td>0.000</td>
<td>0.128</td>
</tr>
<tr>
<td>EI ➔ Munificence ➔ Financial Success</td>
<td>2.597</td>
<td>0.009</td>
<td>0.096</td>
</tr>
<tr>
<td>EI ➔ Man. Competence ➔ Relative Success</td>
<td>8.440</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>EI ➔ Ent. Competence ➔ Relative Success</td>
<td>8.298</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>EI ➔ Interpersonal Tasks ➔ Relative Success</td>
<td>9.944</td>
<td>0.000</td>
<td>0.923</td>
</tr>
<tr>
<td>EI ➔ Dynamism ➔ Relative Success</td>
<td>7.111</td>
<td>0.000</td>
<td>0.586</td>
</tr>
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</table>

*table continues*
Table 13 (continued).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Sobel Z-test</th>
<th>p-value</th>
<th>Total Effect Mediated</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI → Munificence → Relative Success</td>
<td>9.741</td>
<td>0.000</td>
<td>0.886</td>
</tr>
<tr>
<td>EI → Man. Competence → Personal Success</td>
<td>6.882</td>
<td>0.000</td>
<td>0.845</td>
</tr>
<tr>
<td>EI → Ent. Competence → Personal Success</td>
<td>6.662</td>
<td>0.000</td>
<td>0.697</td>
</tr>
<tr>
<td>EI → Interpersonal Tasks → Personal Success</td>
<td>4.761</td>
<td>0.000</td>
<td>0.278</td>
</tr>
<tr>
<td>EI → Dynamism → Personal Success</td>
<td>3.863</td>
<td>0.000</td>
<td>0.140</td>
</tr>
<tr>
<td>EI → Munificence → Personal Success</td>
<td>1.097</td>
<td>0.272</td>
<td>0.057</td>
</tr>
</tbody>
</table>

Table 14

Summary of Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Support</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>S</td>
<td>.497 correlation significant at .01 level</td>
</tr>
<tr>
<td>1b</td>
<td>S</td>
<td>.289 correlation significant at .01 level</td>
</tr>
<tr>
<td>1c</td>
<td>S</td>
<td>.375 correlation significant at .01 level</td>
</tr>
<tr>
<td>2a</td>
<td>S</td>
<td>76.37% of total effect mediated</td>
</tr>
<tr>
<td>2b</td>
<td>S</td>
<td>100% of total effect mediated</td>
</tr>
<tr>
<td>2c</td>
<td>S</td>
<td>84.54% of total effect mediated</td>
</tr>
<tr>
<td>3a</td>
<td>S</td>
<td>61.46% of total effect mediated</td>
</tr>
<tr>
<td>3b</td>
<td>S</td>
<td>100% of total effect mediated</td>
</tr>
<tr>
<td>3c</td>
<td>S</td>
<td>51.12% of total effect mediated</td>
</tr>
<tr>
<td>4a</td>
<td>S</td>
<td>22.26% of total effect mediated</td>
</tr>
<tr>
<td>4b</td>
<td>S</td>
<td>92.33% of total effect mediated</td>
</tr>
<tr>
<td>4c</td>
<td>S</td>
<td>27.81% of total effect mediated</td>
</tr>
<tr>
<td>5a</td>
<td>S</td>
<td>12.79% of total effect mediated</td>
</tr>
<tr>
<td>5b</td>
<td>S</td>
<td>58.56% of total effect mediated</td>
</tr>
<tr>
<td>5c</td>
<td>S</td>
<td>14.01% of total effect mediated</td>
</tr>
<tr>
<td>6a</td>
<td>S</td>
<td>9.58% of total effect mediated</td>
</tr>
<tr>
<td>6b</td>
<td>S</td>
<td>88.59% of total effect mediated</td>
</tr>
<tr>
<td>6c</td>
<td>NS</td>
<td>Non-significant indirect effects</td>
</tr>
</tbody>
</table>

S = Support; NS = No Support; MS = Marginal Support
Table 15

*Rank Order of Total Effect Mediated*

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2b</td>
<td>EI → Man. Competence → Relative Success</td>
</tr>
<tr>
<td>3b</td>
<td>EI → Ent. Competence → Relative Success</td>
</tr>
<tr>
<td>4b</td>
<td>EI → Interpersonal Tasks → Relative Success</td>
</tr>
<tr>
<td>6b</td>
<td>EI → Munificence → Relative Success</td>
</tr>
<tr>
<td>2a</td>
<td>EI → Man. Competence → Financial Success</td>
</tr>
<tr>
<td>3a</td>
<td>EI → Ent. Competence → Financial Success</td>
</tr>
<tr>
<td>5b</td>
<td>EI → Dynamism → Relative Success</td>
</tr>
<tr>
<td>3c</td>
<td>EI → Ent. Competence → Personal Success</td>
</tr>
<tr>
<td>4c</td>
<td>EI → Interpersonal Tasks → Personal Success</td>
</tr>
<tr>
<td>4a</td>
<td>EI → Interpersonal Tasks → Financial Success</td>
</tr>
<tr>
<td>5c</td>
<td>EI → Dynamism → Personal Success</td>
</tr>
<tr>
<td>5a</td>
<td>EI → Dynamism → Financial Success</td>
</tr>
<tr>
<td>6a</td>
<td>EI → Munificence → Financial Success</td>
</tr>
<tr>
<td>6c</td>
<td>EI → Munificence → Personal Success</td>
</tr>
</tbody>
</table>

100% of total effect mediated
92.33% of total effect mediated
82.33% of total effect mediated
88.59% of total effect mediated
82.33% of total effect mediated
86.54% of total effect mediated
76.37% of total effect mediated
61.46% of total effect mediated
58.56% of total effect mediated
51.12% of total effect mediated
27.81% of total effect mediated
22.26% of total effect mediated
14.01% of total effect mediated
12.79% of total effect mediated
9.58% of total effect mediated
Non-significant indirect effects

Summary

The purpose of this research was to examine the role of emotional intelligence in the entrepreneurial context. This chapter offered an analysis of the hypotheses and detailed presentation of the data. Table 16, below, provides a summary of the hypotheses and results.

Table 16

*Summary of Hypothesis Testing*

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1:</td>
<td>There is a positive correlation between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>Support</td>
<td>H1a: There is a positive correlation between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H1b: There is a positive correlation between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
</tbody>
</table>

*table continues*
Table 16 (continued).

<table>
<thead>
<tr>
<th>Support</th>
<th>H1c: There is a positive correlation between emotional intelligence and personal entrepreneurial success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>H2: Managerial competence mediates the relationship between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>Support</td>
<td>H2a: Managerial competence mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H2b: Managerial competence mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H2c: Managerial competence mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
<tr>
<td>Support</td>
<td>H3: Entrepreneurial competence mediates the relationship between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>Support</td>
<td>H3a: Entrepreneurial competence mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H3b: Entrepreneurial competence mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H3c: Entrepreneurial competence mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
<tr>
<td>Support</td>
<td>H4: Interpersonal tasks mediate the relationship between emotional intelligence and entrepreneurial success</td>
</tr>
<tr>
<td>Support</td>
<td>H4a: Interpersonal tasks mediate the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H4b: Interpersonal tasks mediate the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
</tbody>
</table>

*table continues*
Table 16 (continued).

<table>
<thead>
<tr>
<th>Support</th>
<th>H4c:</th>
<th>Interpersonal tasks mediate the relationship between emotional intelligence and personal entrepreneurial success</th>
</tr>
</thead>
<tbody>
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<td>H5:</td>
<td>Munificence mediates the relationship between emotional intelligence and entrepreneurial success</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>H5a:</td>
<td>Munificence mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H5b:</td>
<td>Munificence mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H5c:</td>
<td>Munificence mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
<tr>
<td>H6:</td>
<td>Dynamism mediates the relationship between emotional intelligence and entrepreneurial success</td>
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</tr>
<tr>
<td>Support</td>
<td>H6a:</td>
<td>Dynamism mediates the relationship between emotional intelligence and financial entrepreneurial firm success</td>
</tr>
<tr>
<td>Support</td>
<td>H6b:</td>
<td>Dynamism mediates the relationship between emotional intelligence and relative entrepreneurial firm success</td>
</tr>
<tr>
<td>No Support</td>
<td>H6c:</td>
<td>Dynamism mediates the relationship between emotional intelligence and personal entrepreneurial success</td>
</tr>
</tbody>
</table>
CHAPTER V

DISCUSSION

The objective of this investigation was to empirically determine if there was a relationship between emotional intelligence and performance in the entrepreneurial context. The results of the data analysis and hypothesis testing of the main study are summarized in chapter IV. Chapter V discusses conclusions, theoretical and practical implications, as well as recommendations for future research.

Introduction

Society recognizes that entrepreneurship is a vital part of our economy, and researching constructs that lead to successful entrepreneurial performance is imperative. It is necessary for entrepreneurs today to be flexible and adapt to the dynamic business climate; and human abilities like emotional intelligence can set successful entrepreneurs apart. As emotional intelligence continues to be more prevalent in the literature it has been identified for being as important, if not more important, than general intelligence (IQ) and other cognitive abilities. Research has provided us evidence that overall emotional intelligence contributes to individual performance above and beyond the level associated with general intelligence (e.g., Lam & Kirby, 2002).

Today, researchers are exploring both inside and outside of the venture to identify competitive advantages. The research question presented at the beginning of this dissertation questioned what made some entrepreneurial firms more successful than others. Empirical evidence supports the contention that the ability to interact effectively with others is vital to success in many facets of life and across many contexts. Nonetheless, while previous research
provides some evidence of the relationship between emotional intelligence and performance, explanations for the role that EI plays in entrepreneurial success are few (e.g., Cross & Travaglione, 2003; Rhee & White, 2007). While empirical studies have not specifically addressed ability-based emotional intelligence in the entrepreneurial context, other support for the EI-entrepreneurial success relationship is available. More specifically, the emotional intelligence-performance relationship has been studied in great depth in the areas of leadership, negotiation, education, teamwork, decision-making, interpersonal relationships, job satisfaction, and problem solving. Based on previous research in these other areas it is evident that emotional intelligence abilities play a role in entrepreneurial activities such as negotiating, presenting to potential investors, building and maintaining customer relationships, obtaining financing, decision-making, choosing partners, selecting employees, and leading the organization.

Emotional Intelligence and Entrepreneurial Success

The empirical results obtained through this investigation provided several interesting points that necessitate further discussion. As was expected, given the widespread empirical support shown for this relationship in other contexts, a higher level of emotional intelligence was found to be positively correlated with entrepreneurial success. The overall measure of emotional intelligence showed a significant, positive correlation with financial entrepreneurial success, performance relative to competitors, and personal entrepreneurial success. Financial entrepreneurial success addressed broad categories of growth and business volume. Relative entrepreneurial success was measured as an entrepreneurs' evaluation of the performance of his or her company relative to other competitors in the industry that were at or near the same
age and stage of development. Personal entrepreneurial success was about perceptions of satisfaction with company performance; this is particularly important in entrepreneurship as starting a business is not always about growth, volume, or typical financial figures. Some individuals pursue entrepreneurship to achieve greater work/life balance, avoid schedule conflicts, or for other personal interests.

Emotional intelligence abilities are particularly salient to entrepreneurs because of their need to manage social interactions with other individuals. Social interactions include activities such as presenting to investors, gaining and maintaining customers, negotiating, as well as attracting, selecting, and handling employees, suppliers, and partners. With a greater ability to identify, understand, and manage the emotional responses of themselves, and others, entrepreneurs will obtain a competitive advantage that sets their business performance apart from their competitors.

Discussion of the Mediators

Another important area of discussion that stems from the regression results is the observed impact of the various mediating variables investigated throughout the study. Mediating variables were addressed at the individual, organizational, and environmental levels. According to Baron and Kenny, “the mediator function of a third variable represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest” (1986: p. 1173). Stated differently, a mediator is a third variable that intervenes between the independent and dependent variables. A mediator accounts for the relationship between the independent variable (emotional intelligence) and dependent variable (entrepreneurial success), either fully or partially. Theoretically, a mediator
facilitates the relationship between the other two variables (Hair et al., 2006). Individual-level mediators explored included managerial and entrepreneurial competencies. Organizational-level mediators included interpersonal tasks; and environmental-level mediating variables included munificence and dynamism.

Managerial Competence

The foundation of managerial competence is identifying individual skills and characteristics that enable an organization to be successful (Mintzberg, 1973). Defined by Boyatzis (1982), managerial competencies are underlying characteristics of a person resulting in superior job performance. The increasing need to sustain business performance has drawn considerable attention to the managerial competence perspective and highlights the need to further develop entrepreneurial abilities to assist in the critical thinking and decision making processes in the entrepreneurial context. Researchers have previously identified a positive relationship between emotional intelligence and other competencies, such social competence (Baron & Markman, 2003) and academic competence (Izard et al., 2001). Many of the tasks associated with a managerial role, and thus managerial competence, are social in nature; such tasks include supervising, influencing, leading, and motivating people. Based on the previously supported relationships, the emotional intelligence-managerial competence relationship emerges. It is also somewhat intuitive that greater managerial competence would lead to greater entrepreneurial success, as the ability to adequately perform the managerial tasks necessary would likely enhance the financial performance of the firm, performance relative to the competition, and the entrepreneur's feelings of personal success. As anticipated,
managerial competence was found to be an important component that accounted for much of the relationship between emotional intelligence and entrepreneurial success.

**Entrepreneurial Competence**

Emotional intelligence has implications for entrepreneurial behaviors such as negotiation, obtaining and organizing resources, identifying and exploiting opportunities, managing stress, obtaining and maintaining customers, and providing leadership. Entrepreneurship also includes social tasks such as identifying or exploiting goods and services, negotiating, and obtaining the necessary financing, which require entrepreneurial competence. Therefore, the logic remains that emotional intelligence and entrepreneurial competence will have a significant positive relationship, similar to the aforementioned studies on EI and various competencies (e.g., Baron & Markman, 2003; Izard et al., 2001). Entrepreneurial competence is comprised of the skills, traits, and knowledge of the entrepreneur to successfully fulfill the duties of the job. Emotional intelligence plays a vital role in the critical thinking abilities, decision making processes, and the facilitation of interpersonal relationships, which are all important entrepreneurial skills that ultimately lead to greater performance. This investigation provides empirical evidence that entrepreneurial competence accounts for much of the relationship between the emotional abilities of the founder and entrepreneurial success.

**Interpersonal Activities**

Previous researchers have provided support for the mediating effect of job roles on the relationship between emotional intelligence and performance (e.g., O'Boyle et al., 2010). Stated differently, empirical evidence has been provided to support job roles as an intervening variable in the emotional intelligence-performance relationship. Affect and emotion have an
effect on the performance of entrepreneurial ventures based on the specific tasks the entrepreneur must endure. While entrepreneurial tasks remain varied and constantly changing, this study provides evidence that interpersonal tasks account for a portion of the relationship between the independent variable (emotional intelligence) and the dependent variable (entrepreneurial success). Theoretically, interpersonal tasks facilitate the relationship between emotional intelligence and entrepreneurial performance to some extent.

**Munificence**

Environmental munificence is the extent to which critical resources exist in the environment (e.g., Dess & Beard, 1984). The results of the investigation depict that munificence partially mediated the relationship between emotional intelligence and entrepreneurial success; nonetheless, the percent of total effect mediated was quite small. The issue may stem from how the environmental variables were operationalized, as individual perceptions instead of objective industry values. More specifically, because the entrepreneurs were asked their perception of munificence (resource availability) it may be that individuals with greater emotional intelligence actually perceive their environments to be more munificent than they truly are because they are better able to acquire and utilize limited resources. The industry the venture was competing in may have also had an impact, as resource availability, and the competition for the necessary resources, is often tied to industry-related factors.

**Dynamism**

Dynamism was defined by Miller and Friesen (1983: p. 222) as the "rate of change and innovation in an industry as well as the uncertainty or unpredictability of the actions of competitors and customers." The results depict that dynamism partially mediated the
relationship between emotional intelligence and both financial entrepreneurial success, as well as relative entrepreneurial success; but the percent of total effect mediated was small. Insignificant indirect effects were found when dynamism was included as a mediator in the emotional intelligence-personal entrepreneurial success relationship. Dynamism was also an environmental variable operationalized as a perception of the entrepreneur. Because entrepreneurs often operate under great time pressures, information processing burdens, and stress they are often unable to rely on cognitive scripts that other individuals can depend on. Entrepreneurs instead have to focus on instincts, gut feelings, and emotions to guide to their thoughts and behaviors (e.g., Forgas, 2000). Therefore, entrepreneurs with greater emotional intelligence may perceive their environments to be less dynamic and unpredictable because they are better able to use their feelings and emotions as guides. Additionally, because the entrepreneurs were asked their perception of dynamism, it may be that individuals with greater emotional intelligence actually perceive their environments to be less dynamic than they truly are because they are better able to handle the industry changes as well as the unpredictability of their competitors and customers.

Contributions and Implications

Research

This study contributes to the field of entrepreneurship having addressed the influence of emotional intelligence on entrepreneurial success. Researchers have previously used extensive resources to investigate the role of emotional intelligence in leadership, general workplace performance, and education, but have spent considerably less time exploring emotional intelligence in the entrepreneurial context (e.g., Cross & Travaglione, 2003; Rhee &
Ability-based emotional intelligence has implications for entrepreneurial behaviors such as negotiations, obtaining and organizing resources, identifying and exploiting opportunities, obtaining and maintaining customers, leading the organization, and other interpersonal activities.

This investigation also contributes to the emotional intelligence stream of research. Researchers agree that emotional intelligence is a tool scholars can use to better understand and predict performance, but the construct has strong roots in social intelligence and theoretically differentiating the constructs has plagued researchers (e.g., Gardner, 1993). Exploring the relationship between emotional intelligence and performance in the entrepreneurial context contributes to the building of a nomological network to support EI research; more specifically, the study includes the theoretical framework of emotional intelligence, provides an empirical framework for measuring it in the entrepreneurial context, and outlines the linkages among and between the constructs.

In this investigation, entrepreneurial success was broken down into three constructs, financial entrepreneurial success, relative entrepreneurial success, and personal entrepreneurial success. By addressing entrepreneurial success from three different perspectives this study looks much deeper at the effect of emotional intelligence on entrepreneurial performance. More specifically, financial entrepreneurial success addressed objective growth and business volume figures, while relative entrepreneurial success and personal entrepreneurial success served as subjective measures. Relative entrepreneurial success took into account the competition and personal entrepreneurial success addressed the motives and satisfaction of the entrepreneurs. By evaluating multiple forms of entrepreneurial
success a more thorough explanation is provided for the contribution of emotional intelligence in the field of entrepreneurship as well as a clearer depiction of the role of the mediating variables (managerial competence, entrepreneurial competence, interpersonal tasks, dynamism, and munificence).

Managerial

Previous research has sought to answer the question, why are some entrepreneurs more successful than others in operating ventures? While previous research has explored characteristics, such as personality traits, this study investigated the role of cognition and social skills in entrepreneurial success. Because emotional intelligence abilities can be taught and learned, individuals seeking emotional intelligence training and education may acquire a competitive advantage in negotiations, obtaining and maintaining customers, as well as providing leadership and maintaining order. These tasks are vital to entrepreneurial success, so this study provides additional evidence to support the need for emotional intelligence training and education.

The contributions of this study are also important for educators. Due to the critical role that entrepreneurial ventures play in our economy, the number of entrepreneurial education programs has increased considerably in the last decade. However, entrepreneurial education currently emphasizes technical skills, like creating a business plan, managing daily operations, and planning skills; but overlooks entrepreneurial abilities like emotional control and relational abilities. This investigation provides additional verification for the need to provide supportive classrooms that focus on key entrepreneurial skills, such as emotional intelligence, that allow individuals to launch successful businesses in a competitive, global climate. Entrepreneurship
educators are thus encouraged to consider addressing topics throughout their curriculum like ethics, dealing with uncertainty, and how emotional intelligence can be beneficial throughout the entrepreneurial process.

Limitations

One limitation of this study was the use of self-reported data. Although widely used in survey research, individuals often have difficulty accurately rating their own behaviors. Additionally, previous research on self-report measures has recognized that the low reliability claims may be more of a myth than reality (e.g., Furnham & Stringfield, 1994) and effort was made to minimize the bias associated with self-reported data. All of the constructs were operationalized using well-developed and previously validated scales. The entrepreneurs surveyed were owners or part-owners of the business and were involved in the daily operations. Additionally, unlike a typical organization, entrepreneurial firms have few, if any, other employees who have the knowledge and involvement with the business to accurately assess the entrepreneur’s abilities or the firm’s success. As previously mentioned, the incorporation of more objective data for constructs like munificence and dynamism may be better defined and help minimize the bias associated with the self-reported data.

Cross-sectional data collection techniques raise the usual caveats concerning a lack of causal evidence. While there were relatively strong associations between emotional intelligence abilities and entrepreneurial success, the results are correlational as opposed to causal. Without a longitudinal study it is not possible to determine if emotional intelligence developed before or simultaneously with the successful business. Nonetheless, cross-sectional research designs have been frequently used and considered acceptable for this type of research.
(e.g., Ajzen, 1987, Sy et al., 2006). Future studies should investigate whether emotional intelligence abilities lead to continued entrepreneurial success in a longitudinal study.

Another limitation involves the demographics of the sample of entrepreneurs. The accessible sample was drawn primarily from a relatively small geographic area of the United States. Large samples of respondents from multiple geographic regions may provide additional value, especially if used to compare and contrast with the present sample of entrepreneurs. Finally, while a detailed assessment of additional mediating and moderating variables was beyond the scope of the current study, future research should address additional variables that may influence entrepreneurial success.

Future Research

While considerable research has addressed the relationship between emotional intelligence and leadership performance, and found considerable support, it is necessary to explore the role of emotional intelligence in other contexts. Therefore, this investigation addressed the relationship between emotional intelligence and performance in the entrepreneurial environment. Based on the results provided from this study, several ideas for future research have surfaced and additional suggestions have emerged for improving future investigations on the role of emotional intelligence in entrepreneurship.

Future research should explore the four dimensions of emotional intelligence and how each relates to (or which has the greatest impact on) entrepreneurial performance. Using the unidimensional, global index of emotional intelligence was adequate for the preliminary nature of this investigation, but addressing each of the four facets of emotional intelligence (identifying emotions, facilitating emotions, understanding emotions, and regulating emotions)
may provide additional insight into the relationship between EI and entrepreneurial success. Additional research could also explore the role of emotional intelligence in specific entrepreneurial functions, such as acquiring financial resources, negotiating with suppliers, as well as acquiring and maintaining customers. This research should be validated in other occupational contexts such as human resource management, crisis management, and marketing. Future research should also empirically examine the differences between emotional intelligence and other similar constructs, such as self-monitoring and entrepreneurial alertness.

In an effort to further validate the emotional intelligence stream of research, future investigations should continue to differentiate between ability-based emotional intelligence and mixed models of emotional intelligence. As previously mentioned, using objective measures, instead of self-reported perceptions, for constructs such as munificence and dynamism would also provide results that are potentially more reliable. Additional research could also compare and contrast the similarities and differences of the relationship between emotional intelligence and entrepreneurial success across various geographic regions in the United States and around the world.

As considerable controversy still exists on the differences between the emotional intelligence levels of men and women, future research could explore demographic characteristics as well. Besides the differences between men and women, researchers could explore differences in education level, work experience, industry, and venture size. As with any investigation, future research should also be conducted to replicate the findings of this investigation. When additional analyses are conducted investigators should consider using other statistical techniques, such as hierarchical regression or structural equation modeling to
further validate the results. Finally, additional research is necessary to explore other potential mediating and moderating variables.

Summary

The intentions of the study were to contribute to the body of knowledge on the relationship between emotional intelligence and performance, specifically, by exploring the relationship in the entrepreneurial context. Effective entrepreneurs use their emotional intelligence abilities to not only manage themselves but also in their business operations, acquiring resources, building and maintaining relationships, as well as leading their organizations. The results of this investigation show that emotional intelligence has a significant effect on entrepreneurial success. While emotional intelligence has been identified throughout the literature as consistently associated with differences in performance, EI research needs to be validated with empirical evidence across a multitude of occupations. Across the contexts emotional intelligence should distinguish high and low performers and predict success.

Effective entrepreneurs can use their emotional intelligence not only to manage themselves, but also to effectively manage others, and the venture. Therefore, greater emotional intelligence could help improve financial entrepreneurial success, performance relative to competitors, and perceptions of personal entrepreneurial success. It is also essential to note that emotional intelligence is an important ability, but that it is only one factor that coexists with several other skills and abilities.

The results of the study provide insight for individuals with entrepreneurial aspirations, academic institutions, as well as government and financial entities that provide resources to
entrepreneurial ventures. The research provides particularly important information to practicing entrepreneurs designing their organizational strategies to ensure growth, profitability, and organizational success. This dissertation contributes to a better understanding of entrepreneurial success and encourages additional research to be conducted on the role of emotional intelligence in various occupational contexts.
REFERENCES


