Summer 7-7-2015

The Relationships Between Entrepreneurs' Gender, Attitudes Toward Seeking Assistance from Entrepreneurship Centers, Utilization of Centers, and Entrepreneurial Success

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by
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A Dissertation

Presented in Partial Fulfillment of Requirements for the
Degree of
Doctor of Business Administration
in the
Coles College of Business
Kennesaw State University

Kennesaw, GA
2015

SIGNATURE PAGE

ABSTRACT

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Despite the proliferation of entrepreneurship centers, little is known about the reasons entrepreneurs appear reluctant to utilize their services. Although women are more likely than men to seek help in most settings, some research appears to suggest that this tendency may not apply to entrepreneurs. This is interesting given the financial underperformance of female-owned firms and research showing that entrepreneurship centers are effective and thereby lead to economic development. To better understand these issues, I propose and test a new conceptual framework of entrepreneurial help seeking that considers how entrepreneurs vary in their attitudes towards seeking professional help. In addition, I explore the influence of entrepreneurs' gender on attitudinal differences, help-seeking behaviors, and entrepreneurial success. This research integrates three theoretical frameworks: the psychology of help-seeking, gender role congruity, and the theory of guided preparation as an entrepreneurial resource. The findings demonstrate that entrepreneurs' gender influences their attitudes toward seeking assistance from entrepreneurship centers as well as their entrepreneurial success. In addition, entrepreneurs' attitudes toward seeking assistance influence their utilization of assistance, which influences their subsequent entrepreneurial success.

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CHAPTER ONE

INTRODUCTION

Entrepreneurship centers provide support services that are designed to facilitate entrepreneurship (Chrisman, McMullan, & Hall, 2005). While some entrepreneurship centers are established solely through private-sector resources, many centers combine both private- and public-sector funding in an effort to provide services to more entrepreneurs (ASBDC, 2013a; Audet, Berger-Douce, & St-Jean, 2007; Seo, Perry, Tomczyk, & Solomon, 2014). In the United States of America, there are numerous national, regional, and local initiatives that are subsidized or partially funded through the Small Business Administration (SBA). These initiatives include America's Small Business Development Center (SBDC) network, the Service Corps of Retired Executives (SCORE), Women's Business Centers (WBCs), Export Assistance Centers, Procurement Technical Assistance Centers, Micro-Enterprise Development Programs, and the Veteran's Business Outreach Center (SBA, 2013a). However, no matter the funding source or the markets targeted, entrepreneurship centers commonly provide advice, consulting, education and training, infrastructure support, research services, and financial assistance (Chrisman et al., 2005; Rotger, Gørtz, & Storey, 2012). Collectively, these services have become known as "guided preparation" (Chrisman et al., 2005).

Entrepreneurship centers are generally effective, both as an economic development policy instrument (Cumming & Fischer, 2012; Mole, Hart, Roper, & Saal, 2011) and in meeting the needs of entrepreneurs (Langowitz, Sharpe, & Godwyn, 2006;

Seo, Perry, Tomczyk, & Solomon, 2014). Although there are a few lingering questions about the long-term effects of assistance, recent research confirms that entrepreneurs' utilization of centers is positively associated with enhanced entrepreneurial success (Chrisman, McMullan, Ring, & Holt, 2012; Cumming & Fischer, 2012; Mole, Hart, Roper, & Saal, 2009; Rotger, Gørtz, & Storey, 2012; Seo et al., 2014). In spite of the prevalence and potential impact of entrepreneurship centers, less than 4% of the 27.5 million small businesses in the United States utilized the services of America's largest and oldest support program – the Small Business Development Center – in 2012 (ASBDC, 2013a; SBA, 2013a). Therefore, it appears that a very small proportion of entrepreneurs take advantage of the services offered by centers. However, why entrepreneurs seem reluctant to utilize such support is unknown (Audet, Berger-Douce, & St-Jean, 2007; Johnson, Webber, & Thomas, 2007). As entrepreneurship is responsible for increasing societal wealth and is such a widespread phenomenon (Campbell & Mitchell, 2012), the reasons why entrepreneurs are more or less willing to seek help are important.

Research on attitudes towards seeking help may shed light on why some entrepreneurs seem reluctant to utilize the support offered by small business centers. In other scholarly domains, research shows that individuals' attitudes toward seeking professional help are highly correlated with actual help-seeking behavior (e.g., Fischer & Turner, 1970; Lown & Cook, 1990; Mitchell & Walsh, 2004; Suchman, 1966). For example, Fischer and Turner (1970) developed their psychology of help seeking framework based on repeated observations of differences in individuals' attitudes toward seeking professional psychological help (ATSPPH). Scholars have also considered

differences in individuals' attitudes toward seeking help in other domains such as medicine (Suchman, 1966), finance (Lown & Cook, 1990), consumer behavior (Mitchell & Walsh, 2004), and in general settings (Nadler, 1986). Across most of these domains, research consistently shows that females have much more positive attitudes than males toward seeking help (Fischer & Turner, 1970; Fischer & Farina, 1995; Johnson, 1988; Lown & Cook, 1990; Mitchell & Walsh, 2004). Research also shows that females are more likely than males to actually utilize professional help (Addis & Mahalik, 2003; Joo & Grable, 2001; Mansfield, Addis, & Courtenay, 2005). However, while this research suggests that women entrepreneurs should be *more* willing to seek help from entrepreneurship centers, evidence suggests that they actually are *less* likely to utilize such centers than are male entrepreneurs (Audet et al., 2007; Orser & Riding, 2006).

Empirical evidence also suggests that female-owned businesses underperform financially when compared to firms owned by males (Davis & Shaver, 2012; Eddleston & Powell, 2012; Jennings & Brush, 2013; Loscocco & Bird, 2012; Powell & Eddleston, 2013; Robb & Watson, 2012). Businesses that are owned by females are persistently smaller, slower-growing, and less profitable than those owned by males (Davis & Shaver, 2012; Jennings & Brush, 2013; Loscocco & Bird, 2012; Powell & Eddleston, 2013), although the performance gap has begun to narrow (Jennings & Brush, 2013). One possible explanation for this underperformance is differential access to and utilization of resources that are essential to entrepreneurial success (Fischer, Reuber, & Dyke, 1993; Jones & Tullous, 2002). Because entrepreneurship centers provide resources that are associated with improvements in firm financial performance (Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014), it appears that gender-

based differences in attitudes toward entrepreneurial help seeking and utilization of entrepreneurship centers could help explain the lingering performance disparities between female- and male-owned firms.

Despite research evidence of the utility of the psychology of help seeking (Fischer & Turner, 1970) and the effectiveness of entrepreneurship centers (e.g., Chrisman et al., 2012), these bodies of scholarly research have not yet been integrated nor considered within a single study. This research addresses two gaps in the extant literature. First, despite substantial evidence that entrepreneurship centers enhance firm financial performance (e.g., Chrisman et al., 2012; Rotger et al., 2012), relatively little is known about why entrepreneurs appear reluctant to use their services (Audet et al., 2007; Johnson et al., 2007). Second, even though females are generally more willing to seek help than men (Addis & Mahalik, 2003; Joo & Grable, 2001; Mansfield, Addis, & Courtenay, 2005), anecdotal observations (e.g., Orser & Riding, 2006) and some initial empirical evidence (e.g., Audet et al., 2007) suggested that female entrepreneurs are underrepresented in their utilization of entrepreneurship centers. To address these gaps, I develop and test a theoretically-grounded conceptual framework of entrepreneurial help seeking.

This theoretical framework integrates work from three divergent scholarly domains: the psychology of help-seeking (Fischer & Turner, 1970), gender roles (Eagly, 1987; Eagly & Karau, 2002), and the theory of guided preparation (Chrisman, McMullan, & Hall, 2005). In so doing, I consider four different factors: entrepreneurs' gender, their attitudes toward seeking help from entrepreneurship centers, their utilization of centers, and subsequent entrepreneurial success. This research makes four scholarly

contributions. The first contribution is the demonstration of how entrepreneurs' attitudes toward seeking professional assistance are an important influence on their utilization of entrepreneurship centers. The second contribution consists of validated scale measures of those attitudes toward seeking assistance from entrepreneurship centers. The third contribution is the demonstration of how the gendered context of entrepreneurship alters the normal predictions of the psychology of help seeking (Fischer & Turner, 1970), gender role theory (Eagly, 1987) and gender role congruity theory (Eagly & Karau, 2002). The final contribution is the additional empirical evidence supporting the theory of guided preparation (Chrisman et al., 2005), along with the further refining of the theory gained through the integration of gender and the psychology of help seeking.

The remainder of this dissertation is organized as follows: Chapter Two reviews the literature on entrepreneurship and gender, entrepreneurship centers, and attitudes toward seeking help. Chapter Two also includes the development of a theoretical framework and testable hypotheses. Chapter Three describes the research design, methods, and statistical analysis, while Chapter Four presents the results of the hypotheses testing. Finally, Chapter Five discusses the results, limitations, scholarly and practical implications, and areas for future research. I begin with a review of existing research that has considered the role of gender in regards to entrepreneurial success and help seeking.

CHAPTER TWO

LITERATURE REVIEW

Entrepreneurship and Gender

Empirical evidence demonstrates that businesses owned by female entrepreneurs underperform financially when compared to businesses that are owned by male entrepreneurs (Brush & Vanderwerf, 1992; Brush, Carter, Gatewood, Greene, & Hart, 2006; Brush, de Bruin, & Welter, 2009; de Bruin, Brush, & Welter, 2006; de Bruin, Brush, & Welter, 2007; Hughes, Jennings, Brush, Carter, & Welter, 2012). Female-owned firms are smaller than male-owned firms, with lower revenues and fewer employees. For example, fewer than 20% of female-owned businesses' revenues exceed $100,000 annually – compared to 32% of male-owned businesses' (SBA, 2013b). In addition, male-owned firms typically report revenues double that of female-owned firms (Mitchell, 2011). Even though they account for 30% of America's privately-held firms, women-owned businesses employ just 14% of the nation's private sector workforce and receive only 11% of private sector revenues (American Express OPEN, 2013). Such evidence that female-owned businesses underperform leads Mitchell (2011) to assert that female entrepreneurs may be one of America's least-utilized economic resources.

Because the financial performance disparities have been so enduring, scholars have long attempted to understand and explain these gendered differences. Historically, most studies of entrepreneurs have been conducted from a masculine perspective, with little scholarly or media attention given to female business owners (Brush, 1997; Buttner,

1993; Cliff, 1998; Hisrich & Brush, 1984). Perhaps one reason for this is that very early work defines the entrepreneur in distinctively masculine terms such as the "captain of industry" (Schumpeter, 1934; Tuttle, 1927). Similarly, Baumol (1968) describes the entrepreneur as existing at "the apex of a hierarchy" (p. 64), and notes his responsibility for the economic health of society. Because of the heavy societal burden entrepreneurs must bear, they are commonly associated with characteristics such as aggressiveness, ambition, autonomy, elevated risk tolerance, and high needs for achievement, power, and responsibility (Carland, Hoy, Boulton, & Carland, 1984). Given these are stereotypically masculine traits, it is not surprising that the entrepreneur has evolved into something of a mythical figure, the "heroic self-made man" (Ahl, 2006, p. 599).

Because of this historically masculine view of entrepreneurship, most theories and measures of entrepreneurs and entrepreneurship have been "developed on samples of men, by men, and ultimately tested primarily on samples of men" (de Bruin et al., 2006, p. 586). As a result, numerous scholars believe that a persistent gender bias underlies much of the entrepreneurship literature (Ahl, 2006; Ahl & Marlow, 2012; Brush et al., 2009; de Bruin et al., 2007; Hisrich & Brush, 1984; Hughes et al., 2012; Powell & Eddleston, 2008; Powell & Eddleston, 2013). The media and popular press tend to support this gender bias, often stereotyping women as less entrepreneurial than men (de Bruin et al., 2006). Similarly, given the stereotypical view of entrepreneurship as a masculine domain, most high-profile entrepreneurial role models are men (Ahl & Marlow, 2012).

In spite of the persistent gender bias, recent research has improved scholars' understanding of the gendered nature of entrepreneurship (Eddleston & Powell, 2013).

Much of these recent scholarly gains in understanding can be traced back to the seminal work of Brush (1992), who called for a "new lens" (p. 25) to guide scholarly inquiry of gender and entrepreneurship. Following this recommendation, scholars have learned that men and women have different access to and preferences for opportunity, they differ in personal and professional expectations, receive differing societal treatments, and seek different outcomes from their entrepreneurial ventures (Davis & Shaver, 2012; De Carolis, Litzky, & Eddleston, 2009; Eddleston & Powell, 2008; Eddleston & Powell, 2012; Powell & Eddleston, 2013). While limited, there is also some evidence suggesting that the disparities in financial performance are reduced when performance measures are adjusted to reflect these gender differences and certain control variables are manipulated (Robb & Watson, 2012; Watson, 2002; Watson & Robinson, 2003).

Other recent research also shows that female entrepreneurs have begun narrowing the financial performance gap (Brush et al., 2009; Davis & Shaver, 2012; Jennings & Brush, 2013; Loscocco & Bird, 2012; Powell & Eddleston, 2013). Today, female business owners represent one of the fastest-growing segments of the entrepreneurial population (Brush et al., 2009). In fact, the number of female-owned businesses in the United States grew by 59% between 1997 and 2013 – about 1½ times the national average (American Express OPEN, 2013). Since the great recession, privately-held majority women-owned firms have reported increases in net employment while all other privately-held firms have shed jobs (American Express OPEN, 2013). Despite these impressive performance gains, the fact remains that female-owned businesses still have lower average revenues, profitability, and total assets than male-owned firms (Davis & Shaver, 2012; Gupta, Turban, & Pareek, 2013; Hughes et al., 2012; Jennings & Brush,

2013). To better understand this lingering underperformance, scholars commonly recommend that more gender-specific theories should be integrated into existing entrepreneurship frameworks (Brush, 1992; Brush et al., 2009; Hughes et al., 2012; Jennings & Brush, 2013).

Entrepreneurship and Gender Roles

Both men and women generally consider entrepreneurship to be a masculine domain, as well as a masculine occupation (Gupta, Turban, Wasti, & Sikdar, 2009). Gender role theory (Eagly, 1987) has helped scholars to better understand this gender bias in entrepreneurship. According to gender role theory, gender differences are partially attributable to specialization of the sexes and division of labor. Historically, men's activities have granted them greater access to resources and enhanced decision-making power (Eagly, 1987; Eagly & Karau, 1991; Wood & Eagly, 2002). Gender roles and stereotypes are the shared beliefs about appropriate psychological traits and characteristics for each sex (Eagly, 1987; Wood & Eagly, 2002). According to gender role theory (Eagly, 1987), male and female gender roles are a strong influence on individual and group behaviors. Because these gender roles and stereotypes are deeply embedded in society, men are often presumed to possess superior dispositional attributes, higher status, and more authority than women (Eagly, 1987). In addition, the male gender role typically is associated with agentic behaviors and qualities such as independence, assertiveness, and competence (Eagly, 1987; Eagly & Karau, 1991; Eagly & Karau, 2002). Given that such behaviors and qualities are also commonly associated with entrepreneurship (Carland et al., 1984), gender role theory is consistent with the

historically masculine perspective of entrepreneurship, as well as the persistent financial underperformance of female-owned firms.

While gender role theory (Eagly, 1987) continues to serve as a useful theoretical lens, several entrepreneurship scholars have also utilized Eagly and Karau's (2002) gender role congruity theory (e.g., Eddleston & Powell, 2008; Gupta et al., 2009; Powell & Eddleston, 2013). The theories are quite similar, but gender role congruity theory builds on gender role theory by considering the influence of society's descriptive and injunctive norms. Norms are standards of proper or acceptable behaviors, while congruity is compliance or consistency with such expectations. Descriptive norms are the commonly-held societal expectations about what an individual *actually does*, while injunctive norms are the consensual expectations about what an individual *should do* or *would ideally do*. According to Eagly and Karau (2002), society's gender roles and stereotypes are easily activated. Thus, society's descriptive and injunctive norms – which are also easily activated – will result in societal disapproval, conflict, and negative reactions when an individual engages in activities or roles that are incongruent with their prescribed gender role (Eagly & Karau, 2002). Because of its stereotypically masculine attributes (Gupta et al., 2009; Gupta et al., 2013; Hughes et al., 2012), entrepreneurship is broadly incongruent with the societally-prescribed female gender role. As does gender role theory, gender role congruity theory helps to explain female-owned firms' persistent financial underperformance.

Gender Roles and Help-Seeking

When utilizing gender role theory (Eagly, 1987) to examine the relationship between gender and help-seeking, a reasonable expectation is that females should be

more likely than males to seek professional help. Given that the female gender role is associated with communal behaviors and qualities such as friendliness, unselfishness, concern for others, expressiveness, and personal fulfillment (Eagly, 1987; Eagly & Karau, 1991; 2002), it is not surprising that many studies confirm that females are more likely than males to seek help in most settings (e.g., Addis & Mahalik, 2003; Joo & Grable, 2001; Mansfield, Addis, & Courtenay, 2005). Much of the help seeking literature attempts to generalize the psychology of help seeking (Fischer & Turner, 1970) across various contexts such as psychology, sociology, medical, physical health, and finance.

Because the female gender role and societal stereotypes influence individuals' perceptions about themselves (Eagly, 1987; Eagly & Karau, 1991; Eagly & Karau, 2002), female entrepreneurs may believe they lack the skills and abilities necessary to succeed as entrepreneurs (Wilson, Kickul, & Marlino, 2007). This also may explain why females have lower entrepreneurial self-efficacy and entrepreneurial intentions than males (Anna, Chandler, Jansen, & Mero, 1999; Mueller & Data-On, 2008; Wilson et al., 2007). According to Anna et al. (1999), gender influences venture efficacy – one's perceived ability to succeed in a business venture – based upon whether the business is traditional or nontraditional for the entrepreneurs' gender. Other research reveals that certain masculine qualities (e.g., attributes associated with the male gender role) might be better suited for more complex entrepreneurial tasks (Mueller & Data-On, 2008). Finally, Wilson et al. (2007) find that even females who are employed as managers while pursing graduate business degrees believe that entrepreneurship is still a masculine domain. Together with gender role theory (Eagly, 1987), such studies suggest that female entrepreneurs' presumed disadvantage makes them *more* likely than males to seek help.

Although there is relatively little research on gendered differences in entrepreneurs' willingness to seek help, Orser and Riding (2006) proposed that the commonly-held beliefs about females' greater proclivity to seek help may not apply to entrepreneurs. They proposed that females may actually be *less* likely than males to seek help based on anecdotal evidence that female entrepreneurs appear to be underrepresented in their utilization of entrepreneurship centers. Presumably because Orser and Riding (2006) did not test the relationship between entrepreneurs' gender and help seeking, they did not elaborate on the source or the nature of this anecdotal evidence. However, they did discuss the recent growth in the number of centers specifically targeting female entrepreneurs and suggested that female entrepreneurs may differ from males in their perception of the value of help. Centers provide assistance to facilitate entrepreneurship (Chrisman et al., 2005), and recent research generally supports the relationship between guided preparation and entrepreneurial success (e.g., Chrisman et al., 2012; Rotger et al, 2012; Seo et al, 2014). However, because female entrepreneurs may not desire business growth or do not perceive growth as beneficial, they may also not perceive that centers are a valuable resource for their firms (Orser & Riding, 2006).

Subsequently, Audet et al. (2007) conducted an exploratory study to assess entrepreneurs' perceptions about and utilization of government-funded Canadian entrepreneurship centers. Based on very limited initial evidence from the United States (e.g., Haynes & Haynes, 1999; Young & Brenner, 2000), Audet et al. (2007) argued that female entrepreneurs would be *more* likely to utilize centers than males. However, in their sample of 70 entrepreneurs – 49 males and 21 females – Audet et al. (2007) found some evidence suggesting that female entrepreneurs may be less likely than males to use

centers. To better understand this unexpected finding, Audet et al. (2007) examined their qualitative results, which appeared to suggest that entrepreneurs' perceptions about entrepreneurship centers limit their willingness to utilize their services. Many of the study's respondents utilized entrepreneurship centers because they needed financial assistance. Therefore, Audet et al. (2007) suggested that female entrepreneurs may be less likely to utilize centers because they do not believe that centers will meet their needs.

There is limited additional support that challenges the widely-held belief that women are more likely than men to seek help. For example, gender interacts with organizational norms to influence individuals' propensity to seek help in businesses and organizations (Lee, 1997; 1999). Gender also interacts with the perceived social costs of seeking help and task-specific attributes to influence help seeking (Lee, 2002). More recently, Cleavenger, Gardner, and Mhatre (2007) conducted an experiment using college students as subjects to test employees' willingness to seek help. The results appear to confirm the importance of context because there was no significant direct effect for gender on help seeking (Cleavenger et al., 2007). Similarly, some research suggests that gender does not directly influence help seeking for financial counseling and financial planning (Grable and Joo, 1999). Finally, Lee (1997) utilized an experimental design involving hypothetical management decision-making scenarios under various conditions. While females' help seeking remained relatively consistent, males' propensity to seek help doubled under collective norm settings compared to individualistic norms. Because her hypothesis that women are more likely than men to seek help was not supported, Lee (1997) concluded that the commonly-held belief about females' greater tendency to seek help may not always apply. To better understand such differences in individuals'

propensity to seek help, I next discuss the psychology of help seeking (Fischer & Turner, 1970).

Attitudes toward Seeking Professional Help

In other scholarly domains, the psychology of help seeking (Fischer & Turner, 1970) has been used to show that individuals' attitudes toward seeking professional help are an important influence on their help-seeking behaviors. Social psychology researchers have long believed that attitudes – closely associated with the predisposition to consistently react either favorably or unfavorably towards an object or action – are reliable predictors of behavior (Allport, 1935; Fischer & Turner, 1970). However, one criticism of early research is that attitudes are generally not good predictors of single behaviors; instead attitudes are a complex multidimensional construct that better predict multiple acts such as repeated instances of the same or related behaviors (Fischer & Turner, 1970).

Based upon repeated observations of vast differences in individuals' attitudes when seeking help for psychological difficulties, Fischer and Turner (1970) developed the conceptual framework now commonly known as the psychology of help seeking. Believing that the help seeking construct was both theoretically and practically interesting, Fischer and Turner (1970) wanted to better understand the reasons that individuals may be reluctant to seek psychological help. Because of the complexity of attitudes, Fischer and Turner (1970) found that four different attitudinal dimensions together comprised individuals' attitudes toward seeking professional psychological help (ATSPPH). These four dimensions included recognition of the need for help, tolerance

of the stigma associated with seeking help, interpersonal openness, and confidence in the assistance provider. To elaborate, a help seeker must first recognize his or her need for professional help and must also be willing and able to tolerate the stigma associated with seeking help. Further, a help seeker must be interpersonally open, or willing to self-disclose and share detailed information about the nature and extent of his or her difficulties. Finally, he or she must have confidence in the providers' ability to actually help with the situation (Fischer & Turner, 1970).

The usefulness of Fischer and Turner's (1970) conceptual framework has led researchers to adapt and modify the framework to fit other settings, contexts, and research domains. For example, attitudes toward seeking professional help have been considered in medicine and physical health (Addis & Mahalik, 2003; Suchman, 1966), finance (Grable & Joo, 1999; Lown & Cook, 1990), and in general help-seeking contexts (DePaulo & Fisher, 1980; Nadler, 1986). Although the psychology of help seeking has not yet been fully integrated into management research, many scholars believe that help seeking within businesses and organizations may be more complex than in other settings (Cleavenger et al., 2007; Geller & Bamberger, 2012; Lee, 2002). One reason the psychology of help seeking is relatively underdeveloped in the management literature is that much of the research has focused on *helping* rather than *help seeking* (Bamberger, 2009; Cleavenger et al., 2007; Geller & Bamberger, 2012). Help seeking is different from helping, which is defined as individuals' pro-social organizational citizenship behaviors that are generally directed toward other individuals or groups in need of help (Podsakoff, Whiting, Podsakoff, & Blume, 2009).

Even though management scholars have not yet integrated the psychology of help seeking into their work, some studies suggest that the framework may apply. For example, Lee (1997) theorizes that a precursor to help seeking is that an individual must first recognize his or her need for help. Also similar to the Fischer and Turner (1970) framework, help seeking in organizations is often associated with potential social costs such as stigmatization and feelings of inferiority, incompetence, dependence, and powerlessness (Lee, 1997; 2002). Scholars also believe the complex interplay between organizational norms, task-specific attributes, interpersonal and relational factors, and situational factors combines to make help seeking within organizations even more difficult to understand and predict (Baldridge & Veiga, 2001; Cleavenger et al., 2007; Geller & Bamberger, 2012; Lee, 1997; Lee, 1999; Lee, 2002; Veiga, Baldridge, & Eddleston, 2004). In short, while only a few researchers have considered help seeking in business and organizational settings, their inconsistent and unpredictable findings demonstrate that much more research is needed (Bamberger, 2009; Cleavenger et al., 2007; Geller & Bamberger, 2012; Lee, 2002). Finally, the psychology of help seeking has not yet been applied in entrepreneurship research.

Gender and Attitudes toward Seeking Professional Help

Early research utilizing the psychology of help seeking showed that social norms, personal characteristics, and contextual factors should all be considered when investigating the relationships between attitudes and behavior (Fischer & Turner, 1970; Fischer & Cohen, 1972). Indeed, recent research confirms that attitudes and behaviors are more systematically related when the nature of the predictors and actions are

considered (Fischer & Farina, 1995; Turner, 2012). This is particularly important in light of the preceding discussion of the gendered context of entrepreneurship (e.g., Eddleston & Powell, 2013; Gupta et al., 2013) and the surprising finding that female entrepreneurs appear to be less likely than males to seek professional help (e.g., Audet et al., 2007; Orser & Riding, 2006).

In the original conceptualization of the psychology of help seeking framework, Fischer and Turner (1970) noted the presence of strong gender differences, with females possessing more positive attitudes toward seeking help. This gender difference was found on each of the four attitudinal dimensions as well as the overall help seeking construct (Fischer & Turner, 1970). In addition, gender differences in help seeking have been found repeatedly (e.g., Fischer & Cohen, 1972; Fischer & Farina, 1995) and across other research domains such as seeking help for mental and physical health (e.g., Addis & Mahalik, 2003; Surgenor, 1985), general help seeking (e.g., Johnson, 1988), and personal financial planning help seeking (e.g., Lown & Cook, 1990). Over time, the strong and well-established gender difference became so embedded in the framework that psychology scholars began to utilize single-sex samples rather than mixed-sex samples to better understand individuals' attitudinal differences (e.g., DePaulo & Fisher, 1980; Good, Dell, & Mintz, 1989; Morgan, 1992).

Attitudinal Dimensions within the Psychology of Help Seeking

Recognition of the need for help

Even though entrepreneurship researchers have not yet integrated the psychology of help seeking framework to measure entrepreneurs' willingness to seek professional help, scholars agree that recognition of the need for assistance is an important precursor

to entrepreneurs' help seeking behavior (Chrisman et al., 2012; Johnson et al., 2007; Storey, 2000). In other words, entrepreneurs who perceive a gap in their knowledge are more likely to seek help. Conversely, entrepreneurs are unlikely to seek help unless they perceive a need for assistance. However, entrepreneurship research also suggests that entrepreneurs are unlikely to recognize a knowledge gap or need for help (Chrisman & McMullan, 2004; Storey, 2000). Entrepreneurs are ambitious, autonomous, independent, innovative, self-confident, and risk tolerant, and tend to have an internal locus of control, high self-efficacy and high needs for achievement, control, and power (Carland et al., 1984; Carsrud & Brännback, 2011; Watson & Newby, 2005). Entrepreneurs also have a strong desire for others to perceive them as self-reliant (Kets de Vries, 1977), which might help explain why entrepreneurs are unlikely to perceive – or perhaps unwilling to acknowledge – that they are deficient in their knowledge and need help.

Storey (2000) discusses 'self-selection,' surmising that varying motivations for entrepreneurial activity may partly explain differences in entrepreneurs' willingness to seek help. For example, entrepreneurs who seek help from centers may be more motivated to succeed financially than those who do not. Because entrepreneurs who seek help may be more highly motivated, Storey (2000) recommends that researchers integrate entrepreneurs' motivations into their policy-based research of entrepreneurship centers. According to Storey (2000), inclusion of entrepreneurs' motivation and self-selection will help ensure that scholars do not overestimate the economic impact of entrepreneurship centers. However, recent studies similarly suggest that the ongoing concerns about self-selection have not been sufficiently addressed (e.g., Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012).

Research also suggests that one's recognition of his or her need for help may be temporal, or time-sensitive. Drawing from the psychology literature, an individuals' recognition of his or her need for help reflects the urgency of the need (Chan & Hayashi, 2010). Stated differently, it might be expected that more urgent needs will be more quickly recognized. However, scholars still do not fully understand how "the knowledge gap comes into play" (Chrisman et al., 2012, p. 79) in motivating entrepreneurs to seek help. To better understand this phenomenon, I will relate entrepreneurs' recognition of their need for help to seeking help from centers.

Tolerance of the stigma associated with seeking help

Research from psychology has well-established that help seekers incur certain costs such as reduced feelings of competence and self-respect, as well as the helpers' potentially diminished evaluation of the help-seeker (e.g., Cohen, 1999; DePaulo & Fisher, 1980). A few management scholars have proposed that individuals who seek help in businesses or organizations might incur similar social costs or stigmatization (Baldridge & Veiga, 2001; Veiga et al., 2004). For example, a disabled individuals' ability to tolerate stigmatization should be associated with an increased willingness to request workplace accommodations (Baldridge & Veiga, 2001). Similarly, an employee's greater tolerance for stigmatization should increase his or her willingness to participate in family-friendly programs (Veiga et al., 2004). In businesses and organizations, these 'social costs' might include feelings of incompetence, inferiority, and dependence (Lee, 1997). Finance research also suggests that the stigma associated with seeking help and with personal financial problems will decrease one's propensity to

seek help (Grable & Joo, 1999; 2001). Finally, some limited empirical evidence suggests that a greater tolerance for stigmatization is associated with an increased propensity to seek help for financial problems (Lown & Cook, 1990).

Within the entrepreneurship literature, an emergent research stream considers the stigma associated with business problems, failure, or bankruptcy (Lee, Peng, & Barney, 2007; Shepherd & Haynie, 2011; Ucbasaran, Shepherd, Locket, & Lyon, 2013; Valdez & Richardson, 2013). For example, some scholars believe that the social stigma of failure and the possibility of personal bankruptcy are important influences on entrepreneurial activity (Lee et al., 2007). Similarly, other scholars have proposed that entrepreneurs might prefer to manage others' impressions rather than suffer from the stigmatization associated with business failure (Shepherd & Haynie, 2011). Indeed, recent studies have confirmed these propositions by showing that entrepreneurs are stigmatized by business failures and the bankruptcies that often result from failure (Ucbasaran, Shepherd, Lockett, & Lyon, 2013; Valdez & Richardson, 2013).

In short, an individual is not likely to seek help unless he or she identifies a need for assistance (Fischer & Turner, 1970; Lee, 1997; Lown & Cook, 1990), most often relating to a business problem. Entrepreneurs are stigmatized by business problems, the potential for business failure, and the possibility of personal bankruptcy (e.g., Ucbasaran et al., 2013; Valdez & Richardson, 2013). Help seeking in business and organizations is often associated with feelings of incompetence, inferiority, dependence, and powerlessness (Lee, 1997; 2002). Thus, an entrepreneurs' tolerance of the stigma associated with seeking help is expected to influence his or her willingness to seek help from entrepreneurship centers.

Interpersonal openness

In developing their psychology of help seeking, Fischer and Turner (1970) discussed the importance of interpersonal openness, defined as one's willingness to self-disclose personal information or problems (Jourard & Lasakow, 1958). As might be expected, research has shown that an individual's willingness to self-disclose personal information or problems is positively associated with an increased propensity to seek professional help (Cohen, 1999; Fischer & Turner, 1970; Fischer & Farina, 1995; Turner, 2012). Entrepreneurs are autonomous, independent, and highly individualistic (Ahl, 2006; Carland et al., 1984; Carsrud & Brännback, 2011; Llewellyn & Wilson, 2003; Zahra et al., 2009), characteristics not generally associated with interpersonal openness. Most scholars also agree that entrepreneurs are reluctant to disclose sensitive financial information (e.g., Dess & Robinson, 1984; Chrisman et al., 2012), and many others have called for additional research into entrepreneurs' interpersonal openness (e.g., Bane, 1997; Miles, Miles, Snow, Blomqvist, & Rocha, 2009; Sapienza & Korsgaard, 1996).

Even though most recent work is conceptual and links entrepreneurs' willingness to share information with improved firm financial performance, scholars have an emerging interest in relating entrepreneurs' interpersonal openness to other constructs as well. One such study argues that information sharing within an organization will ultimately enhance performance because of improved inter-organization communication (Blatt, 2009). Similarly, others theorize that differences in individuals' willingness to self-disclose to those within the organization will ultimately affect venture sustainability (Danes, Lee, Stafford, & Heck, 2008). Another recent study proposes that an "innovation-form" organization will be more financially successful and sustainable in

part due to its information-sharing culture (Miles et al., 2009). Particularly relevant for this proposed research is the suggestion that entrepreneurs' willingness to share information with those *outside* of the organization will enhance their firms' financial performance, (Miles et al., 2009).

Three other studies demonstrate the importance of entrepreneurs' interpersonal openness for this proposed research. The first study qualitatively assesses the factors that angel investors and venture capitalists believe are most important for investment decision making, with half of the study group agreeing that factors related to interpersonal openness are very important (Levie & Gimmon, 2008). More particularly, study participants believe that an entrepreneur's "coachability" improves firm financial performance, which ultimately improves the rate of return on equity investments (Levie & Gimmon, 2008). In another recent study examining the impact of entrepreneurship centers, Cumming and Fischer (2012) mention that the centers that comprise the study group assess the 'coachability' of entrepreneurs as a precursor to providing help. Similarly, St-Jean (2012) recommends that centers further leverage their impact by targeting those entrepreneurs who are more willing to self-disclose.

Interpersonal openness is the third attitudinal dimension of the psychology of help seeking (Fischer & Turner, 1970), and it considers individuals' relative willingness or reluctance to disclose information to others. Entrepreneurs are generally unwilling to share information (e.g., Chrisman et al., 2012; Eddleston & Kellermanns, 2007), and scholars theorize that interpersonal openness may be so important that it ultimately influences firm financial performance (e.g., Blatt, 2009; Danes et al., 2008; Miles et al., 2009). Recent studies also conclude that interpersonal openness may play a crucial role

when entrepreneurs seek help from centers (e.g., Cumming & Fischer, 2012; St-Jean, 2012). Thus, an entrepreneurs' interpersonal openness is expected to influence his or her willingness to seek help from entrepreneurship centers.

Confidence in the provider

Despite its label as "confidence in the mental health practitioner," Fischer and Turner (1970) are careful to point out that this attitudinal dimension is actually more comprehensive and includes individuals' confidence in the profession, its practitioners, and its processes. In addition, despite its relatively high correlation (0.58) with recognition of the need for help, Fischer and Turner (1970) maintain that their four attitudinal dimensions "are reasonably independent" (p. 84) of one another. Indeed, other scholars have since confirmed the uniqueness of this dimension (e.g., Surgenor, 1985, Lown & Cook, 1999; Morgan, 1992). Because of the nature of entrepreneurship – a solo endeavor, most often undertaken by individuals (Ahl, 2006; Carland et al., 1984; Carsrud & Brännback, 2011) – I expect confidence in the provider to be particularly relevant.

Drawing from an emergent research stream considering entrepreneurs' interpersonal networks might shed light on whether entrepreneurs are likely to seek help. As previously discussed, entrepreneurs are independent and autonomous (e.g., Carland et al., 1984; Carsrud & Brännback, 2011), qualities that have long been associated with the development of interpersonal networks (Granovetter, 1985). Recent research suggests that entrepreneurs are unlikely to seek help unless a member of their existing network refers them to the provider (Hanlon & Saunders, 2007). Entrepreneurs also tend to associate the value of such referrals with whether the network member making the

referral has earned the entrepreneurs' confidence (Hanlon & Saunders, 2007). More recently, research demonstrates that entrepreneurs' confidence in a network member's ability is based upon the whether the member has demonstrated that they possess the requisite knowledge, skills, and abilities (Kautonen, Zolin, Kuckertz, & Viljamaa, 2010). Another recent work demonstrates that entrepreneurs with more relevant interpersonal networks – in this study, entrepreneurs who are tenants of a business incubator – are more likely to use external resources such as business advisors and consultants (Honig & Karlsson, 2010). Although the reasons for such findings are not clear, Honig and Karlsson (2010) theorize that the relevance of an entrepreneur's network influences his or her trust and confidence in external resources.

Numerous scholars have discussed the conceptual closeness of trust and confidence in others. For example, Kramer (1999) loosely defines trust as the level of confidence that one places in another, while Goel and Karri (2006) define trust as "a belief or an expression of faith or *confidence* [emphasis added] that the trustor holds with regard to the trustee" (p. 479). Trust – and by extension, confidence – in others is theorized as an important antecedent of firm growth (Goel & Karri, 2006). During the organizing stages of a new venture, entrepreneurs must decide how much to involve others in the firm, as well as how much trust and confidence they will place in those others (Goel & Karri, 2006). Such a notion is consistent with the numerous scholars who agree that trust plays an important role in entrepreneurs' decision as to where to turn when seeking help (Bennett & Robson, 1999; Kautonen et al., 2010; Welter, 2012). This notion is also consistent with Fischer and Turner (1970), who argue that an individual's "trust in social institutions and professionals is fundamental" (p. 85) to seeking help.

Even though entrepreneurs' confidence in others appears to be a promising field of research, scholars have not yet fully explored the extent of its effect on entrepreneurs' help-seeking. In a recent qualitative study of peer-based programs for entrepreneurs, the results appear to suggest that participants' confidence in program providers may be important (Zhang & Hamilton, 2010). Based on their qualitative findings, Zhang and Hamilton (2010) believe that future research should examine the influence of entrepreneurs' confidence in such programs, the programs' designers, and the programs' organizers (i.e., entrepreneurship centers). Thus, an entrepreneur's confidence in entrepreneurship centers is expected to influence his or her willingness to seek help from centers.

Help Seeking and Entrepreneurship Centers

This research adapts and integrates the psychology of help seeking and its four attitudinal dimensions (Fischer & Turner, 1970) into a new conceptual framework: entrepreneurs' attitudes toward seeking help from entrepreneurship centers. Entrepreneurs have the ability to self-select, or choose to either utilize or avoid help from entrepreneurship centers (Storey, 2000). Entrepreneurs' advice-seeking behavior is also highly correlated with firm growth (Wiklund, Patzelt, & Shepherd, 2009). Drawing from the management literature, there is a prominent research gap: "the need for theories specific to the emergence of advice networks" (Nebus, 2006, p. 633). This new conceptual framework will address that gap and enhance understanding of how differences in entrepreneurs' attitudes affect their seeking help from entrepreneurship centers, and how their utilization of help affects their subsequent entrepreneurial success.

Because entrepreneurs serve such a vital role in the economic development process (Campbell & Mitchell, 2012), there is a large and diverse group of public- and private-sector entrepreneurship centers that provide services to assist entrepreneurs (Audet et al., 2007; Mole et al., 2009; Orser & Riding, 2006). These services commonly include consulting, training, infrastructure support, research, and financial assistance (Chrisman et al., 2005; Rotger, Gørtz, & Storey, 2012). While it is impossible to calculate the exact utilization rate of all entrepreneurship centers, research shows that the vast majority of entrepreneurs – about 75% – do not utilize their services (Audet & St-Jean, 2007; Audet et al., 2007; Bennett & Robson, 1999; Johnson et al., 2007; Robson & Bennett, 2000). Even though the majority of entrepreneurs might be reluctant to seek help, many still do seek help. For example, the United States SBDC network assists more than one million entrepreneurs each year (ASBDC, 2013a; ASBDC, 2013b).

Consistent with the notion that their primary role is to educate business owners, many entrepreneurship centers are housed within colleges or universities. As such, entrepreneurs are expected to actively engage in the learning process (Chrisman & McMullan, 2000). During the learning process, entrepreneurs are also expected to perform much of the work – guided by the provider – rather than having the work done for them (Chrisman & McMullan, 2000). It is through that process, now known as 'guided preparation' (Chrisman et al., 2005), that entrepreneurship centers transfer knowledge to the entrepreneurs.

The Theory of Guided Preparation as an Entrepreneurial Resource

In their emergent theory of guided preparation, Chrisman and colleagues (Chrisman, 1999; Chrisman & McMullan, 2000; Chrisman & McMullan, 2004; Chrisman et al., 2005) propose a positive relationship between entrepreneurs' utilization of help from entrepreneurship centers and subsequent entrepreneurial success. Although there are lingering questions about potential diminishing returns, several recent studies have shown that entrepreneurs' utilization of centers is positively associated with enhanced entrepreneurial success (Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). In first developing the theory of guided preparation, Chrisman and McMullan (2000) argued for special application of the resource-based view of the firm (Barney, 1991) to support their arguments that entrepreneurs' utilization of help can enhance their subsequent success.

According to the resource-based view, if the firm possesses resources with certain specific attributes – when the resources are valuable, rare, and perfectly inimitable – the firm may be able to exploit those resources, thereby developing a sustainable competitive advantage (Barney, 1991; 2001). Consistent with the resource-based view, entrepreneurship centers provide access to resources, as well as access to highly educated, experienced, and trained counselors or consultants (Chrisman & McMullan, 2000). By utilizing these resources and the expertise of the centers' employees, entrepreneurs acquire explicit knowledge and tacit knowledge that potentially enhance financial performance.

Explicit and tacit knowledge are distinct in how they are transferred from the center to the entrepreneur, as well as their contribution to the creation of the sustainable

competitive advantage. Explicit knowledge might include things such as demographic data about a retail trade area, procedures for obtaining a business license or tax identification number, or other readily available information. Because explicit knowledge is so readily available, it is also easily transferred from the center to the entrepreneur (Chrisman et al., 2012; Rotger et al., 2012). However, because explicit knowledge is so easily accessible and transferrable, it is also insufficient for entrepreneurs to gain the much-needed sustainable competitive advantage (Chrisman et al., 2012).

On the other hand, tacit knowledge is not easily transferred from a center to the entrepreneur. Because it is typically "acquired through direct observation by learning or doing," tacit knowledge is also "experientially based and difficult to codify and transmit" (Chrisman & McMullan, 2000, p. 776). When an entrepreneur gains tacit knowledge, he or she might be able to standardize the firm's operating procedures, develop a strategic plan or comprehensive business plan, or accumulate context-specific information related to the business, market, or industry. Because the transfer of tacit knowledge requires both more time and deeper engagement than the transfer of explicit knowledge, it usually develops as a result of longer-term consulting engagements (Chrisman & McMullan, 2000; Chrisman & McMullan, 2004; Chrisman et al., 2005; Rotger et al., 2012).

Four recent studies demonstrate that the relationship between guided preparation and entrepreneurial success is generally positive (e.g., Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). For example, entrepreneurs' utilization of centers – specifically, consulting services and entrepreneurial education – improves business performance (Chrisman et al., 2012). Entrepreneurship centers

positively impact firms' sales growth (Cumming & Fischer, 2012; Rotger et al., 2012), as well as firm survival rates (Rotger et al., 2012), the development of intellectual property through innovation, and network alliances (Cumming & Fischer, 2012). Based on the consistency of findings such as these, Seo et al. (2014) conclude that centers are "an important knowledge resource" (p. 2851) for entrepreneurs.

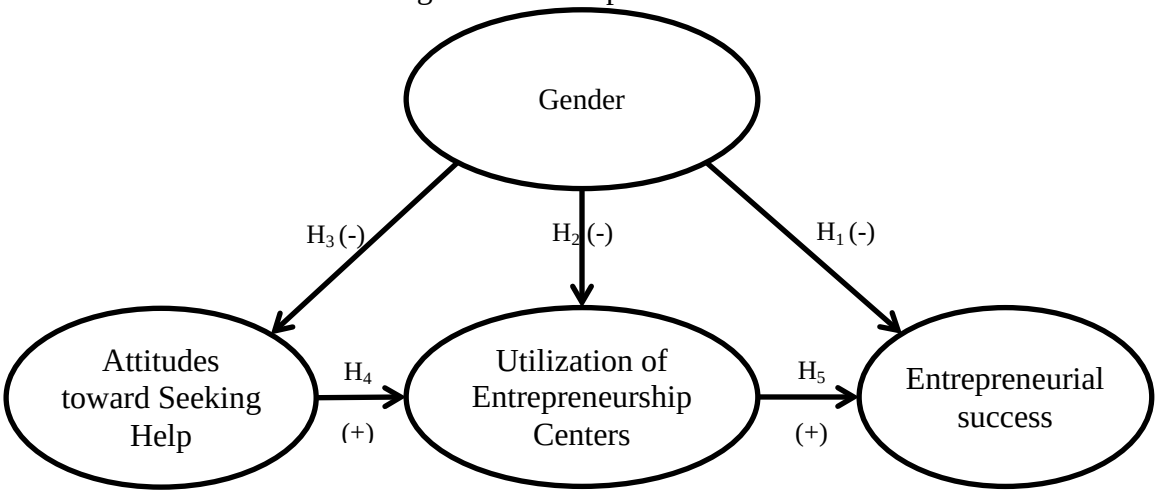
Summary and Conceptual Model

Female-owned firms continue to under-perform financially when compared to male-owned firms (de Bruin et al., 2007; Hughes et al., 2012; Jennings & Brush, 2013; Loscocco & Bird, 2012). In recent entrepreneurship research, gender-specific theories have proven useful to enhance understanding of the relationship between gender and firm financial performance (e.g., Eddleston & Powell, 2008; Eddleston & Powell, 2012; Powell & Eddleston, 2013). Meanwhile, the emergent theory of guided preparation (Chrisman et al., 2005) predicts that entrepreneurs' utilization of centers is associated with enhanced firm financial performance, although relatively little is known about why some appear reluctant to seek help (Audet & St-Jean, 2007; Audet et al., 2007; Johnson et al., 2007). To better understand differences in individuals' willingness to seek help, scholars in other domains have utilized the psychology of help seeking (Fischer & Turner, 1970). In most settings, females clearly have more positive attitudes than males toward seeking help (Fischer & Farina, 1995, Fischer & Turner, 1970; Turner, 2012) and are also more likely to seek help (Addis & Mahalik, 2003; Mansfield et al., 2005; Wacker & Roberto, 2008). However, this gender difference is not consistently found in the management (e.g., Cleavenger et al., 2007; Lee, 1997; 1999; 2002) and finance literature

(e.g., Grable & Joo, 1999; Lown & Cook, 1990). Some evidence also suggests that female entrepreneurs appear underrepresented in their utilization of entrepreneurship centers (Audet et al., 2007; Orser & Riding, 2006). If this is the case, female entrepreneurs' reluctance to seek help from centers may help explain their lingering financial underperformance.

The conceptual model shown in figure 1 is presented as an overview and guide for the remainder of this work. As depicted, this research proposes multiple direct and indirect effects of entrepreneurs' gender, their attitudes toward seeking help from entrepreneurship centers, and their utilization of centers on the ultimate dependent variable entrepreneurial success.

Figure 1 - Conceptual Model



H_6 – Utilization of centers mediates the relationship between gender and success

Theory and Hypotheses

Gender and Entrepreneurial Success

There is substantial empirical evidence that female-owned businesses underperform on most financial measures (e.g., Eddleston & Powell, 2013; Hughes et al.,

2012). In addition, female-owned firms represent just 30% of all privately-owned businesses in the United States and account for a disproportionately small share of private-sector employment and revenue (American Express OPEN, 2013; Brush et al., 2009; Mitchell, 2011). Entrepreneurship is a stereotypically-masculine domain, and most studies of entrepreneurship have been conducted from a masculine perspective (de Bruin et al., 2006; Gupta et al., 2013). Because a persistent gender bias undergirds a substantial portion of the existing entrepreneurship research, more gender-specific theories need to be integrated into existing entrepreneurship frameworks (Ahl & Marlow, 2012; Hughes et al., 2012; Powell & Eddleston, 2013).

Gender role theory predicts that societally-embedded and –prescribed gender roles are an important influence on individual and group behaviors (Eagly, 1987; Eagly & Karau, 1991; Eagly & Karau, 2002). The masculine gender role is most often associated with characteristics such as independence, assertiveness, and task mastery. In addition, men are more highly motivated by societal status than women (Eagly, 1987; Eagly & Karau, 1991; Eagly & Karau, 2002). Taken together, such attributes lead to men's greater proclivity for high status roles such as financial provider, leader, manager, executive, or entrepreneur (Eddleston & Powell, 2008; Orser, Riding, & Manley, 2006; Orser & Dyke, 2009; Powell & Eddleston, 2008). Females, on the other hand, possess communal social values and a stronger desire for personal fulfillment than males (Eagly, 1987; Powell & Eddleston, 2008). Consistent with their communal social values and greater desire for personal fulfillment, female entrepreneurs are less likely to be financially motivated than male entrepreneurs (Cliff, 1998; Eddleston & Powell, 2008; 2012; Morris, Miyasaki, Watters, & Coombes, 2006; Powell & Eddleston, 2008).

Quite recently, Jennings and Brush (2013) conducted a comprehensive review of the gender and entrepreneurship literature, demonstrating that there are a number of reasons for the lingering financial underperformance of female-owned businesses. For example, throughout the world there are differences in males' and females' levels of entrepreneurship with women (on average) less likely than men to engage in entrepreneurial activity (Jennings & Brush, 2013; Kelley, Brush, Greene, & Litovsky, 2011). Female entrepreneurs also tend to start businesses with fewer capital resources than men, and those differences in capitalization persist over the life of the firm (Carter, Brush, Greene, Gatewood, & Hart, 2003; Jennings & Brush, 2013). As a result, female-owned businesses are smaller, less profitable, and slower-growing than male-owned businesses (Cliff, 1998; Fischer et al., 1993; Jennings & Brush, 2013; Orser et al., 2006). In light of such empirical evidence and consistent with gender role theory (Eagly, 1987), I propose the following hypothesis as a baseline:

> *Hypothesis One – Entrepreneurs' gender is related to entrepreneurial success, with female-owned businesses underperforming relative to male-owned businesses.*

Gender and Help Seeking

Studies utilizing the psychology of help seeking (Fischer & Turner, 1970) consistently find that women are more likely than men to seek help in most settings (e.g., Addis & Mahalik, 2003; Joo & Grable, 2001). Given female-owned firms' lingering financial underperformance (Jennings & Brush, 2013, Loscocco & Bird, 2012) and the

finding that entrepreneurs' utilization of centers enhances firm performance (Chrisman et al., 2012; Rotger et al., 2012), it is somewhat surprising that so few scholars have examined the relationship between entrepreneurs' gender and help seeking. To better understand this relationship, I will draw from gender role congruity theory (Eagly & Karau, 2002) to examine the relationship between entrepreneurs' gender and utilization of centers. Societally-prescribed gender stereotypes and gender roles are strong influences on individuals' attitudes and behaviors (Eagly, 1987; Eagly & Karau, 2002).

Despite the generalizability of the psychology of help seeking across numerous domains (e.g., Addis & Mahalik, 2003; Fischer & Turner, 1970; Lown & Cook, 1990; Nadler, 1986; Suchman, 1966), it appears that the common finding that females are more likely than males to seek help may not always apply (Lee, 1997). Within the management literature, the relationship between gender and help seeking is inconsistent. For example, one study finds that women are less likely than men to seek help (Lee, 1997), while other studies find no gender effects on individuals' help-seeking behaviors (Cleavenger et al., 2007; Grable & Joo, 1999). Only one study has empirically examined gender difference in utilization of entrepreneurship centers (Audet et al., 2007), and the findings are inconsistent with the bulk of the help-seeking literature. Therefore, the management and entrepreneurship literature provides few clues about entrepreneurs' gender and help seeking.

Instead, some research suggests that both context and gender influence an individual's propensity to seek help (Cleavenger et al., 2007; Grable & Joo, 1999; Lee, 1997; 1999; 2002). This appears consistent with gender role congruity theory (Eagly & Karau, 2002). Gender role congruity theory predicts that incongruity between one's

societally-prescribed gender role and his or her actions or behaviors may lead to harsh prejudices. For example, a female who occupies a leadership role may be perceived less favorably than a male in a similar role. Leadership behaviors of females may be evaluated less favorably than those of males. Consequently, attitudes toward females in such roles tend to be less favorable than those toward males, and it is more difficult for females than males to emerge and succeed as leaders (Eagly & Karau, 2002).

Within the sociology literature, research about individuals' status beliefs (e.g., Correll, 2004; Ridgeway & Correll, 2006) might help explain the inconsistent findings in the management and entrepreneurship literature. Consistent with gender role congruity theory (Eagly & Karau, 2002), females – in masculine settings – tend to view themselves as less legitimate and less competent than their male counterparts (Correll, 2004; Correll & Ridgeway, 2006). When one subgroup is deemed to be more socially significant than another subgroup, individuals will form status beliefs about their abilities based upon their perceived social significance (Correll, 2004). Such status beliefs can also affect individuals' career aspirations. For example, the masculine stereotype of entrepreneurship (e.g., Carland et al., 1984; Gupta et al., 2009) might explain why women believe they are less-suited for entrepreneurial careers (Mueller & Data-On, 2008; Wilson et al., 2007) and why females are underrepresented in entrepreneurship (Brush et al., 2009).

One finding from the sociology literature is particularly relevant for this proposed research: gender and status beliefs clearly influence the manner in which individuals interact with one another (Ridgeway & Correll, 2006). More specifically, gender status beliefs influence individuals' willingness to be assertive in a confident and non-

deferential manner (Correll, 2004; Ridgeway & Correll, 2006). Entrepreneurship centers tend to be associated with enhanced financial performance as measured by growth in sales, profitability, and employment (e.g., Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). However, such measures are more commonly associated with the masculine perspective of entrepreneurship (de Bruin et al., 2006) and thereby may be inconsistent with the goals of female entrepreneurs (e.g., Eddleston & Powell, 2008; Powell & Eddleston, 2008; 2013). As a result, female entrepreneurs may perceive that entrepreneurship centers are inherently masculine and that there is a poor fit between the services provided by centers and their unique needs as entrepreneurs. If this is the case, female entrepreneurs may be less willing to utilize centers simply because they lack the confidence to assert themselves in such a masculine domain.

Gender status beliefs are even more important in achievement-oriented societies because such beliefs tend to legitimize the inequality between people of different social categories (Ridgeway & Correll, 2006). Many scholars agree that entrepreneurship is a masculine domain (e.g., Ahl & Marlow, 2012; Bruni, Gherardi, & Poggio, 2004, de Bruin et al., 2006). Historically, entrepreneurs have borne much of the responsibility for the economic vitality of a society (Baumol, 1968). As a result, entrepreneurs are commonly associated with stereotypically masculine characteristics such as autonomy, aggression, or ambition. They are also stereotypically believed to possess elevated risk tolerance as well as high needs for achievement, power, and responsibility (Carland et al., 1984). Because of this overtly masculine context of entrepreneurship, one might reasonably expect – based on the status belief literature – females to perceive that their businesses are less legitimate or less worthy to receive assistance from centers than their male

counterparts. Therefore, I expect that the masculine context of entrepreneurship will inhibit females' willingness to seek help from centers and make women less likely than males to seek help. Thus, I propose the following:

> *Hypothesis Two – Entrepreneurs' gender is related to utilization of entrepreneurship centers, with female entrepreneurs utilizing centers less than male entrepreneurs.*

Gender and Attitudes toward Seeking Help from Entrepreneurship Centers

Entrepreneurship scholars have not integrated the psychology of help seeking into their research, and as a result relatively little is known about the reasons that entrepreneurs are more or less willing to seek help (Audet et al., 2007; Audet & St-Jean, 2007; Johnson et al., 2007). While some help seeking literature tends to show that women are more likely to seek help than men (e.g., Addis & Mahalik, 2003; Joo & Grable, 2001; Mansfield, Addis, & Courtenay, 2005), there is limited evidence suggesting that in masculine contexts women may actually be less likely to seek help than men (e.g., Audet et al., 2007). Some studies have explained females' greater proclivity to seek help by demonstrating that females have more positive attitudes toward seeking help than males (e.g., Fischer & Cohen, 1972; Fischer & Farina, 1995; Fischer & Turner, 1970; Nam, Chu, Lee, Lee, Kim, & Lee, 2010). In addition, scholars have commonly linked *attitudes* toward seeking help with actual help seeking *behavior* (e.g., Addis & Mahalik, 2003; Allport, 1935; Fischer & Turner, 1970; Lown & Cook, 1990; Nadler, 1986).

By drawing on gender role congruity theory (Eagly & Karau, 2002) and the sociology literature regarding status beliefs (Correll, 2004; Ridgeway & Correll, 2006), I expect that female entrepreneurs will have *less* favorable attitudes toward seeking help from centers than male entrepreneurs. As with the relationship between entrepreneurs' gender and their utilization of centers, I expect that the masculine context of entrepreneurship may lower females' attitudes toward seeking help from entrepreneurship centers. Therefore, I next discuss the influence of gender on each attitudinal dimension.

Recognition of the need for assistance.

Research suggests that female entrepreneurs may start businesses for different reasons than males (Davis & Shaver, 2012; Eddleston & Powell, 2012; Morris et al., 2006; Powell & Eddleston, 2008). For example, female entrepreneurs tend to create businesses that balance the needs of their family and work environments (Eddleston and Powell, 2012). They also place less value than males on the traditional (i.e., economic) measures of business success such as growth and profitability (Powell & Eddleston, 2008). Female and male entrepreneurs vary in growth intentions for their businesses across their particular life stages, and those growth intentions appear to be a deliberate choice for both male and female entrepreneurs (Davis & Shaver, 2012; Morris et al., 2006). Female entrepreneurs also tend to more carefully consider the costs and benefits of growth than males (Morris et al., 2006). Taken together, such studies suggest that male entrepreneurs value status-based sources of success and firm growth more than female entrepreneurs. However, despite their underperformance on most financial

measures, female entrepreneurs tend to be just as satisfied with their business success as male entrepreneurs, which led Powell and Eddleston (2008) to propose the paradox of the contented female entrepreneur. Their apparent contentment may explain why female entrepreneurs are less likely than males to recognize to recognize a need for assistance.

If female entrepreneurs are content with their businesses (Powell & Eddleston, 2008), they may be less likely to perceive the need to grow or improve their businesses. Compared to female entrepreneurs, male entrepreneurs place more emphasis on achieving financial success (Eddleston & Powell, 2008; Powell & Eddleston, 2008). Male entrepreneurs also tend to prefer status-based career satisfiers such as the high prestige or social status that may result from owning a successful business (Eddleston & Powell, 2008). Consequently, male entrepreneurs may be more likely to want to grow or improve their businesses. One reason that entrepreneurs utilize centers is that they want to grow their businesses or improve their profitability (e.g., Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). Therefore, I expect male entrepreneurs to have greater recognition of their need for help than females. Stated differently, because female entrepreneurs are content with the performance of their businesses (Powell & Eddleston, 2008), they do not recognize that they need assistance. Thus, I propose the following:

> *Hypothesis Three (A) – Entrepreneurs' gender is related to recognition of the need for help from centers, with female entrepreneurs having lower recognition of their need for help than male entrepreneurs.*

Tolerance of the stigma associated with seeking help.

Help seeking is associated with having problems because without problems there is no reason to seek help (Lee, 1997). In businesses and organizations, those who seek help may experience social costs such as feelings of incompetence, inferiority, and dependence (Lee, 1997). Entrepreneurs can be stigmatized, both by business problems as well as the possibility of bankruptcy that may result from those problems (Ucbasaran, Shepherd, Lockett, & Lyon, 2013; Valdez & Richardson, 2013). Finance research suggests that two types of stigmatization – from seeking help, as well as from having financial problems – lower an individual's propensity to seek help (Grable & Joo, 1999; 2001; Lown & Cook, 1990). For female entrepreneurs, there is a third possibility for stigmatization because entrepreneurship is generally incongruent with the female gender role (e.g., de Bruin et al., 2006; Gupta et al., 2013). According to gender role congruity theory, individuals who engage in behavior that is incongruent with their societally prescribed gender roles may be subject to harsh societal consequences (Eagly & Karau, 2002). Therefore, I expect that female entrepreneurs will be particularly intolerant of the stigma associated with seeking help from entrepreneurship centers because they want to avoid society's harsh judgments.

A gender bias also undergirds much of the entrepreneurship literature (e.g., Ahl, 2006; Ahl & Marlow, 2012; Brush et al., 2009; Hughes et al., 2012), and there is a popular media perception that women are less competent and less entrepreneurial than men (de Bruin et al., 2006). Female entrepreneurs also face a perceived legitimacy and credibility gap (Bruni et al., 2004; De Clercq & Voronov, 2009). Therefore, it is not surprising that many women believe they lack the skills necessary to succeed as

entrepreneurs (Wilson et al., 2007). Because female entrepreneurs may view themselves as less legitimate and less credible than their male counterparts, I expect that female entrepreneurs will be less tolerant of the stigma associated with seeking help from centers. In short, a female entrepreneur may feel that her help seeking validates the perception that females are less suited for entrepreneurship than males. In turn, she will perceive that there is a greater stigma associated with seeking help from entrepreneurship centers. Conversely, male entrepreneurs do not face the same scholarly and media biases. Therefore, I expect that their presumed legitimacy and credibility as entrepreneurs will give them greater tolerance for the stigma associated with seeking help from entrepreneurship centers. Thus, I propose the following:

Hypothesis Three (B) – Entrepreneurs' gender is related to tolerance of the stigma associated with seeking help from centers, with female entrepreneurs being less tolerant of stigma than male entrepreneurs.

Interpersonal openness.

Although there has been no empirical consideration of entrepreneurs' willingness to self-disclose to entrepreneurship centers, several recent studies seem to suggest that interpersonal openness may be important. The first study shows that venture capitalists believe an entrepreneur's coachability – his or her willingness to take advice – is positively associated with enhanced returns on their equity investments (Levie & Gimmon, 2008). Cumming and Fischer (2012) also note that their study's subjects – entrepreneurship centers – believe that entrepreneurs' coachability is important. More

relevant for this proposed research is the finding that female entrepreneurs receive sixteen fewer hours of advice on average than males. Cumming and Fischer (2012) were also careful not to speculate on the potential reasons why female entrepreneurs receive less assistance than males. Because there was no measure of interpersonal openness, Cumming and Fischer (2012) also did not attempt to correlate entrepreneurs' gender with their willingness to self-disclose.

However, drawing from the sociology literature, I expect female entrepreneurs to be less interpersonally open than males. In masculine settings, females tend to view themselves as less legitimate and competent than their male counterparts (Correll, 2004; Ridgeway & Correll, 2006). Such gender status beliefs may be partially attributable to the discrimination and barriers that have hindered female entrepreneurs' efforts to start new businesses (Brush, 1992). Despite growing scholarly recognition of entrepreneurship as a gendered process (Eddleston & Powell, 2008; Eddleston & Powell, 2012; Powell & Eddleston, 2013), these barriers persist. For example, some financiers view female business owners as less legitimate than males (Bird & Brush, 2002; Greene et al., 2001; Marlow & Patton, 2005). The societally-prescribed female gender role also reduces the credibility and legitimacy of female-owned businesses (Bruni et al., 2004). Gender status beliefs not only influence perceptions about one's competence at career-relevant tasks and career aspirations, they also influence his or her willingness to be assertive in a confident and non-deferential manner (Correll, 2004; Ridgeway & Correll, 2006). Because entrepreneurs' utilization of centers enhances the traditionally-masculine measures of entrepreneurship (de Bruin et al., 2006), female entrepreneurs may be unwilling to assert themselves within the masculine confines of an entrepreneurship

center. Consequently, I expect the perception that female entrepreneurs are less capable than males and poorly suited for entrepreneurship (e.g., Ahl, 2006; Ahl & Marlow, 2012; Bruni et al., 2004) will lessen female entrepreneurs' interpersonal openness. Conversely, I expect that male entrepreneurs will be more willing to self-disclose to entrepreneurship centers than females. Thus, I propose the following:

Hypothesis Three (C) – Entrepreneurs' gender is related to interpersonal openness, with female entrepreneurs being less open than male entrepreneurs.

Confidence in the assistance provider.

As previously discussed, Fischer and Turner (1970) defined "confidence in the mental health provider" as a more comprehensive attitudinal dimension that includes confidence in the profession, its practitioners, and its processes. If extending this dimension to entrepreneurship, some research suggests that entrepreneurs may perceive that there is a poor fit between their specific needs and the services that centers provide, or that centers do not understand the intricacies of their particular business (Curran & Blackburn, 2000). In addition, entrepreneurs may be skeptical about the ability of centers to distill information from standardized sources (i.e., business and management textbooks) and apply that information to the needs of their particular business (Curran, 2000). This could be an even greater problem for female entrepreneurs, given research showing their different expectations from their businesses than males (Eddleston & Powell, 2008; 2012; Powell & Eddleston, 2008).

Female entrepreneurs place less value on economic measures of firm performance than males, and instead may create businesses that are consistent with their desires to develop satisfying employee relationships or to contribute to society (Powell & Eddleston, 2008). Female entrepreneurs may also intentionally limit business growth within their perceived span of control (Cliff, 1998; Davis & Shaver, 2012). However, much of the research on entrepreneurship centers assess the impact of centers by measuring growth in sales, profitability, and employment (e.g., Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). Entrepreneurship centers also tend to promote their services based on economic impact. For example, one such program (America's SBDC Network) advertises that its small business clients grow eight times faster than the average American business (ASBDC, 2013a). Based on the manner in which entrepreneurship centers are studied and promoted, female entrepreneurs are likely to associate centers with the stereotypically masculine norms of entrepreneurship. Conversely, because male entrepreneurs desire financial success or the status associated with owning a successful business (Eddleston & Powell, 2008), they may have more confidence in the ability of centers to help them achieve their goals. Thus, I propose the following:

> *Hypothesis Three (D) – Entrepreneurs' gender is related to confidence in the ability of centers to help them achieve their entrepreneurial goals, with female entrepreneurs less confident in centers than male entrepreneurs.*

Attitudes toward Seeking Help and Utilization of Centers

At face value, the characteristics of entrepreneurs appear to be inconsistent with the propensity to seek help. Entrepreneurs are autonomous, independent, self-confident, risk tolerant, have an internal locus of control, high self-efficacy, and high needs for achievement, control, and power (Carland et al., 1984; Carsrud & Brännback, 2011; Watson & Newby, 2005). Although such characteristics may partially explain the relatively low utilization of centers (ASBDC, 2013a; Audet & St-Jean, 2007; Audet et al., 2007; Orser & Riding, 2006), research shows that many entrepreneurs do in fact use centers (Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). However, relatively little is known about the reasons that entrepreneurs either seek or avoid help from centers (Audet et al., 2007; Johnson et al., 2007).

Despite its demonstrated utility and generalizability across numerous domains (e.g., Fischer & Turner, 1970; Lee, 1999; Morrison, 1993; Turner, 2012), the psychology of help seeking (Fischer & Turner, 1970) has not yet been integrated into entrepreneurship research. One of the core propositions of the psychology of help seeking is that individuals' attitudes toward seeking help are positively associated with their actual help seeking behavior (Fischer & Farina, 1995; Fischer & Turner, 1970; Johnson, 1988; Turner, 2012). Numerous studies empirically support that proposed relationship, confirming that attitudes toward seeking help are reliable predictors of help seeking behavior (Addis & Mahalik, 2003; Joo & Grable, 2001; Mansfield et al., 2005; Nadler, 1986; Wacker & Roberto, 2008).

When considering the relationship between entrepreneurs' utilization of centers and entrepreneurial success, researchers must consider the factors that motivate

entrepreneurs to seek help (Storey, 2000). However, this "self-selection bias" has not been sufficiently addressed (Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012). To help understand some entrepreneurs' apparent reluctance to seek help, I have extended the psychology of help seeking to entrepreneurship (Fischer & Turner, 1970) by integrating recent entrepreneurship research with gender status belief research (Correll, 2004; Ridgeway & Correll, 2006) and gender role congruity theory (Eagly & Karau, 2002). In so doing, I have proposed that entrepreneurs will vary in their attitudes toward seeking help and that entrepreneurs' gender will also be related to attitudes. To test the generalizability of the psychology of help seeking to entrepreneurship, I shall now consider each of the attitudinal dimensions.

Recognition of the need for assistance.

Entrepreneurs are unlikely to perceive that they need help (Chrisman & McMullan, 2004; Storey, 2000). Many entrepreneurs are motivated to go into business because they desire autonomy and independence, and they also desire that others perceive them as self-reliant (Kets de Vries, 1977). Entrepreneurs also have heightened self-confidence, greater risk tolerance, and elevated needs for achievement, control, and power (Carland et al., 1984; Carsrud & Brännback, 2011; Watson & Newby, 2005). However, researchers agree that an important precursor to an entrepreneur's utilization of centers is that he or she must first recognize the need for help (e.g., Chrisman et al., 2012; Johnson et al., 2007; Storey, 2000). In other words, entrepreneurs are unlikely to seek help unless – and until – they recognize that they have a knowledge gap and that they need help. Thus, I propose the following:

Hypothesis Four (A) – Entrepreneurs' recognition of their need for help is positively associated with their utilization of centers.

Tolerance of the stigma associated with seeking help.

Only a few scholars have considered the potential influence of stigmatization on help seeking in business and organizational settings. For example, Baldridge and Veiga (2001) proposed that an individual's greater tolerance for stigmatization should be positively associated with his or her willingness to request workplace accommodations. A greater tolerance for stigmatization should also increase one's willingness to participate in family-friendly workplace programs (Veiga et al., 2004). Similarly, finance scholars have proposed that the potential for stigmatization will decrease the likelihood that an individual will seek help for financial problems (Grable & Joo, 1999; 2001). Recent research has shown that entrepreneurs are stigmatized by financial problems, the potential for business failure, and the possibility of personal bankruptcy (e.g., Ucbasaran et al., 2013; Valdez & Richardson, 2013). Thus, I propose the following:

Hypothesis Four (B) – Entrepreneurs' tolerance of the stigma associated with seeking help is positively associated with their utilization of centers.

Interpersonal openness.

As with stigmatization, only a few researchers have considered entrepreneurs' interpersonal openness – their willingness to self-disclose – even though most agree that entrepreneurs are reluctant to share sensitive information (e.g., Anna et al., 1999;

Eddleston & Kellermanns, 2007; Chrisman et al., 2012). Recently, there is an emergent interest in entrepreneurs' interpersonal openness (e.g., Blatt, 2009; Danes et al., 2008; Miles et al., 2009). In particular, Miles et al. (2009) proposed that an entrepreneur's willingness to share information with those outside of his or her organization will be positively associated with firm financial performance. In addition, there is growing recognition that entrepreneurs' interpersonal openness might play a crucial role in their willingness to seek help from centers (e.g., Cumming & Fischer, 2012; St-Jean, 2012). While interpersonal openness has not been empirically considered, Cumming and Fischer (2012) noted that centers assess the "coachability" of entrepreneurs prior to providing help. To leverage the impact of entrepreneurship centers, St-Jean (2012) recommends targeting entrepreneurs who are more willing to self-disclose. Thus, I propose the following:

Hypothesis Four (C) – Entrepreneurs' interpersonal openness is positively associated with their utilization of centers.

Confidence in the assistance provider.

Finally, although limited in scope, some research suggests that entrepreneurs' confidence in centers may play a role in their willingness to seek help (e.g., Audet & St-Jean, 2007; Audet et al., 2007; Bennett & Robson, 1999; Zhang & Hamilton, 2010). For example, entrepreneurs' trust – and by extension, confidence – in program providers appears to influence the centers and services that entrepreneurs are willing to utilize (Bennett & Robson, 1999). Recent qualitative research reveals that many entrepreneurs

have generally unfavorable opinions about entrepreneurship centers, often viewing centers as hierarchical, difficult to approach, and disconnected from the realities of the business world (Audet & St-Jean, 2007; Audet et al., 2007). To build on their qualitative research, Zhang and Hamilton (2010) recommend quantitative research to examine the influence of entrepreneurs' confidence in peer-based learning programs, program designers, and program organizers (i.e., entrepreneurship centers) on their willingness to utilize such programs. Taken together, such studies appear consistent with the notion that an entrepreneur's confidence in others is an important influence on his or her help seeking. Thus, I propose the following:

> *Hypothesis Four (D) – Entrepreneurs' confidence in the ability of centers to help them achieve their entrepreneurial goals is positively associated with their utilization of centers.*

Utilization of Centers and Entrepreneurial Success

The theory of guided preparation as an entrepreneurial resource proposes that entrepreneurs' utilization of a particular resource provided by entrepreneurship centers – guided preparation – leads to entrepreneurs' development of explicit and tacit knowledge (Chrisman & McMullan, 2000; Chrisman & McMullan, 2004; Chrisman et al., 2005). Entrepreneurs can then apply this newly-gained explicit and tacit knowledge, which subsequently enhances firms' financial performance. In short, the core proposition of the theory of guided preparation is that entrepreneurs' utilization of centers is positively associated with enhanced entrepreneurial success (Chrisman et al., 2005).

Even though several recent empirical tests of the theory of guided preparation (Chrisman et al., 2005) vary in their operationalization of certain key variables, each supports the core proposition that guided preparation enhances business performance (Chrisman et al., 2005; 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). For example, studies generally show that entrepreneurs' utilization of centers enhances venture growth (Chrisman et al., 2012; Cumming & Fischer, 2012). Even though Rotger et al. (2012) conclude that the impact of entrepreneurs' utilization of centers on firm growth is not completely clear and needs more research, such utilization of centers is positively associated with firm size. Finally, counseling services provided by entrepreneurship centers are positively associated with self-reported measures of firm financial growth (Seo et al., 2014). Thus, consistent with the theory of guided preparation as an entrepreneurial resource (Chrisman et al., 2005), I propose the following as a baseline:

Hypothesis Five – Entrepreneurs' utilization of help from entrepreneurship centers is positively associated with enhanced entrepreneurial success.

Mediating Effects

Utilization of entrepreneurship centers, gender, and entrepreneurial success.

Influence of gender on entrepreneurial success.

More than twenty years ago, Brush (1992) outlined a research agenda to better understand and explain the financial performance disparity between male and female owned businesses. While some progress has been made, many scholars today still lament

their relatively-limited understanding of this phenomenon (e.g., Kim, 2012; Loscocco & Bird, 2012; Marlow & McAdam, 2013; Mitchell, 2011; Robb & Watson, 2012). Research repeatedly shows that female-owned businesses underperform on traditional measures of entrepreneurial success (e.g., Kelley et al., 2011; Loscocco & Bird, 2012; Robb & Watson, 2012). Historically, men's societally-prescribed gender roles have granted them greater access to resources and enhanced decision-making power (Eagly, 1987, Eagly & Karau, 1991; Wood & Eagly, 2002). Thus, one possible explanation for the underperformance of female-owned firms is that female entrepreneurs do not have access to resources that are essential to entrepreneurial success (Fischer et al., 1993; Jones & Tullous, 2002).

Influence of utilization of entrepreneurship centers on entrepreneurial success.

Entrepreneurship centers provide access to a particular resource – guided preparation – as well as access to highly educated, experienced, and trained counselors or consultants (Chrisman & McMullan, 2000). The emergent theory of guided preparation (Chrisman et al., 2005) has been useful for understanding the relationship between entrepreneurs' utilization of centers and improved firm financial performance. However, most tests of the theory appear to be focused on demonstrating the efficacy of entrepreneurship centers (e.g., Chrisman et al., 2012; Cumming & Fischer et al., 2012; Rotget et al., 2012; Seo et al., 2014). As a result, more research is needed to determine the exact nature of the relationship between guided preparation and entrepreneurial success. The theory of guided preparation posits that entrepreneurs' utilization of this resource enhances entrepreneurial success (Chrisman et al., 2005). By utilizing the

expertise of the entrepreneurship centers' employees through guided preparation, entrepreneurs acquire explicit and tacit knowledge that enhances subsequent financial performance (Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014).

Utilization of entrepreneurship centers as a mediator.

In summary, I have suggested that firms owned by female entrepreneurs underperform in part because they lack access to certain essential resources (Fischer et al., 1993; Jones & Tullous, 2002). Although other factors may influence entrepreneurial success, a particular focus of this study is entrepreneurs' utilization of help centers. Recent empirical tests of the theory of guided preparation confirm that entrepreneurs' utilization of centers has a substantial influence on business financial performance (e.g., Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). Therefore, male entrepreneurs' greater utilization of entrepreneurship centers could explain why their businesses outperform those owned by female entrepreneurs. Conversely, female entrepreneurs' lower utilization of entrepreneurship centers could explain why their businesses underperform those owned by male entrepreneurs. Thus, I propose the following:

Hypothesis Six – Entrepreneurs' utilization of help from centers will mediate the relationship between gender and entrepreneurial success.

CHAPTER THREE

METHODOLOGY

The hypotheses in this research are tested empirically by examining longitudinal data that have been collected using an online survey. A survey instrument with multiple measures for the constructs of interest was deployed via e-mail in three phases, consistent with the recommendations of Dillman, Smyth, and Christian (2009). Phase I consisted of multiple pilot tests of the attitudinal indicators and was used to refine those indicators as well as the full survey instrument. Phase II consisted of collection of identifying information, attitudinal measures, data about participants' utilization of entrepreneurship centers, various control variables, and preliminary performance data. Finally, Phase III collected longitudinal measures of utilization of entrepreneurship centers and firm performance from those respondents who self-identified during Phase II of this research. Because this research involves human subjects, the study has been reviewed and deemed exempt by the Institutional Review Board (IRB) at Kennesaw State University.

Data Analysis

In this study, partial least squares structural equations modeling (PLS-SEM) was used to analyze the data. The use of PLS-SEM is considered appropriate in strategic management when the purpose of a study is to predict and explain the variance in firm

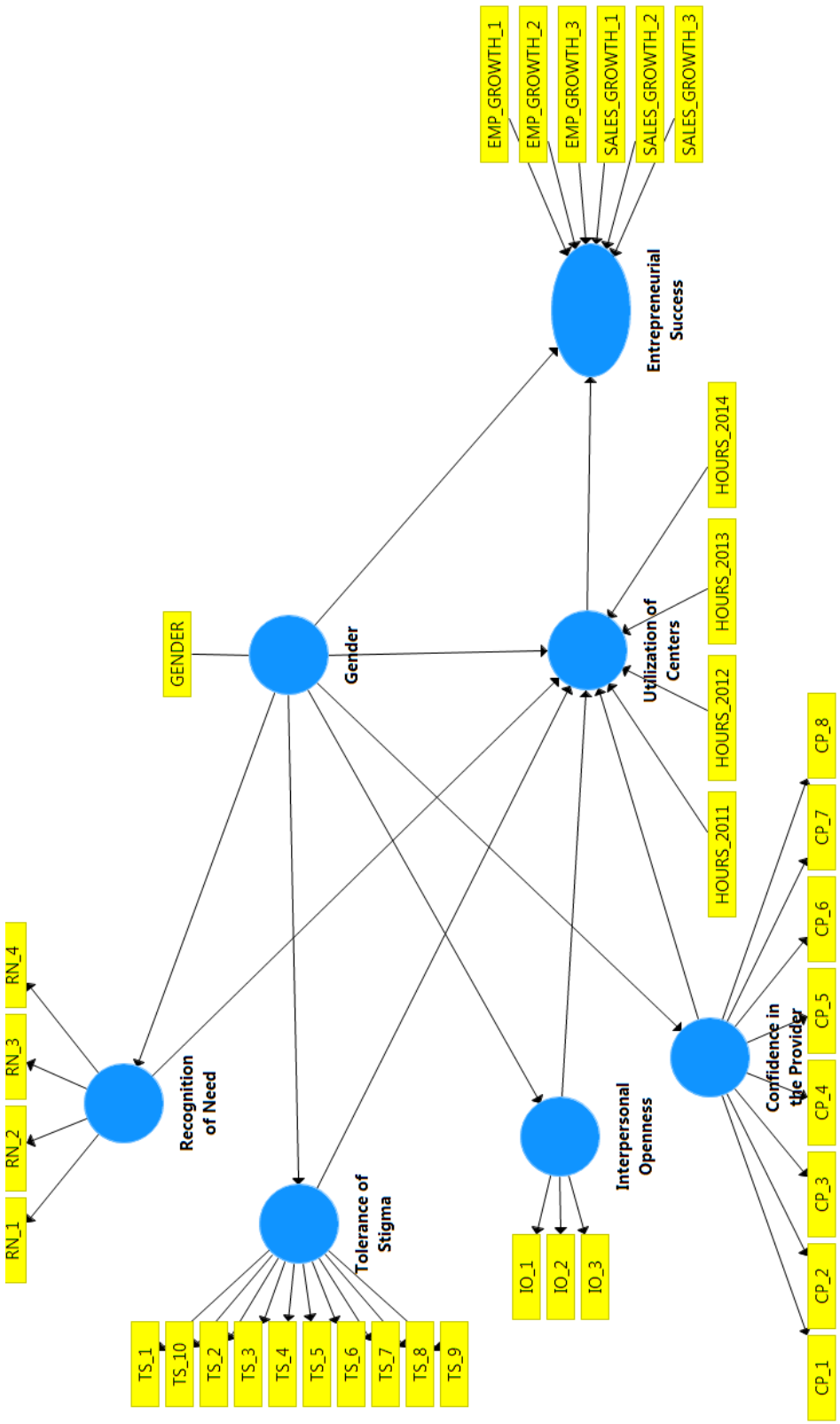
success by other explanatory constructs such as competitive advantage (Hair, Sarstedt, Ringle, & Pieper, 2012). PLS-SEM is also useful when researchers must simultaneously examine the measurement model and the structural model, when a sample population is relatively small, and when the data are not normally distributed (Hair et al., 2012). Partial least squares structural equations modeling (PLS-SEM) is commonly used in marketing (Hennig-Thurau, Henning, & Sattler, 2007; Hair, Sarstedt, Ringle & Mena, 2012), international business (Henseler, Ringle, & Sinkovics, 2009), management (Hair, Sarstedt, Ringle & Pieper, 2012), and information systems research (Al-Gahtani, Hubona, & Wang, 2007; Burton-Jones & Hubona, 2006; Straub, Ringle, & Sarstedt, 2012).

Covariance based structural equation modeling (CB-SEM) is not as appropriate for estimating the theoretical model for several reasons (Hair, Sarstedt, Ringle, & Mena 2012). First, CB-SEM models assume the data exhibit a multivariate normal distribution (Fornell & Bookstein, 1982). However, non-normal distributions are common in social science research (Hair et al., 2010; Hair, Ringle, & Sarstedt, 2011). By comparison, PLS-SEM relies on less stringent assumptions about the normality of the distributions of the variables (Chin, 2010). When the data are not normally distributed, Chin, Peterson and Brown (2008) advocate the use of PLS-SEM over CB-SEM. Chin et al. (2008) also recommend the use of PLS path modeling when estimating larger, more complex models capturing attitudes and behaviors, such as the ones proposed in this study. Second, CB-SEM models are full-information procedures, so even one incorrectly specified structural path is likely to impact all the other estimates throughout the covariance based structural equation model (Chin et al., 2008). Because PLS-SEM is a component based least

squares alternative that emphasizes prediction instead of theory confirmation, it is more robust than CB-SEM in addressing these issues (Hair et al., 2012; Hair et al., 2014).

As shown in figure 2, four latent attitudinal dimensions with multiple measurement items were used to explain entrepreneurs' utilization of entrepreneurship centers. Entrepreneurs' gender was proposed to be associated with each of the four attitudinal dimensions, utilization of centers, and the ultimate endogenous construct, entrepreneurial success. When estimating complex models such as this one, it is necessary to simultaneously take into account both the measurement components and the structural components (Hair et al., 2010). Further, to simultaneously test the relationships between these constructs and their impact on one another, structural equations modeling is preferred over regression-based approaches (Hair et al., 2010). PLS-SEM is also the preferred method when utilizing formative measures of latent constructs (Hair et al., 2012; Hair et al., 2014), as is the case with the measures of entrepreneurs' utilization of entrepreneurship centers and entrepreneurial success. Finally, PLS-SEM is the preferred method when utilizing categorical measures such as those for gender and several of the control variables (Hair et al., 2012; 2014). Therefore, PLS-SEM was utilized to test the hypothesized relationships.

Figure 2 - Full Dissertation Model with All Indicators



Participants and Data Collection Procedures

Phase I – Pilot Studies 1a, 1b, 1c, and Pilot Study 2

Participants for the pilot study were recruited from a number of different sources. The first source of participants consisted of a convenience sample of students enrolled in introductory business and entrepreneurship courses at a medium-sized university in the southeastern United States. During November 2013, 120 undergraduate students were rewarded with course extra credit for their response to the first pilot test (pilot 1a). Open-ended questions assessed the clarity and ease of responding to the survey assessing their attitudes toward seeking assistance, and this feedback was incorporated into a subsequent pilot test in May 2014. For pilot 1b, a different group of 158 undergraduate students were similarly rewarded with course extra credit for completing the revised questionnaire and their qualitative feedback. Such convenience sampling is similar to the methodology employed by Fischer and Turner (1970) when developing their measures of attitudes toward seeking professional psychological help. Convenience sampling is also common in business research because it allows access to readily available and relevant survey respondents (Hair, Celsi, Money, Samouel, & Page, 2015).

In an effort to further improve the questionnaire, another pilot test (pilot 1c) was conducted using a third group of participants. Respondents to pilot 1c were graduate students enrolled in masters-level business and accounting courses at the same university. Rather than course extra credit, a material incentive for responding was offered and three respondents to pilot 1c were randomly selected to each receive a $25 restaurant gift card. Such incentives are an effective and commonly used means of increasing response rates on web-based surveys (Dillman et al., 2009). The results of pilot tests 1a, 1b, and 1c

were consolidated and an exploratory factor analysis (EFA) was conducted to revise the measures to be tested in pilot 2. The results of this EFA are discussed in Chapter 4. Additionally, the 79 pilot 1c participants' qualitative feedback was incorporated into the next revision of the survey. For a copy of the full survey administered in pilot tests 1a, 1b, and 1c, please see Appendix 1.

Following this revision of the questionnaire and the EFA, another pilot test (pilot 2) was conducted on a fourth group of participants. A panel database of 105 entrepreneurs was commissioned through a commercial market research firm (Qualtrics®). Respondents were recruited, screened, and compensated by Qualtrics® according to the following specifications: participants should be owners of existing businesses with up to ten employees. During pilot 2, respondents were also asked to respond to the full survey, which means that they were also asked to provide information about their utilization of entrepreneurship centers, their businesses' performance, and to provide numerous other demographic (control) variables. As with the previous pilot tests, respondents were asked to provide qualitative feedback on the questionnaire as well as the instructions provided to respondents. For a copy of the full survey administered in pilot test 2, please see Appendix 2. Another EFA was conducted on the responses obtained during Pilot 2, and the attitudinal measures were again revised for the final questionnaire. Tables 1 and 2 summarize the participants during Phase I of this research.

Table 1 – Summary of Phase I Survey Respondents

Phase of Pilot Tests		Recipients	Potential Respondents	Responses	Response Rate
1-a	Undergraduates	228	228	120	53%
1-b	Undergraduates	216	216	158	73%
1-c	Grad Students	120	120	79	66%
2	Qualtrics® Panel	Panel	Panel	105	N/A

Table 2 – Demographics of Phase I Survey Respondents

Phase of Pilot Tests		Number of Respondents	Males	Females	Average Age
1-a	Undergraduates	120	59	61	21.0
1-b	Undergraduates	158	73	85	21.1
1-c	Grad Students	79	35	42	28.0
2	Qualtrics® Panel	105	52	53	52.7

Prior to and following each of the pilot tests, business experts provided input on the questionnaire. These business experts consisted of collegiate business faculty, entrepreneurship center staff members, and scholars with subject-matter expertise. Consideration was given to scale points, scale design, survey design, and survey instructions. Following collection of data for pilot 1(a-c) and pilot 2, exploratory factor analysis using IBM SPSS® was conducted to examine the underlying factor structure and revise the attitudinal indicators as needed.

Phase II – Full Study – Time 1

As with the pilot testing conducted during Phase I, participants for Phase II of the study were drawn from numerous sources. The first of these sources was the researcher's personal and professional network, which consisted of 299 entrepreneurs with valid e-mail contact information. From this personal network, 54 responses were received, resulting in a response rate of 18.1%. The second source of respondents was obtained through snowball sampling of 2,131 social media contacts and followers on FaceBook (893 friends), Twitter (219 followers), and LinkedIn (1,019 contacts). Such snowball sampling (Goodman, 1961) has been utilized in recent entrepreneurship research (e.g., Light & Dana, 2013; Scarbrough, Swan, Amaeship, & Briggs, 2013). Studies of gender

differences among entrepreneurs have also utilized such snowball sampling (e.g., Duberly & Carrigan, 2012; Mukherjee, 2013). For example, according to Duberly and Carrigan (2012) snowball sampling appears to be an effective strategy "to engage with women" (p. 634) in accordance with an earlier recommendation made by Bird and Brush (2002). Further, the use of varied methods of data collection may improve survey response rates (Dillman, Phelps, Tortora, Swift, Kohrell, Berck, & Messer, 2009; Schouten, Cobben, & Bethlehem, 2009). While 107 responses were received through snowball sampling, it is not possible to calculate a response rate due to the nature of the sample and the researcher's inability to determine how many entrepreneurs were exposed to the survey but chose not to respond. However, this snowball sampling method was similar to that utilized in other entrepreneurship research where the researchers first utilized direct contacts and participants were asked to recruit other entrepreneurs who otherwise may not have been contacted (Bullough, Renko, & Myatt, 2014).

The third group of respondents was obtained through an e-mail request sent by local chambers of commerce on behalf of the researcher. Although an estimated 4,000 chamber members received the survey request, a follow-up interview with the presidents of the local chambers revealed that only an estimated 10% of those on the mailing list would actually be business owners and thus be qualified to participate in the survey. Thus, the estimated number of potentially qualified respondents was 400. With 23 responses received from the various chamber of commerce e-mails, the estimated response rate was 5.8%. The fourth and final source of respondents consisted of business alumni from a medium-sized regional university. Similar to the chambers of commerce, the university's alumni relations office sent an e-mail request to approximately 5,500

alumni of the university's college of business administration. Also similar to the chambers, the director of alumni relations estimates that just 10% of the recipients would be business owners. With 66 survey completions from an estimated 550 business owners, the approximate response rate for this fourth group was 12%. Before being combined, the various sub-samples were analyzed as described in the sections that follow to test for non-response and sampling bias.

In total, the survey was deployed to approximately 11,930 recipients via multiple e-mail requests from these five sources during October and November, 2014. However, it is likely that approximately 3,600 of the Chamber recipients and 4,950 of the alumni recipients were not actually business owners and thus were not eligible to participate in the study. Many of the potential respondents who were exposed to the survey through snowball sampling may not have been entrepreneurs, rendering them ineligible to participate. Therefore, I estimate that 3,380 current business owners received a request to complete the survey. In an attempt to improve participation (response rate), I selected one random respondent to receive a new iPad® mini. With 250 responses collected, the estimated overall response rate is approximately 7.4%, which is consistent with other internet-only (web based) surveys (Fricker & Schonlau, 2002). However, because of the nature of the sampling of the various populations, the precise response rate is impossible to calculate (Gregori & Baltar, 2014).

Due to the potential overlap between the various populations surveyed and the potential for some respondents to have received multiple e-mail messages, precautions were taken to ensure that multiple responses were not received from the same individual. During Phase II of this research, respondents were asked to self-identify and provide their

names and contact information for follow up during Phase III. Similarly, respondents were asked to self-identify during Phase III so that their responses could be matched to those received during Phase II.

During Phase II, respondents were first screened for whether they currently owned a business. Of the 250 respondents, 100 were not currently in business or were substantially incomplete. Thus, 150 complete responses from existing business owners were received during Phase II. Of these 150 existing business owners who responded during Phase II, 125 respondents provided at least one valid method of contact, thereby signaling their willingness to participate in Phase III. Tables 3 and 4 summarize the participants during Phase II.

Table 3 – Summary of Phase II (Time 1) Survey Respondents

Sub-Set of Population	Recipients	Potential Respondents	Actual Respondents	Response Rate
1 Personal Network	299	100%	54	18%
2 Snowball	Unknown	Unknown	107	N/A
3 Chambers	4,000	10%	23	6%
4 Alumni	5,500	10%	66	12%

Table 4 – Demographics of Phase II Survey Respondents

Sub-Set of Population	Complete Responses	Males	Females	Average Age
1 Personal Network	34	21	13	51.8
2 Snowball	79	63	16	48.3
3 Chambers	18	12	6	47.3
4 Alumni	19	16	3	44.8
Totals	150	112	38	48.5

Phase III – Full Study – Time 2

Beginning on January 20, 2015 and continuing through January 31, 2015, a final survey was deployed via e-mail to the 125 Phase II respondents who provided contact information. For those respondents who provided telephone numbers but not e-mail addresses, follow-up telephone calls were made to collect Phase III responses. A total of five e-mail requests were sent over the 12-day collection period. Although Dillman (2009) recommends an interval of approximately one week for follow-up on web-based surveys, the nature of this research prescribed more frequent contact because participants had already signaled their willingness to participate in Phase III of this research by providing their contact information. Further, those who had already responded to the request were thanked via e-mail immediately for their participation and not subject to any further follow-up e-mails. Only those who had not yet responded were asked to comply. On January 30, all non-respondents were called via telephone and urged to respond. On January 31, a final telephone call was made and the fifth and final e-mail request was sent to all non-respondents.

The purpose of Phase III of this research was to collect additional data regarding entrepreneurs' utilization of centers as well as updated financial performance data. To that end, respondents were asked to provide sales and employment levels in 2014, as well the number of hours of assistance from entrepreneurship centers in 2014. Respondents were again asked to self-identify so that their responses could be matched to their Phase II responses. As in Phase II, to encourage participation one respondent was selected at random to receive a new iPad® mini. Phase III of data collection closed at midnight on January 31, 2015 with a total of 104 respondents. Three responses were either

substantially incomplete or could not be matched to the data collected during Phase II, resulting in an 80.8% response rate.

The data were also examined for outliers and straight-line responses following the procedures outlined by Hair et al. (2010), and nine respondents were removed. Specifically, seven respondents who had each reported more than $5,000,000 in annual sales were deleted. One additional respondent who reported more than 50 employees was deleted. Finally, one respondent who reported 300 hours of assistance from entrepreneurship centers in 2014 was deleted. Deletion of these nine outliers lowered the average sales for 2014 from $17.8 million to $524,927. The average number of employees also dropped, from 13.93 to 4.83 full-time equivalents. Finally, the average number of hours of assistance from entrepreneurship centers dropped from 7.56 hours to 3.59 hours. Thus, the final sample size for Phase III of this research was 92 respondents, and the demographics of the respondents are shown in Table 5.

Table 5 – Demographics of Phase III Survey Respondents

Sub-Set of Population	Complete Responses	Males	Females	Average Age
1 Personal Network	22	14	8	48.7
2 Snowball	47	36	11	48.8
3 Chambers	12	6	6	52.9
4 Alumni	11	8	3	47.4
Totals	92	64	28	49.1

Measures

Gender was coded categorically, with 0 = “male” and 1 = “female.” Such a categorical measure is consistent with recent entrepreneurship research (e.g., Davis & Shaver, 2012; Powell & Eddleston, 2013). Of the 150 respondents during Phase II of this research, 112 (74.7%) self-identified as male and 38 (25.3%) self-identified as female.

Of the 92 matched respondents obtained during Phase III, 64 (69.6%) self-identified as male and 28 (30.4%) self-identified as female.

Attitudes toward Seeking Help from Entrepreneurship Centers

To assess entrepreneurs' attitudes toward seeking assistance from entrepreneurship centers, the scale measures of individuals' attitudes toward seeking professional psychological help (Fischer & Turner, 1970) were revised to fit the context of entrepreneurship. Factor analysis of the original Fischer and Turner (1970) scale measures revealed four underlying attitudinal dimensions: recognition of the need for help, tolerance of the stigma associated with seeking help, interpersonal openness, and confidence in the provider. In my preliminary research to adapt the original attitudinal indicators to fit the context of entrepreneurship, interviews with six entrepreneurs were conducted over a three-month period from July through September, 2012. In addition, a panel of business experts including scholars knowledgeable about entrepreneurship and methods reviewed the items at each stage of the preliminary research. Several academic researchers and entrepreneurs also reviewed the indicators to assess their face validity. As is common in business research (Hair et al., 2015), these reviewers assessed the clarity of phrasing and suitability of the indicators chosen to represent each construct. For each of the attitudinal indicators, entrepreneurs were asked to rate their agreement on a 7-point Likert scale, where 1 = "strongly disagree," 4 = "neither agree nor disagree," and 7 = "strongly agree."

A complete list of the indicators and revisions at each stage of the scale purification process is shown in Table 6, and the exploratory factor analysis process is

described in Chapter 4. The first column in Table 6 includes the original measures of individuals' attitudes toward seeking professional psychological help (e.g., Fischer & Turner, 1970). The second column includes the indicators that were revised and used during pilot tests 1a, 1b, and 1c. The original measures were revised based upon the interviews with the six entrepreneurs during July through September, 2012 as well as feedback from the business experts, entrepreneurship center staff, and entrepreneurship scholars and researchers. Before the initial pilot tests (1a, 1b, and 1c), two indicators were deleted and 14 indicators were added based upon the qualitative feedback received from the business scholars and experts. Based on the results of the first pilot tests, the indicators were again revised based upon the qualitative feedback and five additional indicators were added as shown in the third column. These indicators were then tested on the Qualtrics® panel of existing business owners during pilot test 2, and the 25 final indicators shown in the fourth column were used during Phase II of this research.

Table 6 – Attitudinal Indicators at Each Stage of Scale Purification Process

Attitudinal Indicators at Each Stage of Research			
Original Indicators	**Indicators Used in Pilot 1**	**Indicators Used in Pilot 2**	**Final Indicators**
A person with a strong character can get over mental conflicts by himself, and would have little need of a psychiatrist.	*Indicator Unchanged*	I can get through most business problems alone, and have little need for outside assistance.	I can get through most business problems alone, and have little need for outside assistance.
There are times when I have felt completely lost, and would have welcomed professional advice for a personal or emotional problem.	There are times when I have felt completely lost, and would welcome assistance from an entrepreneurship center for a business or financial problem.	There are times when I have felt completely lost, and would have welcomed outside assistance for a business or financial problem.	*Indicator Deleted*
Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	Considering the time and expense involved in receiving assistance from an entrepreneurship center, it would have little value for a person like me.	Considering the time and expense involved in receiving outside assistance, it would have little value for my business.	*Indicator Deleted*
Emotional difficulties, like many things, tend to work out by themselves.	*Indicator Unchanged*	Business problems tend to work out by themselves, without outside assistance.	Business problems tend to work out by themselves, without outside assistance.
I would want to get psychiatric attention if I was worried or upset for a long period of time.	I would want to get professional assistance if my business had problems or difficulties for a long period of time.	I would want to seek outside assistance if my business had problems or difficulties for a long period of time.	*Indicator Deleted*
There is something admirable in the attitude of a person who is willing to cope with his conflicts and fears *without* resorting to professional help.	*Indicator Unchanged*	I admire an entrepreneur who seeks outside assistance to solve his or her business problems.	I admire an entrepreneur who seeks outside assistance to solve his or her business problems.
At some future time I might want to have psychological counseling.	*Indicator Unchanged*	At some future time, I expect that my business might need outside assistance.	At some future time, I expect that my business might need outside assistance.

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A person should work out his own problems; getting psychological counseling would be a last resort.	An entrepreneur should work out his or her own problems; getting professional assistance should be a last resort.	I prefer to work out my business problems personally rather than seek outside assistance.	I prefer to work out my business problems personally rather than seek outside assistance.
I would feel uneasy going to a psychiatrist because of what some people would think.	I would feel uneasy asking an outsider for business advice or assistance because of what some people would think.	*Indicator Unchanged*	I would feel uneasy asking an outsider for business advice or assistance because of what some people would think.
Having been a psychiatric patient is a blot on a person's life.	*Indicator Unchanged*	Receiving outside assistance for one's business is a sign of weakness.	Receiving outside assistance for one's business is a sign of weakness.
Having been mentally ill carries with it a burden of shame.	*Indicator Unchanged*	Having to receive outside assistance for my business is embarrassing.	Having to receive outside assistance for my business is embarrassing.
Had I received treatment in a mental hospital, I would not feel that it ought to be "covered up."	If I received assistance from an entrepreneurship center, I would not tell anyone.	I would not mind others knowing that I received outside assistance for my business.	*Indicator Deleted*
If I thought I needed psychiatric help, I would get it no matter who knew about it.	If I thought I needed professional assistance for my business, I would get it no matter who knew about it.	If my business needed outside assistance, I would get it no matter who knew about it.	*Indicator Deleted*
I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.	*Indicator Unchanged*	I would disclose details about my business to an outsider if I thought it might help my business.	*Indicator Deleted*
There are certain problems which should not be discussed outside of one's immediate family.	*Indicator Unchanged*	There are things about my business and financial affairs that I would not want to share with an outsider.	There are things about my business and financial affairs that I would not want to share with an outsider.
Keeping one's mind on a job is a good solution for avoiding personal worries and concerns.	*Indicator Deleted*	*Indicator Deleted*	*Indicator Deleted*

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I resent a person – professionally trained or not – who wants to know about my personal difficulties.	*Indicator Unchanged*	I resent a person – professionally trained or not – who wants to know financial details about my business.	*Indicator Deleted*
There are experiences in my life I would not discuss with anyone.	*Indicator Unchanged*	I often share the 'secrets' to my business' success with others.	*Indicator Deleted*
It is probably best not to know *everything* about oneself.	*Indicator Deleted*	*Indicator Deleted*	*Indicator Deleted*
It is difficult to talk about personal affairs with highly educated people such as doctors, teachers, and clergymen.	*Indicator Unchanged*	It is easy to discuss the details of my business with highly educated people such as accountants, lawyers, professors, or consultants.	*Indicator Deleted*
Although there are clinics for people with mental health troubles, I would not have much faith in them.	*Indicator Unchanged*	Although there are places for entrepreneurs to go for help, I do not have much faith in them.	*Indicator Deleted*
If a good friend asked my advice about a mental problem, I might recommend that he see a psychiatrist.	If a fellow business owner asked my advice about a business problem, I might recommend that he or she seek assistance from an entrepreneurship center.	If a fellow business owner asked for advice, I would recommend that he or she seek assistance from an entrepreneurship center.	If a fellow business owner asked for advice, I would recommend that he or she seek assistance from an entrepreneurship center.
I would rather live with certain mental conflicts than go through the ordeal of getting psychiatric treatment.	I would rather live with certain business problems than go through the ordeal of getting assistance from an entrepreneurship center.	I prefer to solve my own business problems rather than to seek outside assistance.	I prefer to solve my own business problems rather than to seek outside assistance.

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A person with a serious emotional disturbance would probably feel most secure in a good mental hospital.	An entrepreneur with serious business or financial problems would probably benefit from seeking assistance from an entrepreneurship center.	An entrepreneur with serious business or financial problems would probably benefit from outside assistance.	An entrepreneur with serious business or financial problems would probably benefit from outside assistance.
If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	If I believed my business was in trouble, my first inclination would be to seek assistance from an entrepreneurship center.	If I believed my business was in trouble, my first inclination would be to seek business consulting and assistance.	*Indicator Deleted*
I would rather be advised by a close friend than by a psychologist, even for an emotional problem.	*Indicator Unchanged*	I would rather be advised by my peers than by a business consultant or advisor.	*Indicator Deleted*
A person with an emotional problem is not likely to solve it alone; he *is* likely to solve it with professional help.	A person with a business problem is not likely to solve it alone; he or she will most likely need assistance from an entrepreneurship center.	An entrepreneur with a business problem is not likely to solve it alone; he or she will most likely need outside assistance.	*Indicator Deleted*
The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	*Indicator Unchanged*	There are better methods of solving business problems than utilizing a business consultant or advisor.	*Indicator Deleted*
If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.	If my business were experiencing serious problems, I would be confident that I could solve those problems by utilizing an entrepreneurship center.	If my business were experiencing serious problems, I would be confident that outside assistance could help me resolve those problems.	*Indicator Deleted*

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New Indicator	People who seek assistance from an entrepreneurship center obviously do not have the capacity to run a business.	I would be reluctant to seek outside assistance because others might think that I lack the ability to manage my business.	I would be reluctant to utilize outside assistance because others might think that my business has problems.
New Indicator	Entrepreneurship centers offer generic, or "one-size-fits-all," solutions to business problems.	Organizations that provide outside assistance to businesses offer generic, or "one-size-fits-all" solutions to business problems.	Organizations that provide outside assistance to businesses offer generic, or "one-size-fits-all" solutions to business problems.
New Indicator	The time it takes to work with an entrepreneurship center could be better spent solving the problem oneself.	The time that an entrepreneur spends working with a business consultant or advisor is a wise investment in his or her business.	The time that an entrepreneur spends working with a business consultant or advisor is a wise investment in his or her business.
New Indicator	Going to an entrepreneurship center for assistance affirms that an entrepreneur really does have a serious business problem.	Receiving outside assistance does not necessarily mean that a business has problems.	*Indicator Deleted*
New Indicator	Going to an entrepreneurship center proves that a person does not have the skills to solve his or her own business problems.	I would be reluctant to utilize outside assistance because others might think that my business has problems.	I would be reluctant to seek outside assistance because others might think that I lack the ability to manage my business.
New Indicator	Most business owners could benefit from occasionally seeking professional advice from an entrepreneurship center.	My business could benefit from utilizing business consulting and assistance.	My business could benefit from utilizing business consulting and assistance.
New Indicator	I would feel like a failure if I needed to seek assistance from an entrepreneurship center.	I would feel like a failure if I needed to seek outside assistance for my business.	I would feel like a failure if I needed to seek outside assistance for my business.

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New Indicator	I do not like for other people to know about my financial or business problems.	I do not like other people knowing about my financial or business problems.	I do not like other people knowing about my financial or business problems.
New Indicator	I would trust that an entrepreneurship center could fully solve my business problems.	I would trust that a business consultant or advisor could help me solve my business' problems.	I would trust that a business consultant or advisor could help me solve my business' problems.
New Indicator	Sharing business or financial information with others makes me feel as if I am losing control.	*Indicator Unchanged*	Sharing business or financial information with others makes me feel as if I am losing control.
New Indicator	At the first sign of a problem, it is wise for an entrepreneur to seek assistance from an entrepreneurship center.	At the first sign of a problem in my business, I would seek business consulting and assistance.	*Indicator Deleted*
New Indicator	I doubt an adviser at an entrepreneurship center could fully understand the intricacies of my business.	*Indicator Unchanged*	*Indicator Deleted*
New Indicator	I am willing to share information about my business or financial information with other people if necessary.	I am comfortable discussing financial and performance issues with business professionals.	*Indicator Deleted*
New Indicator	I feel vulnerable when other people know about my business or financial problems.	*Indicator Unchanged*	I feel vulnerable when other people know about my business or financial problems.
New Indicator	*New Indicator*	For me to seek outside assistance for my business, I would need to know that word would not get out.	*Indicator Deleted*
New Indicator	*New Indicator*	I would feel embarrassed if I had to seek outside assistance for my business.	I would feel embarrassed if I had to seek outside assistance for my business.

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New Indicator	*New Indicator*	I frequently discuss my business problems with others.	*Indicator Deleted*
New Indicator	*New Indicator*	I would feel ashamed if I needed to utilize outside assistance for my business.	I would feel ashamed if I needed to utilize outside assistance for my business.
New Indicator	*New Indicator*	There is a negative stigma associated with seeking outside assistance for one's business.	There is a negative stigma associated with seeking outside assistance for one's business.

These 25 indicators shown in the fourth column of Table 6 are also shown in Table 7, which lists the indicators according to their respective attitudinal dimensions. Following the scale purification process and exploratory factor analysis described above and detailed in Chapter 4, these 25 indicators were found to closely align with the four hypothesized attitudinal dimensions. Four indicators were selected to measure entrepreneurs' recognition of their need for assistance, and ten indicators were chosen to measure entrepreneurs' tolerance of the stigma associated with seeking assistance. Three indicators were selected to measure entrepreneurs' interpersonal openness, and eight were chosen to measure entrepreneurs' confidence in entrepreneurship centers. Analysis of the 25-item scale shown in Table 7 – using the 92 responses collected during Phase III of this research – yields a Cronbach's alpha of 0.931. This exceeds the minimum standard of 0.70 for exploratory research such as this (Hair et al., 2010).

Table 7 – Final Attitudinal Indicators by Attitudinal Dimension

Final Attitudinal Indicators by Dimension			
Recognition of the Need for Assistance	**Tolerance of Stigma**	**Interpersonal Openness**	**Confidence in the Provider**
I can get through most business problems alone, and have little need for outside assistance.	I would feel uneasy asking for outside assistance for my business because of what some people would think.	There are things about my business and financial affairs that I would not want to share with an outsider.	If a fellow business owner asked for advice, I would recommend that he or she seek assistance from an entrepreneurship center.
Business problems tend to work out by themselves, without outside assistance.	Receiving outside assistance for one's business is a sign of weakness.	I do not like other people knowing about my financial or business problems.	An entrepreneur with serious business or financial problems would probably benefit from outside assistance.
I prefer to work out my business problems personally rather than seek outside assistance.	Having to receive outside assistance for my business is embarrassing.	I feel vulnerable when other people know about my business or financial problems.	Organizations that provide outside assistance to businesses offer generic, or "one-size-fits-all" solutions to business problems.
I prefer to solve my own business problems rather than to seek outside assistance.	I would feel like a failure if I needed to seek outside assistance for my business.		The time that an entrepreneur spends working with a business consultant or advisor is a wise investment in his or her business.
	I would be reluctant to seek outside assistance because others might think that I lack the ability to manage my business.		I would trust that a business consultant or advisor could help me solve my business' problems.
	I would feel embarrassed if I had to seek outside assistance for my business.		I admire an entrepreneur who seeks outside assistance to solve his or her business problems.

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	I would be reluctant to utilize outside assistance because others might think that my business has problems.		At some future time, I expect that my business might need outside assistance.
	There is a negative stigma associated with seeking outside assistance for one's business.		My business could benefit from utilizing business consulting and assistance.
	I would feel ashamed if I needed to utilize outside assistance for my business.		
	Sharing business or financial information with others makes me feel as if I am losing control.		

Entrepreneurs' Utilization of Entrepreneurship Centers

Utilization of entrepreneurship centers was assessed in two ways. The first measure of entrepreneurs' utilization of centers consisted of a continuous measure of the number of hours of assistance utilized in each of four successive years (2011 through 2014). A similar continuous measure of entrepreneurs' utilization of assistance has been utilized for testing Chrisman et al.'s (2005) theory of guided preparation (Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). The mean number of hours assistance utilized – across all ninety-two respondents to Phase III – is as follows: 2011 – 2.63; 2012 – 2.52; 2013 – 3.27; and 2014 – 3.59 hours. Descriptive statistics for the hours of assistance entrepreneurs utilized in each year are shown in Table 8. As was expected and is common in social science research (Hair et al., 2010), the data were not normally distributed despite the deletion of the aforementioned outliers.

Table 8 – Descriptive Statistics for Entrepreneurs' Utilization of Centers

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Hours Used in 2011	92	0	50	2.63	8.51	3.94	0.25	16.08	0.50
Hours Used in 2012	92	0	50	2.52	8.07	4.09	0.25	18.27	0.50
Hours Used in 2013	92	0	50	3.27	9.92	3.39	0.25	10.85	0.50
Hours Used in 2014	92	0	60	3.59	10.64	4.05	0.25	17.65	0.50

Because an important focus of this study is gender differences in entrepreneurs' utilization of entrepreneurship centers, Table 9 shows the mean hours of utilization for male and female entrepreneurs.

Table 9 – Entrepreneurs' Hours of Utilization of Centers by Gender

						95% Confidence Interval for Mean			
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Min.	Max.
Hours used in 2011	Male	64	2.18	6.57	0.82	0.54	3.82	0.0	35.0
	Female	28	3.64	11.91	2.25	-0.98	8.26	0.0	50.0
Hours used in 2012	Male	64	1.66	6.84	0.86	-0.05	3.37	0.0	50.0
	Female	28	4.50	10.22	1.93	0.54	8.46	0.0	40.0
Hours used in 2013	Male	64	2.63	8.86	1.11	0.41	4.84	0.0	40.0
	Female	28	4.75	12.06	2.28	0.07	9.43	0.0	50.0
Hours used in 2014	Male	64	2.23	8.23	1.03	0.18	4.29	0.0	60.0
	Female	28	6.68	14.48	2.74	1.06	12.29	0.0	60.0

As shown in Table 10, the differences in the mean number of hours of utilization for male and female entrepreneurs were not statistically significant.

Table 10 – Significance Testing of Differences in Hours of Utilization by Gender

	F	Significance
Hours used in 2011	0.57	0.45
Hours used in 2012	2.46	0.12
Hours used in 2013	0.89	0.35
Hours used in 2014	3.49	0.07

The second measure of utilization was a categorical measure, based on entrepreneurs' self-reported hours of utilization of entrepreneurship centers. Because data about entrepreneurs' utilization of centers were collected in both Phase II and Phase III of this research, a categorical measure was created for each year where 0 = "Did not use center" and 1 = "Used centers." A similar coding of data is common in scholarly tests of the theory of guided preparation (e.g., Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). In 2011, 2012, and 2013, 14 entrepreneurs (15.2%) utilized entrepreneurship centers. In 2014, 19 entrepreneurs (20.7%) utilized entrepreneurship centers. Again, because an important focus of this study is gender differences in entrepreneurs' utilization of entrepreneurship centers, Table 11 reports the categorical measure of utilization for male and female entrepreneurs.

Table 11 – Entrepreneurs' Utilization (Categorical) of Centers by Gender

						95% Confidence Interval for Mean			
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Min.	Max.
Use in 2011	Male	64	0.16	0.37	0.05	0.06	0.25	0	1
	Female	28	0.14	0.36	0.07	0.00	0.28	0	1
Use in 2012	Male	64	0.13	0.33	0.04	0.04	0.21	0	1
	Female	28	0.21	0.42	0.08	0.05	0.38	0	1
Use in 2013	Male	64	0.13	0.33	0.04	0.04	0.21	0	1
	Female	28	0.21	0.42	0.08	0.05	0.38	0	1
Use in 2014	Male	64	0.16	0.37	0.05	0.06	0.25	0	1
	Female	28	0.32	0.48	0.09	0.14	0.51	0	1

As shown in Table 12, the differences in the categorical measure of utilization for male and female entrepreneurs were not statistically significant.

Table 12 – Significance Testing of Difference in Utilization by Gender

	F	Significance
Use in 2011	.03	0.87
Use in 2012	1.19	0.28
Use in 2013	1.19	0.28
Use in 2014	3.29	0.07

Entrepreneurial Success

Absolute performance measures.

To assess entrepreneurial success, it is common to use absolute measures of firm performance such sales and employment growth (Shepherd & Wiklund, 2009; Wiklund, 2009). To provide the data necessary to calculate such growth measures, respondents were asked to report sales and employment levels (part-time and full-time employees) for each of four successive years. When testing the theory of guided preparation, entrepreneurship scholars commonly calculate total employment in full-time equivalents (FTEs) by adding the number of full-time employees to half of the number of part-time employees (Chrisman et al., 2012; Seo et al., 2014). As is common in entrepreneurship research (Love et al., 2002; Venkatraman & Ramanujam, 1987), respondents were generally reluctant to report employment and sales levels. For example, just 55 of 92 respondents (59.8%) to Phase III reported sales for 2011. Similarly, 62 (67.4%), 68 (73.9%), and 79 (85.9%) respondents reported sales for 2012 through 2014, respectively. Entrepreneurs' self-reports of employment levels were somewhat better, with 86 of 92 (93.4%) reporting employment levels for all four years. Similar to the continuous measure of entrepreneurs' utilization of centers, these absolute measures of entrepreneurial success were not normally distributed despite the deletion of the aforementioned outliers. Descriptive statistics for each of these measures are reported in Table 13.

Table 13 – Descriptive Statistics for Absolute Entrepreneurial Success Measures

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
Variable	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Sales in 2011	55	125	4,445,000	453,127	733,306	3.57	0.32	16.30	0.63
Sales in 2012	62	465	4,378,000	426,427	688,330	3.66	0.30	17.72	0.60
Sales in 2013	68	500	4,290,000	409,384	652,985	3.67	0.29	18.31	0.57
Sales in 2014	79	200	4,300,000	524,927	836,709	2.77	0.27	8.53	0.54
Total Employees in 2011	86	0	40	4.29	6.98	2.89	0.26	9.44	0.51
Total Employees in 2012	86	0	37	4.39	7.06	2.78	0.26	7.83	0.51
Total Employees in 2013	86	0	37	4.79	7.73	2.89	0.26	8.16	0.51
Total Employees in 2014	86	0	37.5	4.84	7.58	2.83	0.26	7.56	0.51

As previously noted, it is common to utilize sales and employment growth to assess entrepreneurial success (Shepherd & Wiklund, 2009; Wiklund, 2009). Using the respondents' self-reported sales and employment levels as described above, these data were then used to calculate sales and employment growth for three successive year-over-year periods as shown below:

$$\text{Sales Growth 1} = \frac{(\text{Sales 2012} - \text{Sales 2011})}{\text{Sales 2011}}$$

$$\text{Sales Growth 2} = \frac{(\text{Sales 2013} - \text{Sales 2012})}{\text{Sales 2012}}$$

$$\text{Sales Growth 3} = \frac{(\text{Sales 2014} - \text{Sales 2013})}{\text{Sales 2013}}$$

$$\text{Employment Growth 1} = \frac{(\text{Total Employees in 2012} - \text{Total Employees in 2011})}{\text{Total Employees in 2011}}$$

$$\text{Employment Growth 2} = \frac{(\text{Total Employees in 2013} - \text{Total Employees in 2012})}{\text{Total Employees in 2012}}$$

$$\text{Employment Growth 3} = \frac{(\text{Total Employess in 2014} - \text{Total Employees in 2013})}{\text{Total Employees in 2013}}$$

Descriptive statistics for each of these newly calculated growth measures are reported in Table 14:

Table 14 – Descriptive Statistics for Sales and Employment Growth Measures

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
Variable	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Sales Growth 1	55	-0.30	5.17	0.31	0.88	4.18	0.32	19.32	0.63
Sales Growth 2	62	-0.75	6.29	0.36	1.27	3.49	0.30	12.22	0.60
Sales Growth 3	59	-0.90	83.26	1.61	10.83	7.65	0.31	58.63	0.61
Employment Growth 1	69	-1.00	1.75	0.11	0.37	1.62	0.29	6.55	0.57
Employment Growth 2	72	-0.67	1.00	0.03	0.23	0.40	0.28	4.97	0.56
Employment Growth 3	79	-1.00	3.67	0.07	0.63	2.55	0.27	13.23	0.54

Control Variables

Most studies of entrepreneurs and entrepreneurship also assess human capital factors. These factors are often included as control variables when testing theoretical models because such human capital factors can affect entrepreneurs' cognition, values, and perceptions (Hambrick & Mason, 1984). One commonly used control variable is entrepreneurs' age (Rotger et al., 2012; Seo et al., 2014; Wiklund et al., 2009), while another common control is entrepreneurs' education level (Chrisman et al., 2012; Cooper, Gimeno-Gascon, & Woo, 1994; Robb & Watson, 2012; Shane & Delmar, 2004; Wiklund & Shepherd, 2003; Wiklund et al., 2009). Both age and education level may particularly impact the performance of smaller firms (Honig, 2001; Seo et al., 2014). Entrepreneurs' family lives may also affect business outcomes (Powell & Eddleston, 2013; Jennings & McDougald, 2007). Therefore, recent research on gender and entrepreneurship includes other entrepreneur-level factors such as marital status (Eddleston & Powell, 2008; Powell & Eddleston, 2013), and average hours devoted to the family or household as well as to the business per week (Powell & Eddleston, 2013; Robb & Watson, 2012). Finally,

because there may be gender preferences for different sources of help, it is also necessary to collect data about entrepreneurs' utilization of other sources of assistance such as accountants, attorneys, or bankers (Audet et al., 2007; Chrisman et al., 2012; Johnson et al., 2007).

Most studies of entrepreneurship also assess certain firm-level characteristics that are used as control variables when testing theoretical models. Research demonstrates that such characteristics may impact firm financial performance (e.g., Anna et al., 1999; Chrisman et al., 2012; Powell & Eddleston, 2013; Robb & Watson, 2012; Sandberg & Hofer, 1987; Wiklund & Shepherd, 2003). Thus, entrepreneurship researchers commonly control for firm demographics such as firm age (Chrisman et al., 2012; Powell & Eddleston, 2013; Wiklund & Shepherd, 2003), industry (Anna et al., 1999; Chrisman et al., 2012; Powell & Eddleston, 2008; Powell & Eddleston, 2013; Robb & Watson, 2012), and whether a business is home-based (Singh & Lucas, 2005; van der Zwan, Verheul, & Thurik, 2012). It is also common to control for the legal structure of the firm as well as firm size (Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014).

Consistent with prior entrepreneurship research, data for several individual-level variables were collected in this study. I control for age of the entrepreneur in years (Rotger et al., 2012; Seo et al., 2014; Wiklund, et al., 2009), and education level coded as "1" when the education is less than an undergraduate degree, "2" when the entrepreneur has an undergraduate degree, "3" for a master's degree, and "4" for a doctorate. I also control for marital status coded as "1" for single respondents and "2" for married or co-habitating respondents (Eddleston & Powell, 2008; Powell & Eddleston, 2013). To control for entrepreneurs' time dedicated to their business each week and to their families

each week, I collected the number of hours for each category (Powell & Eddleston, 2013; Robb & Watson, 2012). I also control for entrepreneurs' utilization of other types of outside assistance by asking respondents whether they used the services of accountants, attorneys, and bankers (Audet et al., 2007; Chrisman et al., 2012; Johnson et al., 2007). Those responses were dummy-coded as "0" for no and "1" for yes, and then summated to create an ordinal measure from "0" to "3," where "0" equals no use of other outside assistance, "1" equals use of one other source of outside assistance, "2" equals use of two other sources of outside assistance, and "3" equals use of all three types of outside assistance.

Also consistent with prior entrepreneurship research, data for several firm-level variables were collected in this study. I control for firm age in years (Chrisman et al., 2012; Powell & Eddleston, 2013), as well as industry where "1" equals service firms and "2" equals non-service firms (Chrisman et al., 2012; Robb & Watson, 2012). I also control for firms' legal structure with "1" designating sole proprietorships, "2" for partnerships, "3" for limited liability companies, "4" for Subchapter-S corporations, "5" for C-corporations, "6" for nonprofit organizations, and "7" for other types of legal structure. To control for whether a business was home-based, a categorical indicator was created where "0" equals a non-home-based business and "1" designates a home-based business (Singh & Lucas, 2005; van der Zwan, Verheul, & Thurik, 2012). Finally, I control for firm size by total sales in the year 2014 (Cumming & Fischer, 2012; Seo et al., 2014).

Control variables should be included in the structural model when they are significantly correlated to both the dependent variable as well as correlated to other

independent variables (Hair, Celsi, Money, Samouel, & Page, 2015). However, there is limited information about the use of controls in PLS-SEM (Allison, 1998; Hair et al., 2014; 2015; Raithel, Sarstedt, Scharf, & Schwaiger, 2011). In preliminary analyses of the structural model, I included the 11 controls as independent variables on their respective latent constructs and utilized bootstrapping to test the significance of each control variable. Of the 11 control variables collected in this study, seven were statistically significant. Six of the controls – entrepreneurs' age, education level, hours devoted to their families, firm size (sales in 2014), industry, and whether the business was home-based – were controls on the ultimate endogenous latent construct "entrepreneurial success." The seventh control – entrepreneurs' utilization of other sources of outside assistance – was a control for entrepreneurs' utilization of entrepreneurship centers. Thus, I removed the other four control variables – marital status, entrepreneurs' hours dedicated to the business, firm age, and legal structure – from the final structural model in subsequent and final analysis because they were not statistically significant (Hair et al., 2015; Seo et al., 2014). Table 15 reports the descriptive statistics and Pearson's correlations of the independent and dependent variables, as well as the seven control variables used in this study.

Table 15 – Descriptive Statistics and Pearson's Correlations of Study Variables

		n	Mean (All)	s.d. (All)	Mean (Males)	Mean (Females)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Entrepreneurs' Age	91	48.05	14.01	51.57	49.13																
2	Entrepreneurs' Education	92	2.13	0.86	2.07	2.11	-0.09															
3	Hours Dedicated to Family	85	43.32	30.42	35.80	41.11	0.10	0.15														
4	Use of Other Assistance	92	1.55	0.92	1.54	1.54	-0.02	0.16	-0.08													
5	Industry	92	1.53	0.50	1.39	1.49	0.03	-0.14	0.15	0.08												
6	Home-Based Business	90	0.40	0.49	0.46	0.42	0.03	-0.02	0.11	-0.11	-0.03											
7	Sales in 2014	79	651,019	958,324	235,967	524,927	0.24*	-0.06	0.01	-0.06	0.02	-0.32**										
8	Recognition of Need	92	16.13	4.93	17.36	16.50	-0.09	0.04	-0.18	0.04	0.08	-0.06	-0.01									
9	Tolerance of Stigma	92	49.02	9.45	50.36	49.42	0.07	-0.11	-0.07	-0.06	0.14	-0.07	0.15	0.51**								
10	Interpersonal Openness	92	11.47	3.89	11.43	11.46	0.05	0.07	0.00	0.03	0.02	-0.18	0.18	0.41**	0.61**							
11	Confidence in the Provider	92	33.80	6.36	36.04	34.48	-0.02	-0.08	-0.06	-0.09	0.11	-0.11	-0.01	0.57**	0.61**	0.43**						
12	Gender	92	--	--	n=64	n=28	0.12	-0.03	-0.12	-0.01	-0.13	0.06	-0.23*	0.12	0.07	-0.01	0.16					
13	Use of Centers in 2012	92	0.13	0.33	0.21	0.15	0.03	0.02	0.08	0.14	0.07	-0.18	0.14	0.32**	0.27**	0.27**	0.37**	0.11				
14	Use of Centers in 2013	92	0.13	0.33	0.21	0.15	0.00	-0.02	0.00	0.26*	0.07	-0.06	0.17	0.35**	0.28**	0.35**	0.39**	0.11	0.75**			
15	Hours Utilized in 2012	92	1.66	6.84	4.50	2.52	-0.02	-0.17	0.05	0.20	0.03	-0.20	0.07	0.28**	0.23*	0.16	0.26*	0.16	0.74**	0.56**		
16	Hours Utilized in 2013	92	2.63	8.86	4.75	3.27	0.03	-0.12	0.04	0.28**	0.09	0.01	0.07	0.30**	0.20	0.35**	0.28**	0.10	0.51**	0.78**	0.62**	
17	Sales Growth 3	59	2.16	12.99	0.37	1.61	-0.11	0.12	-0.10	-0.08	-0.12	0.16	0.02	-0.09	-0.28*	-0.12	-0.23	-0.08	-0.05	-0.04	-0.04	-0.03

* p < .05, ** p < .01

Non-Response Bias

In an effort to increase the response rate and minimize the possibility of non-response bias, this study followed the recommendations of Dillman et al. (2009) for reducing non-response errors. Specifically, the e-mail requests that were sent from the chambers, the office of alumni relations, and the SBDC were all personalized with the individual recipients' name. Following their completion of Phase II, recipients who self-identified received personalized e-mails from the researcher thanking them for their participation in the study. Multiple contacts were made during the periods that the surveys were open, and follow-up telephone calls were made at the end of Phase III to request completion of the final survey.

Recipients in all three phases of the study were also provided token incentives to comply with the survey. For example, the undergraduate students participating in pilots 1a and 1b were awarded non-material incentives, course extra credit. Three of the respondents to pilot 1c were selected at random to receive material incentives, restaurant gift cards in the amount of $25. During both Phases II and III, one respondent was selected at random to receive an iPad mini. Such token incentives are commonly used to improve response rates (Church, 1993; Dillman & Parsons, 2008, Dillman et al., 2009), thereby reducing the potential for nonresponse bias. However, it is also necessary to examine the effects of potential nonresponse. One such method is to compare the initial survey respondents to the late survey respondents (Armstrong & Overton, 1977).

During Phase III of this research, data were collected over a 12-day period of time. During the first four days of data collection – in the period immediately following the initial request for survey completion – 56 responses (60.9%) of the 92 responses were

received. Because these 56 respondents complied with the initial request, they are categorized as early respondents, and shown in Table 12 as "First 4 days." During the final eight days of data collection – following the second and all subsequent e-mail requests for completion – 36 responses (39.1%) were received. Because these 36 respondents required multiple requests to complete the survey, they are categorized as late respondents, and shown in Table 12 as "Last 8 days." To test for nonresponse bias, I followed the procedures outlined by Armstrong and Overton (1977), and the early and late respondents are compared as shown in Tables 16 and 17.

Table 16 – Descriptive Statistics - Comparing Initial and Late Respondents

Variable	Group	N	Mean	Std. Deviation
Recognition of Need	First 4 days	56	3.83	1.24
(Average Summated)	Last 8 days	36	3.80	1.17
Tolerance of Stigma	First 4 days	56	2.45	0.88
(Average Summated)	Last 8 days	36	2.65	0.96
Interpersonal Openness	First 4 days	56	4.13	1.24
(Average Summated)	Last 8 days	36	4.21	1.21
Confidence in the Provider	First 4 days	56	5.08	0.66
(Average Summated)	Last 8 days	36	4.88	0.80
Use of Center in 2014	First 4 days	56	0.23	0.43
(Categorical Measure)	Last 8 days	36	0.14	0.35
Hours Utilized in 2014	First 4 days	56	4.55	15.01
(Continuous Measure)	Last 8 days	36	2.89	10.58
Sales in 2014	First 4 days	50	772,816	1,170,459
	Last 8 days	29	1,170,298	1,607,003
Total Employees in 2014	First 4 days	54	5.77	10.82
(FTEs + (PTEs ÷ 2))	Last 8 days	32	23.23	97.16

Table 16 reports the means and standard deviations for both populations, while Table 17 reports the results of a one-way ANOVA to determine the statistical significance of any mean differences between the early and late respondents.

Table 17 – Testing Non-response Bias by Comparing Initial and Late Respondents

Variable	F	Sig
Recognition of Need (Average Summated)	0.02	0.89
Tolerance of Stigma (Average Summated)	1.03	0.31
Interpersonal Openness (Average Summated)	0.10	0.76
Confidence in the Provider (Average Summated)	1.60	0.21
Use of Centers in 2014	1.20	0.28
Hours Utilized in 2014	0.34	0.56
Sales in 2014	1.60	0.21
Total Employees in 2014	1.72	0.19

As shown in Table 17, none of the variables of interest collected during Phase III of this research showed significant differences between early and late respondents. Specifically, there were no differences in respondents' attitudes toward seeking assistance on any of the four attitudinal dimensions: recognition of need for assistance from entrepreneurship centers, tolerance of the stigma associated with seeking help, interpersonal openness, and confidence in the provider. Similarly, there were no differences in the categorical measure of utilization or in the number of hours of assistance from entrepreneurship centers between early and late respondents. Finally, although sales and employment levels in 2014 were higher for late respondents, the differences were not significant. Taken together, these overall findings appear to suggest that non-response bias is not a concern. Therefore, the final sample is accepted as an adequate representation of the overall population surveyed.

Sample Bias

Because the data were collected using four sub-samples – the researcher's personal network, a snowball sample through social media, members of local chambers of commerce, and university alumni – it is also necessary to compare the responses of the

four sub-samples. Table 18 reports the means and standard deviations for each of the four populations.

Table 18 – Descriptive Statistics by Population

Variable	Group	N	Mean	Std. Deviation
Recognition of Need (Average Summated)	Personal	22	4.50	1.16
	Snowball	47	3.34	1.19
	Chamber	11	4.42	1.18
	Alumni	12	3.75	1.39
Tolerance of Stigma (Average Summated)	Personal	22	5.72	0.73
	Snowball	47	5.27	1.11
	Chamber	11	5.65	0.91
	Alumni	12	5.81	0.62
Interpersonal Openness (Average Summated)	Personal	22	4.26	0.97
	Snowball	47	3.45	1.33
	Chamber	11	4.30	1.02
	Alumni	12	4.00	1.00
Confidence in the Provider (Average Summated)	Personal	22	5.41	0.78
	Snowball	47	4.72	0.86
	Chamber	11	5.22	0.81
	Alumni	12	5.60	0.68
Use of Centers in 2014	Personal	22	0.09	0.29
	Snowball	47	0.19	0.40
	Chamber	11	0.36	0.51
	Alumni	12	0.33	0.49
Hours Utilized in 2014	Personal	22	1.00	3.25
	Snowball	47	4.30	13.46
	Chamber	11	5.64	10.15
	Alumni	12	3.67	6.77
Sales in 2014	Personal	20	426,891	489,530
	Snowball	40	650,095	1,063,038
	Chamber	9	476,959	708,557
	Alumni	10	263,500	221,598
Total Employees in 2014	Personal	22	6.80	9.37
	Snowball	44	4.60	7.59
	Chamber	10	2.90	2.01
	Alumni	12	4.04	7.28

Post-hoc analysis of the four populations using Games-Howell testing in accordance with the recommendations of Hair et al. (2010) reveals that there are statistically significant differences between the samples in their attitudes toward seeking assistance from entrepreneurship centers. Specifically, the snowball sample had significantly less favorable attitudes than the personal network on recognition of need

($p<0.01$), interpersonal openness ($p<0.05$), and confidence in the provider ($p<0.01$). The snowball sample also had significantly less favorable confidence in the provider ($p<0.01$) than the alumni database. The differences in the categorical measure of utilization of entrepreneurship centers in 2014, hours utilized in 2014, and sales and employment levels in 2014 were not statistically significant. However, to better understand the differences in the attitudinal dimensions, I divided the respondents into two groups: those respondents obtained through snowball sampling and all other respondents.

Table 19 – Descriptive Statistics for Snowball and Non-Snowball Respondents

Variable	Group	N	Mean	Standard Deviation
Recognition of Need (Average Summated)	Non-Snowball	45	4.28	1.25
	Snowball	47	3.34	1.19
Tolerance of Stigma (Average Summated)	Non-Snowball	45	5.73	0.74
	Snowball	47	5.27	1.11
Interpersonal Openness (Average Summated)	Non-Snowball	45	4.20	0.98
	Snowball	47	3.45	1.33
Confidence in Provider (Average Summated)	Non-Snowball	45	5.41	0.76
	Snowball	47	4.72	0.86
Use of Centers in 2014 (Categorical Measure)	Non-Snowball	45	0.22	0.42
	Snowball	47	0.19	0.40
Hours Utilized in 2014 (Continuous Measure)	Non-Snowball	45	2.84	6.62
	Snowball	47	4.30	13.46
Sales in 2014	Non-Snowball	39	396,550	493,781
	Snowball	40	650,095	1,063,038
Total Employees in 2014 (FTEs + (PTEs ÷ 2))	Non-Snowball	42	5.08	7.66
	Snowball	44	4.60	7.59

Table 19 reports the descriptive statistics for the two groups, while Table 20 reports the results of a one-way ANOVA for the groups.

Table 20 – Significance of Differences between Respondents

Variable	F	Significance
Recognition of Need (Average Summated)	13.73	0.00
Tolerance of Stigma (Average Summated)	5.37	0.02
Interpersonal Openness (Average Summated)	9.35	0.00
Confidence in the Provider (Average Summated)	17.05	0.00
Use of Centers in 2014	0.13	0.72
Hours Utilized in 2015	0.43	0.52
Sales in 2014	1.83	0.18
Total Employees in 2014	0.09	0.77

As shown in Table 20, the differences in the categorical and continuous measures of utilization of entrepreneurship centers – as well as sales and employment levels in 2014 – were not statistically significant. However, there were statistically-significant differences between the non-snowball and the snowball respondents on each of the four attitudinal dimensions. Specifically, the non-snowball respondents had more positive attitudes toward seeking assistance on recognition of the need for assistance, tolerance of stigma, interpersonal openness, and confidence in the provider. In light of these differences, I cannot rule out the possibility of sampling bias as a limitation of this research.

Conclusion

In concluding this section on methods, it is appropriate to reiterate the reasons why the use of PLS-SEM was selected for this research. Because of the longitudinal nature of this research, the final number of respondents (n=92) was smaller than anticipated due to the attrition that occurred as the research progressed. Despite a very short data collection window of just 12 days, the response rate was 80.8% during Phase III of this research. In addition, the model is quite complex and contains many reflective

indicators of the attitudinal dimensions as well as a single-indicator construct (gender) and two formative constructs (utilization of entrepreneurship centers and entrepreneurial success). With small samples and with complex models that contain formative indicators, PLS-SEM is the preferred approach (Hair et al., 2012; 2014). Finally, as is often the case with social science research (Hair et al., 2010), the data were not normally distributed. For these reasons, and because the goal of this research was to maximize the R^2 value of the endogenous constructs, PLS-SEM was deemed an appropriate method to assess the measurement model and test the hypothesized relationships in the full structural model (Hair et al., 2012; 2014).

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

Exploratory Factor Analysis – Attitudes toward Seeking Assistance

Multiple pilot tests were conducted to develop and refine previously utilized measures of individuals' attitudes toward seeking professional psychological help (e.g., Fischer & Turner, 1970) so they could be applied in the current context of seeking assistance from entrepreneurship centers. Using the qualitative feedback from a sample of undergraduate business students (pilots 1a and 1b), the survey was revised for testing on a similar sample of graduate business students (pilot 1c). Exploratory factor analysis (EFA) of the data obtained in pilots 1a, 1b, and 1c did not yield a solution consistent with the hypothesized attitudinal dimensions. However, extensive discussions with a group of entrepreneurship scholars indicated that there may be two conditions causing these results. The first is the nature of the population surveyed, which was comprised of a student sample. For example, these student respondents averaged 22.82 years of age, with a range from 18 to 49 and a mode of 20. For comparison, the respondents during Phase III of this research averaged 48.05 years of age. The second condition is the very specific context of the study: entrepreneurs' attitudes toward seeking assistance from entrepreneurship centers. The students' lack of business and entrepreneurship experience might have confounded the results in light of the specific nature of the study. Thus, the attitudinal indicators were again refined based upon the feedback of the business experts

and entrepreneurship scholars as shown in Table 6 (see Chapter 3). Another pilot test (pilot 2) was then commissioned through Qualtrics®, utilizing a panel survey of 105 entrepreneur-owners of small firms. For this survey, the 46 indicators shown in the third column of Table 6 were used to assess entrepreneurs' attitudes toward seeking assistance from entrepreneurship centers.

Following collection of the data from the Qualtrics® panel, I conducted an EFA using IBM SPSS® software. Options selected for the EFA included "Varimax Rotation," "Extraction based on Eigenvalues > 1.0," and the suppression of coefficients < 0.40 (Hair et al., 2010). Indicators were deleted stepwise, and the EFA process was repeated until the data yielded a four-factor solution consistent with the four hypothesized attitudinal dimensions drawn from the help-seeking literature (e.g., Fischer & Turner, 1970). With 105 respondents during Phase II, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.87, which exceeded the recommended guideline of > 0.80 for "meritorious" sampling adequacy (Hair et al., 2010). The results of this EFA on the pilot 2 data are shown in Table 21. Based on these preliminary results, the 25 attitudinal indicators were re-named in a manner consistent with the hypothesized attitudinal dimensions and their actual factor loadings.

The EFA process and stepwise deletion of attitudinal indicators resulted in four indicators for recognition of need, ten indicators for tolerance of stigma, three indicators for interpersonal openness, and eight indicators for confidence in the provider. To ensure that these indicators accurately represent the attitudinal dimensions being measured, a panel of business experts and entrepreneurship scholars examined each of the remaining indicators. These 25 indicators are shown in Table 22, which is organized and labeled

Table 21 – Exploratory Factor Analysis Results Using Pilot 2 Data

	Recognition of Need for Assistance	Tolerance Of Stigma	Interpersonal Openness	Confidence in the Provider
Recognition of Need 1	0.707			
Recognition of Need 2	0.698			
Recognition of Need 3	0.572			
Recognition of Need 4	0.571			
Tolerance of Stigma 1		0.894		
Tolerance of Stigma 2		0.836		
Tolerance of Stigma 3		0.816		
Tolerance of Stigma 4		0.805		
Tolerance of Stigma 5		0.797		
Tolerance of Stigma 6		0.780		
Tolerance of Stigma 7		0.778		
Tolerance of Stigma 8		0.758		
Tolerance of Stigma 9		0.717		
Tolerance of Stigma 10		0.716		
Interpersonal Openness 1			0.808	
Interpersonal Openness 2			0.803	
Interpersonal Openness 3			0.801	
Confidence in Provider 1				0.812
Confidence in Provider 2				0.799
Confidence in Provider 3				0.687
Confidence in Provider 4				0.660
Confidence in Provider 5				0.627
Confidence in Provider 6				0.613
Confidence in Provider 7				0.548
Confidence in Provider 8				0.513

Note: The final attitudinal indicators and numbers are shown in Table 22.

according to the indicators' respective attitudinal dimensions. These 25 indicators were used in the final version of the survey to measure entrepreneurs' attitudes toward seeking assistance from entrepreneurship centers during Phase II of this research.

Table 22 – Final Attitudinal Indicators, Numbered by Attitudinal Dimension

Dimension/#	Actual Indicator Used in Final Survey
Rec. Need 1	I can get through most business problems alone, and have little need for outside assistance.
Rec. Need 2	Business problems tend to work out by themselves, without outside assistance.
Rec. Need 3	I prefer to work out my business problems personally rather than seek outside assistance.
Rec. Need 4	I prefer to solve my own business problems rather than to seek outside assistance.
Tol. Stigma 1	I would feel uneasy asking for outside assistance for my business because of what some people would think.
Tol. Stigma 2	Receiving outside assistance for one's business is a sign of weakness.
Tol. Stigma 3	Having to receive outside assistance for my business is embarrassing.
Tol. Stigma 4	I would feel like a failure if I needed to seek outside assistance for my business.
Tol. Stigma 5	I would be reluctant to seek outside assistance because others might think that I lack the ability to manage my business.
Tol. Stigma 6	I would feel embarrassed if I had to seek outside assistance for my business.
Tol. Stigma 7	I would be reluctant to utilize outside assistance because others might think that my business has problems.
Tol. Stigma 8	There is a negative stigma associated with seeking outside assistance for one's business.
Tol. Stigma 9	I would feel ashamed if I needed to utilize outside assistance for my business.
Tol. Stigma 10	Sharing business or financial information with others makes me feel as if I am losing control.
Int. Openness 1	There are things about my business and financial affairs that I would not want to share with an outsider.
Int. Openness 2	I do not like other people knowing about my financial or business problems.
Int. Openness 3	I feel vulnerable when other people know about my business or financial problems.
Conf. Prov. 1	If a fellow business owner asked for advice, I would recommend that he or she seek assistance from an entrepreneurship center.
Conf. Prov. 2	An entrepreneur with serious business or financial problems would probably benefit from outside assistance.
Conf. Prov. 3	Organizations that provide outside assistance to businesses offer generic, or "one-size-fits-all" solutions to business problems.
Conf. Prov. 4	The time that an entrepreneur spends working with a business consultant or advisor is a wise investment in his or her business.
Conf. Prov. 5	I would trust that a business consultant or advisor could help me solve my business' problems.
Conf. Prov. 6	I admire an entrepreneur who seeks outside assistance to solve his or her business problems.
Conf. Prov. 7	At some future time, I expect that my business might need outside assistance.
Conf. Prov. 8	My business could benefit from utilizing business consulting and assistance.

As mentioned in the preceding section, respondents were asked to rate their agreement with each of the attitudinal indicators on a 7-point Likert scale, where 1 = "strongly agree," 4 = "neither agree nor disagree," and 7 = "strongly agree."

Table 23 – Descriptive Statistics for Attitudinal Indicators by Gender

						95% Confidence Interval for Mean			
Indicator	Gender	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Min.	Max
Recognition of Need 1	M	64	3.77	1.477	.185	3.40	4.13	1	7
	F	28	4.04	1.453	.274	3.47	4.60	2	6
Recognition of Need 2	M	64	4.98	1.397	.175	4.64	5.33	2	7
	F	28	5.36	1.283	.242	4.86	5.85	3	7
Recognition of Need 3	M	64	3.80	1.585	.198	3.40	4.19	1	7
	F	28	4.18	1.679	.317	3.53	4.83	1	7
Recognition of Need 4	M	64	3.58	1.520	.190	3.20	3.96	1	7
	F	28	3.79	1.424	.269	3.23	4.34	1	6
Tolerance of Stigma 1	M	64	5.33	1.310	.164	5.00	5.66	2	7
	F	28	5.64	1.311	.248	5.13	6.15	2	7
Tolerance of Stigma 2	M	64	5.88	.864	.108	5.66	6.09	3	7
	F	28	6.07	1.016	.192	5.68	6.47	4	7
Tolerance of Stigma 3	M	64	5.25	1.309	.164	4.92	5.58	2	7
	F	28	5.43	1.476	.279	4.86	6.00	2	7
Tolerance of Stigma 4	M	64	5.69	1.233	.154	5.38	6.00	1	7
	F	28	5.79	.995	.188	5.40	6.17	3	7
Tolerance of Stigma 5	M	64	5.39	1.229	.154	5.08	5.70	2	7
	F	28	5.29	1.272	.240	4.79	5.78	3	7
Tolerance of Stigma 6	M	64	5.41	1.400	.175	5.06	5.76	2	7
	F	28	5.75	.967	.183	5.38	6.12	3	7
Tolerance of Stigma 7	M	64	5.42	1.219	.152	5.12	5.73	1	7
	F	28	5.46	1.138	.215	5.02	5.91	3	7
Tolerance of Stigma 8	M	64	5.56	1.308	.163	5.24	5.89	2	7
	F	28	5.68	1.219	.230	5.21	6.15	2	7
Tolerance of Stigma 9	M	64	5.09	1.411	.176	4.74	5.45	1	7
	F	28	5.25	1.110	.210	4.82	5.68	3	7
Tolerance of Stigma 10	M	64	4.95	1.527	.191	4.57	5.33	2	7
	F	28	4.71	1.512	.286	4.13	5.30	2	7
Interpersonal Openness 1	M	64	3.58	1.688	.211	3.16	4.00	1	7
	F	28	3.46	1.261	.238	2.98	3.95	1	6
Interpersonal Openness 2	M	64	3.58	1.602	.200	3.18	3.98	1	7
	F	28	3.75	1.351	.255	3.23	4.27	1	6
Interpersonal Openness 3	M	64	4.31	1.622	.203	3.91	4.72	1	7
	F	28	4.21	1.524	.288	3.62	4.81	2	7

Table continued on next page

Confidence in the Provider 1	M	64	4.47	1.414	.177	4.12	4.82	1	7
	F	28	4.64	1.471	.278	4.07	5.21	2	7
Confidence in the Provider 2	M	64	5.66	1.211	.151	5.35	5.96	1	7
	F	28	6.07	.858	.162	5.74	6.40	4	7
Confidence in the Provider 3	M	64	5.22	1.091	.136	4.95	5.49	2	7
	F	28	5.89	.875	.165	5.55	6.23	4	7
Confidence in the Provider 4	M	64	5.00	1.039	.130	4.74	5.26	2	7
	F	28	5.14	1.044	.197	4.74	5.55	3	7
Confidence in the Provider 5	M	64	5.20	1.086	.136	4.93	5.47	2	7
	F	28	5.68	.983	.186	5.30	6.06	4	7
Confidence in the Provider 6	M	64	4.89	1.554	.194	4.50	5.28	1	7
	F	28	5.25	1.175	.222	4.79	5.71	2	7
Confidence in the Provider 7	M	64	4.91	1.151	.144	4.62	5.19	2	7
	F	28	5.04	1.036	.196	4.63	5.44	2	7
Confidence in the Provider 8	M	64	4.11	1.449	.181	3.75	4.47	1	7
	F	28	4.39	1.524	.288	3.80	4.98	1	7

Because one of the primary constructs of interest in this research is entrepreneurs' gender, Table 23 reports the descriptive statistics by gender for each of the attitudinal indicators while Table 24 reports the results of a one-way ANOVA based upon gender.

Table 24 – Significance of Differences by Gender

Variable	F	Sig.
Recognition of Need 1	.658	.420
Recognition of Need 2	1.455	.231
Recognition of Need 3	1.089	.299
Recognition of Need 4	.377	.541
Tolerance of Stigma 1	1.124	.292
Tolerance of Stigma 2	.904	.344
Tolerance of Stigma 3	.335	.564
Tolerance of Stigma 4	.138	.711
Tolerance of Stigma 5	.139	.710
Tolerance of Stigma 6	1.393	.241
Tolerance of Stigma 7	.025	.876
Tolerance of Stigma 8	.160	.690
Tolerance of Stigma 9	.270	.605
Tolerance of Stigma 10	.479	.490
Interpersonal Openness 1	.102	.750
Interpersonal Openness 2	.246	.621
Interpersonal Openness 3	.074	.786
Confidence in the Provider 1	.288	.593
Confidence in the Provider 2	2.691	.104
Confidence in the Provider 3	8.331	.005
Confidence in the Provider 4	.367	.546
Confidence in the Provider 5	3.944	.050
Confidence in the Provider 6	1.195	.277
Confidence in the Provider 7	.261	.610
Confidence in the Provider 8	.723	.397

PLS Measurement Model

The data collected during Phase III (time 2) provided a final sample consisting of 92 respondents. In the final PLS model, the largest number of arrows pointing toward a latent construct is nine. Thus a sample size of ninety or larger will provide adequate levels of statistical power (Hair et al., 2014). The attitudinal indicators are reflective because they are perceptual and the removal of one item does not change the underlying nature of the construct (Diamantopoulos & Siguaw, 2006). The indicators assessing entrepreneurs' utilization of assistance and success are absolute measures and therefore

considered formative for analysis purposes. To test the hypotheses, a path model was developed using the SmartPLS 3.2.1 (Ringle et al., 2015) software.

Attitudes toward Seeking Assistance from Entrepreneurship Centers

To achieve recommended reliability and validity thresholds (Hair et al., 2014), two attitudinal indicators were deleted. The first attitudinal indicator deleted was indicator ten for tolerance of stigma: Sharing business or financial information with others makes me feel as if I am losing control. Nine indicators remained to measure entrepreneurs' tolerance of stigma. The second indicator deleted was indicator two for confidence in the provider: An entrepreneur with serious business or financial problems would probably benefit from outside assistance. Seven indicators remained to measure entrepreneurs' confidence in the provider. Following deletion of these two attitudinal indicators, the items were again reviewed by a group of scholars and business experts with subject matter expertise. These experts agreed that the remaining 23 indicators appear to adequately represent the four attitudinal dimensions, thereby demonstrating face validity (Hair et al., 2010). Analysis of the 23 remaining attitudinal indicators– using the 92 responses collected during Phase III of this research – yields a Cronbach's alpha of 0.931, exceeding the minimum standard of 0.70 for exploratory research (Hair et al., 2010). In the sections that follow, the fit of the PLS measurement model and the discriminant validity of these indicators is also discussed.

Utilization of Entrepreneurship Centers

To assess entrepreneurs' utilization of entrepreneurship centers, the first option was to use the entrepreneurs' self-reported hours of utilization of entrepreneurship centers for the years 2011 through 2013. The outer weight for the number of hours utilized in 2011 was in an unexpected (negative) direction for the latent construct "utilization of centers," while the outer weights for the number of hours utilized in 2012 and 2013 were both positive. Bootstrapping analysis to assess the significance of the outer weights revealed that the indicator for hours utilized in 2011 was statistically insignificant. Thus, the indicator was deleted from the measurement model according to the procedures specified by Hair et al. (2015) and the model was again calculated. The outer weights for the two indicators – hours utilized in 2012 and hours utilized in 2013 – were both positive. These two formative indicators, together with the four attitudinal dimensions and the control variable entrepreneurs' utilization of "other outside assistance" explained 22.9% of the variance in the latent construct "utilization of centers." Further discussion regarding these formative measures of entrepreneurs' utilization of entrepreneurship centers is included in the section entitled "assessment of the formative indicators" that follows.

Entrepreneurial Success

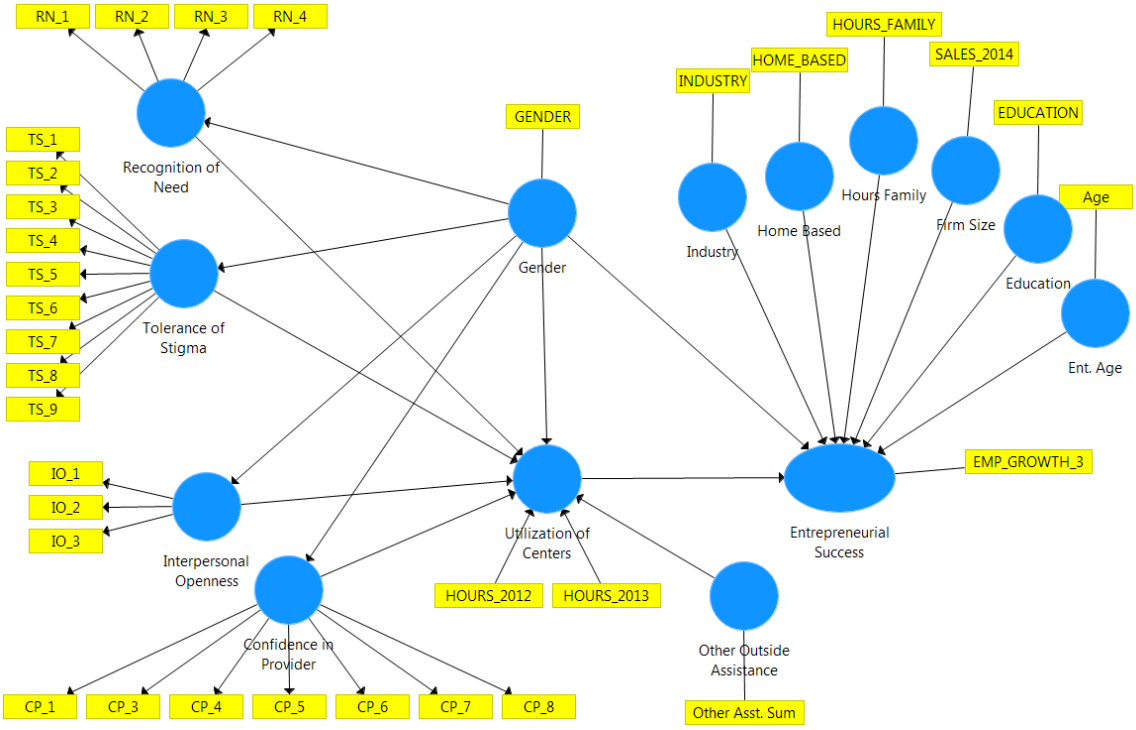
During Phase II of this research, entrepreneurs were asked to report their businesses' sales levels for the years 2011, 2012, and 2013. During Phase III, entrepreneurs were asked to provide the same information for 2014. From the four yearly measures of sales, three new measures of sales growth – Sales Growth 1, Sales Growth 2,

and Sales Growth 3 – were created as shown in Chapter Three. Respondents during Phases II and III were also asked to provide their full-time and part-time employment levels. Based on the calculated level of full-time employees – Full Time Employees + (Part-Time Employees divided by two) – three measures of employment growth were created in the same manner as the sales growth measures. Because the measures of entrepreneurs' utilization of entrepreneurship centers for 2011 had been deleted, the two indicators "Sales Growth 1" and "Employment Growth 1" – which measured growth between 2011 and 2012 – were not utilized. As a result, there were four remaining formative indicators to measure entrepreneurial success: Sales Growth 2, Sales Growth 3, Employment Growth 2, and Employment Growth 3.

Utilizing these four measures to formatively assess entrepreneurial success, the outer weight for the indicator Employment Growth 2 was negative and statistically insignificant. As a result, the indicator was deleted from the measurement model. The model was again re-calculated and the outer weight for the indicator Sales Growth 2 became negative as well as statistically significant. After deleting this indicator, the model was again re-calculated with the two remaining formative indicators of entrepreneurial success. Upon recalculation of the model, the weight for the indicator Sales Growth 3 was no longer significant and the item was subsequently deleted. This resulted in a single indicator – Employment Growth 3, which captures the change in full-time employee equivalents between 2013 and 2014 – to measure the endogenous latent construct "entrepreneurial success." While such a single item measure of success is not optimal, employment growth is commonly used and recommended as a measure of success in entrepreneurship research (Rotger et al., 2012; Shepherd & Wiklund, 2009;

Wiklund, 2009). The R^2 value for the final PLS measurement model shown in Figure 3 was 36.1%. Further discussion regarding the formative measures of entrepreneurial success is included in the section entitled "assessment of the formative indicators" that follows. Table 15 on page 83 in the preceding chapter presents the descriptive statistics and Pearson's correlations of the independent, dependent, and control variables included in this study.

Figure 3 – Final PLS Measurement Model



Assessment of the PLS Measurement Model

The SmartPLS 3.2.1 (Ringle et al., 2015) software assesses the psychometric properties of the measurement model and estimates the parameters of the structural model. PLS Path models are analyzed sequentially in two stages. First, the measurement model is assessed for reliability and validity. Next, the structural model results are analyzed using a multi-step process: 1) the model is assessed for collinearity; 2) the significance and relevance of the structural model relationships are evaluated; 3) the R^2 value is examined; 4) the effect sizes (f^2) are evaluated; and 5) the predictive relevance of the model (Q^2) is assessed (Hair et al., 2014). The PLS algorithm converged in twelve iterations, and the results were used to evaluate the hypotheses and are reported in the sections that follow.

Reliability and Validity

Assessment of the Reflective Indicators

To ensure that the constructs were reliable, I calculated composite reliabilities and report them in Table 25. The composite reliability scores for all constructs were relatively high, ranging from 0.81 to 0.92, exceeding the guideline of > 0.70 recommended by Hair et al. (2010) and Hair et al. (2014). Using the Fornell and Larcker (1981) approach, the average variance extracted (AVE) for each of the latent constructs was computed and is reported on the diagonal in Table 25. All of the construct AVEs exceeded the minimally accepted standard of 0.50 (Hair et al., 2010; Hair et al., 2014), thereby demonstrating convergent validity. The loadings of all of the reflective indicators on their respective latent constructs – the four attitudinal dimensions – are

positive and statistically significant ($\alpha < 0.01$) with t-values exceeding 1.29 for a one-tailed test (Hair et al., 2010; 2014). Taken together, these measures indicate that the measurement model has acceptable fit (Hair et al., 2014).

To assess discriminant validity, the squared interconstruct correlations among the reflectively measured constructs were compared to the AVEs, and are also shown in Table 25. The AVEs are shown on the diagonal, while the squared interconstruct correlations are shown off of the diagonal. The AVEs for each of the constructs are greater than the squared interconstruct correlations in all of the possible comparisons.

Table 25 – AVEs (on diagonal), Discriminant Validity, and Composite Reliability

Variable	**1**	**2**	**3**	**4**
1. Recognition of Need	0.69			
2. Tolerance of Stigma	0.22	0.56		
3. Interpersonal Openness	0.14	0.28	0.59	
4. Confidence in Provider	0.29	0.32	0.17	0.56
Composite Reliabilities	0.90	0.92	0.81	0.90

As shown, the latent constructs consistently extracted a higher share of variance from their own indicators than from other latent variables, therefore demonstrating discriminant validity. The cross-loadings between the indicators for each latent construct were also assessed as shown in Table 26, and this comparison further supports the discriminant validity of the constructs.

Table 26 – Cross Loadings of Reflective Indicators

	Recognition of Need	Tolerance of Stigma	Interpersonal Openness	Confidence in Provider
Recognition of Need 1	0.89	0.46	0.33	0.52
Recognition of Need 2	0.69	0.37	0.22	0.46
Recognition of Need 3	0.85	0.39	0.39	0.41
Recognition of Need 4	0.88	0.31	0.25	0.41
Tolerance of Stigma 1	0.37	0.54	0.31	0.44
Tolerance of Stigma 2	0.39	0.65	0.29	0.57
Tolerance of Stigma 3	0.32	0.84	0.42	0.42
Tolerance of Stigma 4	0.26	0.76	0.45	0.42
Tolerance of Stigma 5	0.54	0.76	0.39	0.41
Tolerance of Stigma 6	0.46	0.80	0.39	0.52
Tolerance of Stigma 7	0.38	0.80	0.47	0.54
Tolerance of Stigma 8	0.32	0.75	0.27	0.47
Tolerance of Stigma 9	0.38	0.77	0.49	0.37
Interpersonal Openness 1	0.12	0.25	0.73	0.22
Interpersonal Openness 2	0.41	0.43	0.76	0.25
Interpersonal Openness 3	0.36	0.53	0.82	0.44
Confidence in Provider 1	0.42	0.33	0.28	0.73
Confidence in Provider 3	0.45	0.46	0.29	0.85
Confidence in Provider 4	0.35	0.47	0.26	0.67
Confidence in Provider 5	0.41	0.53	0.46	0.81
Confidence in Provider 6	0.36	0.39	0.26	0.76
Confidence in Provider 7	0.42	0.38	0.31	0.79
Confidence in Provider 8	0.51	0.57	0.35	0.59

Assessment of the Formative Indicators

Empirical assessment of formative measurement models is not the same as with reflective measurement models because the formative indicators theoretically represent the construct's independent causes (Diamantopolous, Riefler, & Roth, 2008; Diamantopoulos & Winklhofer, 2001). As a result, the indicators may not necessarily correlate highly, which means that internal consistency reliability measures such as Cronbach's Alpha are not appropriate (Hair et al., 2014). Therefore, it is recommended that researchers should establish content validity before evaluating formatively measured constructs. This research has two directly measured variables: utilization of entrepreneurship centers and entrepreneurial success. Specifically, entrepreneurs were asked to report how many hours of utilization as well as sales and employment levels. From those self-reported measures, a categorical indicator was created to measure entrepreneurs' utilization of centers and measures of growth in sales and employment were also created. Since these directly measured variables were not based on entrepreneurs' perceptions, they were treated as formative indicators in the analysis. The next step, therefore, is to assess the collinearity of the indicators using SPSS (Hair et al., 2014).

To assess the formative indicators for collinearity, a multiple regression was performed with each of the indicators as independent variables and any other variable not in the measurement model as the dependent variable. As shown in the SPSS output below – Table 27 for the utilization indicators, and Table 28 for the entrepreneurial success indicators – the VIF values were below the threshold of five (Hair et al., 2014).

Table 27 – Collinearity Diagnostics for Formative Indicators of Utilization

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)	0.44	1.89		0.23	0.82		
Hours 2012	-0.08	0.16	-0.06	-0.53	0.60	0.62	1.63
Hours 2013	0.50	0.13	0.47	385	0.00	0.59	1.69
Use of Other Outside Assistance	1.11	1.08	0.10	1.03	0.31	0.92	1.09

a. Dependent Variable: Hours utilized in 2014

Table 28 – Collinearity Diagnostics for Formative Indicator of Success

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)	3.50	6.57		0.53	0.60		
Employment Growth 3	4.96	1.87	0.35	2.65	0.01	0.86	1.16
Industry	-1.06	2.29	-0.06	-0.46	0.65	0.94	1.06
Home_Based	0.65	2.51	0.04	0.26	0.80	0.85	1.18
Hours Family	0.04	0.04	0.11	0.86	0.40	0.91	1.09
Sales_2014	-8.66E-7	0.00	-0.09	-0.62	0.54	0.79	1.27
Education	-0.76	1.30	-0.08	-0.58	0.56	0.91	1.10
Entrepreneur Age	0.02	0.09	0.03	0.23	0.82	0.90	1.11

a. Dependent Variable: Hours utilized in 2014

Significance of outer weights of formative indicators.

The next step is to assess the statistical significance of the outer weights by utilizing the bootstrapping option in the SmartPLS software. In the full measurement and structural model, the formative indicators for the latent construct “utilization of centers” are not statistically significant. When an indicator weight is not significant, the recommended follow up is to examine the size and significance of the indicator loadings (Hair et al., 2014). As shown in Table 29, the lowest formative indicator loading is for Hours in 2012 → Utilization at 0.82. All outer loadings of the formative indicators are

statistically significant with t-values exceeding 1.29 ($p < 0.01$). Thus, all indicators are considered meaningful and retained in the analysis.

Table 29 – Statistical Significance of Outer Loadings of Formative Indicators

Path	Original Sample	Sample Mean	Standard Error	T Statistics
Employment Growth 3 → Entrepreneurial Success	Single-Item	---	---	---
Hours in 2012→Utilization	0.82	0.71	0.29	2.80
Hours in 2013→Utilization	0.98	0.87	0.14	6.99

The unidimensionality of all other construct comparisons, along with the quantitative measures, thereby demonstrated acceptable convergent and discriminant validity for the constructs. As noted by Hair et al. (2014), once the measurement model is judged to be satisfactory, the next step is to evaluate the structural model. I discuss the structural model results that were used to test the hypotheses in the next section.

Assessment of the PLS Structural Model

Collinearity of Constructs

After the constructs are confirmed as reliable and valid, it is necessary to assess the results of the structural model. In so doing, it is necessary to examine the relevant constructs for collinearity. This is an important first step since the estimation of the path coefficients is based on OLS regressions and those coefficients may be biased if multicollinearity is present (Hair et al. 2014). To assess collinearity, each set of predictor constructs must be examined separately for each part of the model. SPSS was used to examine the collinearity of the constructs in each predicted relationship and the results are shown in Tables 30 and 31.

Table 30 - Collinearity Diagnostics of Gender and Utilization

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	**B**	**Std. Error**	**Beta**	**T**	**Sig.**	**Tolerance**	**VIF**
(Constant)	0.33	0.42		0.80	0.43		
Gender	-0.47	0.17	-0.34	-2.80	0.01	0.81	1.23
Hours 2012	0.03	0.02	0.26	1.56	0.13	0.43	2.31
Hours 2013	0.02	0.01	0.24	1.52	0.14	0.48	2.10
Firm Size	-2.58E-7	0.00	-0.36	-2.79	0.01	0.71	1.41
Home-Based	-0.29	0.16	-0.22	-1.79	0.08	0.81	1.24
Industry	-0.24	0.14	-0.19	-1.66	0.10	0.93	1.07
Hours_Family	-0.01	0.00	-0.26	-2.31	0.03	0.89	1.12
Ent. Age	0.01	0.01	0.15	1.32	0.19	0.88	1.14
Education	0.13	0.08	0.18	1.64	0.11	0.92	1.09

a. Dependent Variable: Entrepreneurial Success

Since the VIF values shown in Tables 30 and 31 are all well below the threshold value of 5.0 (Hair et al., 2014), collinearity is not a problem in the structural model.

Table 31- Collinearity Diagnostics of Gender and Attitudinal Dimensions

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)	-0.18	0.34		-0.52	0.60		
Gender	0.13	0.11	0.09	1.20	0.24	0.95	1.06
Recognition of Need	0.01	0.01	0.10	1.02	0.31	0.60	1.66
Tolerance of Stigma	-0.01	-0.01	-0.12	-1.06	0.29	0.44	2.25
Interpersonal Openness	0.01	0.02	0.05	0.48	0.63	0.54	1.83
Confidence in the Provider	0.01	0.01	0.11	1.03	0.31	0.51	1.97
Other Outside Assistance	0.06	0.05	0.09	1.18	0.24	0.89	1.13
Hours 2012	0.01	0.01	0.11	1.12	0.27	0.57	1.75
Hours 2013	0.04	0.01	0.54	5.12	0.00	0.51	1.97

a. Dependent Variable: Utilization of Centers

Significance of Structural Relationships

When examining the full structural model, the key criteria are the size and significance of the path coefficients, the level of the R-squared (R^2) values, and the predictive relevance as measured by Q^2 (Hair et al. 2014). To determine the significance of the path coefficients for the hypothesized relationships, the SmartPLS (Ringle et al., 2015) bootstrapping algorithm was run using 5,000 subsamples. Table 32 shows the coefficients and relevant information for the calculation of their respective significance levels. Five of the paths were statistically significant and their implications will be discussed in subsequent paragraphs.

Table 32 – Statistical Significance of PLS Path Modeling Results

	Original Path Coefficient	Sample Mean	Standard Error	T Statistics
Gender→Entrepreneurial Success	-0.32**	-0.29	0.10	3.03
Gender→Utilization	0.11	0.05	0.16	0.69
Gender→Recognition of Need	0.08	0.10	0.14	0.60
Gender→Tolerance of Stigma	-0.07	-0.07	0.22	0.34
Gender→Interpersonal Openness	-0.05	-0.05	0.14	0.37
Gender→Confidence in the Provider	0.21**	0.23	0.12	1.74
Recognition of Need→Utilization	0.08	0.08	0.13	0.62
Tolerance of Stigma→Utilization	-0.05	-0.07	0.20	0.23
Interpersonal Openness→Utilization	0.25**	0.25	0.10	2.66
Confidence in Provider→Utilization	0.17*	0.22	0.14	1.22
Utilization→Entrepreneurial Success	0.44**	0.48	0.17	2.51

** = $p < 0.01$, * = $p < 0.05$

Variance Explained – R-Squared

The next step is to examine the variance explained by the model, which is measured by the R^2. The prediction of the ultimate endogenous construct of interest – entrepreneurial success, measured formatively by growth in employment between 2013 and 2014 – was 36.1%, and thus can be described as ‘moderate’ as an overall measure of

the model (Hair et al., 2014). However, the six variables that were utilized as controls on entrepreneurial success – industry, home-based business, hours dedicated to family, firm size, education, and entrepreneurs' age – accounted for 14.0% of the variance in entrepreneurial success. Including the other predictor variables – gender, the four attitudinal dimensions, entrepreneurs' utilization of entrepreneurship centers, and the control for entrepreneurs' utilization of other sources of outside assistance – caused the R^2 value for the full structural model to increase from 14.0% to 36.1%.

Effect Size – f-Squared

Another step in evaluating the structural model is to assess the effect size (f^2), which is the measure of the impact of predictor constructs on an endogenous construct. The f^2 effect size measures the change in the R^2 value when a specified endogenous construct is omitted from the model, and is used to evaluate whether the omitted predictor construct has a substantive impact on the R^2 value of the endogenous constructs (Hair et al., 2014). Guidelines for assessing f^2 values for the exogenous latent constructs are as shown: 0.02 = small effect size; 0.15 = medium effect size; and 0.45 = large effect size (Cohen, 1988). Although SmartPLS (Ringle et al. 2015) does not calculate the f^2 values, the effect sizes can be calculated by examining the R^2 values when the latent construct is included and excluded from the model by using the formula shown below:

$$f^2 = \frac{R^2 included - R^2 excluded}{1 - R^2 included}$$

To calculate the effect sizes, the PLS model was first run with all constructs included. Next the model was calculated three more times, first with gender deleted, then with

utilization deleted, and finally with all of the control variables deleted. The calculated f^2 values and associated effect sizes are shown in Table 33.

Table 33 - Effect Sizes as determined by f2 Values

	All Constructs Included	Gender	Deleted Constructs: Utilization	Deleted Constructs: Control Variables
R^2 Values	0.361	0.276	0.188	0.06
f^2 Values		0.133	0.271	0.471
Effect Size		Small	Medium	Large

Predictive Relevance – q-Squared

Finally, to calculate the predictive relevance of gender, utilization of entrepreneurship centers, and the control variables, the blindfolding algorithm in SmartPLS (Ringle et al., 2015) was executed. The blindfolding procedure produces the Q^2 value, which applies a sample re-use technique omitting part of the data matrix and uses the model estimates to predict the omitted part. Those Q^2 values are then used to calculate the q^2 value – the predictive relevance – for each latent construct using the formula shown below:

$$q^2 = \frac{Q^2 included - Q^2 excluded}{1 - Q^2 included}$$

For PLS-SEM models, a Q^2 value larger than zero in the cross-validated redundancy report indicates predictive relevance. As a relative measure of predictive relevance, values of 0.02, 0.15, and 0.35 indicate that the particular constructs have a small, medium, or large predictive relevance for the endogenous construct (Hair et al. 2014). As shown in Table 34, the model as a whole has medium predictive relevance. Gender has small predictive relevance for this structural model, while entrepreneurs' utilization

of centers and the control variables have medium predictive relevance for this structural model.

Table 34 - Predictive Relevance as Assessed by q2 Values

	All Constructs Included	Gender	Deleted Constructs: Utilization	Deleted Constructs: Control Variables
Q^2 Value	0.165	0.089	0.050	-0.065
q^2 Value		0.091	0.138	0.275
Predictive Relevance	Medium	Small	Medium	Medium

Summary of PLS-SEM Results

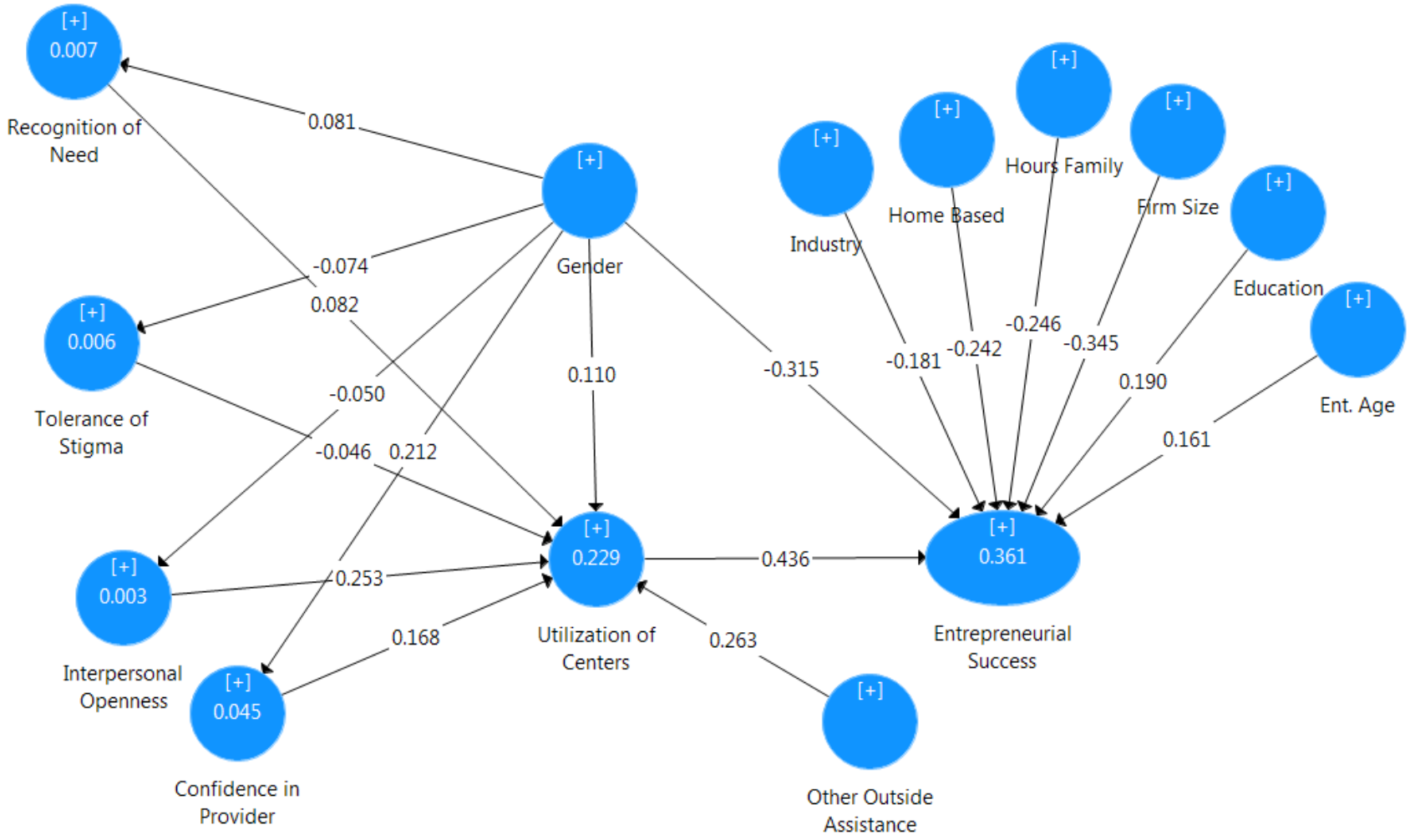
As has been noted, the purpose of structural equations modeling is to consider the interaction of multiple variables and their impact on one another (Hair et al., 2010). To better understand the relationships between the constructs of interest, PLS-SEM has been used to simultaneously test the hypothesized relationships. The path coefficients and the significance levels between the constructs are shown in Table 35, and a summary of the results is included in Table 37 at the end of Chapter 4. The PLS structural model with the path coefficients shown on each the structural relationships is shown in Figure 4.

Table 35 - Path Coefficients and Significance from SmartPLS 3.2.1

Variable	GENDER	UTILIZATION
UTILIZATION OF CENTERS	0.110	------
SUCCESS	-0.315**	0.436**
RECOGNITION OF NEED	0.081	0.082
TOLERANCE OF STIGMA	-0.074	-0.046
INTERPERSONAL OPENNESS	-0.050	0.253**
CONFIDENCE IN THE PROVIDER	0.212**	0.168*

*** = p < 0.01, * = p < 0.05 (one-tailed test)*

Figure 4 – Final structural model with path coefficients shown and indicators hidden



Research Findings

Before proceeding to the research findings, I will briefly describe the indicators used to measure the two endogenous latent constructs of interest in this study. The first construct – entrepreneurs' utilization of entrepreneurship centers – was measured using two formative indicators: hours of assistance utilized in 2012 and hours of assistance utilized in 2013. I also control for the influence of entrepreneurs' utilization of other outside assistance – including attorneys, accountants, and bankers – on entrepreneurs' utilization of centers. The ultimate endogenous construct of interest in this study – entrepreneurial success – was measured by the formative indicator employment growth 3, which measures the percentage change in respondent firms' number of full-time employee equivalents between the years 2013 and 2014. For entrepreneurial success, I control for industry, whether the business is home-based, the number of hours devoted to the entrepreneurs' families, firm size, entrepreneurs' education level, and entrepreneurs' age.

To further assess the effect of the control variables, I test whether the latent constructs have predictive validity following the procedures outlined by Chin (2010). First, I calculated the PLS algorithm using SmartPLS 3.2.1 (Ringle et al., 2015) for the full structural model with all of the control variables included. The R^2 value for the entrepreneurs' utilization of centers was 22.9%, and the R^2 value for entrepreneurial success was 36.1%. Next, I calculated the same values using only the control variables to predict utilization of centers and entrepreneurial success. Those values were 7.8% and 14.0%, respectively. As recommended by Chin (2010), I tested the significance of the change in the R^2 values. The change in R^2 for entrepreneurs' utilization of centers was 15.1% ($F = 3.25$, $p < 0.01$), and the change in R^2 for entrepreneurial success was 22.3%

($F = 14.18$, $p < 0.01$). Because the change in R^2 values were statistically significant, I concluded that the predictor variables – entrepreneurs' gender, the four attitudinal dimensions toward seeking assistance, and utilization of centers – are all relevant for this study. Further, because these predictor variables are statistically significant and relevant for this study in that they add to the explanatory power of the model above the control variables, the results discussed in this section shall be based upon the calculations with all seven controls included.

To test hypothesis one, the relationship between gender and entrepreneurial success was examined. For hypothesis two, the relationship between entrepreneurs' gender and entrepreneurs' utilization of entrepreneurship centers was tested. Similarly, entrepreneurs' gender was then related with the attitudinal dimensions to test hypothesis three ($H_3^a – H_3^d$). Next, the relationships between each of the attitudinal dimensions and entrepreneurs' utilization of centers were examined to test hypothesis four ($H_4^a – H_4^d$). To test hypothesis five, the relationship between entrepreneurs' utilization of entrepreneurship centers and entrepreneurial success was examined. Finally, to investigate the mediating effects predicted in hypothesis six, the procedures outlined by Preacher and Hayes (2004, 2008) are applied. The results of hypothesis testing are reported in the sections that follow, and summarized in Table 37.

Hypothesis one proposed that entrepreneurs' gender will be related to entrepreneurial success, with female-owned businesses underperforming financially when compared to male-owned businesses. As shown in Table 35, entrepreneurs' gender was negatively associated with entrepreneurial success (path coefficient = -0.315, t-value = 3.109, $\alpha = 0.01$). For this sample, entrepreneurs' gender significantly predicted

entrepreneurial success, with female-owned firms underperforming relative to those owned by males. Thus, hypothesis one was supported.

Hypothesis two proposed that entrepreneurs' gender will be related to utilization of entrepreneurship centers, with female entrepreneurs utilizing centers less than male entrepreneurs. As shown in Table 35, entrepreneurs' gender was positively associated with utilization of centers. However, the path coefficient was not statistically significant (path coefficient = 0.110, t-value = 0.675, not significant). Thus, hypothesis two was not supported.

Hypothesis three proposed that entrepreneurs' gender will be related to a) recognition of the need for help from centers, b) tolerance of the stigma associated with seeking help from centers, c) interpersonal openness, and d) confidence in the ability of centers to help them achieve entrepreneurial success, with female entrepreneurs having less favorable attitudes than males on each of the four attitudinal dimensions. As shown in Table 35, entrepreneurs' gender was positively associated with confidence in the provider (path coefficient = 212, t-value = 1.864, $\alpha = 0.01$). Gender was also positively associated with recognition of need, although not statistically significant. While gender was negatively associated with tolerance of stigma and interpersonal openness, those relationships were also not statistically significant. In summary, the only significant correlation – between gender and confidence in the provider – was in an unexpected (positive) direction. Thus, hypotheses three (a) – three (d) were not supported.

Hypothesis four proposed that entrepreneurs' a) recognition of their need for help from centers, b) tolerance of the stigma associated with seeking help from centers, c) interpersonal openness, and d) confidence in the ability of centers to help them achieve

entrepreneurial success will each be positively associated with their utilization of centers. As shown in Table 35, interpersonal openness (path coefficient = 0.253, t-value = 2.589, α = 0.01), and confidence in the provider (path coefficient = 0.168, t-value = 1.249, α = 0.05) were positively associated with utilization. While recognition of need and tolerance of stigma were negatively associated with utilization of centers, the path coefficients were not statistically significant. Thus, hypotheses four (a), and four (b) were not supported, while hypotheses four (c) and four (d) were supported.

Hypothesis five proposed that entrepreneurs' utilization of help from entrepreneurship centers will be positively associated with entrepreneurial success. As shown in Table 35, entrepreneurs' utilization of centers was positively associated with entrepreneurial success (path coefficient = 0.436, t-value = 2.595, α = 0.01). Thus, hypothesis five was supported.

Finally, hypothesis six proposed that entrepreneurs' utilization of help from centers will mediate the relationship between gender and entrepreneurial success. To test for mediation it was necessary to examine the relationships between the variables separately (Preacher & Hayes, 2004; 2008). The first step was to examine the direct effect between gender and entrepreneurial success when the mediator – entrepreneurs' utilization of centers – was not included in the model. When utilization was deleted, the path coefficient between gender and entrepreneurial success was -0.233, with a t-value of 2.671 (α = 0.01) as shown in Table 36. The next step was to examine the relationship between gender and utilization of entrepreneurship centers. When all other constructs – the attitudinal dimensions and entrepreneurial success – were removed from the model, the path coefficient between gender and utilization of centers was 0.135, with a t-value of

0.949 (not significant) as shown in Table 36. However, it should also be noted that this path was also not significant when testing the full structural model (path coefficient = 0.110, t-value = 0.675, not significant).

When gender and the attitudinal dimensions were deleted from the model, the path coefficient between utilization of centers and entrepreneurial success was 0.374, with a t-value of 1.787 as shown in Table 36. This means that the path coefficient between utilization of centers and entrepreneurial success was significant when the relationship was considered separate from the other constructs in the full structural model. As with the findings for the path coefficient between gender and utilization of centers, the findings change when the relationships were considered independent of the other constructs in the structural model. More specifically, the relationship between entrepreneurs' utilization of centers and entrepreneurial success was slightly stronger when gender was included in the model (path coefficient = 0.436, t-value = 2.595, α = 0.01) than when gender was excluded from the model (path coefficient = 0.374, t-value = 1.787, α = 0.01). In addition, the relationship between gender and success was stronger when utilization of centers was included in the model (path coefficient = -0.315, t-value = 3.109, α = 0.01) than when utilization of centers was excluded from the model (path coefficient = -0.233, t-value = 2.671, α = 0.01).

Table 36 – Path Coefficients when Relationships Considered Independently

	Original Path Coefficient	Sample Mean	Standard Error	T Statistics
Gender→Success	-0.233**	-0.242	0.087	2.671
Gender→Utilization	0.135	0.145	0.142	0.949
Utilization→Success	0.374**	0.0.437	0.209	1.787

For mediation to exist, the direct effect between the independent variable (gender) and dependent variable (entrepreneurial success) should become smaller when the mediating variable is included in the model (Preacher & Hayes, 2004; 2008). However, such was not the case. Instead, the path coefficient – its absolute value – when the mediator was included in the model was -0.315 (t-value = 3.109, $\alpha = 0.01$). This was actually larger than when the mediator was not included (path coefficient = -0.233, t-value = 2.671, $\alpha = 0.01$). Because the strength of the relationship increased (rather than decreased) when the mediator was included in the model, mediation did not exist. Thus, hypothesis six was not supported.

Table 37 – Summary of Hypotheses Tests

Hypothesis	Independent Variable	Nature of Relationship	Dependent Variable	Research Findings
H_1	Gender	Negative	Success	Supported
H_2	Gender	Negative	Utilization Of Centers	Not Supported
H_{3a}	Gender	Negative	Recognition of Need	Not Supported
H_{3b}	Gender	Negative	Tolerance of Stigma	Not Supported
H_{3c}	Gender	Negative	Interpersonal Openness	Not Supported
H_{3d}	Gender	Negative	Confidence in the Provider	Not Supported
H_{4a}	Recognition of Need	Positive	Utilization Of Centers	Not Supported
H_{4b}	Tolerance of Stigma	Positive	Utilization Of Centers	Not Supported
H_{4c}	Interpersonal Openness	Positive	Utilization Of Centers	Supported
H_{4d}	Confidence in the Provider	Positive	Utilization Of Centers	Supported
H_5	Utilization Of Centers	Positive	Success	Supported
H_6	Gender	Mediated by Utilization	Success	Not Supported

As previously mentioned, Table 37 summarizes the results of the hypotheses testing. The results demonstrated support for hypotheses one and five, that entrepreneurs' gender and utilization of entrepreneurship centers would be associated with entrepreneurial success. I had hypothesized that entrepreneurs' gender would be negatively associated with their attitudes toward seeking assistance from entrepreneurship centers. Thus, hypothesis three was not supported. Hypothesis four was partially supported, with entrepreneurs' interpersonal openness and their tolerance of the stigma associated with seeking help positively correlated with their utilization of entrepreneurship centers. Finally, hypothesis six – that entrepreneurs' utilization of entrepreneurship centers would mediate the negative relationship between gender and entrepreneurial success – was not supported. Next, I discuss the results of this research as well as the limitations, implications, and possibilities for future research.

CHAPTER 5

CONCLUSIONS, LIMITATIONS, AND FUTURE RESEARCH

This final chapter consists of five sections. The first section details and discusses the results presented in Chapter 4. This discussion is followed by a review of the scholarly and practical implications of this research. Next, the limitations of this study are detailed. In the fourth section, future research opportunities are highlighted. The final section offers concluding remarks which complete the study.

Discussion of Results

Using longitudinal survey data from 92 entrepreneurs, this study investigated the various relationships between entrepreneurs' gender, their attitudes toward seeking assistance from entrepreneurship centers, their subsequent utilization of centers, and entrepreneurial success. The study has integrated three distinct bodies of research: gender theory (Eagly, 1987; Eagly & Karau, 1991; 2002), the theory of guided preparation (Chrisman et al., 2005), and the psychology of help-seeking (Fischer & Turner, 1970). In so doing, I hypothesized that businesses owned by female entrepreneurs would underperform relative to those by males, and that females would be less likely than males to utilize entrepreneurship centers. I also proposed that female entrepreneurs would have less favorable attitudes toward seeking assistance, which would subsequently be related to their utilization of assistance. Finally, I hypothesized

that entrepreneurs' utilization of centers would be positively associated with entrepreneurial success and that female entrepreneurs' underutilization of centers would help explain (mediate) their businesses' lingering financial underperformance.

To test the full structural model, I utilized partial-least squares structural equations modeling (PLS-SEM). Entrepreneurial success was measured by growth in employment between 2013 and 2014. Entrepreneurs were also asked to report the number of hours of assistance they had received from entrepreneurship centers in the years 2011 through 2014, and I modeled those self-reported hours of utilization as formative measures of entrepreneurs' utilization of centers. In the final measurement model, I only utilized entrepreneurs' hours of utilization of entrepreneurship centers in 2012 and 2013. Attitudinal indicators from the psychology of help-seeking (Fischer & Turner, 1970) were adapted to measure entrepreneurs' attitudes toward seeking assistance from entrepreneurship centers. Finally, because of their correlations with multiple independent and dependent variables, I controlled for seven constructs: entrepreneurs' utilization of other formal outside assistance from accountants, attorneys, and bankers, whether the businesses were home-based, firm size based on entrepreneurs' self-reported sales in 2014, industry, entrepreneurs' hours devoted to their families, and entrepreneurs age and education level. The results confirmed that there was a clear link between entrepreneurs' gender and entrepreneurial success, with businesses owned by female entrepreneurs experiencing less growth in employment than those owned by males. According to Shepherd and Wiklund (2009), growth in employment is a stable measure of entrepreneurial success that is commonly used in entrepreneurship research. The finding that female entrepreneurs experienced less growth in employment – thus, less

entrepreneurial success – than males is consistent with prior entrepreneurship research (Davis & Shaver, 2012; Jennings & Brush, 2013; Loscocco & Bird, 2012; Powell & Eddleston, 2013).

While the current study does not fully clarify the link between entrepreneurs' gender and utilization of entrepreneurship centers, the study does shed further light on the relationship between gender and help seeking. Some of the results are inconsistent with prior research investigating gender differences in entrepreneurs' utilization of entrepreneurship centers, which had proposed that female entrepreneurs may be less likely than males to utilize entrepreneurship centers (e.g., Audet et al., 2007; Orser & Riding, 2006). However, contrary to their hypothesis, Audet (2007) concluded that male entrepreneurs actually used public agencies – the equivalent of entrepreneurship centers – more than did female entrepreneurs. The current research is similar to that by Audet et al. (2007) in that it is limited by the relative smallness of the sample size (n = 92) as well as the disproportionately low number of just twenty-eight female entrepreneurs (31.25%). In the current study, the relationship between entrepreneurs' gender and utilization of entrepreneurship centers was positive, but not significant. Clearly, more research is needed to clarify the relationship between entrepreneurs' gender and utilization of entrepreneurship centers.

Prior research had also demonstrated that females have more positive attitudes toward seeking assistance than males in most setting (e.g., Addis & Mahalik, 2003; Fischer & Turner, 1970; Johnson, 1988). Due to the incongruity of entrepreneurship with the societally-prescribed female gender role (Correll, 2004; Eagly & Karau, 2002; Ridgeway & Correll, 2006), I had argued that female entrepreneurs would have less

favorable attitudes toward seeking assistance than males. In short, I expected that the historically-masculine context of entrepreneurship (Brush, 1992; Cliff, 1998; de Bruin et al., 2006; Hughes et al., 2013; Orser et al., 2006), and its association with characteristics such as aggressiveness, ambition, autonomy, elevated risk tolerance, and high needs from achievement, power, and responsibility (Carland et al., 1984), would lower females' attitudes toward seeking help from entrepreneurship centers.

Specifically, I had argued that female entrepreneurs, who are more likely to be content with the performance of their business (Powell & Eddleston, 2008), would be less likely to recognize their need for assistance. Similarly, I had argued that the perceived competency, legitimacy and credibility gap experienced by female entrepreneurs (Bruni et al., 2004; De Clercq & Voronov, 2009; de Bruin et al., 2006) would render female entrepreneurs less tolerant of the stigma associated with seeking assistance. In masculine settings, females tend to view themselves as less competent than males (Correll, 2004; Ridgeway & Correll, 2006). Thus, I had expected that females would view themselves as less capable than males and not suited for entrepreneurship (Ahl, 2006; Ahl & Marlow, 2012; Bruni et al., 2004), which would inter lessen their interpersonal openness and willingness to self-disclose. Finally, because entrepreneurship centers are most commonly associated with venture growth (ASBDC 2013a), I had argued that female entrepreneurs would be less confident in the ability of centers to help them achieve their personal vision of entrepreneurial success (Eddleston & Powell, 2008; Powell & Eddleston, 2008). While the mean scores on twenty-one of the twenty-five attitudinal indicators were slightly higher for females than for males, only two of those differences were statistically significant. Even though most of the differences were not significant,

the finding of the current research that females tended to have more positive attitudes toward seeking assistance seems to mirror the original research by Fischer and Turner (1970). For example, Fischer and Turner (1970) found that females had more positive attitudes toward seeking professional psychological help than males on twenty-eight of their twenty-nine attitudinal indicators. Compared to the current research, Fischer and Turner (1970) were able to access a quite large sample of 960 respondents through their convenience sampling of undergraduate students. While the current research utilized such a convenience sample of undergraduate students in pilot testing the attitudinal indicators, the purpose of those pilot tests was to purify those scale indicators rather than to draw generalizations about gender differences. However, the results of the PLS model suggest that gender may be an important influence on confidence in the provider with females being more confident in the ability of entrepreneurship centers to help them achieve entrepreneurial success.

Inconsistent with the hypotheses proposed in this study, neither recognition of the need for assistance nor tolerance of the stigma associated with seeking help were related to utilization of entrepreneurship centers In light of the original research by Fischer and Turner (1970), with its four distinct attitudinal dimensions, this finding is somewhat surprising. In addition, entrepreneurship scholars have long believed that entrepreneurs' recognition of their need for assistance is an important precursor to actually seeking assistance from entrepreneurship centers (Chrisman et al., 2005; 2012; Storey, 2001). Consistent with this recent entrepreneurship research and the psychology of help seeking (Fischer & Turner, 1970), I had argued that entrepreneurs' recognition of their need for help would be an important influence on their actual utilization of assistance from

entrepreneurship centers. Similarly, management research has also suggested that an individuals' greater tolerance for stigmatization should be associated with his or her willingness to seek assistance (Baldridge & Veiga, 2001; Veiga et al., 2004). The 'social costs' of seeking assistance may include feelings of incompetence, inferiority, powerlessness, and dependence (Lee, 1997; 2002). Finance scholars have also shown that the potential for stigmatization will decrease an individual's willingness to seek help for financial problems (Grable & Joo, 1999; 2001). Entrepreneurship researchers have proposed that entrepreneurs may be especially susceptible to stigmatization (Lee et al., 2007; Shepherd & Haynie, 2011; Valdez & Richardson, 2013), and as a result entrepreneurs might prefer to manage others' impressions of than rather than subject themselves to such stigmatization (Shepherd & Haynie, 2011). Thus, the findings that entrepreneurs' recognition of their need for assistance and their tolerance of the stigma associated with seeking help are unrelated to their utilization of entrepreneurship centers suggest that more research is needed.

As hypothesized, entrepreneurs' interpersonal openness and confidence in entrepreneurship centers were positively associated with their utilization of centers. These findings are consistent with the original psychology of help seeking framework (Fischer & Turner, 1970). The findings also appear to confirm the suggestion that an entrepreneur's interpersonal openness might play an important role in their willingness to seek help from centers (Cumming & Fischer, 2012; St-Jean, 2012). Cumming and Fischer (2012) pointed out that many entrepreneurship centers actually assess the "coachability" of prospective participants in their programs, and St-Jean (2012) recommended that centers should target entrepreneurs who are more willing to self-

disclose. Recent research has also suggested that that entrepreneurs' willingness to self-disclose might ultimately influence firm financial performance (Miles et al., 2009)

In the full PLS model, the four attitudinal dimensions, together with gender and the entrepreneurs' prior utilization of other formal sources of outside assistance, predicted a moderate amount of the variance in entrepreneurs' utilization of centers ($R^2 = 0.229$). Based on the PLS path coefficients, we can infer that interpersonal openness (path coefficient = 253, $p < 0.01$) exerted slightly more influence on utilization of centers than tolerance of stigma (path coefficient = 0.168, $p < 0.01$). However, the control variable – entrepreneurs' utilization of other sources of formal outside assistance – was also an important influence on entrepreneurs' utilization of center in this study (path coefficient = 0.263, t-value = 2.270, $\alpha = 0.01$). By itself, the control variable accounted for 7.8% if the variance in entrepreneurs' utilization of entrepreneurship centers. However, that R^2 value increased to 22.9% when all of the predictor variables were included in the model. Therefore, the results support the notion that entrepreneurs' utilization of centers is a significant positive influence on entrepreneurial success ($\Delta R^2 = 15.1\%$, $F = 3.25$, $p < 0.01$).

The strength and significance of controlling for entrepreneurs' utilization of other sources of outside assistance is not surprising, for several reasons. Researchers have long believed that entrepreneurs are autonomous, independent, and self-reliant (Kets de Vries, 1977). They are also believed to be highly self-confident, risk tolerant, and have higher needs for achievement, control, and power (Carland et al., 1984; Carsrud & Brännback, 2011; Watson & Newby, 2005). However, we might presume that entrepreneurs who have previously utilized other sources of formal outside assistance – namely accountants,

attorneys, and bankers – should also be more likely to utilize entrepreneurship centers. The Pearson's correlations in Table 15 appear to support this presumption.

The current research answered a call by Zhang and Hamilton (2010) for research examining the influence of entrepreneurs' confidence in entrepreneurship programs as well as their trust in the designers and organizers of such programs. Numerous scholars believe that trust is an important influence on entrepreneurs' willingness to seek help (Bennett & Robson, 1999; Kautonen et al., 2010; Welter, 2012). Fischer and Turner (1970) argued trust is fundamental to an individual's willingness to seek professional help. Confidence in the provider, which is closely related to trust (Goel & Karri, 2006; Kramer, 1997), exerted a significant influence on entrepreneurs' utilization of assistance in this study (path coefficient = 0.168, t-value = 1.249, $\alpha = 0.05$).

Entrepreneurship scholars almost universally agree that entrepreneurs are reluctant to self-disclose, particularly sensitive financial information (Dess & Robinson, 1984; Chrisman et al., 2012; Cumming & Fischer, 2012; Eddleston & Kellermans, 2007). However, some entrepreneurship researchers have proposed that interpersonal openness may be so important that it ultimately influences firm financial performance (Blatt, 2009, Danes et al., 2008; Miles et al., 2009). Cumming and Fischer (2012) discussed how some entrepreneurship centers assess the 'coachability' of entrepreneurs prior to their entry into certain programs, and St-Jean (2012) even recommends that centers might better leverage their impact by targeting those entrepreneurs who are more willing to self-disclose. Thus, it is not surprising that interpersonal openness exerts the strongest influence on entrepreneurs' utilization of centers (path coefficient = 0.253, t-value = 2.589, $\alpha = 0.01$).

While the negative relationship between entrepreneurs' gender and interpersonal openness was not statistically significant (path coefficient = -0.05, t-value = 0.379, not significant), this could be a result of the small sample size (n=92). The similar negative relationship, but also insignificant relationship, between gender and tolerance of stigma (path coefficient = -0.074, t-value = 0.328, not significant) demonstrates that more research is needed to clarify the relationships between entrepreneurs' gender, their attitudes toward seeking assistance, and their utilization of entrepreneurship centers.

Finally, as expected, this study provides additional empirical support for the theory of guided preparation as an entrepreneurial resource (Chrisman et al., 2005) by demonstrating that entrepreneurs' utilization of centers enhanced firm performance. The control variables – industry, firm size, whether the firm was home-based, and entrepreneurs' age, education level, and hours devoted to their families – accounted for 14.0% of the variance in entrepreneurial success. However, that R^2 value increased to 36.1% when all of the predictor variables were included in the full structural model. Therefore, the results support the notion that entrepreneurs' utilization of centers is a significant positive influence on entrepreneurial success ($\Delta R^2 = 22.1\%$, $F = 14.18$, $p < 0.01$).

As has been discussed, the current research operationalized guided preparation utilizing entrepreneurs' self-reported hours of utilization of assistance from entrepreneurship centers in 2012 and 2013. This measure is the same measure used in two recent studies testing the theory of guided preparation (Chrisman et al., 2012; Cumming & Fischer, 2012). Other studies have measured utilization of entrepreneurship centers into various "levels" based upon the type of assistance (Rotger et al., 2012) or

into “types” based upon the functional area of assistance (Seo et al., 2014). Because I collected data regarding the number of hours of assistance utilized by entrepreneurs, I could also utilize an alternate measure of entrepreneurs’ utilization of centers: a categorical measure based upon whether the entrepreneurs utilized assistance in a particular year. Such a categorical measure has been used in prior entrepreneurship research (e.g., Cachon, 1988; Chrisman et al., 1985; Mole et al., 2009; Robson & Bennett, 2000). However, the continuous measures – hours of assistance utilized – have more recently been used to test the theory of guided preparation (e.g., Chrisman et al., 2012; Cumming & Fischer, 2012) I utilized the continuous measure as formative indicators of the latent construct “entrepreneurs’ utilization of centers.” This measure is also consistent with prior research developing and testing the theory of guided preparation (e.g., Chrisman et al., 2005; 2012; Chrisman & McMullan, 20014).

There were also differences between the measures of entrepreneurial success in this and other recent studies. In this study, entrepreneurial success was measured by a single formative indicator: growth in employment between 2013 and 2014. By comparison, Chrisman et al. (2012) combined employment in a single year with a categorical measure of business startup. Other studies similarly utilized multi-item measures of firm performance. For example, Seo et al. (2014) utilized a five-item scale measuring the impact of guided preparation on respondent firms’ increased market share, increased sales, improved cash flow, increased profit margin, and the addition or retention of employees. Cumming and Fischer (2012) also utilized a multi-item measure consisting of year-over-year sales growth, acquisition of equity capital (angel investments), issuance of patents, and formation of strategic alliances. Finally, Rotger et

al. (2012) measured entrepreneurial success based upon firm creation, survival rates, size, and growth in employment. However, despite using a single-item measure of entrepreneurial success, this study also implemented numerous controls including industry, business location, firm size, and entrepreneurs' age, education level, and hours dedicated to their families. Further, growth in employment is commonly utilized in entrepreneurship research (e.g., Rotger et al., 2012) and is highly regarded as a stable measure of entrepreneurial success (Shepherd & Wiklund, 2009; Wiklund, 2009). Next, I discuss the limitations of this study.

Limitations of this Research

First, it should be noted that there was a substantial "winnowing-out" of the participants. For example, while Phase II of this research yielded a sample size of 250 respondents, 100 of those respondents were eliminated from the study because they were not currently in business. Of the remaining 150 participants, only 125 provided a valid method of contact for follow-up in Phase III. With an 80.8% response rate, Phase III yielded a final sample of 101, but nine respondents were removed from the sample as outliers. Although the population was sufficient for hypothesis testing using PLS-SEM (Hair et al., 2014), the relative smallness of the sample limits the generalizability of the findings.

Numerous strategies were employed in an effort to increase the response rate and minimize the possibility of non-response and sampling bias in accordance with the recommendations of Dillman et al. (2009). For example multiple e-mail messages were sent encouraging respondents to participate in the research. To the extent possible, each of the e-mails was personalized to include the recipients' names. In addition, just prior to

the close of the collection period, non-respondents were called via telephone to request and encourage their participation. Subjects were also provided token nonmaterial and material incentives for their participation in the study. To test for the possibility of nonresponse bias, I followed the procedures outlined by Armstrong and Overton (1977). The differences in the responses of the early and late respondents were not statistically significant, suggesting that non-response bias is not a concern. To test for sampling bias, the respondents were comparing according to the source from which they were sampled, and there were significant differences between those respondents who were accessed through snowball sampling and those from all other sources. Thus, I cannot rule out the possibility for sampling bias as a limitation of this study.

This study was also conducted in a manner to help reduce concerns about common-method bias (CMB). First, the longitudinal nature of this study – with four months between Phase II and Phase III data collection – helps to reduce the potential for CMB (Podsakoff et al., 2003; Podsakoff et al., 2012). I also changed the ordering and grouping of indicators within the study to reduce item priming risk (Salancik & Pfeffer, 1977) and avoided using the same scales for all constructs (Feldman & Lynch, 1988). By conducting multiple pilot tests, I reduced ambiguity in the indicators used to measure the various constructs (Feldman & Lynch, 1988) and in the instructions provided to respondents (Podsakoff et al., 2012). Finally, I included interactive effects in the study to attempt to counter CMB in accordance with the recommendations of Podsakoff et al. (2012). Thus, the potential for common method bias was minimized to the extent possible.

In studies assessing the impact of guided preparation, there exists the potential for self-selection, or contact bias (Chrisman et al, 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Storey, 2000). For example, Storey (2000) posits that entrepreneurs who seek assistance may be more motivated by financial success than those who do not seek assistance and recommended that researchers integrate entrepreneurs' motivations into their work. However, Cumming and Fischer (2012) note that the concerns about self-selection have not been sufficient addressed. The purpose of this research has been to explore the influence of entrepreneurs' attitudes toward seeking assistance by integrating the psychology of help seeking (Fischer & Turner, 1970) with gender theory (Eagly, 1987; Eagly & Karau, 1991; 2002) and the theory of guided preparation (Chrisman et al., 2012). Obviously, due to the nature of my study samples there exists the potential for contact bias or self-selection bias. I have attempted to reduce those concerns by considering entrepreneurs' attitudes toward seeking assistance and by controlling for entrepreneurs who had previously utilized other sources of outside assistance. Thus, the potential for self-selection bias was minimized to the extent possible.

There also exists the possibility that this sample could be skewed toward those participants who have used entrepreneurship centers. Recent research suggests that only a minority of entrepreneurs – about 25% – use the services of entrepreneurship centers, although the exact uptake rate of assistance is impossible to calculate (Audet & St-Jean, 2007; Audet et al., 2007; Bennett & Robson, 1999; Johnson et al., 2007; Robson & Bennett, 2000). Statistics compiled by SBA (2013a) and ASBDC (2014) revealed that less than 4% of all small businesses utilized SBDCs in 2013. Because the exact utilization rate of assistance from all entrepreneurship centers is impossible to calculate

for the general population, we cannot infer that this sample is representative of the overall population. Again, by collecting data from those who have used centers as well as those who have not used centers, I have attempted to minimize concerns that the population may be skewed. In this study, 15.2% reported using centers in both 2012 and 2013. Thus, I cannot rule out the possibility that the sample is biased.

Another manner in which the sample could be skewed is the disproportionate number of males (n = 64) relative to female (n = 28) entrepreneurs. However, the National Women's Business Council (2015) reports that women-owned firms account for 28.7% of all non-farm businesses in the United States. This is consistent with a recent research report from American Express (2013) which estimates that thirty percent of all businesses in the United States are owned by women. Even though 30.4% (28 out of 92) of the respondents to this study were female entrepreneurs, again I cannot infer that the sample is representative of the overall population. As has been mentioned, the smallness of the sample size limits the generalizability of the findings to the population as a whole. Because the number of female entrepreneurs is just 30.4% of an already small sample, future research should over-sample women entrepreneurs to address this limitation.

Finally, as is inherent in any such research, it is important to acknowledge other variables which were not considered. If considering the entrepreneur, those variables might include the following: prior entrepreneurial experience or prior industry experience (Chrisman et al., 2012; Robb & Watson, 2012; Wiklund & Shepherd, 2003), and informal sources assistance or advice other than accountants, attorneys, and bankers (Audet et al., 2007; Chrisman et al., 2012; Johnson et al., 2007). If considering the firm, those variables might include the amount of financial capital invested (Robb & Watson, 2012;

Watson, 2002) and the quality of assistance received from the entrepreneurship center (Storey, 2001). Because of the exploratory nature of this research, as well as the complexity of the measurement and structural model, I chose to limit the number of control variables included in this study.

Scholarly and Practical Implications

This research makes several contributions, both for scholarly research and for practitioners. First, this study appears to be the first to integrate attitudes toward seeking help into entrepreneurship research, and the findings appear to suggest that the psychology of help-seeking (Fischer & Turner, 1970) may be generalizable to entrepreneurship research. More specifically, entrepreneurs' tolerance of the stigma associated with seeking help and their interpersonal openness influence their subsequent utilization of entrepreneurship centers. However, even though entrepreneurs' recognition of their need for assistance and tolerance of stigma associated with seeking help were shown to be distinct attitudinal dimensions, those dimensions were unrelated to their utilization of entrepreneurship centers. In particular, because entrepreneurs' recognition of their need for assistance the results was unrelated to their subsequent utilization of entrepreneurship centers, this research is inconsistent with the notion that one's recognition of his or her need for assistance is a pre-cursor to actually seeking help (Chrisman et al., 2012; Johnson et al., 2007; Storey, 2000).

Second, based upon the scales' internal reliability (Cronbach's Alpha = 0.931), the study provides validated measures of entrepreneurs' attitudes toward seeking assistance from entrepreneurship centers. Entrepreneurs' interpersonal openness and their confidence in the provider were significant influences on their utilization of

entrepreneurship centers. These findings answer the call for research examining the influence of entrepreneurs' confidence in programs that are designed to provide support and assistance (Zhang & Hamilton, 2010). It should also be noted that entrepreneurs' recognition of their need for assistance and tolerance of the stigma associated with seeking help were both found to be distinct attitudinal dimensions, despite being unrelated to utilization of entrepreneurship centers.

Third, even though the difference in male and female entrepreneurs' utilization of entrepreneurship centers was not statistically significant (path coefficient = 0.110, t-value = 0.675, not significant), the positive relationship between gender and utilization of entrepreneurship centers suggests the importance of gender roles and context in individuals' propensity to seek help. In most settings, females are much more likely to seek help than are males (Addis & Mahalik, 2003; Joo & Grable, 2001; Mansfield, Addis, & Courtenay, 2005). Conversely, based on anecdotal evidence, Orser and Riding (2006) had proposed that female entrepreneurs may actually be *less* likely than males to seek assistance. This proposition was supported by the findings of Audet et al. (2007), who concluded that female entrepreneurs are actually less likely than males to seek assistance because they do not believe that entrepreneurship centers will help them meet their needs. Because the results of this present study appear to be inconsistent with that of prior entrepreneurship researchers (e.g., Audet et al., 2007; Orser & Riding, 2006), this study appears to demonstrate the applicability of gender role theory (Eagly, 1987) and gender role congruity theory (Eagly & Karau, 2002) into research considering entrepreneurs' utilization of and the efficacy of entrepreneurship centers. In short, it appears that the incongruity of the societally-prescribed female gender role with the masculine domain of

entrepreneurship may inhibit female entrepreneurs' willingness to seek assistance from entrepreneurship centers. Given that other scholarly domains commonly find that females are much more likely to seek assistance (e.g., Addis & Mahalik; Joo & Grable, 2001; Mansfield et al., 2005), the insignificance of the differences in utilization of entrepreneurship centers between males and females appears to be especially noteworthy. Of course, the limitations of the current study – the smallness of the sample, the disparate number of male and female entrepreneurs, and the potential for sampling bias – mean that more work is needed before this relationship is clearly understood.

Finally, the results also provide additional empirical support for the theory of guided preparation (Chrisman et al., 2005) because there is a significant positive impact of entrepreneurs' utilization of assistance from centers on entrepreneurial success. As such, the results also contribute additional evidence to the substantial body of scholarly literature demonstrating that entrepreneurship centers are an effective public policy instrument for economic development (e.g., Chrisman et al., 2012; Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). It is also important to note that this study begins to address the numerous calls for further testing and refining of the theory of guided preparation as an entrepreneurial resource (e.g., Chrisman et al., 2012; Cumming and Fischer, 2012; Rotger et al., 2012; Seo et al., 2014). More specifically, the findings suggest that two previously unexplored constructs – gender and attitudes toward seeking assistance – influence entrepreneurs' utilization of entrepreneurship centers and subsequent entrepreneurial success. Therefore, entrepreneurship centers should attempt to assess entrepreneurs' attitudes as well as their motivations for seeking assistance prior to providing assistance.

An additional contribution of the current study to the body of work testing the theory of guided preparation (Chrisman et al., 2005) is the manner in which the research was conducted. In this study, entrepreneurs were asked to provide retrospective data about their prior utilization of entrepreneurship centers as well as their sales and employment levels. By comparison, other studies commonly have access to secondary data for at least some of their primary variables of interest. For example, Rotger et al. (2012) utilized data from a national network of entrepreneurship centers, which was then paired with administrative data from the Danish government. Similarly, Seo et al. (2014) utilized information from the United States Small Business Administration, and Chrisman et al. (2012) were able to access information from Small Business Development Centers. Certainly, the use of secondary data is not a problem because the foremost goal of most of these studies has been to demonstrate the efficacy of entrepreneurship centers as a public policy instrument (e.g., Chrisman et al., 2012; Cumming & Fischer et al., 2012; Rotget et al., 2012; Seo et al., 2014). However, the current study is believed to be the first to gather primary data – directly from a broad cross-section of entrepreneurs, including those who have as well as those who have not utilized centers – to test the theory of guided preparation as an entrepreneurial resource (Chrisman et al., 2005).

Opportunities for future research

As noted in the preceding sections, there exist numerous potential control variables. More research is needed to better understand the influence of these individual- and firm-level control variables on entrepreneurs' utilization of assistance, as well as the

financial performance of their firms. For example, under what conditions does an entrepreneurs' human capital influence his or her willingness to utilize entrepreneurship centers? If so, which factors – age (Rotger et al., 2012; Seo et al., 2014; Wiklund et al., 2009), marital status (Eddleston & Powell, 2008; Powell & Eddleston, 2013), race or ethnicity (Danes et al., 2008), education level, or prior industry experience (Chrisman et al., 2012), to name just a few – are most likely to influence that help-seeking propensity? Similarly, under what conditions do firm-level variables such as the location of the business (Singh & Lucas, 2005; van der Zwanet al., 2012), legal structure, industry, or firm age (Cumming & Fischer, 2012; Rotger et al., 2012; Seo et al., 2014) influence the propensity to utilize assistance?

Another potentially promising area of research may be drawn from the scholarly literature on family businesses (e.g., Danes et al., 2008; Eddleston & Kellermanns, 2007; Powell & Eddleston, 2013; Robb & Watson, 2012). For example, might a family heritage of self-employment or serial entrepreneurship influence one's willingness to seek assistance from entrepreneurship centers? Similarly, could family heritage or prior entrepreneurial experience influence an individual's perceived or actual need to seek such assistance? Finally, might the presence of other family members – whether inter-generational or multi-generational – within the business affect the propensity to utilize entrepreneurship centers?

Future research should also consider other influences on entrepreneurs' propensity to seek or avoid seeking help. For example, does an entrepreneur's willingness to seek advice or support from informal networks – or his or her access to such networks – influence the propensity to seek assistance from entrepreneurship

centers? Similarly, does an individuals' or firms' entrepreneurial orientation affect their utilization of entrepreneurship centers? Such a notion is broadly consistent with the suggestion that firms may require different types of assistance based upon their level of performance (Seo et al., 2014). In light of research demonstrating that entrepreneurs may intentionally limit the growth or size of their firms (Davis & Shaver, 2012; Morris et al., 2006), might entrepreneurs' growth intentions influence their propensity to utilize entrepreneurship centers?

Yet another potential area of research may come from directly working with entrepreneurship centers – those who actually provide assistance to entrepreneurs – to attempt to integrate the measures of attitudes toward seeking assistance into their intake process. Based on the results of this research, it appears that entrepreneurs' interpersonal openness and confidence in the assistance provider are particularly strong influences on entrepreneurs' willingness to seek help. Measuring these attitudes could be beneficial, both from a scholarly and a practical standpoint. For scholarly researchers, such metrics could be particularly beneficial if the metrics become part of the existing panel data assessing the long-term economic impact of entrepreneurship centers. In addition to providing rich opportunities for future research, such data might also inform practitioners about how best to customize the delivery of their services in a manner that provides stakeholders with the best return on their investments in the entrepreneurship centers. Due to the non-findings regarding entrepreneurs' recognition of their need for assistance and tolerance of the stigma associated with seeking help, more research is clearly needed to better understand whether those attitudes actually influence the propensity to seek help as has been proposed (e.g., Chrisman et al., 2012; Storey, 2001)

Finally, a particular challenge in this research was the difficulty inherent in combining cross-sectional data with longitudinal data. Because of those difficulties, it became apparent through the data analysis process that the self-reported measures of entrepreneurs' utilization of centers and firm performance in prior years (2011, 2012, and 2013) limited the ability to adequately test the hypotheses being considered. Therefore, future research should seek to build longitudinal data sets, with repeated collection of data at frequent and recurring intervals. Another challenge unique to this research is that presented by having multiple sub-groups of respondents. While every effort was made to ensure that these populations adequately represented the population as a whole, it may be possible to gain further insights from comparative analysis of each of the panels using the structural equations modeling process.

Concluding Remarks

This study appears to be the first to attempt to integrate entrepreneurs' attitudes toward seeking assistance into research considering the utilization and effectiveness of entrepreneurship centers. As such, it adds to the existing research on the psychology of help-seeking (Fischer & Turner, 1970), gender role and gender role congruity theories (Eagly, 1987; Eagly & Karau, 2002), and the theory of guided preparation as an entrepreneurial resource (Chrisman, et al., 2005). This study also appears to be the first to utilize primary research – data collected solely from entrepreneurs – to test the theory of guided preparation. By incorporating entrepreneurs' attitudes toward seeking help, this study begins to answer the numerous calls for research integrating the entrepreneurs' perspective into the literature considering the effectiveness of centers (Chrisman et al.,

2012; Cumming & Fischer, 2012; Seo et al., 2014). The findings suggest that those attitudes may indeed influence entrepreneurs' utilization of centers, and subsequently influence firms' entrepreneurial success in terms of growth in employment.

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APPENDICES

APPENDIX 1
PILOT TEST 1 – ATTITUDINAL INDICATORS

Title of Research Study:
Entrepreneurs' attitudes toward and utilization of outside assistance programs.

Researcher's Contact Information:
The researcher, Scott Manley, may be contacted at 229-333-7878 or via e-mail at scmanley@valdosta.edu.

Introduction:
You are being invited to take part in a research study conducted by Scott Manley for the Coles DBA program at Kennesaw State University. Before you decide to participate in this study, you should read this information and ask questions about anything that you do not understand. To ask questions, you may either call 229-560-4102, or e-mail scmanley@gmail.com.

Description of Project:
The purpose of the study is to explore factors that influence the attitudes of entrepreneurs towards seeking and utilizing entrepreneurship centers.

Explanation of Procedures:
This study consists of a survey, administered over the Internet, asking questions about respondents' opinions regarding seeking and utilizing assistance from entrepreneurship centers.

Time Required:
It is expected that it take you less than ten (10) minutes to complete the study.

Risks or Discomforts:
There are no known risks or anticipated discomforts in this study.

Benefits:
There are no known benefits from participating in this study.

Confidentiality:
Individual results of your participation will be anonymous. Data will be stored on a password-protected computer that is owned by the University System of Georgia.

Inclusion Criteria for Participation:
You must be 18 years of age or older to participate in this study.

Use of Online Survey:
Data collected will be handled in an anonymous manner and Internet Protocol addresses WILL NOT be collected by the survey program.

Note:
Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road, #0112, Kennesaw, GA 30144-5591, (678) 797-2268.

PLEASE PRINT A COPY OF THIS CONSENT DOCUMENT FOR YOUR RECORDS, OR IF YOU DO NOT HAVE PRINT CAPABILITIES, YOU MAY CONTACT THE RESEARCHER TO OBTAIN A COPY.

- ❍ I agree and give my consent to participate in this research project. I understand that participation is voluntary, and that I may withdraw my consent at any time without penalty.
- ❍ I do not agree to participate and will be excluded from the remainder of the questions.

This portion of the survey will ask questions about your background and demographics.

Do you currently own a business, or are you currently a partner or shareholder actively involved in operating a business?

- ❍ Yes
- ❍ No

Other than the business you currently own, have you ever owned another business, or have you ever been a partner or shareholder actively involved in operating another business?

- ❍ Yes
- ❍ No

Have you ever owned a business, or have you ever been a partner or shareholder actively involved in operating a business?

- ❍ Yes
- ❍ No

What is your age?

What is your gender?

- ❍ Male
- ❍ Female

This portion of the survey will ask questions assessing your attitudes and opinions about centers, programs, or services that assist entrepreneurs. These programs or services are typically provided by local Chambers of Commerce, Colleges or Universities, Small Business Development Centers, SCORE, Women's Business Centers, Micro-Enterprise Development Centers, etc. Generally, services of programs such as these are provided for no charge or for a nominal fee.

Please indicate your relative disagreement or agreement with the 41 statements shown below.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Although there are places for entrepreneurs to go for assistance, I do not have much faith in them.	❍	❍	❍	❍	❍	❍	❍
If a fellow business owner asked my advice about a business problem, I might recommend that he or she seek assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
I would feel uneasy asking an outsider for business advice or assistance because of what some people would think.	❍	❍	❍	❍	❍	❍	❍
Most entrepreneurs can get through business problems alone, and have little need for outside entrepreneurial assistance.	❍	❍	❍	❍	❍	❍	❍
There are times when I have felt completely lost, and would welcome assistance from an entrepreneurship center for a business or	❍	❍	❍	❍	❍	❍	❍

financial problem.							
Considering the time and expense involved in receiving assistance from an entrepreneurship center, it would have little value for a person like me.	❍	❍	❍	❍	❍	❍	❍
I would willingly discuss details about my business with an appropriate person if I thought it might help me or my business.	❍	❍	❍	❍	❍	❍	❍
I would rather live with certain business problems than go through the ordeal of getting assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
Business problems, like many things, tend to work out by themselves.	❍	❍	❍	❍	❍	❍	❍
There are certain business problems which should not be discussed or shared with others.	❍	❍	❍	❍	❍	❍	❍
An entrepreneur with serious business or financial problems would probably benefit from seeking assistance from	❍	❍	❍	❍	❍	❍	❍

an entrepreneurship center.							
If I believed my business was in trouble, my first inclination would be to seek assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
Having received assistance from an entrepreneurship center is a sign of weakness.	❍	❍	❍	❍	❍	❍	❍
I would rather be advised by a close friend than by an entrepreneurship center, even for a business problem.	❍	❍	❍	❍	❍	❍	❍
A person with a business problem is not likely to solve it alone; he or she will most likely need assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
I resent a person - professionally trained or not - who wants to know about my business or financial difficulties.	❍	❍	❍	❍	❍	❍	❍
I would want to get professional assistance if my business had problems or difficulties for a long period of time.	❍	❍	❍	❍	❍	❍	❍
The idea of	❍	❍	❍	❍	❍	❍	❍

talking with a consultant or business adviser strikes me as a poor way to solve business problems.							
Having to involve professional advisers in one's business is embarrassing.	❍	❍	❍	❍	❍	❍	❍
There are things about my business or financial affairs that I would not discuss with anyone.	❍	❍	❍	❍	❍	❍	❍
If my business were experiencing serious problems, I would be confident that I could solve those problems by utilizing an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
It is admirable for an entrepreneur to solve his or her own business problems without using professional advisers.	❍	❍	❍	❍	❍	❍	❍
At some future time, I might want to seek assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
An entrepreneur should work out his or her own problems; getting	❍	❍	❍	❍	❍	❍	❍

professional assistance should be a last resort.							
If I received assistance from an entrepreneurship center, I would not tell anyone.	❍	❍	❍	❍	❍	❍	❍
If I thought I needed professional assistance for my business, I would get it no matter who knew about it.	❍	❍	❍	❍	❍	❍	❍
It is difficult to talk about business problems with highly educated people such as accountants, lawyers, professors, or consultants.	❍	❍	❍	❍	❍	❍	❍
I doubt an adviser at a entrepreneurship center could fully understand the intricacies of my business.	❍	❍	❍	❍	❍	❍	❍
I would feel like a failure if I needed to seek assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
People who seek assistance from an entrepreneurship center obviously do not have the capacity to run a business.	❍	❍	❍	❍	❍	❍	❍
Entrepreneurship centers offer generic, or "one-	❍	❍	❍	❍	❍	❍	❍

size-fits-all," solutions to business problems.							
The time it takes to work with an entrepreneurship center could be better spent solving the problem oneself.	❍	❍	❍	❍	❍	❍	❍
Going to an entrepreneurship center for assistance affirms that an entrepreneur really does have a serious business problem.	❍	❍	❍	❍	❍	❍	❍
Going to an entrepreneurship center proves that a person does not have the skills to solve his or her own business problems.	❍	❍	❍	❍	❍	❍	❍
Most business owners could benefit from occasionally seeking professional advice from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
I would trust that an entrepreneurship center could fully solve my business problems.	❍	❍	❍	❍	❍	❍	❍
At the first sign of a problem, it is wise for an entrepreneur to seek assistance from an entrepreneurship	❍	❍	❍	❍	❍	❍	❍

center.							
I am willing to share information about my business or financial information with other people if necessary.	❍	❍	❍	❍	❍	❍	❍
I do not like for other people to know about my financial or business problems.	❍	❍	❍	❍	❍	❍	❍
Sharing business or financial information with others makes me feel as if I am losing control.	❍	❍	❍	❍	❍	❍	❍
I feel vulnerable when other people know about my business or financial problems.	❍	❍	❍	❍	❍	❍	❍

This portion of the survey will ask questions assessing your utilization of entrepreneurship centers.

Have you ever utilized the services or programs of an entrepreneurship center?

❍ Yes
❍ No

Why haven't you utilized an entrepreneurship center(s), service(s), or program(s)? You may select more than one response, if applicable.

- ❍ I am not in business and am not interested in being in business. Therefore, I have not needed the assistance, service(s), or program(s) provided by entrepreneurship centers
- ❍ I was unaware that entrepreneurship center(s), service(s) and assistance program(s) existed
- ❍ I did not believe that entrepreneurship center(s), program(s), or service(s) would be beneficial
- ❍ I did not have time to utilize entrepreneurship center(s), program(s), or service(s)
- ❍ I cannot afford entrepreneurship center(s), program(s), or service(s)
- ❍ I do not trust entrepreneurship center(s), program(s), or service(s)
- ❍ I have had a bad experience with center(s), program(s), or service(s) like these in the past
- ❍ Other - please explain

Please explain why you have not utilized entrepreneurship center(s), program(s), or service(s).

In the future, how likely would you be to utilize the program(s) or service(s) of an entrepreneurship center?

- ❍ Very Unlikely
- ❍ Unlikely
- ❍ Somewhat Unlikely
- ❍ Undecided
- ❍ Somewhat Likely
- ❍ Likely
- ❍ Very Likely

This portion of the survey will ask questions assessing your utilization of various resources for students at Valdosta State University. Because the study participants are primarily students, this information is being collected as a proxy for utilization of entrepreneurship centers.

Have you ever utilized the services of one of Valdosta State University's career centers? At the Langdale College of Business, these services are provided by the Career

Strategies Center. On main campus, these services are provided by the Office of Career Services.

- ❍ Yes
- ❍ No

Have you ever utilized the support services in one of VSU's computer labs? At the Langdale College, these services are provided by the Decision Center at the Langdale College of Business. On main campus, these services are provided by other offices, as well as the Information Technology Help Desk in the Odum Library.

- ❍ Yes
- ❍ No

Have you ever utilized the student support services provided by VSU? Examples of such services include those provided by the Student Advising Center on North Campus or the Student Success Center on Main Campus.

- ❍ Yes
- ❍ No

Have you ever utilized the services provided by VSU's Counseling Center, the Access Office for Students with Disabilities, or the Student Health Center?

- ❍ Yes
- ❍ No

Would you like to be included in the drawing to receive one of three (3) $25 gift cards to Longhorn Steakhouse?

- ❍ Yes
- ❍ No

What is your name? (Please note - this information is only being collected for the drawing, and will be removed immediately following the closure of the survey.)

What is your e-mail address? (Please note - this information is only being collected in the event that you are selected to receive one of the gift cards.)

If you have any feedback about this study, or recommendations to improve the study, please provide feedback in the text box below.

Thank you very much for your participation in this study. If you have any questions or concerns, please contact Scott Manley at 229-560-4102 or scmanley@gmail.com

APPENDIX 2
PILOT TEST 2 – FULL SURVEY

Title of Research Study:
This survey is part of a dissertation research project for a student in the Coles DBA program at Kennesaw State University.

Researcher's Contact Information:
The researcher, Scott Manley, may be contacted at 229-560-4102 or via e-mail at smanley5@students.kennesaw.edu.

Introduction:
You are being invited to take part in a research study conducted by Scott Manley, a doctoral candidate at Kennesaw State University. Before you decide to participate in this study, you should read this information and ask questions about anything that you do not understand.

Description of Project:
The purpose of the study is to assess the relationships between entrepreneurs' gender, their attitudes toward outside assistance programs, their utilization of such programs, and their businesses' performance.

Explanation of Procedures:
This study consists of a survey, administered over the Internet, asking questions about the following topics: 1. Demographic characteristics of respondents and their businesses
2. Respondents' opinions regarding outside assistance programs for entrepreneurs
3. Respondents' utilization of outside assistance programs 4. Performance of respondents' businesses.

Time Required:
It is expected that respondents will spend approximately fifteen (15) minutes completing the study.

Risks or Discomforts:
There are no known risks or anticipated discomforts in this study.

Benefits:
Although there are no direct benefits to respondents taking part in this program, the researcher may learn more about the relationships between entrepreneurs' gender, their attitudes toward outside assistance programs, their utilization of such programs, and their businesses' performance.

Confidentiality:
The results of your participation in this study will be anonymous. Data will be stored on a password-protected computer that is owned by the University System of Georgia.

Inclusion Criteria for Participation:
You must be 18 years of age or older to participate in this study.
Use of Online Survey:
Data collected will be handled in an anonymous manner and Internet Protocol addresses will not be collected by the survey program.

Note:
Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road, #0112, Kennesaw, GA 30144-5591, (678) 797-2268.

PLEASE PRINT A COPY OF THIS CONSENT DOCUMENT FOR YOUR RECORDS, OR IF YOU DO NOT HAVE PRINT CAPABILITIES, YOU MAY CONTACT THE RESEARCHER TO OBTAIN A COPY.

- ❍ I agree and give my consent to participate in this research project. I understand that participation is voluntary, and that I may withdraw my consent at any time without penalty.
- ❍ I do not agree to participate and will be excluded from the remainder of the questions.

Do you currently own a business, or are you currently a partner or shareholder actively involved in operating a business?
- ❍ Yes
- ❍ No

What is your gender?
- ❍ Male
- ❍ Female

Thinking about your business, from which of the following do you (or did you) commonly pay for advice or assistance? Please select all that apply.
- ❑ Accountants
- ❑ Attorneys
- ❑ Bankers
- ❑ None of the above

Below are a series of statements concerning your attitudes towards seeking outside assistance for your business. Outside assistance refers to formal programs – consulting, training, technical support, research or information, or financial assistance – provided by entrepreneurship centers, business consultants, Small Business Development Centers, and other paid or unpaid professional advisors. Outside assistance does not include routine assistance for issues such as tax preparation or legal advice. Please select the response that best indicates your agreement with each of the statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I can get through most business problems alone, and have little need for outside assistance.	❍	❍	❍	❍	❍	❍	❍
There are times when I have felt completely lost, and would have welcomed outside assistance for a business or financial problem.	❍	❍	❍	❍	❍	❍	❍
Considering the time and expense involved in receiving outside assistance, it would have little value for my business.	❍	❍	❍	❍	❍	❍	❍
Business problems tend to work out by themselves, without outside assistance.	❍	❍	❍	❍	❍	❍	❍
I would want to seek outside assistance if my business had	❍	❍	❍	❍	❍	❍	❍

problems or difficulties for a long period of time.							
I admire an entrepreneur who seeks outside assistance to solve his or her business problems.	❍	❍	❍	❍	❍	❍	❍
At some future time, I expect that my business might need outside assistance.	❍	❍	❍	❍	❍	❍	❍
I prefer to work out my business problems personally rather than seek outside assistance.	❍	❍	❍	❍	❍	❍	❍
My business could benefit from utilizing business consulting and assistance.	❍	❍	❍	❍	❍	❍	❍
At the first sign of a problem in my business, I would seek business consulting and assistance.	❍	❍	❍	❍	❍	❍	❍
I would feel uneasy asking for outside assistance for my business because of what some people would think.	❍	❍	❍	❍	❍	❍	❍
Receiving outside	❍	❍	❍	❍	❍	❍	❍

assistance for one's business is a sign of weakness.							
Having to receive outside assistance for my business is embarrassing.	❍	❍	❍	❍	❍	❍	❍
I would not mind others knowing that I received outside assistance for my business.	❍	❍	❍	❍	❍	❍	❍
If my business needed outside assistance, I would get it no matter who knew about it.	❍	❍	❍	❍	❍	❍	❍
For me to seek outside assistance for my business, I would need to know that word would not get out.	❍	❍	❍	❍	❍	❍	❍
I would feel like a failure if I needed to seek outside assistance for my business.	❍	❍	❍	❍	❍	❍	❍
I would be reluctant to seek outside assistance because others might think that I lack the ability to manage my business.	❍	❍	❍	❍	❍	❍	❍
Receiving outside assistance does not necessarily	❍	❍	❍	❍	❍	❍	❍

mean that a business has problems.							
I would feel embarrassed if I had to seek outside assistance for my business.	❍	❍	❍	❍	❍	❍	❍
I would be reluctant to utilize outside assistance because others might think that my business has problems.	❍	❍	❍	❍	❍	❍	❍
There is a negative stigma associated with seeking outside assistance for one's business.	❍	❍	❍	❍	❍	❍	❍
I would feel ashamed if I needed to utilize outside assistance for my business.	❍	❍	❍	❍	❍	❍	❍
I would disclose details about my business to an outsider if I thought it might help my business.	❍	❍	❍	❍	❍	❍	❍
I frequently discuss my business problems with others.	❍	❍	❍	❍	❍	❍	❍
I resent a person – professionally trained or not – who wants to know financial details about my business.	❍	❍	❍	❍	❍	❍	❍

There are things about my business and financial affairs that I would not want to share with an outsider.	❍	❍	❍	❍	❍	❍	❍
It is easy to discuss the details of my business with highly educated people such as accountants, lawyers, professors, or consultants.	❍	❍	❍	❍	❍	❍	❍
I am comfortable discussing financial and performance issues with business professionals.	❍	❍	❍	❍	❍	❍	❍
I do not like other people knowing about my financial or business problems.	❍	❍	❍	❍	❍	❍	❍
Sharing business or financial information with others makes me feel as if I am losing control.	❍	❍	❍	❍	❍	❍	❍
I feel vulnerable when other people know about my business or financial problems.	❍	❍	❍	❍	❍	❍	❍
I often share the ‘secrets’ to my	❍	❍	❍	❍	❍	❍	❍

business' success with others.							
Although there are places for entrepreneurs to go for help, I do not have much faith in them.	❍	❍	❍	❍	❍	❍	❍
If a fellow business owner asked for advice, I would recommend that he or she seek assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
I prefer to solve my own business problems rather than to seek outside assistance.	❍	❍	❍	❍	❍	❍	❍
An entrepreneur with serious business or financial problems would probably benefit from outside assistance.	❍	❍	❍	❍	❍	❍	❍
If I believed my business was in trouble, my first inclination would be to seek business consulting and assistance.	❍	❍	❍	❍	❍	❍	❍
I would rather be advised by my peers than by a business consultant or advisor.	❍	❍	❍	❍	❍	❍	❍

An entrepreneur with a business problem is not likely to solve it alone; he or she will most likely need outside assistance.	❍	❍	❍	❍	❍	❍	❍
There are better methods of solving business problems than utilizing a business consultant or advisor.	❍	❍	❍	❍	❍	❍	❍
If my business were experiencing serious problems, I would be confident that outside assistance could help me resolve those problems.	❍	❍	❍	❍	❍	❍	❍
I doubt a business consultant or advisor could fully understand the intricacies of my business.	❍	❍	❍	❍	❍	❍	❍
Organizations that provide outside assistance to businesses offer generic, or "one-size-fits-all" solutions to business problems.	❍	❍	❍	❍	❍	❍	❍
The time that an entrepreneur spends working with a business consultant or	❍	❍	❍	❍	❍	❍	❍

advisor is a wise investment in his or her business.							
I would trust that a business consultant or advisor could help me solve my business' problems.	❍	❍	❍	❍	❍	❍	❍
This is an attention filter. Please select "Strongly Disagree" for this statement.	❍	❍	❍	❍	❍	❍	❍

Are you currently utilizing, or have you ever utilized, business consulting or an entrepreneurship center for your business?

❍ Yes
❍ No

Which of the following assistance providers have you utilized? Please check all that apply.

❍ Small Business Development Center
❍ SCORE
❍ Minority Business Center
❍ Women's Business Center
❍ Procurement Technical Assistance Center
❍ Veteran's Business Center
❍ Other assistance provider (please specify) _____

When did you last utilize outside assistance? Please provide a specific date, if possible.

How many hours of assistance did you utilize during each of the calendar years shown below? (i.e., How many hours did you meet, and how many hours of training did you attend?) If you did not utilize assistance during any of the calendar years, please enter N/A in the appropriate blank(s).

2011
2012
2013

Why haven't you utilized business consulting or an entrepreneurship center? You may select more than one response.

- ❑ I was unaware that such programs existed
- ❑ I did not believe that such assistance would be beneficial
- ❑ I did not have time to utilize such assistance
- ❑ I cannot afford to utilize such assistance
- ❑ I do not trust outsiders with my business and financial information
- ❑ I have previously had a bad experience with such assistance
- ❑ Other (please explain) _____

Relative to your competitors, how would you rate the performance of your business on each of the following items over the last year?

	Much Worse	Worse	Slightly Worse	About the Same	Slightly Better	Better	Much Better
Relative to my competitors, my business' growth in sales is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in profitability is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in market share is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in number of employees is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' return on equity is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business'	❍	❍	❍	❍	❍	❍	❍

return on total assets is...							
Relative to my competitors, my business' net profit margin (return on sales) is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' ability to fund growth from profit is...	❍	❍	❍	❍	❍	❍	❍

How satisfied are you with your personal status on each of the following?

	Not at all Satisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied
Earning a lot of money	❍	❍	❍	❍	❍
Having high prestige and social status	❍	❍	❍	❍	❍
Being in a leadership role	❍	❍	❍	❍	❍
Being highly regarded in my field	❍	❍	❍	❍	❍
Growing a world-class business	❍	❍	❍	❍	❍
Leading a large and rapidly-growing business	❍	❍	❍	❍	❍

How much were your gross sales revenues (i.e., before expenses) for the following calendar years? If you were not in business, please enter N/A in the appropriate blank(s).

2011
2012
2013

Counting yourself, how many full-time employees (more than 35 hours per week) and part-time employees (less than 35 hours per week) did you have at the end of each of the following years you were in business? If you were not in business, please enter N/A in the appropriate blank(s).

2011 - Full Time
2011 - Part-Time
2012 - Full-Time
2012 - Part-Time
2013 - Full-Time
2013 - Part-Time

Is your business home-based?

- ❍ Yes
- ❍ No

What is the legal structure of your business?

- ❍ Sole Proprietorship
- ❍ Partnership
- ❍ LLC
- ❍ S Corporation
- ❍ C Corporation
- ❍ Non-profit organization
- ❍ Other (please specify) _____

What is the primary industry in which your company operates? (i.e., from which industry do you receive most of your revenues?)

- ❍ Retailing
- ❍ Services (personal OR professional)
- ❍ Wholesale (distribution, etc.)
- ❍ Manufacturing
- ❍ Construction (all general and other contractors)
- ❍ Other (please specify) _____

In what year was your company established?

What percentage of the company do you personally own?
_____ Please slide the indicator to reflect the percentage of the business that you own

Who owns the remainder of the company?
- ❍ My spouse owns the remainder of the company.
- ❍ An immediate family member (other than my spouse) owns the remainder of the company.
- ❍ The remainder of the company is owned by someone other than my spouse or an immediate family member.
- ❍ The remainder of the company is owned by multiple people.

Who started the company - you, or someone else?
- ❍ I started the company personally, or I was a part of the team that started the company
- ❍ My spouse or another immediate family member started the company
- ❍ Someone other than my spouse or immediate family member started the company.

How many family members do you employ full time?

How many hours do you dedicate to your business each week (on average)?

How many hours do you dedicate to your family or household each week (on average)?

What is your age?

What is your marital status?
- ❍ Single
- ❍ Co-habitating / living with a significant other
- ❍ Married
- ❍ Divorced
- ❍ Widowed / widower

How many children under age eighteen (18) do you have living with you?

What is your ethnicity?
- ❍ Hispanic
- ❍ Not Hispanic

What is your race?

- ❍ Asian
- ❍ Black or African American
- ❍ Multi-Racial
- ❍ Native America or Alaskan
- ❍ Native Hawaiian or Pacific Islander
- ❍ White
- ❍ Other

What is the highest level of education that you have completed?

- ❍ Less than high school
- ❍ High school
- ❍ Associates degree
- ❍ Bachelor's degree
- ❍ Master's degree
- ❍ Doctoral degree

In what field is your college degree? (Please be as specific as possible.)

Please share any comments, feedback, or recommendations about this survey in the space provided.

Thank you very much for your participation in this study. If you have any questions or concerns, please contact Scott Manley at 229-560-4102 or smanley5@students.kennesaw.edu.

APPENDIX 3
FULL SURVEY – PHASE II

Title of Research Study:
This survey is part of a dissertation research project for a student in the Coles DBA program at Kennesaw State University.

Researcher's Contact Information:
The researcher, Scott Manley, may be contacted at 229-560-4102 or via e-mail at smanley5@students.kennesaw.edu.

Introduction:
You are being invited to take part in a research study conducted by Scott Manley, a doctoral candidate at Kennesaw State University. Before you decide to participate in this study, you should read this information and ask questions about anything that you do not understand.

Description of Project:
The purpose of the study is to assess the relationships between entrepreneurs' attitudes toward outside assistance programs, their utilization of such programs, and their businesses' performance.

Explanation of Procedures:
This study consists of a survey, administered over the Internet, asking questions about the following topics: 1. Demographic characteristics of respondents and their businesses
2. Respondents' opinions regarding outside assistance programs for entrepreneurs
3. Respondents' utilization of outside assistance programs 4. Performance of respondents' businesses.

Time Required: It is expected that respondents will spend approximately fifteen (15) minutes completing the study.

Risks or Discomforts:
There are no known risks or anticipated discomforts in this study.

Benefits:
Although there are no direct benefits to respondents taking part in this program, the researcher may learn more about the relationships between entrepreneurs' gender, their attitudes toward outside assistance programs, their utilization of such programs, and their businesses' performance.

Confidentiality:
The results of your participation in this study will be anonymous. Data will be stored on a password-protected computer that is owned by the University System of Georgia.

Inclusion Criteria for Participation:
You must be 18 years of age or older to participate in this study.

Use of Online Survey:
Data collected will be handled in an anonymous manner and Internet Protocol addresses will not be collected by the survey program.

Note:
Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road, #0112, Kennesaw, GA 30144-5591, (678) 797-2268.

PLEASE PRINT A COPY OF THIS CONSENT DOCUMENT FOR YOUR RECORDS, OR IF YOU DO NOT HAVE PRINT CAPABILITIES, YOU MAY CONTACT THE RESEARCHER TO OBTAIN A COPY.

- ❍ I agree and give my consent to participate in this research project. I understand that participation is voluntary, and that I may withdraw my consent at any time without penalty.
- ❍ I do not agree to participate and will be excluded from the remainder of the questions.

Do you currently own a business, or are you currently a partner or shareholder actively involved in operating a business?

- ❍ Yes
- ❍ No

Thinking about your business, from which of the following do you commonly pay (or have you paid) for advice or assistance? Please select all that apply.

- ❑ Accountants
- ❑ Attorneys
- ❑ Bankers
- ❑ None of the above

Below are a series of statements concerning your attitudes towards seeking outside assistance for your business. Outside assistance refers to formal programs – consulting, training, technical support, research or information, or financial assistance – provided by entrepreneurship centers, business consultants, Small Business Development Centers, and other paid or unpaid professional advisors. Outside assistance does not include routine assistance for issues such as tax preparation or legal advice. Please select the response that best indicates your agreement with each of the statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I can get through most business problems alone, and have little need for outside assistance.	❍	❍	❍	❍	❍	❍	❍
Considering the time and expense involved in receiving outside assistance, it would have little value for my business.	❍	❍	❍	❍	❍	❍	❍
Business problems tend to work out by themselves, without outside assistance.	❍	❍	❍	❍	❍	❍	❍
I would want to seek outside assistance if my business had problems or difficulties for a long period of time.	❍	❍	❍	❍	❍	❍	❍
I admire an entrepreneur who seeks outside assistance to solve his or her	❍	❍	❍	❍	❍	❍	❍

business problems.							
At some future time, I expect that my business might need outside assistance.	❍	❍	❍	❍	❍	❍	❍
I prefer to work out my business problems personally rather than seek outside assistance.	❍	❍	❍	❍	❍	❍	❍
My business could benefit from utilizing business consulting and assistance.	❍	❍	❍	❍	❍	❍	❍
I would feel uneasy asking for outside assistance for my business because of what some people would think.	❍	❍	❍	❍	❍	❍	❍
Receiving outside assistance for one's business is a sign of weakness.	❍	❍	❍	❍	❍	❍	❍
Having to receive outside assistance for my business is embarrassing.	❍	❍	❍	❍	❍	❍	❍
I would not mind others knowing that I received outside assistance for my business.	❍	❍	❍	❍	❍	❍	❍
I would feel like a failure if I	❍	❍	❍	❍	❍	❍	❍

needed to seek outside assistance for my business.							
I would be reluctant to seek outside assistance because others might think that I lack the ability to manage my business.	❍	❍	❍	❍	❍	❍	❍
Receiving outside assistance does not necessarily mean that a business has problems.	❍	❍	❍	❍	❍	❍	❍
I would feel embarrassed if I had to seek outside assistance for my business.	❍	❍	❍	❍	❍	❍	❍
I would be reluctant to utilize outside assistance because others might think that my business has problems.	❍	❍	❍	❍	❍	❍	❍
There is a negative stigma associated with seeking outside assistance for one's business.	❍	❍	❍	❍	❍	❍	❍
I would feel ashamed if I needed to utilize outside assistance for my business.	❍	❍	❍	❍	❍	❍	❍
I would disclose details about my	❍	❍	❍	❍	❍	❍	❍

business to an outsider if I thought it might help my business.							
I frequently discuss my business problems with others.	❍	❍	❍	❍	❍	❍	❍
I resent a person – professionally trained or not – who wants to know financial details about my business.	❍	❍	❍	❍	❍	❍	❍
There are things about my business and financial affairs that I would not want to share with an outsider.	❍	❍	❍	❍	❍	❍	❍
It is easy to discuss the details of my business with highly educated people such as accountants, lawyers, professors, or consultants.	❍	❍	❍	❍	❍	❍	❍
I am comfortable discussing financial and performance issues with business professionals.	❍	❍	❍	❍	❍	❍	❍
I do not like other people knowing about my financial or business problems.	❍	❍	❍	❍	❍	❍	❍

Sharing business or financial information with others makes me feel as if I am losing control.	❍	❍	❍	❍	❍	❍	❍
I feel vulnerable when other people know about my business or financial problems.	❍	❍	❍	❍	❍	❍	❍
Although there are places for entrepreneurs to go for help, I do not have much faith in them.	❍	❍	❍	❍	❍	❍	❍
If a fellow business owner asked for advice, I would recommend that he or she seek assistance from an entrepreneurship center.	❍	❍	❍	❍	❍	❍	❍
I prefer to solve my own business problems rather than to seek outside assistance.	❍	❍	❍	❍	❍	❍	❍
An entrepreneur with serious business or financial problems would probably benefit from outside assistance.	❍	❍	❍	❍	❍	❍	❍
If I believed my business was in	❍	❍	❍	❍	❍	❍	❍

trouble, my first inclination would be to seek business consulting and assistance.							
I would rather be advised by my peers than by a business consultant or advisor.	❍	❍	❍	❍	❍	❍	❍
There are better methods of solving business problems than utilizing a business consultant or advisor.	❍	❍	❍	❍	❍	❍	❍
If my business were experiencing serious problems, I would be confident that outside assistance could help me resolve those problems.	❍	❍	❍	❍	❍	❍	❍
Organizations that provide outside assistance to businesses offer generic, or "one-size-fits-all" solutions to business problems.	❍	❍	❍	❍	❍	❍	❍
The time that an entrepreneur spends working with a business consultant or advisor is a wise investment in his or her	❍	❍	❍	❍	❍	❍	❍

business.							
I would trust that a business consultant or advisor could help me solve my business' problems.	❍	❍	❍	❍	❍	❍	❍
This is an attention filter. Please select "Strongly Disagree" for this statement.	❍	❍	❍	❍	❍	❍	❍

Are you currently utilizing, or have you ever utilized, business consulting or an entrepreneurship center for your business?

❍ Yes
❍ No

Which of the following assistance providers have you utilized? Please check all that apply.

❍ Small Business Development Center
❍ SCORE
❍ Minority Business Center
❍ Women's Business Center
❍ Procurement Technical Assistance Center
❍ Veteran's Business Center
❍ Other assistance provider (please specify) _____

When did you last utilize outside assistance? Please provide a specific date (month and year), if possible.

How many hours of assistance did you utilize during each of the calendar years shown below? (i.e., How many hours did you meet, and how many hours of training did you attend?) If you did not utilize assistance during any of the calendar years, please enter N/A in the appropriate blank(s).

2011
2012
2013

Why haven't you utilized business consulting or an entrepreneurship center? You may select more than one response.

- ❑ I was unaware that such programs existed
- ❑ I did not believe that such assistance would be beneficial
- ❑ I did not have time to utilize such assistance
- ❑ I cannot afford to utilize such assistance
- ❑ I do not trust outsiders with my business and financial information
- ❑ I have previously had a bad experience with such assistance
- ❑ Other (please explain) _____

Relative to your competitors, how would you rate the performance of your business on each of the following items over the last year?

	Much Worse	Worse	Slightly Worse	About the Same	Slightly Better	Better	Much Better
Relative to my competitors, my business' growth in sales is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in profitability is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in market share is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in number of employees is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' return on equity is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business'	❍	❍	❍	❍	❍	❍	❍

return on total assets is...							
Relative to my competitors, my business' net profit margin (return on sales) is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' ability to fund growth from profit is...	❍	❍	❍	❍	❍	❍	❍

How satisfied are you with your personal status on each of the following?

	Not at all Satisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied
Earning a lot of money	❍	❍	❍	❍	❍
Having high prestige and social status	❍	❍	❍	❍	❍
Being in a leadership role	❍	❍	❍	❍	❍
Being highly regarded in my field	❍	❍	❍	❍	❍
Growing a world-class business	❍	❍	❍	❍	❍
Leading a large and rapidly-growing business	❍	❍	❍	❍	❍

How much were your gross sales revenues (i.e., before expenses) for the following calendar years? If you were not in business, please enter N/A in the appropriate blank(s).

2011
2012
2013

Counting yourself, how many full-time employees (more than 35 hours per week) and part-time employees (less than 35 hours per week) did you have at the end of each of the following years you were in business? If you were not in business, please enter N/A in the appropriate blank(s).

2011 - Full Time
2011 - Part-Time
2012 - Full-Time
2012 - Part-Time
2013 - Full-Time
2013 - Part-Time

Is your business home-based?

- ❍ Yes
- ❍ No

What is the legal structure of your business?

- ❍ Sole Proprietorship
- ❍ Partnership
- ❍ LLC
- ❍ S Corporation
- ❍ C Corporation
- ❍ Non-profit organization
- ❍ Other (please specify) _____

What is the primary industry in which your company operates? (i.e., from which industry do you receive most of your revenues?)

- ❍ Retailing
- ❍ Services (personal OR professional)
- ❍ Wholesale (distribution, etc.)
- ❍ Manufacturing
- ❍ Construction (all general and other contractors)
- ❍ Other (please specify) _____

In what year was your company established?

What percentage of the company do you personally own?
_____ Please slide the indicator to reflect the percentage of the business that you own

Who owns the remainder of the company?
- My spouse owns the remainder of the company.
- An immediate family member (other than my spouse) owns the remainder of the company.
- The remainder of the company is owned by someone other than my spouse or an immediate family member.
- The remainder of the company is owned by multiple people.

Who started the company - you, or someone else?
- I started the company personally, or I was a part of the team that started the company
- My spouse or another immediate family member started the company
- Someone other than my spouse or immediate family member started the company.

How many family members - not including yourself - do you employ full time?

How many hours do you dedicate to your business each week (on average)?

How many hours do you dedicate to your family or household each week (on average)?

What is your gender?
- Male
- Female

What is your age?

What is your marital status?
- Single
- Co-habitating / living with a significant other
- Married
- Divorced
- Widowed / widower

How many children under age eighteen (18) do you have living with you?

What is your ethnicity?
- Hispanic
- Not Hispanic

What is your race?

- ❍ Asian
- ❍ Black or African American
- ❍ Multi-Racial
- ❍ Native America or Alaskan
- ❍ Native Hawaiian or Pacific Islander
- ❍ White
- ❍ Other

What is the highest level of education that you have completed?

- ❍ Less than high school
- ❍ High school
- ❍ Associates degree
- ❍ Bachelor's degree
- ❍ Master's degree
- ❍ Doctoral degree

In what field is your college degree? (Please be as specific as possible.)

May I contact you for a follow-up survey in a few months?

- ❍ Yes
- ❍ No

So that I may contact you for follow-up, what is your name?

So that I may contact you for follow-up, what is your telephone number?

So that I may contact your for follow-up, what is your e-mail address?

Please share any comments, feedback, or recommendations about this survey in the space provided.

Thank you very much for your participation in this study. If you have any questions or concerns, please contact Scott Manley at 229-560-4102 or smanley5@students.kennesaw.edu.

APPENDIX 4
FULL SURVEY – PHASE III

Title of Research Study:
This survey is part of a dissertation research project for a student in the Coles DBA program at Kennesaw State University.

Researcher's Contact Information:
The researcher, Scott Manley, may be contacted at 229-560-4102 or via e-mail at smanley5@students.kennesaw.edu.

Introduction:
You are being invited to take part in a research study conducted by Scott Manley, a doctoral candidate at Kennesaw State University. Before you decide to participate in this study, you should read this information and ask questions about anything that you do not understand.

Description of Project:
The purpose of the study is to assess the relationships between entrepreneurs' attitudes toward outside assistance programs, their utilization of such programs, and their businesses' performance.

Explanation of Procedures:
This study consists of a survey, administered over the Internet, asking questions about the following topics: 1. Your growth intentions for your business. 2. Your utilization of outside assistance programs for entrepreneurs. 3. Performance of your business.

Time Required:
It is expected that respondents will spend approximately five (5) minutes completing the study.

Risks or Discomforts:
There are no known risks or anticipated discomforts in this study.

Benefits:
Although there are no direct benefits to respondents taking part in this program, the researcher may learn more about the relationships between entrepreneurs' gender, their attitudes toward outside assistance programs, their utilization of such programs, and their businesses' performance.

Confidentiality:
The results of your participation in this study will be anonymous.
Data will be stored on a password-protected computer that is owned by the University System of Georgia.

Inclusion Criteria for Participation:

You must be 18 years of age or older to participate in this study.

Use of Online Survey:
Data collected will be handled in an anonymous manner and Internet Protocol addresses will not be collected by the survey program.

Note:
Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road, #0112, Kennesaw, GA 30144-5591, (678) 797-2268.

PLEASE PRINT A COPY OF THIS CONSENT DOCUMENT FOR YOUR RECORDS, OR IF YOU DO NOT HAVE PRINT CAPABILITIES, YOU MAY CONTACT THE RESEARCHER TO OBTAIN A COPY.

- ❍ I agree and give my consent to participate in this research project. I understand that participation is voluntary, and that I may withdraw my consent at any time without penalty.
- ❍ I do not agree to participate and will be excluded from the remainder of the questions.

So that I may match your responses with the prior survey, please provide your name in the space below. Providing your name also allows me to enter you into the drawing for the iPad mini. However, please rest assured that your privacy is of the utmost importance and that your information will not be shared.

Please indicate the percentage of the business owned by each of the owner groups shown below. The total must equal 100%.
_____ What percentage of the business do you personally own?
_____ What percentage of the business do other family members own?
_____ What percentage of the business do other investors - (i.e., not you or other family members) - own?

How many family members - not including yourself - do you employ full time?

Please select your level of agreement with each of the following eight (8) statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I have a strong desire to expand my business.	❍	❍	❍	❍	❍	❍	❍
For me, the hassles of leading a large business would outweigh the benefits.	❍	❍	❍	❍	❍	❍	❍
I aim to significantly grow my business in the next five years.	❍	❍	❍	❍	❍	❍	❍
I have a maximum size in mind for my business that I would prefer not to exceed.	❍	❍	❍	❍	❍	❍	❍
I have made significant investments to grow my business.	❍	❍	❍	❍	❍	❍	❍
I do not want to grow this firm beyond a manageable size.	❍	❍	❍	❍	❍	❍	❍
I am always searching for new ways to	❍	❍	❍	❍	❍	❍	❍

grow my business. I see good reason for limiting the growth of the firm.	❍	❍	❍	❍	❍	❍	❍

How many hours of business consulting or assistance from an entrepreneurship center did you utilize during 2014? (i.e., How many hours did you meet, and how many hours of training did you attend?) If you did not utilize assistance during 2014, please enter "0."

Relative to your competitors, how would you rate the performance of your business on each of the following items over the last year?

	Much Worse	Worse	Slightly Worse	About the Same	Slightly Better	Better	Much Better
Relative to my competitors, my business' growth in sales is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in profitability is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in market share is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' growth in number of employees is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' return on equity is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business'	❍	❍	❍	❍	❍	❍	❍

return on total assets is...							
Relative to my competitors, my business' net profit margin (return on sales) is...	❍	❍	❍	❍	❍	❍	❍
Relative to my competitors, my business' ability to fund growth from profit is...	❍	❍	❍	❍	❍	❍	❍

How satisfied are you with your business' earnings on each of the following items over the last year?

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied
Your business' earnings relative to the amount of money you have invested in the business.	❍	❍	❍	❍	❍	❍	❍
Your business' earnings relative to the length of time you have been in business.	❍	❍	❍	❍	❍	❍	❍
Your business' earnings relative to the amount of time that you devote to the business.	❍	❍	❍	❍	❍	❍	❍
Your business' earnings relative to your education level.	❍	❍	❍	❍	❍	❍	❍

How satisfied are you with your personal status on each of the following?

	Not at all Satisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Somewhat Satisfied	Very Satisfied
Earning a lot of money	❍	❍	❍	❍	❍
Having high prestige and social status	❍	❍	❍	❍	❍
Being in a leadership role	❍	❍	❍	❍	❍
Being highly regarded in my field	❍	❍	❍	❍	❍
Growing a world-class business	❍	❍	❍	❍	❍
Leading a large and rapidly-growing business	❍	❍	❍	❍	❍

How much were your gross sales revenues (i.e., before expenses) in 2014? If you were not in business or did not have any revenues, please enter "0."

Counting yourself, how many full-time employees (more than 35 hours per week) did you have at the end of 2014? If you were not in business or did not have any full-time employees, please enter "0."

Counting yourself, how many part-time employees (less than 35 hours per week) did you have at the end of 2014? If you were not in business or did not have any part-time employees, please enter "0."

Please share any comments, feedback, or recommendations about this survey in the space provided.

Thank you very much for your participation in this study. If you have any questions or concerns, please contact Scott Manley at 229-560-4102 or smanley5@students.kennesaw.edu.