

**ENTREPRENEURIAL SELF-EFFICACY AND PERSISTENCE:  
THE ROLE OF SOCIAL SUPPORT AND GENDER**

by

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**DEDICATION**

To my children, know you have no limits.

**ABSTRACT**

The topic of social support has held a steady place in entrepreneurship over the years. While the literature addresses social support in various facets, peer-to-peer social support has yet to garner significant attention. This study evaluates the role of entrepreneurial peer support, paying close attention to gender differences. Specifically, both emotional and instrumental social support are examined to determine their influence on entrepreneurial self-efficacy and persistence. Small business owners are surveyed to evaluate the role of peer to entrepreneurial persistence. In addition, this study investigates the role of gender in how support is realized. The results could revitalize a stream of entrepreneurial research that draws back to the value of personal connections, and point to new opportunities for research in self-efficacy and persistence.

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## CHAPTER 1

### INTRODUCTION

As I exited a local training session for small business owners, a familiar fellow entrepreneur was walking just in front of me. I called out to her and asked how she was doing and how business was going for her. After a cordial response, the gift shop owner explained that she was seated next to a budding entrepreneur during the session, a young woman who was to open her storefront the very next day. As the nascent entrepreneur asked her various questions, she stopped, pointed at me across the room, and stated, "if it were not for that lady right there, I would not still be in business." The previous summer, I visited the gift shop, and she confided in me about her worries regarding the downturn in business. As an experienced entrepreneur, I assured her there are ebbs and flows to the seasons. We discussed cycles in business and how to maneuver through them, but the conversation gave her the emotional boost she needed to persevere. During the training session, the gift shop owner encouraged the new business owner to build relationships with the entrepreneurs in the room and to surround herself with a support group of peers. This experience solidified my curiosity about how peer entrepreneurial support impacts fellow entrepreneurs' decision to persist in business operations.

Small businesses impact local communities through job creation, tax revenue, income growth, and community cohesion, more so than big-box retailers (Donahue, 2013). A higher rate of small businesses in a community encourages economic exchange embedded in human relations (Mitchell, 2013). Since small businesses are a vital portion of the U.S. economy, a closer look at how human relationships impact the willingness of entrepreneurs to continue in these firms is critically relevant. If more entrepreneurial small businesses remained operational, the wage inequality gaps could decrease, and the well-being of residents could increase through fostering interaction and collective efficacy (Mitchell, 2013). The result trickles down into measurable outcomes such as literacy, poverty levels,

civic involvement, and quantity and quality of public parks and infrastructure (Mitchell, 2013). Just as communities garner support from various aspects, entrepreneurs also need support from diverse sources. The influence of peer social support within the entrepreneurial community can promote thriving communities through entrepreneurship. Communities need entrepreneurs, and entrepreneurs need community, functioning better together.

Owning and operating a business takes incredible mental strength to shoulder the responsibility and strain that comes with the ebbs and flows of commerce. Since only the top 25% of entrepreneurs earn a significant wage (Hamilton, 2000), business owners may question whether the venture will ever pay worthwhile dividends. At times expectations are not being met. Other times, the stress outweighs the financial gain. For a small business to continue to invest in the local community, the business must inevitably persist through "feast and famine." The operating entrepreneur ultimately determines the continuation of a small business through the repeated decision to proceed, known as entrepreneurial persistence.

Persistence is a complicated construct that is a "function of both the person and the environment" (Adomako et al., 2016, p. 87). It is situational, behaviorally responsive, motivationally sensitive, and a cognitive process all in one (Meier & Albrecht, 2003). Entrepreneurial persistence is defined as actions involving venture-directed energy continued over time (Cardon & Kirk, 2015). Persistence is initially the motivation to start a business; it then can become a continuous decision to perpetually pursue the business (Caliendo et al., 2020). Entrepreneurial persistence is effortless in times of positive performance and low adversity regarding business decisions and resources (Zhu et al., 2018). However, persistence, or lack thereof, is revealed when faced with challenges, uncertainty, and setbacks (Adomako et al., 2016; Cardon & Kirk, 2015). As entrepreneurs weigh the costs, the motivation to persist increases as a personal investment in the business increases (DeTienne et al., 2008).

What makes an entrepreneur choose persistence? Antecedents to entrepreneurial persistence have not been systematically studied within the research (Van Scotter & Garg, 2019), resulting in a limited understanding. Prior literature regarding entrepreneurial persistence has limitations, including applying persistence to firm-level outcomes such as organizational continuance (Van Scotter & Garg, 2019). Another shortcoming of the literature is that the entrepreneurial phase of the research is not specified, impacting behavioral and organizational results (Dess & Beard, 1984; Van Scotter & Garg, 2019). Furthermore, the research identifies the outcomes of cognitive attributes of persistence but lacks attention to the behaviors and dispositions of persistence (Van Scotter & Garg, 2019). Gatewood et al. (2002) stated that "individuals persist longer and put more effort on tasks in which they expect to succeed" (p. 190), stressing the value of self-imposed expectations on persistence. Furthermore, individual cognitive elements are needed to understand entrepreneurial persistence (Marshall et al., 2020).

Self-efficacy is defined as "someone's trust in [their] abilities to accomplish tasks to reach a target" (Al Issa et al., 2019, p. 62; Chowdhury et al., 2019; Sweida, 2018; Kalitanyi, 2018). Self-efficacy is a cognitive element that directly impacts persistence, but that relationship has limited research within entrepreneurship. Prior literature has shown that individuals pursue activities believed to be achievable and avoid tasks with unanticipated success (Bandura, 1982, 1977). The level of self-efficacy determines how much effort individuals choose to exert and for how long, based on the perception of success (Bandura, 1982). According to Chen et al. (1998), entrepreneurial self-efficacy is a reasonably stable trait but not unchangeable, allowing the environment to influence self-efficacy. Self-efficacy has a rich place in research across various domains but was initially integrated into the entrepreneurship literature by Chen et al. (1998), where it gained substantial traction. However, calls for more research on self-efficacy in entrepreneurship have remained unrequited, leaving a need for

more research (Miao et al., 2017; Newman et al., 2019).

One environmental factor that may play a role in entrepreneurial self-efficacy may be the social network support surrounding the entrepreneur. Studies show that entrepreneurs are significantly influenced by those with a high level of expertise, particularly running the same type of business with immediately relevant experience (Kuhn & Galloway, 2015). Communities of entrepreneurs share knowledge and offer companionship and financial assistance to each other. However, the significance of social network support on persistence is lacking in research, despite the potential presented within the literature (Farooq et al., 2018). Researchers have investigated business success, entrepreneurial well-being, stress, and persistence. Yet, scholars point to the scant attention given to peer support and have called for more investigations evaluating the importance of peer-to-peer support (Kuhn & Galloway, 2015). Experts in similar businesses, peers, or mentors can provide context-specific support that other non-entrepreneur advisors could not possess and aid in (Kuhn & Galloway, 2015). Peer relationships come in various forms with unique benefits and risks, in which further investigation can decipher the role and importance of support channels.

Instrumental and emotional support are two forms of social support. Instrumental and emotional support contain tangible and intangible dimensions (Farooq et al., 2018; Farooq, 2016), or instrumental and emotional support. Instrumental and emotional support demonstrates an increase in survival and growth in entrepreneurship (Bruderl & Preisendorfer, 1998), opening the door to exploring other social contexts and outcomes. Emotional support is defined as “communicating esteem for the person” (Semmer et al., 2008, p. 237) or “encouragement of others” (Nielsen, 2020, p. 3). Emotional support encourages optimism, enabling persistence (Baron, 2008; Klyver et al., 2020). Furthermore, emotional support may also influence an entrepreneur's "ability to absorb instrumental knowledge" (Klyver et al., 2018, p. 710). Instrumental support is defined as the "provision of help or service as well as information and advice” (Nielsen, 2020, p. 23) or any direct form of assistance (Langford et al.,

1997; Farooq et al., 2018). Such facilitation provides valuable socio-emotional and task-relevant resources for entrepreneurs that directly affect well-being and indirectly aid in managing stress (Mathieu et al., 2019; Viswesvaran et al., 1999). Emotional and instrumental support impact entrepreneurship by fostering the conscious belief that one can succeed, encouraging the choice to persist. Could one form of support be more beneficial than the other regarding entrepreneurship?

Various studies suggest that most social support entrepreneurs receive can be attributed to friends and family (Nielsen, 2017; Birley, 1986; Hanlon & Saunders, 2007; Klyver, 2007; Marsden & Campbell, 1984; Rooks et al., 2014). However, scholars have neglected peer entrepreneurial support and whether relationships with fellow entrepreneurs are significant also (Sarkar & Hayes, 2019). For example, Beehr et al. (1990) argued that coworkers are the most crucial source of support for alleviating work-related stress (Beehr, 1985; House, 1981). However, different sources of support induce different outcomes (Mathieu et al., 2019). So, how does peer support influence the entrepreneurial self-efficacy and persistence relationship?

Although research concerning gender in other fields has flourished, the branch of research connecting entrepreneurial self-efficacy and social support is sparse. Morris et al. (2006) convey that the number of women in entrepreneurship has significantly increased, introducing new dynamics. However, women are still presumed to have less access to resources (Powell & Eddleston, 2013; Morris et al., 2006; Aldrich, 1989) and benefit more from family support (Powell & Eddleston, 2013) than men. Furthermore, prior literature touts that women are less confident in career-related skill sets (Bandura, 1992; Bandura et al., 2001; Betz & Hackett, 1981; Scherer et al., 1990) and therefore have lower expectations occupationally (Wilson et al., 2007; Eccles, 1994), including in entrepreneurial endeavors (Wilson et al., 2007; Chen et al., 1998). In addition, Klyver & Grant (2010) argue women entrepreneurs are deprived of an adequate social network, leaving them disadvantaged (Mirchandani, 1999; Benschop, 2009). Henry et al. (2016) contend that prior literature contains methodological flaws

restricting field development, stating, “advanced statistical analysis such as correlations, regressions, and use of logic models only served to highlight the search for assumed *differences* rather than assumed *similarities* between male and female entrepreneurs” (p. 219). Though gender differences play a significant role in entrepreneurship, a revitalization of research explaining the differences between genders is needed (Henry et al., 2016). The role of gender types will unveil differences in how men and women utilize social support and influence the decision to persist. Therefore, we also ask, does the gender of entrepreneurs influence social support's role on entrepreneurial self-efficacy and persistence?

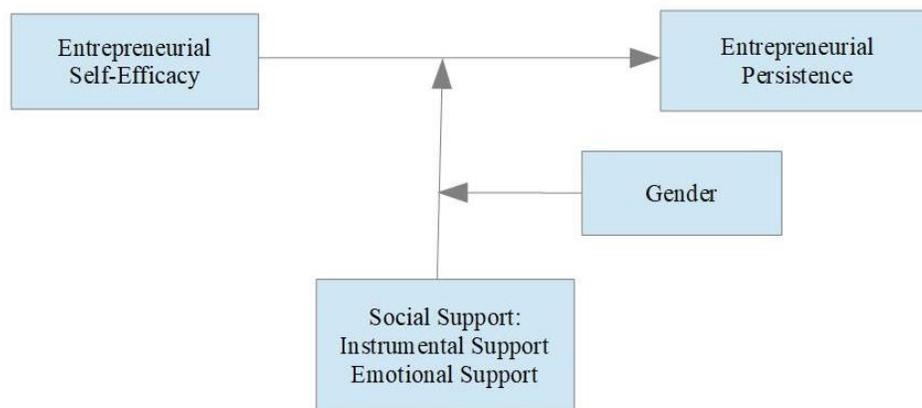
The current research utilizes the social support lens, a unique perspective on the relationship between self-efficacy and persistence. Social support theory focuses on the psychological well-being of individuals (Hobfoll et al., 1990; Dean & Lin, 1977). As Bruderl and Preisendorfer (1998) contend, entrepreneurship is social activity embedded in a social context. Support curtails the depletion of personal resources and promotes healthy coping behaviors vital for persistence (Hobfoll et al., 1990). Klyver et al. (2020) relay how social support creates a positive impact through "increased persistence, enhanced creativity, entrepreneurial identity and passion" (p. 679). The complexity of social support is immense, with broad consequences, including psychological integrity (Hobfoll et al., 1990). Furthermore, support lends the confidence needed to cope with stressors (Gottlieb & Bergen, 2010) of entrepreneurship. Therefore, it is reasonable to consider how social support theory encompasses the confidence of self-efficacy and the impact of behavioral outcomes such as persistence. In totality, social support may indeed be more important than suspected, a building block (Hobfoll et al., 1990) in need of additional empirical research.

Keeping entrepreneurs' emotional well-being and connection to resources in mind, this study analyzes the role of influence of support channels between self-efficacy and persistence. The analysis of these factors will build on the empirical research on the relationship between entrepreneurial self-

efficacy and entrepreneurial persistence that is still developing. The study's results could provide a new path for researching the antecedents for entrepreneurial persistence, considering the impact of social support and gender. This leads to the question: What is the impact of peer-to-peer social support and gender on the relationship between entrepreneurial self-efficacy and entrepreneurial persistence?

**Figure 1**

*Research model*



The following dissertation will include a thorough review of the literature, including the theoretical underpinning, followed by the full development of the hypotheses. Next, the methodology and execution of empirical research will be discussed, followed by an overview and analysis of the results that will be examined. Finally, the study's findings will be reviewed, denoting practical and academic applications.

## CHAPTER 2

### LITERATURE REVIEW

#### Entrepreneurial Persistence

“An entrepreneur makes the decision to start a new business at a single point in time and under conditions that are likely to be favorable for the creation of the new venture. By contrast, the decision to persist with the new venture has to be repeatedly made...” (Caliendo et al., 2020, p. 618; Holland &

Garrett, 2015). Choosing to become self-employed means entrepreneurs are choosing to persist in staying self-employed (Patel & Thatcher, 2014). Similar terms such as perseverance, resilience, or grit refer to a capacity to overcome challenges or a commitment to particular tasks within a specified time frame (Tietz et al., 2021). Persistence refers to a repeated decision and effort to pursue an entrepreneurial venture. Persistence's broadly accepted definition is the continued concerted effort despite failures, adversity, or risks (Gimeno et al., 1997). As Seo et al. (2004) contribute, entrepreneurial persistence involves goal-directed vigor maintained over time (Cardon & Kirk, 2015).

When challenges and adversity hit, entrepreneurs begin to evaluate alternatives (Holland & Shephard, 2013; Carver & Scheier, 1998). This appraisal is when entrepreneurs must face the choice of whether to persist or not. Prior literature touts that the person and the environment are both integral parts of the complicated decision to persist (Adomako et al., 2016, DeTienne et al., 2008; Gimeno et al., 1997; Holland & Shepherd, 2013). Persistence operates as a function of the individual, business-related, and circumstantial factors (Caliendo et al., 2020; DeTienne et al., 2008; Holland & Shepherd, 2013). Persistence is not merely the re-doubling of effort that leads to over-commitment but rather a deeper-rooted strength or psychological capital (Hoang & Gimeno, 2010; Luthans et al., 2007; Seligman & Csikzentmihalyi, 2000).

A lengthy list of constructs exist that overlap with persistence, some even being used to define each other (Howard & Crayne, 2019). This list includes perseverance, grit, tenacity, passion, need for achievement, ambition, stamina, goal-commitment, goal striving, zeal, work ethic, work commitment, dependability, industriousness, conscientiousness, courage, and self-control (Howard & Crayne, 2019; Cassidy & Lynn, 1989; Duckworth et al., 2007; Grant, 2008; Howard & Alipour, 2014; Klein et al., 2001; Locke, 1996; Vancouver et al., 2010). The difference in the perception or representation of each construct could also alter the measurement, leading to vastly different interpretations of results (Howard & Crayne, 2019). Howard and Crayne (2019) proposed an overall construct that included

studying all elements together for a more accurate understanding.

Persistence has not always equated to positive outcomes. Adverse scenarios can cultivate resilience or escalation of commitment through persistence (Holland & Shepherd, 2013). Resilience is "responding quickly and effectively to change while enduring minimal stress" (Mallak, 1998, p. 9; Santoro et al., 2020) as it pertains to members of an organization. In comparison, escalation of commitment is when an increased investment in unrealized strategies proves unfruitful (Holland & Shepherd, 2013). Adverse financial effects and emotional factors play into the persistent decisions regarding escalation of commitment or procrastination of exit (Shepherd et al., 2009). It is unclear if this escalation is due to the uncertainty of outcomes or regardless of whether future investment returns can be estimated (Shepherd et al., 2009; Karlsson et al., 2005a, b; Staw et al., 1997). Nonetheless, the persistence decision has opportunity costs of forgoing alternative opportunities through either exit or persistence (Tietz et al., 2021; Gimeno et al., 1997). Various authors blame a lack of persistence for the high rate of small business failures or exits (Wu & Dagher, 2007; Bird, 1988; McDaniel & Sharpe, 2002).

The inverse, or "flip side" (Zhu et al., 2018, p. 138), of entrepreneurial persistence is the choice to exit a venture. The grounds for exit decisions also help determine what areas need closer attention to encourage persistence. Self-employed individuals exit self-employment for numerous reasons, including business performance, strategy issues, poor coping mechanisms, learning challenges, work-life imbalances, opportunity costs, and perception of success (Patel & Thatcher, 2014). A leading misconception is exit decisions due to financial failure of entrepreneurial small businesses (Shepherd et al., 2009) when only 20% of small businesses close due to financial failure (Schutjens & Stam, 2006). Despite financial success, entrepreneurs may still choose to exit for other reasons, including family obligations, founding team changes, retirement, and alternative opportunities (Zhu et al., 2018, p. 139). Zhu et al. (2018) state that an entrepreneur's cognitive evaluation of performance compared to desired

expectations is the most critical component of the persistence decision.

Measuring persistence has faced challenges as there has been indecisiveness regarding whether entrepreneurial persistence applies more to business survival or motivational commitment measures (Caliendo et al., 2020). Howard and Crayne (2019) explore the various dimensions of persistence that have distinct effects on persistence. The authors argue that prior research uses single constructs to measure persistence, but that persistence cannot be accurately measured through a single dimension in isolation. Therefore, the importance of the measure is to identify entrepreneurial persistence as a distinct trait. Using Howard and Crayne's (2019) measure, the higher-order construct of persistence is measured through related constructs broken down into three categories: persisting despite difficulty, persisting despite fear, and inappropriate persistence. This approach is the most comprehensive measure of persistence that can be applied to entrepreneurship.

### ***Persistence - Antecedents***

Effective entrepreneurs embody persistence as an essential characteristic (Holland, 2011; Kuratko & Hodgetts, 2007; Zhu et al., 2018; Baron & Markman, 2003; Wu et al., 2007). “Prior research suggests that both individual characteristics, such as commitment (DeTienne et al., 2008), human capital (Dimov, 2010), founder role identity (Hoang & Gimeno, 2010), as well as external factors including external feedback (Holland & Shepherd, 2013) and social support (Kim et al., 2013), matter for entrepreneurial persistence” (Klyver et al., 2018, p. 711). In addition, entrepreneurial persistence can lead to business success through goal achievement (Zhu et al., 2018; Timmons & Spinelli, 2009), overcoming setbacks, and continued business efforts despite challenges (Zhu et al., 2018; Markman et al., 2005; Wu et al., 2007). Still, limited research exists on the components of those who persist in entrepreneurship (Al Issa et al., 2019). Further research is needed to illuminate the nuanced facets of persistence, some of which this study seeks to uncover.

Persistence is a primary element of the business creation process (Mattingly et al., 2016; Cardon

& Kirk, 2013; Davidson, 2012; Holland & Garrett, 2013). One theory is that persistence comprises two factors, self-awareness and anticipation of ability or efficacy (Mattingly et al., 2016). Others contest that persistence is driven by a need for achievement motivation (Wu & Dagher, 2007). Caliendo et al. (2020) tediously explored antecedents of persistence, including human capital factors, personality elements, and business characteristics. The human capital factors encompass schooling, professional education, unemployment experience, industry-specific experience, and skills and knowledge. Personality factors include the big five personality traits, locus of control, self-efficacy, and readiness to take a risk. Business characteristics consider the startup capital and business sector. The research on persistence has a breadth that includes inputs such as tenacity (Fayolle & Gailly, 2015), passion (Cardon & Kirk, 2015), psychological capabilities (Hoang & Gimeno, 2010), optimism (Adomako et al., 2016), motivation, need for achievement (Wu et al., 2007), perceptions of the external environment, extrinsic motivation (DeTienne et al., 2008), and commitment (Klyver et al., 2018). With such a broad span of literature on persistence, research is moving to measure persistence as a parent construct that embraces many of these constructs (Howard & Crayne, 2019).

### *Ties to Self-Efficacy*

The literature contends that persistence and self-efficacy are "especially relevant" to the startup and growth of entrepreneurial ventures (Pollack et al., 2019; Brändle et al., 2018; Cardon & Kirk, 2015; Al Issa et al., 2019). As Chen et al. state, "People with high self-efficacy have a more intrinsic interest in the tasks, are more willing to expend their effort, and show more persistence in the face of obstacles and setbacks" (1998, p. 298). The positive connection between general self-efficacy and persistence consists of a long stream of research; however, the application to entrepreneurship yields limited research. For example, Multon et al. (1991) performed a meta-analysis on the connection between self-efficacy and persistence, but it was across a wide net of subjects not specific to entrepreneurship. Nevertheless, current literature contends that self-efficacy is a crucial driver for

persistence in entrepreneurship (Al Issa et al., 2019), building support for the connection. Table 1 lists articles that empirically link entrepreneurial self-efficacy to persistence.

**Table 1**

*Prior Research on Entrepreneurial Self-Efficacy and Persistence*

IV	Moderator	DV	Study	IV Scale
Entrepreneurial Self Efficacy	Entrepreneurial Passion	Entrepreneurial Persistence	Cardon and Kirk, 2015	Forbes, 2005
Entrepreneurial Self Efficacy	Entrepreneurial Passion (Mediator), Financial Literacy (Moderator)	Entrepreneurial Persistence	Al Issa, Abdelsalam, and Omar, 2019	Cardon & Kirk, (2015)
Entrepreneurial Self Efficacy	Entrepreneurial Intentions	Entrepreneurial Behavior: Persistence	Newman, Obschonka, Schwarz, Cohen, and Nielsen, 2019	meta-analysis
Entrepreneurial Self Efficacy	Job Demands due to Industry Context	Entrepreneurial Persistence Behavior	Van Scotter II and Garg, 2019.	Cassar and Friedman (2009)
Entrepreneurial Self Efficacy (Hybrid)	-	Entrepreneurial Persistence (Hybrid)	Pollack, Carr, Michaelis, and Marshall, 2019.	Zhao et al. (2005)

### Entrepreneurial Self-Efficacy

Prior research iterates that personality constructs such as locus of control and self-efficacy are key determinants for those entering entrepreneurship (Caliendo et al., 2020; Rotter, 1966; Bandura, 1997), leading to a significant stream of research on self-efficacy. Shane et al. (2003) state that the locus of control is unobserved self-efficacy (Cardon & Kirk, 2015). Entrepreneurial self-efficacy is defined as the “strength of an individual’s belief that he or she is capable of successfully performing the roles and tasks of an entrepreneur” (Chen et al., 1998, p. 301). Self-efficacy is not knowing what to do at any given time but rather a capability to orchestrate one's cognitive, social, and behavioral skills to

respond to and manage ever-changing circumstances (Bandura, 1982). According to Cassar and Friedman (2009), self-efficacy identifies one's confidence in ability or belief that the task can be performed and completed. This confidence is the link to motivations, goals, and expectations (Cassar & Friedman, 2009; Bandura, 1997; Bandura, 2001). A broadly accepted perspective is that “an individual with high self-efficacy for a given task will exert more effort for a greater length of time, persist through setbacks, set and accept higher goals, and develop better plans and strategies for the task” (Shane et al., 2003, p. 267).

However, the level of self-efficacy can change depending on the situation. The amount of self-efficacy an individual assumes will impact the amount of effort one will expend on persisting (Bandura, 1982). Bandura (1982) argues that when faced with adversity, one will either give up or master the challenge, depending on the level of self-efficacy (Bandura & Schunk, 1981; Brown & Inouye, 1978; Schunk, 1981; Weinberg et al., 1979). Self-efficacy connects intentions to behaviors (Boyd & Vozikis, 1994), believing a goal is attainable and reaching that goal regardless of setbacks. Task-specific self-efficacy can alter from task to task, be related to sets of similar tasks, or be generalized (Cassar & Friedman, 2009). Chen et al. (1998) insisted that entrepreneurial self-efficacy is somewhat stable and may only alter through meaningful experiences (Forbes, 2005). Despite the variance in specificity, self-efficacy plays a vital role in an entrepreneur's persistent behavior (Cardon & Kirk, 2015). Baum and Locke (2004) clarify that self-efficacy is typically advantageous to performance (Bandura, 1997) but can prove pernicious when rooted in assumptions that are no longer valid (Audia et al., 2000).

Domain-specific self-efficacy, which focuses on an entrepreneur's ability to execute various tasks germane to entrepreneurship, is the focal point of this study (Cassar & Friedman, 2009). Concerning cognitive styles, entrepreneurial self-efficacy points to individual intuition versus an analytical view (Van Scotter & Garg, 2019). Kirsch (1985) argues that outcomes dependent on

performance are the only outcomes reliant on efficacy beliefs, meaning that not all outcomes are attainable to which self-efficacy applies (Newman et al., 2019). Bandura (1982) states self-efficacy is a "generative capability in which component cognitive, social, and behavioral skills must be organized into integrated courses of action to serve innumerable purposes. A capability is only as good as its execution" (p. 122). The sub-skills required to manage fluid circumstances as a part of self-efficacy (Bandura, 1982) impart the ability to develop such an aptitude, revealing self-efficacy as a malleable construct (Pollack et al., 2019).

Various other constructs refer to one's overall disposition that, at first glance, appears similar to self-efficacy, such as locus of control, optimism, self-esteem, core self-evaluation, and overconfidence (Cassar & Friedman, 2009). Locus of control focuses on the control one has over outcomes (Rotter, 1966) or the internal or external causes of outcomes (Trevelyan, 2011), where self-efficacy concerns achievable performance (Cassar & Friedman, 2009). Optimism refers to a positive outlook, not necessarily one's capabilities tied to self-efficacy (Puri & Robinson, 2007). Self-esteem connotes a generally positive attitude towards oneself (Rosenberg, 1965). On the other hand, self-efficacy is a judgment about abilities regarding specific tasks. Core self-evaluation is an overall assessment of various constructs, including locus of control, self-esteem, emotional stability, and general self-efficacy (Judge and Bono, 2001). Finally, overconfidence is a misplaced belief in one's ability to garner a particular outcome (Forbes, 2005) with reduced effort in marshaling resources (Trevelyan, 2011). However, self-efficacy is a motivational phenomenon that drives effortful action and persistence in a task.

Self-efficacy can break down into either state-like or general categories or domain-specific or venture-specific classifications. State-like self-efficacy is a motivational trait, and general self-efficacy is a motivational trait (Chen et al., 2001; Eden, 1988; Gardner & Pierce, 1998; Judge et al., 1997). Both types of self-efficacy regard one's belief in capabilities to meet aspirations but vary in the scope of

specificity or generality of performance (Chen et al., 2001; Eden, 1988). General self-efficacy is resistant to external influence as it grows through one's lifetime of experiences, more so than a state like self-efficacy (Chen et al., 2001; Eden, 1988; Shelton, 1990). Domain-specific self-efficacy is a specific task efficacy that does not translate across domains or life in general (Luthans et al., 2007). As can be seen, the efficacy belief system is not a comprehensive trait, unlike other constructs (Luthans et al., 2007; Bandura, 1998). Many experts contend that self-efficacy is domain-specific, which aligns with Bandura's (1997) conceptualization (Newman et al., 2019). Cassar and Friedman (2009) maintain that entrepreneurial self-efficacy is not venture-specific because it "should apply to all entrepreneurial activity regardless of idiosyncratic factors related to each unique venture" (p. 243).

### ***Self-Efficacy in Entrepreneurship***

Self-Efficacy was first applied to entrepreneurship as entrepreneurial self-efficacy in 1998 by Chen, Greene, and Crick (1998). Entrepreneurial self-efficacy concentrates directly on the application to entrepreneurship. "Chen and colleagues (1998) developed the construct of [entrepreneurial self-efficacy] as a means of capturing the degree to which individuals believe that they are capable of performing the tasks associated with new-venture management" (Forbes, 2005, p. 599). Thus, entrepreneurial self-efficacy is one's belief in their ability to accomplish diverse entrepreneurial tasks (Liu et al., 2021; Chen et al., 1998; De Noble et al., 1999). The direct application of self-efficacy to entrepreneurship links to positive outcomes in entrepreneurial intention and new venture creation (Liu et al., 2021, Barbosa et al., 2007; Chen et al., 1998; Markman et al., 2005; Miao et al., 2017; Townsend et al., 2010; Wilson et al., 2007; Zhao et al., 2005).

An individual's self-efficacy judgment can affect daily decisions, aspirations, effort provisions, persistence, stress, mental strength or doubt, and possibly vulnerability (Bandura, 1991). The literature provides evidence that those with sufficient personal resources and confidence in their ability to succeed have higher rates of persistence (Cardon & Kirk, 2015; Bandura, 1989). Many researchers

contest that self-efficacy is a vital determinant of behavior (Forbes, 2005; Chen et al., 1998; Cassar & Friedman, 2009). Effort, persistence, and strategizing are all strongly determined by self-efficacy and harnessed to heighten performance benefits (Heslin & Klehe, 2006). This knowledge displays self-efficacy's ability to sustain profound effort (Heslin & Klehe, 2006). However, self-efficacy contains diminishing returns. Heslin & Klehe (2006, p.707) explain, "extremely high self-efficacy can lead to excessive risk-taking, hubris, and dysfunctional persistence, though in most cases, the resultant failures people experience soon re-calibrate their self-efficacy to a more realistic level." The conclusion is that a certain degree of self-efficacy is needed to sustain entrepreneurial action but is less effective when self-efficacy is too high (Trevelyan, 2011). This does not take away from the issue that multiple studies have demonstrated that self-efficacy positively influences venture success (Baum & Locke, 2004; Forbes, 2005b; Hmieleski & Corbett, 2008).

### **Social Support**

Entrepreneurship must consider the impact of social context, including social relationships where individuals garner information, resources, and social support (Zimmer, 1986). This research defines social support as "resources people accrue from their social relations and employ when addressing difficult issues in their lives" (Kim et al., 2013, p. 214). Social support is among the most researched psychosocial resources (Thoits, 1995). Across the entrepreneurial literature, social influences, among other constructs, stimulate an entrepreneur's success (Elnadi et al., 2020; Maroufkhani et al., 2018; Ali et al., 2019). Strong resource foundations, including social support, help firms weather the consequences of poor decisions and environmental jolts (Hanlon & Saunders, 2007).

The entrepreneurial venture is encouraged or hindered by the "complex medley or influencing environmental and social factors" (Donaldson, 2021, p. 292). Connections between aspiring entrepreneurs, resources, and opportunities – all within complex networks of relationships – can support or dismantle entrepreneurship (Zimmer, 1986). In entrepreneurship, decisions are not made in

a vacuum but are influenced by significant relationships (Zimmer, 1986). Entrepreneurs rarely act alone, and the social environment affects knowledge and behavior influenced by community and networking (Sarkar et al., 2019; Kutzhanova et al., 2009). Ultimately, entrepreneurship is a relational task, an inherent networking activity (Bruderl & Preisendorfer, 1998; Dubini & Aldrich, 1991). Alternatively, as Casson and Guista (2007) phrase it, "there is ample evidence that entrepreneurship is, in fact, socially embedded in network structures" (p.222), meaning entrepreneurs do not work in isolation (Donaldson, 2021).

### ***Social Networks***

Social support is within networks of individuals and firms that provide resources, or potential resources, for the benefit of the business. If organizing and coordinating resources is a conception of entrepreneurship, then social networking is directly connected (Bruderl & Preisendorfer, 1998). Entrepreneurs form social networks based on expectations of how effective those networks and ties will be (Leyden & Link, 2015). "It is reasonable to expect that entrepreneurs embedded in a confined social network or lacking other basic resources (human capital and financial capital) will try harder to mobilize support out of their private networks" (Bruderl & Preisendorfer, 1998, p. 216).

Farooq et al. (2018) note that research on social networks focuses on the size of networks, the number of contacts, and the strength of ties (e.g., Farooq, 2016; Quan, 2012; Semrau & Werner, 2014; Sullivan & Ford, 2014). The strength, complexity, and heterogeneity of a social network can aid in the survival and even growth of an entrepreneurial firm (Sarkar et al., 2019; Collinson & Gregson, 2003). Additionally, social support impacts behavioral consequences that include entrepreneurial performance (Nielsen, 2020; Stam et al., 2014), among other facets. Finally, entrepreneurial effectiveness improves access to resources through networks (Light & Dana, 2013; Slotte-Kock & Coviello, 2010).

“Social support is a multi-dimensional perspective that includes not only the informational aspects commonly attributed to network theory but also the emotional elements as well as temporal

factors that are normally overlooked (Jacobson, 1986; Gielnik et al., 2012)” (Klyver et al., 2018, p. 713). Participation in entrepreneurial social networks lowers overall ambiguity through information, skills, and expertise in a network with a critical mass (Song et al., 2019). Furthermore, Zheng et al. (2020) identify that networking behaviors increase with uncertainty as entrepreneurs seek clarification or new ties. Therefore, networks are one of the most vital assets of a business (Song et al., 2019; Elfring & Hulsink, 2003).

Social networks can comprise a broad spectrum of individuals, including family, friends, coworkers, and acquaintances. However, this study focuses on peer-to-peer relationships of fellow entrepreneurs and the impact on instrumental and emotional resources. Prior literature has demonstrated that high-growth firms prefer to garner advice from peers (Sarkar et al., 2019; Fischer & Reuber, 2003), so the expectation is similar for entrepreneurs. More experienced entrepreneurs or business professionals actively giving advice are social support through mentorship (Sarkar et al., 2019; Ragins & Scandura, 1999; St-Jean & Audet, 2012 ). Similar support comes from peer entrepreneurs through problem sharing, acting as learning agents (Sarkar et al., 2019; Hines & Thorpe, 1995). Unfortunately, these peer-to-peer relationships are gravely under-researched, with little empirical research to determine effectiveness (Sarkar et al., 2019), especially from peers within similar businesses or industries (Kuhn & Galloway, 2015). "Same-industry peers can directly relate to the challenges and frustrations of a particular context, and they also possess 'deep' knowledge, the sharing of which may be the most clear-cut benefit of peer assistance compared to other sources of support” (Kuhn & Galloway, 2015, p. 573). Kuhn and Galloway (2015) argue that autonomous communities of peer entrepreneurs provide the remarkable potential to provide helpful advice and support to each other.

### ***Support Categories***

Social support includes a long history of research. One point of debate is how to categorize social support due to its broad influence. Pattinson's (1977) reduction of categories encapsulated social

support into only two categories: emotional and instrumental support, garnering support from fellow researchers (e.g., Blau, 1981; Ganster et al., 1986; Kaufmann & Beehr, 1986; Thoits, 1982; Fenlason & Beehr, 1994). However, Barrera and Ainlay (1983) proposed six social support categories: material aid, behavioral assistance, intimate interactions, guidance, feedback, and positive social interaction. Langford et al. (1997) later identified four forms of social support: emotional, tangible, informational, and companionship (Farooq et al., 2018). Current researchers typically categorize the dimensions into various groups of emotional support, material or instrumental support, informational support, and appraisal support, which some contend could be circumscribed by the categories of emotional and instrumental support (Shakespeare-Finch & Obst, 2011, Semmer et al., 2008), following Pattinson's lead. Despite the various categories and grouping, emotional and instrumental support has been "consistently identified as the most salient and encompassing" categories of social support (Shakespeare-Finch & Obst, 2011, p. 484). This study will focus on instrumental and emotional support due to the significant empirical validation from prior research (Leung et al., 2020; Beehr et al., 2000; King et al., 1995; Shakespeare-Finch & Obst, 2011; Semmer et al., 2008).

### ***Social Support Effects***

Social support has positively impacted various constructs within the literature, including utilization as a coping resource for occupational stress (Beehr et al., 1990). The level of social support can act as a buffer from adverse consequences of stressors (Beehr et al., 1990). Moreover, "support from social network[s] can play a noteworthy role in the mobilization of resources, opportunity recognition, tacit knowledge and technical information required for starting a new business venture" (Farooq et al., 2018, p. 339). Individuals with a strong psychological sense of support handle adversity better than those who do not pursue support (Gottlieb & Bergen, 2010). Kim et al. (2013) postulate that persistence is a more functional outcome of social support than the firm's startup development milestones.

According to Barrera and Ainlay (1983), critical factors impacted by social interactions are quality of life (Flanagan, 1978), both physical and psychological health (Myers et al., 1975), and coping skills (Gurin et al., 1960). Advantages for an entrepreneur's health and well-being are effectively coping with the stresses of entrepreneurship through personal capital (Eager et al., 2018; Atherton et al., 2018), allowing one to operate a venture longer (Drnovsek et al., 2010). Furthermore, social networks also shape entrepreneurial outlooks and skills (Spigel, 2017; De Carolis & Saporito, 2006).

### ***Emotional Support***

Social support through social networks provides access to resources, both tangible and intangible. Emotional support, an intangible resource, has been defined in many ways. Various definitions of emotional support from the literature include fulfilling basic needs through relationships, including security, identity, belonging, approval, and affection (Thoits, 1982), and exchanging resources as assistance (Klyver et al., 2020; Suurmeijer et al., 1995), and simply an expression of empathy (Fenlason et al., 1997; Miller et al., 1995). At a cursory level, emotional support entails "talking, listening, and expressing concern or empathy for a distressed individual," leaving a vague description (Zellers & Perrewe, 2001, p. 459). Emotional support also espouses motivation, encouragement, sympathy, and caring in strong relational ties (Nielsen, 2017; Granovetter, 1973). This research defines emotional support as "an expression of empathy without using either positive or negative words" (Zellers & Perrewe, 2001, p. 460; Fenlason et al., 1997; Miller et al., 1995).

Emotional support has been examined at particular stages of the entrepreneurial process and from various sources. Although some literature does not find evidence of the significance of support on persistence (Klyver et al., 2020), others find emotional support is the most crucial type (Semmer et al., 2008; Berkman, 1995; House et al., 1988; Thoits, 1995). A strong positive relationship between non-tangible, or emotional, support in work situations and work strains was found in a meta-analysis by

Viswesvaran et al. (1999), denoting the benefits of emotional support. However, emotional support can also include candid feedback or the discussion of frustrations that can induce burnout (Zellers & Perrewe, 2001). Additionally, an entrepreneur's ability to absorb new information can be compromised by one's emotional condition, affecting entrepreneurial activities (Klyver et al., 2018; Baron et al., 2012; Foo et al., 2009; Patzelt & Shepherd, 2011), and conveying the importance of emotional well-being.

### ***Instrumental Support***

Fenlason and Beehr (1994) refer to instrumental support as "characterized by rendering tangible assistance, such as physical assistance or aid in the form of advice or knowledge needed to complete a task" (p. 158). On the other hand, other researchers define instrumental support as tangible assistance in resolving obstacles (Klyver et al., 2018; Adams et al., 1996; McIntosh, 1991; Suurmeijer et al., 1995; McGuire, 2007). Many scholars inversely use the terms tangible support and instrumental support since tangible support refers to a supply of material support that includes goods and services, technology transmission, machinery, and financial aid (Farooq et al., 2018; Heaney & Israel, 2008; House, 1981). "Langford et al. (1997) described tangible support as instrumental support which covers all concrete and direct ways in which people can assist other people" (Farooq et al., 2018, p. 340). Instrumental support provides assistance or service that includes information and advice (Nielsen, 2020). Instrumental support can entail task instruction or assistance (Mathieu et al., 2019); this can be informational aid or physical help.

Klyver et al. (2018) found that instrumental support is essential at any point in time during the entrepreneurial startup process. In a meta-analysis, instrumental support is the dominant predictor of physical health (Schwarzer & Leppin, 1991). Within the entrepreneurship and social support context, instrumental support has been studied in various ways that include securing financial support (Uzzi, 1999), advice for business growth (Cromie & Birley, 1992; Rook et al., 2014), and information on

entrepreneurial funding for investors (Shane & Cable, 2002; Nielsen, 2017).

### ***Social Support – The Dark Side***

Gottlieb and Bergen (2010) discuss how social support is contingent on numerous factors that cannot be solely attributed to social networks to counter the discussion on social support. The authors argue that social support is not a "commodity" but a sign of affection and mutuality within a relationship. The support can wax and wain as relationships begin and end or depend on the closeness of the relationship, casual or strictly defined (Gottlieb & Bergen, 2010). Furthermore, the argument is that those individuals that are socially competent, extroverted, and maintain an internal locus of control more readily garner social support (Chay, 1993), suggesting that social support is not equally accessible. Some researchers contend that entrepreneurs that locate and operationalize more resources through social networks will be more successful than those who do not (Egbert, 2009; Kristiansen, 2004). What once was a facilitator within a social network may not stay a vital resource but become sterile or even a social liability over time, revealing the "dark side" of social networks (Weber & Weber, 2011).

"People are limited by bounded rationality, suffer from limited or biased information and poor communication, and are subject to processes of social influence and reconstructions of reality" (Zimmer, 1986, p. 11). Even misinterpretations of stressors can result in inefficient use of resources that impacts venture performance, relationships, and well-being (Gubbins et al., 2020; Lerman, 2020), illuminating a lack of work-related social support or unfavorable relational ties. Once a firm leaves the startup phase, embeddedness in social networks can potentially limit firm flexibility and adaptability of the network (Weber & Weber, 2011). Additionally, entrepreneurs can experience "networking overload" when the task of networking consumes one's time (Wang & Tan, 2019, p. 856; Steier & Greenwood, 2000), stifling the business (Uzzi, 1996, 1997). Alternatively, a reverse buffering effect can manifest when "help is unwanted, makes the recipient of the help feel inadequate, or draws more

attention to the stressors” (Mathieu et al., 2019, p. 5). Researchers have shied away from the negative implications of social relationships and the potential destructive outcomes (Gedajlovic et al., 2013). An important note is that social networks and support evolve and are affected by diverse variables as optimal configurations alter (Zheng et al., 2020).

## **Gender**

Gender in entrepreneurship encompasses a long history of research that started in the 1970s. However, limited studies regarding entrepreneurial persistence have followed. The study of gender in entrepreneurship began in 1976 with Eleanor Schwartz's first study titled, "Entrepreneurship: A new female frontier." Research slowly advanced in the early 1980s, focusing on the demographics and psychological profiles of women entering the field (Henry et al., 2016). By the 1990s, gender had taken root, and outcomes explored included performance and startup processes (Henry et al., 2016). The new millennium brought about an explosion of research, including finance and motivations (Henry et al., 2016). The entrepreneurial gender literature covers the motivation for entering entrepreneurship (Wilson et al., 2007), the identification of opportunities (De Bruin et al., 2007), and the confidence needed to pursue entrepreneurship (Dempsey & Jennings, 2014). De Bruin et al. (2007) urges that gender research needs to extend beyond the initial inception of an entrepreneurial venture. Nevertheless, differing opinions resound in the literature about the importance of gender and its significance.

In prior literature, such as Green et al. (2003), the idea that "an entrepreneur is an entrepreneur is an entrepreneur" implies a lack of individual differences among entrepreneurs (p.1). The notion is that good research should apply to all entrepreneurs despite any variation in demographics. However, research has shown differences in other areas, such as decisions regarding the industry, structuring, financing, and growth between genders (Greene et al., 2003). On the other hand, Kepler and Shane (2007) contend that when all factors are controlled for, gender does not affect entrepreneurial

performance; but that certain factors differ between genders that result in divergence of outcomes such as motivations. Nevertheless, arguments against "underlying assumptions and general lack of awareness" about gender differences identify the deficiency of research on gender in entrepreneurship (Brush et al., 2020, p. 10). When discussing gender, Ahl and Nelson (2010) describe it best:

*“Issues of gender in business touch on some of the most hallowed and controversial topics of society, including sex, marriage, religion, and family structure. Yet, the possibility of entrepreneurship, as enabled by individual action and wider systems, is one of the most important social, cultural, political, and economic issues in terms of impact on individuals and their families and communities, regardless of culture or nation” (p. 5).*

Such statements stress the importance of studying the differences in individuals and how it impacts entrepreneurship, despite pushing the boundaries of comfort zones.

### ***Self-Efficacy***

The combination of entrepreneurial self-efficacy, gender, and persistence includes limited coverage in the literature, including Gatewood et al. (1995). In this research, Gatewood et al. (1995) found a positive relationship between entrepreneurial self-efficacy and persistence for both genders. However, the authors noted that females relied on internal reasons for entering entrepreneurship and males' external motivation. Other research highlights the relationship between gender and self-efficacy, such as Wilson et al. (2007), Lent & Hackett (1987), and Nevill & Scheleckler (1988), acknowledging that gender is a significant variable regarding career self-efficacy. Bandura (1992) postulates that women tend to lack confidence in career-related abilities, limiting career choices. Men possess "higher levels of confidence in their ability to perform entrepreneurial tasks" despite the modern thought that differences between men and women regarding self-efficacy would be minimal at best (Mueller & Dato-On, 2008, p. 4). The limited research on entrepreneurial self-efficacy specifically and gender (Wilson et al., 2007) calls for more empirical research, including the impact of social support.

### ***Social Support***

Prior literature focuses on the notion that women are at a general disadvantage in business due to insufficient social networks (Klyver & Grant, 2010; Mirchandani, 1999; Benschop, 2009), leading to divergent economic consequences (Renzulli et al., 2000; Popielarz, 1999). As Klyver and Grant (2010) note, this perspective does not encompass research that covers the various stages of the entrepreneurial process or consider how dynamic networks are. Women obtain more emotional support, typically from family, that may help entrepreneurs cope with the stress of daily operations (Renzulli et al., 2000). However, the cost of a limited network may mean the reduction of instrumental support necessary for economic success (Renzulli et al., 2000; Fischer & Oliner, 1983; Hurlbert, 1991). Aldrich et al. (1997) found that when business advice was needed, women entrepreneurs were just as aggressive and successful as men in acquiring assistance through networking.

Research shows that men build social networks based on shared activities (Klyver, 2011; Liebler & Sandefur, 2002; Bell, 1991) and are instrumental in nature (Vaux, 1985). On the other hand, studies document that women create social networks rooted in an emotional attachment (Klyver, 2011; Liebler & Sandefur, 2002; Bell, 1991) and expressive or supportive in nature (Vaux, 1985). Still, other literature shows no differences in the amount of support received from family and friends by entrepreneurs between genders (Klyver, 2011; Menzies et al., 2004). An unwillingness to employ support networks due to independence or mistrust is a negative network orientation that men are twice as likely to exhibit, contributing to psychological distress (Vaux, 1985; Tolsdorf, 1978). On the other hand, women reported obtaining more emotional support but were also less satisfied with the level of support received (Vaux, 1985; Hirsch, 1979). Kuada (2009) stresses how the social contexts in which entrepreneurs maneuver are a significant consideration in entrepreneurial research. Most attempts at analyzing gender differences in entrepreneurs' social networks have failed with only suggestive results in others (Klyver, 2011), demanding more empirical research. Uncovering how gender influences

social support may help determine not how opportunities are identified but why some entrepreneurs are "more successful than others in exploiting opportunities they have discovered" (Baron & Markman, 2003, p. 42).

### **Social Support Theory**

Social support theory originates in social psychology to understand psychological well-being through health, happiness, and longevity (Klyver et al., 2020; Gottlieb & Bergen, 2010). Gottlieb (1985) described social support as "health protection" (p. 7), highlighting the vital role social support plays in an individual's overall well-being through a buffering effect. Initial social support literature includes Swank's (1949) research on combat soldiers and the rate of combat exhaustion that resulted from increased losses in soldier companions – citing the value of contact with significant primary group members on exhaustion. Eitinger's (1972) study on Holocaust survivors denoted how the connection maintained with meaningful contacts predicated on survival. Cassel (1976) connected stressors to health outcomes when he concluded, "... the property common to those [health protective] processes is the strength of the social supports provided by the primary groups of most importance to the individual" (p.478). From these studies, Gottlieb (1985) concluded that "the feedback provided via contact with similar and valued peers" is detrimental (p. 9). The author endorses the value social support plays in every individual's life. When applied to entrepreneurs, the importance of *similar and valued peers* should reasonably include fellow entrepreneurs. Schachter (1959) famously touted that misery loves company, playing into social comparison and the need to connect with those in kindred circumstances, entrepreneur to entrepreneur.

Social support theory spotlights the content of exchanges (Klyver et al., 2018) or the exchanged social support (Nielsen, 2017), such as emotional and instrumental support. Thoits (1982) regarded social support as "the degree to which a person's basic needs are gratified through interaction with others. Such basic needs include affection, esteem or approval, belonging, identity, and security" (p.

147). This type of support is crucial as it helps entrepreneurs identify stressors and discover coping mechanisms (Amason et al., 1999; Caplan, 1974). Various researchers have shown how social support relieves work stress (Nielsen, 2017; Cohen & Wills, 1985; King et al., 1995), but application to entrepreneurship is scarce. Entrepreneurs face the stressors of locating resources and working long hours, which adds to the ambiguity of entrepreneurship (Baron, 2008). Such entrepreneurial-specific stressors highlight the unique role social support from peer entrepreneurs plays in coping mechanisms to encourage persistence.

Social support is a social and psychological building block, full of complexities that require nuanced research streams (Hobfoll et al., 1990). Social support primarily focuses on psychological well-being and physical health (Dean & Lin, 1977; Hobfoll et al., 1990). Social support ties together the importance of social factors involved in the psychological well-being of individuals, typically through the perspective of a buffer of life stressors (Thoits, 1982). Gottlieb (1985) discusses the relationship between the personal vulnerability that comes with life stressors and the resulting decline in immunity. In the same way, this research argues the increase in entrepreneurial vulnerability from stressors and the negative impact on the immunity of the entrepreneurial venture. The vulnerability to lack of feedback translates to a reduced sense of self-efficacy (Gottlieb, 1985). Uncertainty in oneself is when an individual lacks confidence or knowledge on handling stress sources and outcomes (Amason et al., 1999). Social support theory assumes that an individual's ability to cope with stressors positively impacts support garnered through interpersonal relationships (Boyd & Vozikis, 1994). Gottlieb (1985) argues that "social support has a major role to play since the availability of peer consultants and advocates will add to the individual's confidence in his/her ability to master the demands of the stressor" (p. 16).

Entrepreneurs typically face more significant uncertainty (Lerman et al., 2020; Bingham et al., 2011; Hmieleski et al., 2015; McMullen & Shepherd, 2006; Williams et al., 2019), uncertainty leading

to stress (Amason et al., 1999). "The manner in which entrepreneurs manage stress affects both the well-being of the entrepreneur and the viability of their ventures" (Lerman et al., 2020, p. 378; Hambrick et al., 2005; Ganster, 2005; Lerman et al., 2018). Some researchers contest that only those entrepreneurs with individual factors that build resistance to entrepreneurial stressors will persist or remain in business (Baron et al., 2016). In a meta-analysis, Lerman et al. (2020) found that entrepreneurs cope with stress better than non-entrepreneurs, suggesting that entrepreneurs have better ways of managing stress. Caplan (1974) focuses on how social support is intended to aid individuals in identifying means of coping with stress. Coping strategies enable problem-solving and emotion-regulation that social support influences (Lazarus, 1984).

### **Hypothesis Development**

Although self-efficacy has been linked to persistence in other fields of research (Multon et al., 1991), solidifying the application to entrepreneurship is still necessary (Cardon & Kirk, 2015). Several factors impact persistence, one being personality dimensions, including a sense of efficacy (Meier & Albrecht, 2003). Researchers such as Caliendo et al. (2020) contend that self-efficacy determines *entrepreneurial* persistence. Furthermore, Al Issa et al. (2019) express that self-efficacy is a primary determinant of persistence in new entrepreneurial ventures. The problem then lies in whether the measures for such studies accurately capture self-efficacy and persistence as they apply to entrepreneurs in various phases of the entrepreneurial process.

Gatewood et al. (2002) summarize it this way, "individuals persist longer and put more effort on tasks in which they expect to succeed" (p. 190; Olson et al., 1996). With this in mind, the expectation is that those with high expectations of achieving a goal will be increasingly persistent (Holland & Shepherd, 2013). However, Tietz et al. (2021) reiterate that those with accurate expectations are more likely to persist, insinuating that those with poor judgments are less likely to remain motivated. Bandura (1977, 1982) reminds readers that individuals tend to undertake tasks with an attainable

outcome and avoid activities that surpass capabilities.

It is not a far stretch to assume that entrepreneurs, too, will pursue those tasks believed to be attainable or give more energy towards goals with a high chance of success. It is one thing for an entrepreneur to believe that the daily tasks of a business are achievable; it is another to believe one can continue to manage all entrepreneurial tasks over an extended period. Therefore, entrepreneurial self-efficacy is a more specific form of self-efficacy that entrepreneurs must exhibit to advance in a business venture. Entrepreneurs must believe that all the routine tasks, resource management, and ongoing strategy can be successfully juggled for a sense of entrepreneurial self-efficacy to exist. Without a sense that one can accomplish the entrepreneurial tasks ahead, the drive to persist would appear bleak. Entrepreneurs need the motivation to persist, and the sense of efficacy plays a vital role in the ideal of success that motivates entrepreneurs. For this reason, this research argues that entrepreneurial self-efficacy positively impacts entrepreneurial persistence.

***H1: Entrepreneurial self-efficacy is positively related to entrepreneurial persistence.***

Considering the factors that could impact the relationship between self-efficacy and persistence, it would be irresponsible to ignore environmental factors. Miao et al. (2017) confirmed that entrepreneurial self-efficacy interacts with environmental elements in a meta-analysis. However, such environmental dimensions lack exploration in the entrepreneurial context (Van Scotter & Garg, 2019). Research denotes that environmental feedback, such as comparative feedback, is vital for regulating motivation (Bandura, 1991; Bandura & Cervone, 1983), with encouraging feedback increasing self-efficacy (Heslin & Klehe, 2006). Without social support, an increase in anxiety and an atrophied sense of well-being can deteriorate self-efficacy beliefs (Boyd & Vozikis, 1994). However, feedback is not always positive, and negative feedback can cause doubt in an entrepreneur's self-esteem (Motro et al., 2021; Baumeister et al., 2001). Environmental feedback acquired through the adversity entrepreneurs face also affects persistence decisions (Mattingly et al., 2016), such as the effectiveness of

improvements and adaptations in past business performance (Caliendo et al., 2020). Those with high self-efficacy respond to negative feedback with a positive outlook, utilizing the feedback for improvements (Shane et al., 2003).

Social components are an integral part of environmental inputs for entrepreneurs (Elnadi et al., 2021). Emotional social support is an intangible form of support that nurtures the emotional well-being of entrepreneurs. Emotional support builds confidence levels in entrepreneurs that drive self-efficacy (Al Issa et al., 2019). Even negative feedback can glean valuable learning for future improvements. Emotional extremes can heighten or dampen various aspects of one's characteristics. Elevated feelings of emotional well-being can spur the feeling of indomitability, or low emotional well-being can result in deteriorated levels of confidence, reducing an entrepreneur's belief in oneself. However, the strength of the emotional support traces back to the source of the support. Emotional support from fellow entrepreneurs could have a higher impact on entrepreneurs, as peer feedback is more valued (Sarkar et al., 2019). Emotional support can foster self-efficacy to develop the necessary competence to overcome obstacles. However, despite social support, an individual will not persist if one's self-efficacy is low, as self-efficacy can be advanced but not produced (Mueller & Dato-On, 2008; Boyd & Vozilis, 1994). Ultimately, emotional support nurtures the entrepreneur's belief in their ability to perform tasks related to entrepreneurial outcomes. By learning through shared experiences, entrepreneurs can build confidence in peers to pursue desired goals. Enhancing an entrepreneur's belief in success through emotional support leads to the conjecture that emotional social support will positively influence the relationship between entrepreneurial self-efficacy and persistence.

***H2a: Emotional social support from peer entrepreneurs enhances the positive relationship between entrepreneurial self-efficacy and entrepreneurial persistence.***

Klyver et al. (2020) argue that the amount of instrumental support needed may vary within the different phases of the entrepreneurial process. Instrumental social support impacts the acquisition of

physical resources (Neilsen, 2017), but there is no evaluation of the impact on nonphysical resources. Providing instrumental support often helps solve a problem (Semmer et al., 2008), relating to more positive physical health outcomes (Semmer et al., 2008; Schwarzer & Leppin, 1991). In addition, instrumental support sometimes has emotional outcomes (Semmer et al., 2008). Klyver et al. (2018) contest instrumental support's positive impact on entrepreneurial persistence.

Instrumental support provides tangible aid, including potential material support (Farroq et al., 2018). Providing factual information, lending a helping hand, or offering financial assistance are all instrumental support benefiting entrepreneurs. Instrumental support provides the tangible motivation needed to impact self-efficacy. The influence of instrumental support through affirming experiences can continually enhance self-efficacy in an entrepreneur. Each occurrence of tangible aid, or instrumental support, fosters an entrepreneur's belief in their ability to achieve desired results. It is this conscious belief of capability that anchors self-efficacy. Instrumental support reinforces the entrepreneur's "ability to locate the support necessary for any possible contingency" (Pushkarskaya et al., 2021, p. 3). The speculation is that instrumental support positively impacts the relationship between entrepreneurial self-efficacy and persistence.

***H2b: Instrumental social support from peer entrepreneurs enhances the positive relationship between entrepreneurial self-efficacy and entrepreneurial persistence.***

### ***Gender Moderation***

Once a business is founded, the type of support received from business networks may be inconsequential to business survival (Renzulli et al., 2000). The implication is that men and women may experience social support differently. According to Vaux (1985), "both casual observation and scholarly literature suggest that gender is an important influence on support-relevant social interactions, perhaps more than any other dimension of social status" (p. 92). Although there is conflicting research on the composition of male and female entrepreneurs' social networks, the focus on local

entrepreneurial network support gives this research a new perspective on the impact of gender on types of social support. Women benefit from entrepreneurial role models through increased entrepreneurial self-efficacy (Dempsey & Jennings, 2014; BarNir et al., 2011). The postulation is that emotional support positively impacts women differently than men. Studies such as Powell and Eddleston (2013) contend that females benefit more than males in various ways directly from the support of close family relationships, which focuses on positive enrichment via positive emotion transfer. Although women were also positively impacted by instrumental support, it corresponded to job satisfaction (Powell & Eddleston, 2013), illuminating emotional support as more effectual support for women in entrepreneurship. However, men did not prove to benefit from any type of support in Powell and Eddleston's (2013) research. In a field of limited research within entrepreneurship, such findings beckon further investigation to verify results. The current study applies the impact of gender on social support to cognitive outcomes and the decision to persist. This gender comparison highlights the difference in how males and females process inputs, ultimately deriving varied outcomes.

Although encouraging stereotypes is not the intent of this study, the generic difference in sexes can be identified in generalized terms. Traditional traits of women can be summarized simply as "warmth and expressiveness" (Mueller & Dato-On, 2008, p. 5), which permits the sentiment that such traits can impact social interactions and, therefore, the support sought and received. If women, unlike men, gravitate toward emotional connections within networks, as Klyver (2011) presents, it is reasonable to assume that emotional support influences women more significantly. Specifically, this influence encourages the belief that women can orchestrate success within the business. It fosters the mentality that women can "exercise control over events," promoting self-efficacy (Wood & Bandura, 1989). Emotional support kindles this perception of the ability to succeed. The current postulation is that emotional support will sustain the mental strength required to continually choose to persist in women more than men. Social support feeds the positive mentality needed to believe one can complete

necessary tasks to attain a goal. Hence, the hypothesis is that females will show a more significant benefit from emotional support than men in the relationship between entrepreneurial self-efficacy and the decision to persistence.

***H3a: The enhancement effect of emotional social support on the positive relationship between self-efficacy and persistence is stronger for females compared to males.***

Traits traditionally assigned to men in research include ambition, confidence, independence, assertiveness, logic, and objectivity (Mueller & Dato-On, 2008). Mueller & Dato-On (2008) describe the motives for men and women to enter entrepreneurship; women are looking for work-life balance, and men are searching for wealth. This understanding could explain why women are interested in emotional relationships, and men are more transactional, seeking more instrumental support.

According to Vaux (1985), gender is perhaps the most crucial determinant of social support interactions, expressing significant differences in how men and women navigate social support. The pattern of men, specifically in social interactions, is described as "instrumental" (Vaux, 1985, p.92). Conflict within the literature arises regarding the makeup of social networks between men and women. It is unclear whether there is a significant impact on men by the same emotional ties of close friends and family as women. Current societal shifts in gender roles are not addressed in the entrepreneurial literature. Henry et al. (2016) noted the shift from gender research due to the lack of theoretical focus. Are men emotionally adapting, or does the general population of men still fall into a previously observed set of traits?

This research seeks to provide current empirical research that delineates the impact of gender and its existence or dissolution on entrepreneurial persistence. Traditional roles imply that men are instrumentally driven (Vaux, 1985), the exploration of this study. Even with progress in emotional intelligence, a divergence between genders still exists. For men to choose continually to persist in an entrepreneurial endeavor, instrumental support will reinforce the mentality to persevere, whereas

women rely on intimacy. Instrumental support facilitates men's belief of control over the environment, including social networks. If instrumental support is readily available, future support may be anticipated. The perceived control feeds the perception of success ability. Continuous instrumental support can enhance men's self-efficacy through the reinforced ability to orchestrate social skills for success. Social support nurses the mindset required to believe one can continually perform tasks to operate a business. The proposition is that men will incur a more significant impact from instrumental social support than women on the effect of entrepreneurial self-efficacy on persistence.

*H3b: The enhancement effect of instrumental social support on the positive relationship between self-efficacy and persistence is stronger for males compared to females.*

## CHAPTER 3

### METHODS

#### Overview

This chapter details the methods used to collect and analyze data to empirically test the research model and hypotheses previously stated. First, a discussion regarding a preliminary pilot study is detailed. An overview of the research design will be presented, along with the sample selection and data collection method. Next, the measures for each variable will be discussed, including reliability. Finally, the data analysis methods will be presented.

#### Pilot Study

The pilot study's purpose was to ensure the validity of modifications made to the emotional and instrumental support scales, with the approval of the IRB at the University of Dallas. The emotional support scale included changes to wording from "life" to "business" or "network" for application to entrepreneurs. One question was removed for the instrumental support scale, and two items were

added, with the wording slightly adapted in all questions (see Appendix). The original scale was a generic measurement of receiving instrumental and emotional support. The modifications direct the scale towards entrepreneurs and the unique challenges encountered. The survey consisted of demographic questions and emotional and instrumental support scales. For the pilot study, various chambers of commerce were contacted to reach a sample of entrepreneurs. Additional responses were garnered through a convenience sample of entrepreneurs via social media sites such as Facebook and LinkedIn. A total of 108 responses were collected.

An exploratory factor analysis (EFA) was conducted on a random selection of 43 responses with IBM SPSS. The data were randomly split by selecting every third response in the data. The EFA analysis confirmed that two factors were independently measured: emotional support and instrumental support, with clean loadings on each factor and a Cronbach's alpha of .952.

The remaining 65 random responses were used for a CFA analysis through AMOS. Three models were explored; the first included the unconstrained two-factor model, factors composed of instrumental and emotional support. The second model was a single-factor model, loading both sets of items, emotional and instrumental support, onto one single factor, social support. The third model was a constrained two-factor model, including only instrumental and emotional support. Initial model fit analysis looked promising, with the first unconstrained two-factor model producing the best fit with a high confidence interval of .904 and 53 degrees of freedom. RMSEA results were higher than desired but could be attributed to the small sample size (Kenny et al., 2015). However, discriminant validity concerns surfaced when AVE's square root was not higher than some factor loadings. Even so, when analyzing a paired test, as Anderson and Gerbing (1988) suggested, the unconstrained two-factor model produced the better-fit model compared to the single-factor or constrained two-factor model, supporting discriminant validity.

A heterotrait-monotrait ratio of correlations (HTMT) test was also run to verify the discriminant

validity (Hu & Bentler, 1999). The Cronbach's alpha for emotional support was .9709, and instrumental support was .8389. The emotional and instrumental support results were below the .85 threshold, landing at .7794 for HTMT and .7545 for HTMT2, reinforcing discriminant validity. With both the pair test and HTMT test supporting discriminant validity, the social support scales for emotional and instrumental support are substantiated for use in this study.

### **Main Research Design**

In order to study the interactions between entrepreneurial self-efficacy, persistence, social support, and gender, the research question called for a quantitative design, cross-sectional, and survey strategy. A self-report survey was utilized to gather personal information directly from entrepreneurs. Qualtrics, an online survey platform, was used to create the survey. For this study, founders were specifically targeted, those who start companies. The quantitative approach allowed a detailed analysis of social support and gender differences. A cross-sectional approach was taken as each participant only completed a single survey. Demographic information along with employment status and general information about the entrepreneurial venture was asked.

### **Figure 2**

*Research model*

### **Sample Selection**

The sample for this study was a mix of convenience and snowball samples of entrepreneurs from across the United States but predominantly in south-central states. Chambers of Commerce and entrepreneurship groups on social media were contacted to help disseminate the survey. In addition, participants were asked if they had any contacts who would also be interested in participating in the study, utilizing a snowball effect. When using the G\*Power software and calculating an f-test with linear multiple regression with two tails, an effect size of .02, a power of .8, and five predictors, it produces a sample size of 119. Therefore, a sample size of 119 participants was sought to ensure reliability in the results.

Once the data was collected, the raw data was reviewed and cleaned for statistical analysis. First, any respondents who did not identify as entrepreneurs for the employment status were removed. A total of 251 responses were received, with 117 of them responding as entrepreneurs. Then, any participants that did not complete the survey were removed. Of those who identified as entrepreneurs, 112 of the participants completed the survey. Of the 112, ten failed the attention check, leaving 102 viable responses. The final sample size was 102 participants.

The final sample included 68% women and 32% men. The mean age of the respondents was

46.4 years old, with respondents from 21 to 70. Of the respondents, 80.4% identified as Caucasian, 6.9% as Native American, and 8.8% as two more races. The majority of respondents were married, at 79.4%. At 62.7%, most had 2-4 children, with only 17.6% reporting no children. For education, the majority of participants completed a bachelor's degree at 48%, 20.6% with a master's degree, 14.7% with only high school, 5.9% with associates, and 4.9% with a terminal degree. Nearly 60% of the population had prior entrepreneurial experience, a mean of 12.92 years. The age of the current businesses was 16.7% in the first year, 30.4% in years 2-4, 25.5% in years 5-10, and 27.5% over ten years in business. Regarding employees, 34.3% reported no employees, 24.5% had one, 23.5% employed 2-4, 7.8% with 5-10 employees, 4.9% with 11-20, 2.9 had 20-50 employees, and 2% employed over 50 people. The sample's sales for the past fiscal year included 45.1% with less than \$100,000, 22.5% with \$100,000-250,000, 12.7% with \$250,000-500,000, 14.7% with over \$500,000, and 4.9% that did not answer. Most respondents were in the retail industry at 74.4%, manufacturing at 10.5%, and wholesale at 15.1%.

### **Participant Protocol – Data Collection**

The total sample size was 102 participants. An email was sent to various Chamber of Commerce and social media entrepreneurship groups requesting that each office forward the research introduction letter and survey link in an email to each organization member. The introduction included an invitation to pass the survey on to fellow entrepreneurs. Since the emails were sent through a third party, a follow-up email was not feasible. The survey was constructed with Qualtrics and administered through a link sent via email or a direct message.

### **Measures**

#### ***Independent Variable – Entrepreneurial Self-Efficacy***

Entrepreneurial self-efficacy was initially developed and measured by Chen et al. (1998) as a "means of capturing the degree to which individuals believe that they are capable of performing the

tasks associated with new-venture management" (Forbes, 2005, p. 599). However, Forbes (2005) later adapted the scale to remove items with low factor loadings and items with contents that were difficult to measure accurately. This adaptation resulted in a Cronbach's alpha reliability coefficient of .85 (Forbes, 2005). The measure utilized a Likert-type scale with 1 being completely unsure and 5 completely sure of your ability. Questioned topics such as "Set and meet sales goals," "conduct strategic planning," and "define organizational roles, responsibilities, and policies" were included in the questionnaire that included topics of marketing, management, innovation, risk-taking, and financial matters.

For self-efficacy to be accurately measured, it must be "tailored to [the] domain(s) of functioning being analyzed and reflect the various task demands within that domain" (Parajares, 1997, p. 8). Entrepreneurial self-efficacy can impact nascent and established entrepreneurs (Forbes, 2005). However, with measure refinement over time, the application to entrepreneurship needs to be more understood (Lui et al., 2021). Pushkarskaya et al. (2021) argue that entrepreneurial self-efficacy requires an additional dimension that encompasses the fit between the entrepreneur and the community because one's self-efficacy cannot be considered in isolation from the operational environment. Four processes influence self-efficacy: task mastery, role modeling and experience, social influence, and physiological self-evaluations (Zhao et al., 2005). An entrepreneurship-specific measure can be adapted using a modified version of Forbes' (2005) self-efficacy measure. Self-efficacy is prominent in entrepreneurship literature, with motivators taking precedence (Al Issa et al., 2019; Hsu et al., 2017). Verifying the link between entrepreneurial self-efficacy and entrepreneurial persistence allows exploring factors that indirectly impact persistence, such as social support and gender. Including the abovementioned variables gives insight into the complexity of the persistence decision within entrepreneurship.

***Dependent Variable – Entrepreneurial Persistence***

Persistence is applied to entrepreneurship but does not entail a measure specific to entrepreneurial persistence. For this study, the scale produced by Howard and Crayne (2019) was selected to measure persistence within the entrepreneurial community. Howard and Crayne's (2019) scale measures trait persistence, a predictor of personal success. This scale transcends previous measures of persistence by capturing the "confluence of distinct dimensions" (Howard & Crayne, 2019, p. 79), which is believed to be a more thorough measure that prior literature lacks. The measure is a Likert-type scale from 1 to 5, with 1 being not at all true of me and 5 being totally true of me. Statements such as "I keep going when the going gets tough," "I stay persistent even when I am scared of things," and "I will keep trying at something, even if I know my actions are worthless" will be measured. The persistence categories include persistence despite difficulty, persistence despite fear, and inappropriate persistence.

### ***Moderating Variable – Social Support***

Emotional and instrumental support have a disputed position in prior research. Some argue that the categories are conceptually independent with unique resources (Mathieu et al., 2019; Barling et al., 1988; Cohen & Wills, 1985). However, others contend that the two are highly correlated and perceived to render the same resources (Fenlason & Beehr, 1994; Semmer et al., 2008). If a correlation is assumed, it can be reasoned that support behaviors occur concurrently and cannot be given independently (Fenlason & Beehr, 1994). For example, some instrumental support behaviors carry emotional meaning, mainly when originating from the same source or person (Semmer et al., 2008; Fenlason & Beehr, 1994; Sarason et al., 1987; Wills & Shinar, 2000). Therefore, general social support measures only make sense if the expectation is that the various types of support produce similar consequences, losing all meaning to contributions to health and well-being (Semmer et al., 2008). Semmer et al. (2008) state that "the inconsistency may be due to the lack of clear, independent measurement of the two types" (p. 237), reiterating the dual meaning propagated.

Social support within entrepreneurship has been measured in various ways but has yet to be applied to peer entrepreneurs. An adaption of Shakespeare-Finch and Obst's (2011) 2-way Social Support Scale will be used to encapsulate the types of support received from fellow entrepreneurs. Although this scale measures the giving and receiving of social support, this study will only utilize the receiving of social support portion. This scale includes psychometric quality with the distinction of emotional and instrumental support (Shakespeare-Finch & Obst, 2011) desired for this research. The section regarding receiving emotional support garnered a Cronbach's alpha of .92, and the portion detailing instrumental support incurred a Cronbach's alpha of .86. The measure is a Likert-type scale from 1 to 5 is used, asking to what degree each statement is true, with 1 being not at all and 5 being always. The measure includes statements such as, "When I am feeling down, there is someone I can lean on," and "There is someone who can help me fulfill my responsibilities when I am unable."

### **Data Analysis**

Hayes' PROCESS macro 4.2 for IBM® SPSS® was used for the moderated model to analyze the data. Descriptive statistics were initially analyzed. Gender was classified as either male (0) or female (1). Multiple regression was run to determine the best predictors of entrepreneurial persistence. Control variables of firm age, entrepreneur's age, number of employees, company sales, previous experience, and marital status were utilized.

Once the data was collected, it was cleaned, removing any responses that did not identify as an entrepreneur, missing data, or failed the attention check. To mitigate common method variance (CMV) the order of the questions on the survey were randomized from survey to survey. Additionally, regression assumptions were monitored with SPSS tests such as linear regressions with collinearity diagnostics, histograms, a normal probability plot, and standardized residuals.

### **IRB Process**

In order to start data collection, approval from the University of Dallas' Institutional Review

Board (IRB) was acquired. An expedited form of the non-exempt research approval application was submitted to the board chair for approval. The process ensures all human subjects' safety through strict rules and regulations. An explanation of objectives, identification of subjects, the scope of identified activities, investigation techniques, and intentions to disseminate results was provided to justify the methods. A review of the informed consent forms, data collection tools, and National Institutes of Health (NIH) training certificates was approved.

## CHAPTER 4

### RESULTS

#### **Analysis Results**

To thoroughly review the data, statistical assumptions, data validity and reliability, and regression model results will be analyzed. A linear regression model was utilized along with descriptive statistics, bivariate correlations, scale reliability, and PROCESS model 2. Each element is combined to allow a comprehensive view of the model interactions. With five hypotheses to test, only one was supported. The results did not fit the expectations but proved an interesting analysis.

#### **Statistical Assumptions**

For this study, statistical assumptions were considered. The assumptions of linearity, homoscedasticity, normality were adopted. The linear regression correlation table denoted possible multicollinearity issues between emotional and instrumental support with a correlation of .852. However, the coefficients matrix produced by SPSS offered a variable of 3.6, within the variance inflation factor (VIF) threshold of 10, rejecting multicollinearity. Correlation assumptions between persistence and emotional and instrumental support fell below the recommended .3 in the functioning column, with scores of .143 and .135, indicating a lack of significance of the relationship. Normality and linearity were confirmed with a regression of standardized residuals and a scatterplot, all falling within acceptable ranges.

### Data Validity and Reliability

The validity and reliability were reviewed to ensure the dependability of the survey. Upon running a reliability analysis, the overall Cronbach's alpha for the survey was .923. This meets the highest standards for scale reliability. The reliability of the self-efficacy construct was .898, and persistence was .845. Upon reviewing the reliability of emotional support, Cronbach's alpha was .966, and for instrumental support .923. The validity of the scales was supported overall. Only a few questions fell slightly below the desired significance at the .05 level. The questions that fell below the self-efficacy scale included SE4, SE6, SE 8, SE9, and SE 18 (see Appendix for questions). Items that fell below the preferred significance levels on the persistence scale consisted of PER11 and PER12. All items on the emotional and instrumental support scales met the standards. Items from the self-efficacy and persistence scales could be dropped, but Cronbach's alpha provided sufficient reliability to prevent scale adaptations.

### Regression Model Results

The regression model was run using PROCESS 4.2, model 2, in SPSS version 26. Bootstrapping of 5,000 and a confidence interval of .95 were used to ensure accuracy. The model confirmed a significant relationship between self-efficacy and persistence with a p-value of less than .001, supporting hypothesis 1. These levels confirmed the relationship between self-efficacy and persistence with a model  $R^2$  of .37. However, the emotional and instrumental support results did not reveal a significant relationship in the model. The p-value for emotional support was .4925, far above the accepted threshold of .01. The lack of significance in this relationship negated acceptance of hypothesis 2a, the moderation of emotional support on the relationship between self-efficacy and

**Table 1.** PROCESS Model

	coeff	se	t	p	LLCI	ULCI
constant	9.3486	13.5911	0.6878	0.4934	-17.6788	36.376
SE	0.6602	0.1685	3.9188	0.0002	0.3252	0.9952
ES	0.7188	1.0427	0.6893	0.4925	-1.3549	2.7924
Int_1	-0.0084	0.0136	-0.6165	0.5393	-0.0354	0.0186
IS	0.5987	1.7373	0.3446	0.7312	-2.8561	4.0534
Int_2	-0.0089	0.0228	-0.3906	0.6971	-0.0541	0.0364

persistence. The p-value for instrumental support was .7312, denying acceptance of hypothesis 2b, the moderation of instrumental support on the relationship of self-efficacy and persistence. Additionally, the  $R^2$  change for both moderator interactions was less than .01, confirming the small effect of the constructs even if significance was reached.

**Table 2.** PROCESS Interaction

	R2-chng	F	df1	df2	p
X*W	0.0029	0.38	1	84	0.5393
X*Z	0.0011	0.1526	1	84	0.6971
BOTH	0.0409	2.7247	2	84	0.0714

X=SE, W=ES, Z=IS

A correlation table was then produced, revealing that gender did not change the interaction between either emotional or instrumental the relationship between self-efficacy and persistence. These results did not support hypotheses 3a or 3b, the moderated moderation of gender on emotional and instrumental support on the relationship between self-efficacy and persistence. The discussion of the results will be communicated in the following section.

**Table 3.** Gender Correlations

		SE	PER	ES	IS	Gender
SE	Pearson Correlation	1	.487**	.208*	0.175	-0.086
	Sig. (2-tailed)		0.000	0.036	0.082	0.389
	N	102	102	102	100	102
PER	Pearson Correlation	.487**	1	0.146	0.135	-0.028
	Sig. (2-tailed)	0.000		0.142	0.179	0.780
	N	102	102	102	100	102
ES	Pearson Correlation	.208*	0.146	1	.852**	0.175
	Sig. (2-tailed)	0.036	0.142		0.000	0.079
	N	102	102	102	100	102
IS	Pearson Correlation	0.175	0.135	.852**	1	0.038
	Sig. (2-tailed)	0.082	0.179	0.000		0.711
	N	100	100	100	100	100
Gender	Pearson Correlation	-0.086	-0.028	0.175	0.038	1
	Sig. (2-tailed)	0.389	0.780	0.079	0.711	
	N	102	102	102	100	102

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

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

### Post Hoc Analysis

In order to ensure there are no other interactions at work in the data set, a set of post hoc analyses were conducted. Hayes' PROCESS macro 4.2 for IBM® SPSS® was used to conduct various calculations. Due to the high response rate of previous entrepreneurial experience, a moderated moderation model with an inverse relationship self-efficacy and persistence was conducted. This modeled showed significance with a p-value of  $>.001$  and an R-square of .349. Persistence was significant within the model with a p-value of  $>.001$ . However, emotional support and instrumental support did not produce significant findings with p-values of .262 and .735 respectively.

Additional models were tested using control variables such as employee count, entrepreneurial experience, and marital status as moderators using PROCESS model 1 because of the disproportionate results on these items. While the model including employee count as the moderator was still significant between self-efficacy and persistence, employee count as a moderator was not significant with a p-value of .368. Entrepreneurial experience followed the same pattern with a p-value of .28.

Finally the model introducing marital status to the model as lacked significance with for the moderator with a p-value of .457.

Finally, PROCESS model 4 was used to determine if self-efficacy could be a mediator between social support and persistence. If social support did not moderate the relationship between self-efficacy and persistence, potentially the impact was more directly on self-efficacy. This model showed minimal significance with the model between emotional support, self-efficacy, and persistence to produce a p-value of .0363 but an R-squared of only .0431. The path between instrumental support, self-efficacy, and persistence manufactured a p-value of .0821 and an R-squared of .0305. Although this direction creates a better fit for social support, the model does not determine the best fit for persistence.

### **Summary**

The first hypothesis reasoned that entrepreneurial self-efficacy would positively affect entrepreneurial persistence. In order to assess the effect between entrepreneurial self-efficacy and entrepreneurial persistence, Hayes' (2017) PROCESS model 2 was utilized in SPSS. Entrepreneurial self-efficacy had a positive relationship ( $b=.660$ ) with entrepreneurial persistence, being statistically significant ( $p<.01$ ). This supported hypothesis one, the positive relationship between self-efficacy and persistence. Hypothesis 2a, the interaction of emotional support, resulted in a modest positive relationship but was not significant ( $F=.38$ ,  $p=.539$ ). Hypothesis 2b, the interaction of instrumental support, resulted in a slightly positive relationship but again was not significant ( $F=.153$ ,  $p=.697$ ). When considering these three variables only 3.79% of the variance of entrepreneurial persistence is explained. The observation is that emotional and instrumental support has a non-significant effect on entrepreneurial persistence, un-hindering the effect of self-efficacy on persistence. This finding does not support the hypotheses that emotional and instrumental support would positively moderate the relationship between self-efficacy and persistence. In order to test the interaction of gender in the third hypothesis, a correlation table showed no significance with a value above .05 for each interaction with

gender. However, the overall model does predict 37% of entrepreneurial persistence, with entrepreneurial self-efficacy being the dominant contributor ( $p < .001$ ). To summarize the findings, the hypotheses are supported as follows:

**H1:** Entrepreneurial self-efficacy is positively related to entrepreneurial persistence. *Supported*

**H2a:** Emotional social support from peer entrepreneurs enhances the positive relationship between entrepreneurial self-efficacy and entrepreneurial persistence. *Not Supported*

**H2b:** Instrumental social support from peer entrepreneurs enhances the positive relationship between entrepreneurial self-efficacy and entrepreneurial persistence. *Not Supported*

**H3a:** The enhancement effect of emotional social support on the positive relationship between self-efficacy and persistence is stronger for females compared to males. *Not Supported*

**H3b:** The enhancement effect of instrumental social support on the positive relationship between self-efficacy and persistence is stronger for males compared to females. *Not Supported*

## CHAPTER 5

### DISCUSSION

This paper looked at the research question: What is the impact of peer-to-peer social support and gender on the relationship between entrepreneurial self-efficacy and entrepreneurial persistence? This study analyzed the influence of peer-support channels between self-efficacy and persistence, being mindful of the entrepreneurs' emotional well-being and resource networks. The analysis of these factors is built on empirical research on the relationship between entrepreneurial self-efficacy and entrepreneurial persistence, which is still evolving. The study's results support self-efficacy as a direct antecedent of persistence, with no significant evidence for moderation from social support. Although social support through emotional and instrumental support has been a topic of interest in various literature, these variables did not exhibit support for entrepreneurial persistence in this study.

#### Key Findings

Even though this research did not produce the desired results, there is still much to glean. As exploration into entrepreneurial research continues, the significance of instrumental and emotional support may not be ideal for quantitative research. Such constructs rely on self-report data in which entrepreneurs are known to be highly optimistic, which could impact results (Hmieleski and Baron, 2009). Entrepreneurs' well-being can potentially affect an entrepreneurial venture; how this data is accurately captured is debatable. However, a larger sample would potentially create the significance needed for such a result. The findings support the relationship between self-efficacy and persistence, even among entrepreneurs. Research into what may impact the relationship between self-efficacy and persistence calls for further research.

### **Implications**

Although the moderation of emotional and instrumental support was not significant, other contributions to this study exist. The implications of this study are to reconsider the value of social support among entrepreneurs. It is encouraged to continue to support entrepreneurs in researched-based approaches while the research pursues various avenues of studying support for entrepreneurs. It is recognized that this area of research is more complex and nuanced than this study covers. Rather than focusing on social support or persistence, the focus could shift to increasing self-efficacy due to its significant impact on persistence. This may include broader networks outside of peer-entrepreneurs or internal cognitive factors. Furthermore, self-efficacy could look different at various stages in a business's life cycle or even for the age of an entrepreneur, possibly the cyclical effect of self-efficacy and persistence. However, sustaining self-efficacy may require different tactics at different points in time. Ultimately, self-efficacy may have a more profound impact on entrepreneurship than previously considered, in which additional mechanisms need to be explored.

A revitalization of social support within the entrepreneurship literature is encouraged. It is vital to reconsider that the role of gender may not be a significant factor. Capturing the inner workings of

each gender has proven difficult, in which may result in efforts refocused on measurable variables. A focus should shift to more internal drivers of self-efficacy, as external factors may not be epochal. Finally, uncovering where peer social support may have an impact within entrepreneurship is vital.

### **Limitations**

Although this study offers a unique perspective, it has its limitations. First, the limitation of a cross-sectional survey are limited causality, self-response bias, as well as possible common method variance, although an initial Harman's test was within the threshold of .5 with a score of .25. Moreover, the recruitment method opens the possibility of unknown sampling bias as well as low generalizability. The sample size was smaller than intended, and due to the discrepancy in sample size, validity needs to be considered. This research can be extended to different cultural settings and produce diverse results. Further research should be conducted to verify the findings.

### **Future Research**

This study shows that pulling the curtain back on the inner workings of an entrepreneurial venture may be even more complicated than perceived. There is still much to be known about entrepreneurship's mental and emotional components. An entrepreneur's peer support network could impact various entrepreneurial outcomes, including work-life balance, growth rate, failure rates, motivation, and other entrepreneurial traits that have yet to be explored. The future of peer-support research in entrepreneurship is still ripe with possibility. However, the question remains whether entrepreneurial research can be accomplished quantitatively, as delicate nuances may need to be teased out. On the other hand, the expansion to pedagogy from this study could also be beneficial in understanding how educators can prepare students to garner what is needed to support self-efficacy. Research may shift the take a serious look at whether self-efficacy can be nurtured.

### **Conclusion**

This dissertation included a thorough review of the literature, including the theoretical

underpinning, followed by the full development of the hypotheses. Next, the methodology and execution of empirical research were discussed, followed by an overview and analysis of the results were examined. Finally, the study's findings were reviewed, denoting practical and academic implications. Despite the divergence from expectations, the phenomenon is essential to understand and contributes to the literature highlighting future research opportunities.

## APPENDIX

### Survey

#### **Self-Efficacy** (*Forbes, 2005*) $\alpha = .85$

*“For each of the following items, circle the number that corresponds to your degree of certainty in your ability to perform the task described in your capacity as an entrepreneur A ‘1’ indicates that you are completely unsure, and a ‘5’ indicates that you are completely sure of your ability.”*

1. Develop new ideas (Innovation)
2. Perform financial analysis (Financial)
3. Set and meet sales goals (Marketing)
4. Conduct market analysis (Marketing)
5. Develop new markets (Innovation)
6. Develop new products and services (Innovation)
7. Reduce risk and uncertainty (Management)
8. Conduct strategic planning (Management)
9. Establish a position in product markets (Marketing)
10. Establish and achieve goals and objectives (Management)
11. Define organizational roles, responsibilities, and policies (Management)
12. Take calculated risks (Risk-taking)
13. Develop new methods of production, marketing, and management (Innovation)
14. Make decisions under risk and uncertainty (Risk-taking)
15. Develop a financial system and internal controls (Financial)

#### **Persistence** $\alpha = .75$ (*Howard & Crayne, 2019*)

##### Persistence Despite Difficulty

*Each was rated using a 5-point Likert-type scale (0=not at all true of me; 5=totally true of me).*

- 1.) I keep on going when the going gets tough.
- 2.) People describe me as someone who can stick at a task, even when it gets difficult.
- 3.) Even if it's difficult to understand, I will read an entire book until I "get" it.
- 4.) Setbacks do not discourage me.
- 5.) Even if something is hard, I will keep trying at it.

##### Persistence Despite Fear $\alpha = .87$

***Please carefully read each statement and rate how often you would or do behave in that way.***

*Items were rated by a 7-point Likert-type scale, from 1 (Never) to 7 (Always).*

- 6.) I tend to face my fears.
- 7) Even if I feel terrified, I will stay in that situation until I have done what I need to do.
- 8.) I stay persistent even when I am scared of things.
- 9.) If I am worried or anxious about something, I will do or face it anyway.
- 10.) If something is scary, I will do it anyways.

##### Inappropriate Persistence

*Each was rated using a 5-point Likert-type scale (0=not at all true of me; 5=totally true of me).*

- 11.) Sometimes I find myself continuing to do something, even when there is no point in carrying on.

- 12.) Sometimes I will keep doing the same thing over and over, but I believe that it is normal to do so.
- 13.) I will keep trying at something, even if I know my actions are worthless.

**Social Support** (*Shakespeare-Finch & Obst, 2011*)

When considering your network of fellow entrepreneurs, *indicate the degree to which each statement was true for them on a 6-point Likert scale ranging from 0 (not at all) to 5 (always) with higher scores indicating higher levels of giving or receiving social support.*

Receiving Emotional Support  $\alpha = .92$

1. There is someone I can talk to about the pressures in my life/*business*
2. There is at least one person that I can share most things with
3. When I am feeling down there is someone I can lean on
4. There is someone in my (*network*) I can get emotional support from
5. There is at least one person that I feel I can trust
6. There is someone in my (*network*) that makes me feel worthwhile
7. I feel that I have a circle of people who value me

Receiving Instrumental Support  $\alpha = .86$

8. If stranded somewhere there is someone who would get me (***Deleted***)
9. I have (*There is*) someone to help me if I am physically unwell (***Reworded***)
10. There is someone who would give me financial assistance
11. There is someone who can help me fulfill my responsibilities when I am unable
12. There is someone who can give me practical business advice (***Added***)
13. When I am stressed there is someone that could share a relatable experience (***Added***)

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