

THE DUALISTIC MODEL OF PASSION AND EMPLOYEE INTRAPRENEURIAL  
BEHAVIORS

by

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## ABSTRACT

MARK HOLOMAN: The Dualistic Model of Passion and Employee Intrapreneurial Behaviors.  
(Under the direction of DR. FRANZ W. KELLERMANNNS)

Passion research is rapidly expanding within the field of entrepreneurship. However, measurement of the passion construct has rarely considered entrepreneurial-thinking employees within established firms, or intrapreneurs. Drawing from identity theory, this dissertation considers a model of employees' harmonious and obsessive passion for "being entrepreneurial" as antecedents to individual-level intrapreneurial behaviors. Given the important role that managers play in supporting innovative efforts of employees, I examine manager relationship quality as a moderator in the research model. Individual-level resilience of the employee is also considered as a moderator in the passion-to-behaviors pathway. A unique sample of intrapreneurial employees (N=165) provides insights into these relationships. Findings indicate that harmonious passions are positively linked to engagement in intrapreneurial behaviors, while obsessive passions are not. The study found partial evidence of interaction effects between manager relationship and obsessive passion but did not find support for other moderating relationships.

**KEYWORDS:** Passion, Intrapreneurs, Intrapreneurship, Identity Theory, Resilience.

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## CHAPTER 1: INTRODUCTION

Passion research is steadily growing within the field of entrepreneurship, gaining credibility as an important motivational construct that drives entrepreneurial efforts (Pollack, Ho, O'Boyle, & Kirkman, 2020). In recent years, scholars have developed new measurement scales specific to entrepreneurial roles (Cardon, Gregoire, Stevens, & Patel, 2013), investigated sources of individual passion (Cardon, Glauser, & Murnieks, 2017), and connected passion to outcomes such as venture growth (indirectly: Baum & Locke, 2004; directly: Drnovsek, Cardon, & Patel, 2016) and entrepreneurial behaviors (Kang, Matusik, Kim, & Phillips, 2016; Murnieks, Mosakowski, & Cardon, 2014). In turn, entrepreneurial behaviors have long been recognized as a driving force for innovation in society broadly (Schumpeter, 1947) and as a necessary component of innovation within the domain of corporate entrepreneurship (e.g. Kuratko, Ireland, Covin, & Hornsby, 2005). Corporate entrepreneurship scholars consider employees engaging in entrepreneurial behaviors to be the foundation on which organizational innovation is built (Kuratko, Covin, & Hornsby, 2014a). Companies that are able to successfully leverage these individual entrepreneurial behaviors, also referred to as intrapreneurial behaviors, and create an overall corporate entrepreneurship strategy have been shown to benefit from long-term value creation and sustained competitive advantage within their markets (Covin & Miles, 1999; Ireland, Covin, & Kuratko, 2009). An opportunity exists, however, to consider passion in the context of *intrapreneurs*, or entrepreneurial-thinking employees within existing firms (Blanka, 2019; Pinchot, 1985). Do employees also experience passion for being entrepreneurial as part of their work? If so, does employee passion for being entrepreneurial lead to engagement in intrapreneurial behaviors?

Investigating intrapreneurial behaviors, including their antecedents and outcomes, is one of the primary goals of intrapreneurship research. The term intrapreneur originated with Pinchot (1985) as a combination of the words “internal” and “entrepreneur” and has since grown into a subset of the broader entrepreneurship research. A recent literature review by Neessen, Caniëls, Vos, and de Jong (2019) defines intrapreneurship as the “process whereby employee(s) recognize and exploit opportunities by being innovative, proactive, and by taking risks, in order for the organization to create new products, processes and services, initiate self-renewal or venture new businesses to enhance the competitiveness and performance of the organization” (551). While related to corporate entrepreneurship (CE) in studying existing firms, intrapreneurship differs from CE with respect to the level of analysis associated with each paradigm. In particular, recent research has distinguished CE as a firm-level process of innovation initiated from the “top down” within an organization, while intrapreneurship is considered to be a “bottoms-up” approach related to employee behaviors (Antoncic & Hisrich, 2003; Blanka, 2019; Rigtering & Weitzel, 2013). Notwithstanding this distinction, Neessen et al. (2019) conclude in a systematic literature review that most behavioral dimensions of intrapreneurship (including the motivations, attitudes, and characteristics of intrapreneurial employees) have yet to be examined empirically. A separate review of intrapreneurship literature by Blanka (2019) yields similar insights, identifying few measurement scales related to the behaviors or cognitions of intrapreneurs, and none that consider intrapreneurs’ passion. Finally, a review of entrepreneurial passion literature by Newman, Obschonka, Moeller, and Chandan (2019) identifies no research examining the influence of passion on the behavior of intrapreneurs. Understanding how an intrapreneurial employee’s passion for “being

entrepreneurial” affects their intrapreneurial behaviors could thus add to our understanding of how innovation occurs within existing firms.

To investigate the possible connection between passion and behavior, I define intrapreneurial behaviors as “all actions taken by firm members that relate to the discovery and exploitation of entrepreneurial ideas and opportunities” (Sieger, Zellweger, & Aquino, 2013: 362). From a theoretical perspective, I explore these relationships through the lens of identity theory (Mead, 1934; Stryker, 1968). Identity theory holds that individual identities are formed by observing social roles and internalizing these roles into cognitive plans or schema (Stryker & Burke, 2000). Ultimately, these mental roadmaps effect behavioral choices, some of which lead to experiences of passion (Murnieks, Cardon, & Haynie, 2020; Vallerand, 2015). Identity is also a crucial building block for extant conceptualizations of entrepreneurial passion, including the framework introduced by Vallerand and colleagues (2003). Vallerand defines passion as a strong inclination towards activities that individuals like, that they find important and invest time and energy, and that are part of one’s identity (Vallerand, 2015). This view contends that passionate activities can become highly self-defining, and that separate forms of passion arise within individuals based on how the activity is internalized into the identity (Vallerand, 2015; Vallerand et al., 2003; Vallerand & Verner-Filion, 2013). Harmonious passions arise when individuals freely engage in their activities with autonomy and fully integrate them into their identity (Murnieks et al., 2020), while obsessive passions stem from feelings of compulsion or pressure to act, and partial integration into the identity (Vallerand et al., 2003). These distinct, inter-individual passionate responses (harmonious vs. obsessive) collectively form the dualistic model of passion (DMP) that has recently been adapted to entrepreneurial studies (for a summary, see Newman et al., 2019). Recent research has suggested that, when compared to

other conceptualizations of passion, the dualistic model may provide more nuance in work settings by accounting for how work is internalized within individuals and how each form of passion connects to both positive and negative outcomes (Ho & Pollack, 2014; Pollack et al., 2020). Further, the DMP is often utilized when exploring identity generally, and is applicable to a wide range of activities (Murnieks, Cardon, Sudek, White, & Brooks, 2016; Stroe, Sirén, Shepherd, & Wincent, 2020).

Accordingly, I apply the dualistic model to consider employees' harmonious and obsessive passion as antecedents to intrapreneurial behavior. In doing so, I follow extant research contending that many intrapreneurs choose to act entrepreneurially within existing firms, rather than launch their own entrepreneurial venture (Douglas & Fitzsimmons, 2013). I argue that the individual's choice to be an intrapreneur and engage in entrepreneurial behaviors leads to the formation of a role identity, and that this intrapreneurial role identity is highly important to the individual. Consistent with Vallerand's dualistic model, I predict that intrapreneurs engage in intrapreneurial behaviors because they are meaningful and carry importance to their intrapreneurial identities, resulting in experiences of passion (Vallerand, 2008; Vallerand et al., 2003). Harmonious and obsessive forms of passion are examined as distinct constructs in the hypothesized model as recent research indicates that these may occur along discrete motivational pathways (Murnieks et al., 2020). Studying passion within intrapreneurs may assist in filling knowledge gaps related to the attitudes and characteristics that lead to intrapreneurial behaviors (Neessen et al., 2019). In addition, insights into cognitive and motivational differences leading to intrapreneurial behaviors may be beneficial for employers selecting individuals for intrapreneurial roles within firms (Douglas & Fitzsimmons, 2013).

Identity theory recognizes that viewpoints and reactions of others can also influence self-construal and motivation in significant ways (Hoang & Gimeno, 2010; Murnieks et al., 2020). Specifically, role identities are enacted as individuals fulfill role expectations by interacting with “valued others”; these interactions then influence and shape one’s identity (Miller & Le Breton–Miller, 2011). When studying work settings and outcomes, few people hold more influence than an individual’s direct manager within the organization (Dess et al., 2003; Rigtering & Weitzel, 2013). Employees often view their managers as agents or representatives of the organization as a whole (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Eisenberger et al., 2010). Some employees may interpret their value within an organization based largely on the valuation from their manager, resulting in differences in organizational commitment and performance (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Eisenberger et al., 2010). Similarly, prior research has characterized innovation within firms as a system of social exchanges where roles, role expectations, and relationships develop between managers and employees (Dess et al., 2003). Employees reporting higher quality manager relationships often contribute more, and perform better, than peers with lower quality manager relationships (Liden & Graen, 1980). Integrating these established concepts, I propose that employee intrapreneurial behavior is a relational activity built upon social exchanges with managers. By building strong relationships with their employees, I contend that managers can influence the intrapreneurial role identity of the employee, as well as nurture and encourage their intrapreneurial behaviors. Therefore, the hypothesized model considers the quality of the employee’s manager relationship as a moderator in the passion-to-behaviors pathway. Using principles of social-exchange theory, I define manager relationship quality as the perception held by employees as to whether or not voluntary actions on their part will be returned by the manager in some way (Bernerth, Armenakis, Feild,

Giles, & Walker, 2007). The quality of dyadic relationships between athletes and coaches has been examined in relation to the dualistic model of passion (Jowett, Lafrenière, & Vallerand, 2012), but extending this research to work relationships may offer conceptual and practical significance. I predict that higher quality manager relationships will reinforce the employee's intrapreneurial identity, and enhance the relationship between passion and intrapreneurial behaviors.

Intrapreneurs operate within the boundaries of existing firms, and may need to overcome existing structures, processes, and other organizational hurdles to successfully implement their ideas (Rigtering & Weitzel, 2013). In some cases, intrapreneurs may be required to directly challenge the status quo to promote ideas that may be viewed as controversial in organizational settings (Parker, 2011; Parker & Collins, 2010). Given this, I consider the role of resilience as a second moderator in the hypothesized model. Resilience can be defined as “a process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance” (Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008: 130). These capacities may include traits such as persistence, optimism, and self-efficacy, often working together to provide cognitive advantages in the face of challenges or stressful events (Chadwick & Raver, 2020). Resilient individuals who are able to draw from these adaptive capacities are more likely to remain optimistic when facing difficulties and hardships such as those encountered by intrapreneurial employees (Bullough, Renko, & Myatt, 2014). Employee's possessing higher levels of resilience should also be better equipped to remain committed to their intrapreneurial identities, increasing the likelihood of experiencing passion for engaging in intrapreneurial behaviors. Consequently, I investigate the role of employee resilience as a moderator between passions and intrapreneurial behaviors.

This dissertation will offer several contributions to the literature. First, though scholars have developed robust theory regarding entrepreneurial passion and its role in influencing behaviors, empirical examination is still in early stages. Expanding to measure employee passion and its relationship to intrapreneurial behaviors may yield important insights for both scholars and practitioners, while answering a specific call to consider passion research within the context of existing firms (Cardon et al., 2013). Second, this study considers the moderating effect of manager relationship quality as perceived by the intrapreneur. Integrating principles of social exchange theory, I predict that higher quality manager relationships will lead to greater commitment to intrapreneurial role identities, resulting in more frequent experiences of passion and intrapreneurial behaviors. Similarly, I offer a third contribution by examining resilience as another potential moderator in the passion-to-behaviors relationship. Given that resilience has been shown to be a key personality trait within entrepreneurs (Bullough & Renko, 2013; Chadwick & Raver, 2020), I predict that intrapreneurial behaviors will be highest when accompanied by high levels of resilience. Fourth, this study connects entrepreneurial passion, intrapreneurship, and identity theory into a cohesive model that may shed light on how innovation occurs within existing firms. Focusing on individuals that engage in intrapreneurial behaviors, and considering elements of their identity as predictors, could offer a bridge between the social psychology and entrepreneurship domains. Finally, I draw from a novel sample of intrapreneurial employees, compiled over decades of corporate venturing, that are historically difficult to reach. My personal relationships and connections should allow access that will yield insights valuable to other organizations seeking innovative outcomes.

The next chapter of this dissertation is devoted to a review of relevant literature on identity theory, entrepreneurial passion, intrapreneurship, and each moderator. Following this,

hypotheses are introduced and developed. Chapter 3 presents a description of data collection methods, sample characteristics, and variable measurement, while Chapter 4 outlines data analysis techniques and findings. Finally, Chapter 5 offers conclusions, limitations, and suggestions for future research.



## **CHAPTER 2: LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

This section is organized as follows: First, a brief review of identity theory is presented to explore how social roles influence behaviors and motivations in individuals. Next, an outline of entrepreneurial passion is offered that will further clarify each framework commonly used within the literature. This section also includes a deeper examination of the Vallerand framework and its application within entrepreneurial settings. A summary of intrapreneurship research then highlights the distinction between entrepreneurial individuals and the firm-level construct of corporate entrepreneurship. After that, a discussion follows of the moderating variables of resilience and manager relationship quality. To address manager relationship quality, I review literature related to the role that managers play in driving intrapreneurial behaviors and connect this to social exchange theory. To guide the reader's understanding, Figure 1 (p. 38) provides a diagram of the conceptual model for this dissertation. The model depicts harmonious and obsessive passion as antecedents leading to intrapreneurial behavior. Manager relationship quality and resilience are hypothesized to positively moderate the relationships between passion and behaviors. Each relationship is discussed in detail in the hypothesis development section. Finally, the model depicts control variables that are introduced and described in Chapter 3.

## 2.1 Identity Theory

To develop the theoretical model underlying my research, I draw primarily upon identity theory (Mead, 1934; Stryker & Burke, 2000). Identity theory has held a prominent place in social psychology research for over fifty years, spurring theoretical and empirical inquiries across a wide array of disciplines (McCall & Simmons, 1966; Stryker, 1968; Stryker & Burke, 2000). An identity is considered to be a shared set of meanings that individuals use to define themselves in a certain *role* in society, as members of particular *groups* in society, or as having unique *characteristics* that distinguish them from others in society (Stets & Serpe, 2013; emphasis added). The meanings that people ascribe to their identity should be understood in a relative sense, usually in relation to an opposite identity (i.e. husband vs wife) (Burke & Stets, 1999). People may have many identities within their collective consciousness (James, 1890), and these identities may exist either in compliment or competition with one another at a given time (Stryker & Burke, 2000). Identity theorists offer insights into how identities coexist within an individual, and how identities relate to performance, behavior, affect, self-concept, and social structure (Carter, 2013; Stets & Serpe, 2013). In the following paragraphs, I review the major concepts of identity theory, including verification, salience, and centrality, before highlighting some representative studies involving identity in entrepreneurship research.

*Verification.* When an individual perceives that, in a given situation, their own self-view matches the perceptions of others, this leads to the process of identity verification and results in experiences of positive emotions (Stets & Serpe, 2013). However, the opposite is true when perceptions are non-congruent, as identity non-verification leads to negative emotion for the individual (Burke & Harrod, 2005). Negative emotion then creates pressure to resolve the incongruent identities, ultimately leading to behaviors intended to sway the viewpoints of others

(Burke & Stets, 1999). Whether positive or negative, the emotions experienced may lead individuals to seek out situations where they can achieve identity congruence (Carter, 2013). This process of verification, along with the emotional and behavioral responses, has been referred to as perceptual control dynamics (Burke, 1991). Verification becomes more complex when different identities are activated at the same time, as individuals must process shared meanings stemming from the expression of multiple identities (Burke, 1991). Scholars theorize that in these cases, “multiple identities are conceptualized within the self and organized into hierarchies” (Stets & Serpe, 2013: 36) of salience (Stryker, 1968) and centrality (McCall & Simmons, 1966; Rosenberg, 1979). These hierarchies serve to organize the identities that will be enacted or performed by the individual, with what probability, and in what order (Stryker & Serpe, 1994).

*Salience.* Salience refers to the probability or likelihood that a specific identity will be invoked and acted out across situations (Stets & Serpe, 2013). This hierarchy has also been characterized as one’s “readiness to act out a focal identity” (Murnieks et al., 2014: 1590). More salient identities will have higher likelihood of being displayed, either verbally or behaviorally, in social situations (Stryker, 1968). For identities that rank higher in the salience hierarchy, individuals may seek out opportunities to bring these identities to the surface through words or actions (Stryker & Serpe, 1994). Identity salience is also related to an individual’s commitment to a particular identity, where greater commitment leads to greater identity salience (Stryker & Serpe, 1994). Scholars have demonstrated empirically that identity salience is independent of identity centrality (discussed below), but that both hierarchies are significant predictors of individuals’ behaviors (Murnieks et al., 2014; Stryker & Serpe, 1994).

*Centrality.* Since individuals have many identities, understanding their prioritization within the self becomes necessary (Bell et al., 2018). The relative importance that individuals place on an identity, as compared to other identities, is referred to as centrality (Rosenberg, 1979). Higher centrality ratings indicate higher importance for that identity within an individuals' self-concept (McCall & Simmons, 1966). This self-ascribed rating system likely blends social considerations, personal experiences, and choice (Hoang & Gimeno, 2010; Stryker & Serpe, 1994). As a result, identity centrality is theorized to contain a level of autonomy in its development and subconscious manifestation (Hoang & Gimeno, 2010; Murnieks et al., 2020). In turn, autonomous engagement in activities deemed important to the individual is a significant driver of harmonious passion (Vallerand, 2015), which is described in Section 2.2.

*Identity in Entrepreneurship.* In their seminal "Promise" article reframing entrepreneurship as a field of research, Shane and Venkataraman (2000) call out the importance of studying the nexus between opportunities and the individuals who discover, evaluate, and exploit those opportunities. Ireland and Webb (2007a) build on this idea, first by characterizing entrepreneurship broadly as a process of identity construction, then by specifically recommend identity theory as an avenue for future research on individuals. Given recommendations such as these, and considering the broad use of identity theory in social sciences generally (Hogg, Terry, & White, 1995), it follows that entrepreneurship scholars have employed identity theory to study the motivations and cognitions of innovative individuals. Murnieks and Mosakowski (2007) examined entrepreneurial roles and identities, concluding that both are critical elements driving entrepreneurial behavior. Shepherd and Haynie (2009) discussed strategies for managing multiple entrepreneurial identities, focusing on factors of distinctiveness and belonging. The authors suggest that identity management can lead to either psychological well-being or a dark

side of entrepreneurship, depending on how identities are balanced by the individual. Founder identities and their heterogeneity are explored by Fauchart and Gruber (2011), shedding light on how identity differences manifest themselves in new firm creation. Powell and Baker (2017) build on this work and propose an identity process model that provides insight as to how identity construction may influence nascent ventures with multiple founders. Expanding to an international scope, Bell et al. (2018) spell out some of the societal and cultural nuances tied to entrepreneurial identity construction in China, as compared to Anglo-American markets such as the United Kingdom. Researchers recently introduced a measurement scale related to founder identity (Sieger, Gruber, Fauchart, & Zellweger, 2016), while others have suggested a full reconceptualization of “entrepreneurial behaviors” and their measurement based on tenets of identity theory (Gruber & MacMillan, 2017). Finally, Mmbaga, Mathias, Williams, and Cardon (2020) review literature on identity in entrepreneurship and offer a summary of the growing body of work in this area. Their analysis reveals a rapid increase in the exploration of identity as part of entrepreneurial research, and the authors encourage further expansion of identity theory in the field.

Identity theory holds a particularly significant role in the theorizing and empirical measurement of entrepreneurial passion, as both the Cardon and Vallerand frameworks contend that experiences of passion stem from identity reinforcing behaviors (Cardon, Wincent, Singh, & Drnovsek, 2009; Cardon et al., 2013; Murnieks et al., 2020; Vallerand, 2015). Though Vallerand’s early writings did not explicitly include an identity component, his subsequent work clarifies and includes this notion in the form of an expanded definition (Vallerand, 2015). Since this dissertation considers individuals that act entrepreneurially within the context of their existing firm, identity theory provides an appropriate theoretical basis to examine the questions

raised herein. Invoking identity theory is also consistent with recent entrepreneurship research using Vallerand's framework (Murnieks et al., 2020). The next section provides a brief introduction of passion as a construct, then provides further detail on the three frameworks adopted by scholars to study entrepreneurial passion.

## **2.2 Entrepreneurial Passion**

*Overview.* Passion has been conceptualized in various forms for centuries, framed by well-known philosophers such as Plato, Aristotle, and Descartes (as cited in: Brassfield, 2012; Cardon et al., 2009; Vallerand, 2015). Over time, the construct of passion has shifted from a negative connotation – associated with suffering, unreasonableness, and lack of control – to a more positive depiction that drives motivation (Vallerand, 2015). In recent years, social psychologists have widely adopted the dualistic model introduced by Vallerand and colleagues (2003; discussed in further detail below) Researchers have applied the DMP to study individual affinity for numerous activities across settings such as education, sports, politics, art and others (Curran, Hill, Appleton, Vallerand, & Standage, 2015). A meta-analytic review by Curran and colleagues summarized work in this area, examining relationships between the two types of passion (harmonious vs. obsessive) and various intrapersonal outcomes (2015). Across the 94 studies included, the authors found that harmonious passion led to more adaptive outcomes such as positive affect and performance, while obsessive passion often led to maladaptive outcomes such as negative cognition and lower self-esteem (Curran et al., 2015; Schellenberg et al., 2019). More recently, scholars have suggested an expansion of the original conceptualization into a two-by-two matrix (quadripartite approach) that considers the simultaneous presence of high and low passion levels (Schellenberg et al., 2019). These authors, including Vallerand, propose four sub-types of passion and call for a new wave of analysis using their proposed matrix.

At the same time, discussions have developed within the entrepreneurship literature surrounding appropriate measurement and conceptualization of passion, whether passion is a trait or a psychological state, and whether passion is distinct from other positive emotions such as joy, interest, or pride (Ho & Pollack, 2014; Uy et al., 2020). Three separate conceptualizations of entrepreneurial passion have received the most attention from researchers: passion for work (applied to entrepreneurs), the Cardon framework (or role-based passion), and Vallerand's dualistic model of passion (Newman et al., 2019; Pollack et al., 2020). Though some similarities exist, these "distinct streams . . . have emerged and progressed independently of one another, with little integration or cross-pollination across streams" (Pollack et al., 2020: 311). Each of these research streams will be briefly addressed in the following sections.

*Passion for Work.* Some researchers have focused on the positive affective component in work and entrepreneurship settings, referring to passion as "love of one's work" (Baum & Locke, 2004: 588) or a "selfish love of work" (Shane, Locke, & Collins, 2003: 268). Chen, Yao, and Kotha (2009) espouse this view, contending that passion is the intensely positive affective state of an entrepreneur, leading to cognitive and behavioral manifestations that carry personal value. Shane et al. (2003) theorize that passion serves as a motivating force, driven by the ego and self-interest of the entrepreneur. Viewpoints such as these are linked by the shared idea that passion involves positive feelings which shape thoughts and actions, leading to largely positive outcomes (Uy et al., 2020). Empirical results in this category are limited, though several authors have introduced survey measures indicating positive correlations with traits such as self-efficacy, positive affect, and job satisfaction (Baum & Locke, 2004; Pollack et al., 2020). Baum and Locke (2004) introduced the first of this category of measurement scales, connecting passion for work with growth of entrepreneurial ventures over time through the mediating mechanisms of

the entrepreneur's goal setting, self-efficacy, and communicated vision. At least two other work-passion scales have since been developed independently by different authors (Bhansing, Hitters, & Wijngaarden, 2018; Chen, Lee, & Lim, 2020). Bhansing et al. (2018) connected passion for work with the motivational construct of inspiration in a study of creative entrepreneurs in the Netherlands. Chen et al. (2020) drew influence from all three extant conceptualizations of entrepreneurial passion in their development of a 10-item scale. Their empirical study associated passion with a number of positive outcomes such as increased career commitment, lower levels of job burnout, and fewer work-home conflicts (Chen et al., 2020). Each of these scales maintains a focus on positive affect towards work in a general sense, though the survey measures themselves are not specific to entrepreneurs or entrepreneurial behaviors. Additionally, while passion for work was introduced in the entrepreneurship literature before other constructs (chronologically), this viewpoint has received less attention from researchers since the presentation of Cardon's role-based framework (2009) and the application of Vallerand's DMP to entrepreneurship (e.g. Ho & Pollack, 2014; Murnieks et al., 2014). As a result, theoretical and empirical advancement in this category has lagged the other two conceptualizations of entrepreneurial passion defined in the following sections (Pollack et al., 2020).

*Cardon Framework.* Cardon and colleagues offer a more specific description of the construct, defining entrepreneurial passion as “consciously accessible intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur” (2009: 517). This framework emphasizes specific role identities of entrepreneurs such as founder, inventor, or developer as sources of passionate feelings. Entrepreneurial passion arises when the entrepreneur experiences intense positive feelings towards a specific “domain” (founding, inventing, or developing) they engage



in as part of their venture, and when that domain is central to their identity (Cardon et al., 2013). The authors draw on self-regulation theory and associated cognitive processes (Carver & Scheier, 1998) to outline how and why passionate experiences influence entrepreneurs' thoughts and behaviors. Subsequent to their theorized conceptualization, Cardon et al. (2013) developed a measurement scale that considers each identity dimensions (founder, inventor, developer) and demonstrated their distinction from each other using a series of empirical studies. The authors advise that "proper measurement of entrepreneurial passion incorporates the interaction between entrepreneurs' feelings and identity centrality for each domain," (p. 373), highlighting the focus on identity and the process of identity creation in this conceptualization.

The Cardon framework has been cited as the "most widely used in subsequent empirical work" in a literature review of entrepreneurial passion presented by Newman et al. (2019: 6). Many empirical studies have reduced the full, original measurement scale developed by Cardon and colleagues (2013) and employed portions of the survey tool, either to capture specific domains of entrepreneurial passion or to investigate one entrepreneurial role identity versus others. For example, passion for developing has been linked with growth of technology ventures (Drnovsek et al., 2016), while employees' passion for inventing has been shown to exhibit a positive influence on innovative organizational climate (Kang et al., 2016). The passion for inventing subscale was operationalized as the sole measurement of entrepreneurial passion in a study of academics in Europe, indicating positive association with both start-up and spin-off intentions (Huyghe, Knockaert, & Obschonka, 2016). Gielnik, Spitzmuller, Schmitt, Klemann, and Frese (2015) employed one survey measure from the passion for inventing scale and a second item from the passion for founding scale, showing support for entrepreneurial passion as an outcome of entrepreneurial effort, rather than an antecedent.

Some researchers have followed the original measurement instrument and incorporated all three domains, or combined the sub-scales to form a composite measure of entrepreneurial passion. Cardon and Kirk (2015) showed that passion for inventing and founding were related to entrepreneurial persistence, but did not find a similar link with the developing role. Stenholm and Renko (2016) found that passion for founding did not predict venture survival over time, while passion for inventing and developing were positive predictors of venture survival through the process of entrepreneurial bricolage. Breugst, Domurath, Patzelt, and Klaukien (2012) considered employee perceptions of entrepreneurs' passionate displays. They found that passion for developing and inventing enhanced employee commitment to new ventures, but passion for founding reduced employees' commitment to new firms due to the perception that founders may leave the business. Stenholm and Nielsen (2019) conducted a study of Finnish entrepreneurs, combining all three domains into a composite measure of entrepreneurial passion. Results indicated a positive relationship between perceived emotional support as an antecedent to entrepreneurial passion, moderated by task competence. Despite significant variation in the use and application of measures across contexts (Newman et al., 2019), a recent meta-analytic review offers a comprehensive assessment of antecedents, outcomes, and effect sizes related to each domain of the Cardon conceptualization (Riar, Qian, Miao, Debicki, & Kellermanns, 2022). The authors include 54 studies and investigate 332 effect sizes, demonstrating the notable growth of this framework and its wide application within entrepreneurship. Results of the meta-analysis reveal significant positive relationships between entrepreneurial passion and desirable individual-level outcomes such as opportunity recognition and entrepreneurial intentions, as well as a positive association with firm performance. In addition, Riar and colleagues provide

valuable insights into the nuanced relationships between each domain of the role-based passion framework and offer suggestions for future research.

*Vallerand Framework.* Vallerand's dualistic model of passion (DMP) has been adapted outside of general social psychology settings and applied to entrepreneurship. This conceptualization defines passion as a strong inclination towards activities that individuals like, that they find important and invest time and energy, and that are part of one's identity (Vallerand, 2015). According to Vallerand, seven core elements make up the foundation of passion, each of which are derived from philosophical ideas:

*"The first core element is that passion emerges in the context of a specific activity, as opposed to a generalized passion for everything and anything. The second core element is that passion encapsulates a profound and enduring love of the activity. The third core element is that passion emerges only towards activities that are personally valued or meaningful. The fourth core element is that passion is a motivational, rather than affective, construct. The fifth core element is that passion emerges when activities become self-defining and part of one's identity. The sixth core element is that passion encompasses high levels of psychological energy, effort and persistence. Finally, the seventh core element is that passion takes a dualistic form and can confer adaptive or maladaptive outcomes"* (Curran et al. 2015: 632).

Reviewing the core elements of Vallerand's framework reveals a significant divergence from other extant conceptualizations of passion. Specifically, this approach explicitly acknowledges different forms of passion within the same model (harmonious and obsessive) and therefore accounts for the possibility of negative outcomes associated with engagement in self-defining activities (Ho & Pollack, 2014; Vallerand et al., 2003). Both the passion for work and role-based conceptualizations reviewed in previous sections focus on the positive aspects of passion – either affect or intense feelings – and are thus unidimensional in their outlook (Curran et al., 2015).

Vallerand's framework suggests that in some instances, passion may serve as a positive motivating force, leading to overall well-being, eager engagement in tasks, and a balanced life (Vallerand, 2015). However, in other cases an individual's passion may cause feelings of

pressure, compulsion, and negative emotions, creating conflict with other aspects of a person's life (Vallerand et al., 2003). The fundamental difference between these responses relates to how an activity is internalized into the identity and whether the individual maintains control over their desire to engage in that activity (Ho & Pollack, 2014; Murnieks et al., 2020). The resultant experiences of harmonious or obsessive passion (Vallerand et al., 2003; Vallerand & Verner-Filion, 2013) are reviewed in the following sections.

*Harmonious Passion.* Harmonious passions arise when an activity is autonomously internalized into one's identity and self (Vallerand et al., 2003; Vallerand & Verner-Filion, 2013). Autonomous internalization refers to the free acceptance of an activity as important to the individual, without pressures or contingencies (Vallerand & Verner-Filion, 2013). The notion of autonomy is drawn from self-determination theory (Deci & Ryan, 2000, 2004), whereby the individual perceives control over their ability to choose engagement in an activity (Murnieks et al., 2020). The result is a motivational force to engage in the activity willingly, freely, and with a sense of enjoyment (Curran et al., 2015; Vallerand, 2015). When harmonious passions emerge, individuals do not experience overpowering urges to pursue their activity, but instead experience strong but controllable desires that lead to positive experiences both during and after task engagement (Vallerand & Verner-Filion, 2013). Activities tied to harmonious passions may occupy substantial portions of a person's identity while remaining in harmony with other elements of their life (Vallerand, 2015). When experiencing feelings of harmonious passion, the person is in control of the activity and can decide when to engage, leading to flexibility in their behaviors (Vallerand & Verner-Filion, 2013).

*Obsessive Passion.* Conversely, obsessive passions arise when an activity is internalized through a controlled process (Vallerand et al., 2003). This type of internalization originates from

various pressures associated with the activity, such as social acceptance, self-esteem, or an uncontrollable sense of excitement stemming from engagement (Vallerand & Verner-Filion, 2013). Associated pressures, also referred to as contingencies, lead to partial integration of the activity into the identity and self (Deci & Ryan, 2004) and may conflict with a person's pre-existing goals and values (Curran et al., 2015). Obsessive passions lead to feelings of compulsion to engage in the activity in order to affirm, protect, or defend the ego of the individual (Mageau, Carpentier, & Vallerand, 2011). Individuals may thus experience an uncontrollable or overwhelming urge toward their activity, and a lack of autonomy to disengage from it (Vallerand et al., 2003). Accordingly, obsessively passionate individuals may manifest behavioral patterns driven by needs of self-validation and social approval, leading to negative consequences during and after task engagement (Vallerand & Verner-Filion, 2013). In summary, harmonious passions are associated with free and autonomous engagement, while obsessive passions are driven by feelings of compulsion (Murnieks et al., 2020).

Though both passions are highly energizing, harmonious and obsessive passion are thought to be noticeably different in terms of their associations with cognitive, affective, motivational, and interpersonal outcomes (Curran et al., 2015; Guilbault, Harvey, & Vallerand, 2020). Across a wide range of disciplines, harmonious passion has been empirically associated with positive outcomes such as higher positive affect (Vallerand, 2008), heightened concentration during practice (Bonneville-Roussy, Lavigne, & Vallerand, 2011), and improved performance (Curran et al., 2015; Vallerand & Verner-Filion, 2013). Obsessive passion, on the other hand, is more often associated with negative outcomes including burnout, negative affect, and activity dependence (Vallerand & Verner-Filion, 2013). Research has also shown that while obsessive passions may lead to achievement of performance goals, this pathway does not

facilitate psychological well-being within the individual (Curran et al., 2015; Vallerand, 2015). Obsessively passionate individuals are more likely to experience lower quality relationships and increased relationship conflict, both within (partners, coaches, supervisors) and outside (spouses, romantic partners) the passionate activity (Guilbault et al., 2020; Jowett et al., 2012; Lafrenière, Jowett, Vallerand, Donahue, & Lorimer, 2008). Interestingly, researchers have consistently found support for high levels of harmonious and obsessive passion within the same individual, (Newman et al., 2019), resulting in a call for research that is more nuanced and considers intra-individual presence of both dimensions (Schellenberg et al., 2019; Wang & Yang, 2006).

*Summary of DMP in Entrepreneurship.* Given that this dissertation examines employees who engage in intrapreneurial behaviors as a general activity, rather than specific entrepreneurial task engagement associated with Cardon's view, I adopt the Vallerand conceptualization to investigate passion. Intrapreneurs are employees operating within existing firms, and therefore less likely to develop founder, developer, and inventor roles that are more closely associated with forming entrepreneurial identities and entrepreneurial ventures as defined by Cardon's framework (Cardon et al., 2009). Instead, employees are more likely to develop role-specific identities that correspond with the entrepreneurial work tasks they engage in, which in turn confers meaning and value to the individual and their identity (Shir, Nikolaev, & Wincent, 2019). The target of employee passion can therefore be conceived as passion for "being entrepreneurial" in general, in line with extant scholarship exploring similar research questions (e.g. Murnieks et al., 2020; Murnieks et al., 2014). Further, the dualistic model considers the possibility that passions may emerge from feelings of compulsion, which is plausible in work settings where employees may feel pressures to engage in intrapreneurial behaviors. The

rationale for selecting Vallerand's dualistic model is further described in the hypothesis development section.

A review of extant research reveals that entrepreneurship scholars have applied the DMP to study passion in several ways. Table 1 offers a summary of studies that have drawn from Vallerand's conceptualization, highlighting the concepts, measures, theoretical bases, and summary results of each peer-reviewed paper. Of the fifteen papers applying the DMP to entrepreneurship, eight have examined both harmonious and obsessive passions, though seven consider only one dimension. Harmonious passion was most often used (five of seven studies – 71%) when one dimension was operationalized as the measurement of passion (e.g. Gielnik, Uy, Funken, & Bischoff, 2017; Murnieks et al., 2014), indicating some possible bias toward the positive aspects of the DMP (Vallerand & Verner-Filion, 2013). Of the eight studies that consider both harmonious and obsessive passions, four position passion as an antecedent (Fisher, Merlot, & Johnson Lester, 2018; Ho & Pollack, 2014; Stroe, Parida, & Wincent, 2018a; Thorgren & Wincent, 2015), two as an outcome (Murnieks et al., 2020; Stroe, Wincent, & Parida, 2018b), and two as a moderator or mediator (de Mol, Ho, & Pollack, 2018; Stroe et al., 2020). In studying entrepreneurs, passion has been linked with entrepreneurial behaviors (Murnieks et al., 2014; Obschonka, Moeller, & Goethner, 2019), resilience of the entrepreneur (Fisher et al., 2018), and as a mitigant to fear of failure (Stroe et al., 2020) and burnout (de Mol et al., 2018). Entrepreneurial self-efficacy has been considered more than any other construct associated with the DMP, appearing in thirty-three percent (33%) of papers (Dalborg & Wincent, 2015; Gielnik et al., 2017; Murnieks et al., 2014; Schenkel, Farmer, & Maslyn, 2019; Stroe et al., 2018a). The role of gender is explicated in two studies, indicating differences between male and female entrepreneurs in risk perception and the pathways leading to passion (Dalborg, von

Friedrichs, & Wincent, 2015; Murnieks et al., 2020). Just one paper utilizes a qualitative approach, applying descriptions of entrepreneurs based on obsessive passions to study the associated probability of angel investment (Murnieks et al., 2016).

Synthesizing studies in Table 1 indicates that engagement in entrepreneurial tasks and activities carry similar adaptive and maladaptive consequences as demonstrated in other domains (e.g. Curran et al., 2015). Harmonious passions lead to overall positive outcomes, while obsessive passions are often associated with adverse effects for entrepreneurs. Interestingly however, empirical results that exclude a dimension of the DMP stand at odds with the conceptualization of passion offered by Vallerand and colleagues, which specifically accounts for the possibility that two forms may exist simultaneously within an individual (e.g. Schellenberg et al., 2019). Insights from these papers are nonetheless valuable, despite the presence of bias in the selection of either harmonious or obsessive measurement tools. Additionally, a review of Table 1 reveals that the DMP is far less developed within entrepreneurship when compared to the number of completed studies in general social psychology, which total well over two hundred (Vallerand & Verner-Filion, 2020), or Cardon's framework, with at least fifty-four empirical applications (Riar et al., 2022). Consequently, further application of the DMP within entrepreneurship and related sub-fields, such as intrapreneurship, may offer additional insights into the role of passion at the individual level. This dissertation aims to assist in filling this gap. The next section will offer a differentiation of intrapreneurship from entrepreneurship, and a contrast against corporate entrepreneurship.



Table 2.2 Dualistic Model of Passion in Entrepreneurship

Citation	Year	Method	Theory	Passion Variable(s)	Both HP/OP	Measurement of Passion	Abstract/Results (includes some direct quotations)
Ho, V. T., & Pollack, J. M. (2014). Passion Isn't Always a Good Thing: Examining Entrepreneurs' Network Centrality and Financial Performance with a Dualistic Model of Passion. <i>Journal of Management Studies</i> , 51(3), 433-459.	2014	Empirical/ Survey	Dualistic model of passion; social networks theory	HP and OP are antecedents to network centrality	Yes	12-items; 6 for HP and 6 for OP adapted from Vallerand et al. 2003	Harmoniously passionate entrepreneurs had higher out-degree centrality in their networking group (i.e., were more inclined to seek out members to discuss work issues), which increased income they received from peer referrals and, ultimately, business income. Obsessively passionate entrepreneurs had lower in-degree centrality (i.e., were less likely to be approached by peers), and in turn received less income from referrals and less business income.
Murnieks, C. Y., Mosakowski, E., & Cardon, M. S. (2014). Pathways of Passion: Identity Centrality, Passion, and Behavior Among Entrepreneurs. <i>Journal of Management</i> , 40(6), 1583-1606.	2014	Empirical/ Survey	Identity theory	HP is an antecedent to entrepreneurial behavior	No	5-items: HP only adapted from Vallerand et al. 2003	In failure-relevant situations, dispositional fear of failure may lead to higher negative affect depending on the dualistic regulatory effect of passion—harmonious passion dampens the influence of fear of failure on negative affect (Studies 1 and 2), while obsessive passion magnifies this effect in Study 1 but dampens it in Study 2, thus showing mixed evidence.
Dalborg, C., von Friedrichs, Y., & Wincent, J. (2015). Risk perception matters: Why women's passion may not lead to a business start-up. <i>International Journal of Gender and Entrepreneurship</i> , 7(1), 87-104.	2015	Empirical/ Survey	Risk perception, gender socialization	OP is the independent variable in a binomial logistic regression	No	5-items: OP only adapted from Vallerand et al. 2003	Harmonious passion is fueled by entrepreneurial identity centrality whereas obsessive passion is fueled by affective interpersonal commitment. Gender moderates both of these relationships.

Table 2.2 Dualistic Model of Passion in Entrepreneurship

Citation	Year	Method	Theory	Passion Variable(s)	Both HP/OP	Measurement of Passion	Abstract/Results (includes some direct quotations)
Dalborg, C., & Wincent, J. (2015). The idea is not enough: The role of self-efficacy in mediating the relationship between pull entrepreneurship and founder passion—a research note. <i>International Small Business Journal</i> , 33(8), 974-984.	2015	Empirical/ Survey	Social learning theory, push-pull entrepreneurship	HP is the dependent variable	No	7-items; HP only adapted from Murnieks et al. 2014	Time spent innovating, or thinking about and experimenting with new ideas, predicts the number of process improvement suggestions. Time spent innovating is influenced by the employee's level of HP for entrepreneurship, moderated by creative self-efficacy, but the moderation was negative. The positive relationship between HP and time spent innovating became weaker as creative self-efficacy became stronger.
Thorgren, S., & Wincent, J. (2015). Passion and habitual entrepreneurship. <i>International Small Business Journal</i> , 33(2), 216-227.	2015	Empirical/ Survey	Dualistic model of passion; self-determination theory	HP and OP are independent variables in a binomial logistic regression	Yes	10-items; 5 for HP and 5 for OP adapted from Vallerand et al. 2003	The basic entrepreneurial trait profile predicted entrepreneurial passion, while specific traits did not. Passion and entrepreneurial behaviors tended to co-occur within individuals, adding relevance for future studies of entrepreneurial activity.
Murnieks, C. Y., Cardon, M. S., Sudek, R., White, T. D., & Brooks, W. T. (2016). Drawn to the fire: The role of passion, tenacity and inspirational leadership in angel investing. <i>Journal of Business Venturing</i> , 31(4), 468-484.	2016	Qualitative (study 1) and Full Factorial Conjoint (study 2)	Dualistic model of passion	OP is antecedent to probability of angel investment; various moderating effects	No	Description of founder based on obsessive passion characteristics	A context of stress linked to role overload prompts entrepreneurs to engage more intensely in entrepreneurial activity, leading to greater obsessive passion. High levels of goal challenge and achieved progress enhance the effect of role overload, making it more motivationally incongruent and more motivationally relevant for the entrepreneur. This effect increases entrepreneurs' inclination toward obsessive passion.

Table 2.2 Dualistic Model of Passion in Entrepreneurship

Citation	Year	Method	Theory	Passion Variable(s)	Both HP/OP	Measurement of Passion	Abstract/Results (includes some direct quotations)
Gielnik, M. M., Uy, M. A., Funken, R., & Bischoff, K. M. (2017). Boosting and sustaining passion: A long-term perspective on the effects of entrepreneurship training. <i>Journal of Business Venturing</i> , 32(3), 334-353.	2017	Field experiment with discontinuous growth curve modeling; joint lagged analyses	Dualistic model of passion	HP is an antecedent to business creation, mediator between self-efficacy	No	7-items; HP only adapted from Vallerand et al. 2003	Using data gathered from 50 nascent entrepreneurs, the combination of passion, entrepreneurial self-efficacy, and risk perception leads to the use of a causal and an effectual logic. Findings did not indicate that the individual factors contributed to decision-making logic.
de Mol, E., Ho, V. T., & Pollack, J. M. (2018). Predicting entrepreneurial burnout in a moderated mediated model of job fit. <i>Journal of Small Business Management</i> , 56(3), 392-411.	2018	Empirical/ Survey	Person-job fit, burnout, dualistic model of passion	HP and OP are partial mediators between job fit and burnout	Yes	Full 14-item scale from Vallerand et al. 2003	Harmonious passion contributes directly and indirectly to perceptions of entrepreneurial success through resilience; Obsessive passion contributes to sustained entrepreneurial commitment which contributes to success through resilience.
Fisher, R., Merlot, E., & Johnson Lester, W. (2018). The obsessive and harmonious nature of entrepreneurial passion. <i>International Journal of Entrepreneurial Behavior &amp; Research</i> , 24(1), 22-40.	2018	Empirical/ Survey	Dualistic model of passion	HP and OP are antecedents to sustained entrepreneurial commitment and resilience, leading to entrepreneurial success (DV)	Yes	Reduced original 14-item scale to four and three items (HP & OP) based on factor loadings	Job fit perceptions were positively related to harmonious passion, which in turn negatively predicted burnout. Link between job fit and obsessive passion was moderated by destiny beliefs: positive at high and average levels of destiny beliefs. Obsessive passion was positively related to burnout.

Table 2.2 Dualistic Model of Passion in Entrepreneurship

Citation	Year	Method	Theory	Passion Variable(s)	Both HP/OP	Measurement of Passion	Abstract/Results (includes some direct quotations)
Stroe, S., Parida, V., & Wincent, J. (2018). Effectuation or causation: An fsQCA analysis of entrepreneurial passion, risk perception, and self-efficacy. <i>Journal of Business Research</i> , 89, 265-272.	2018	Empirical/ Survey	Effectuation and decision-making theory	HP and OP are considered with self-efficacy and risk perception as inputs leading to effectual or causal logic.	Yes	Full 14-item scale from Vallerand et al. 2003	Maintaining high levels of harmonious passion after entrepreneurship training eventually leads to business creation.
Stroe, S., Wincent, J., & Parida, V. (2018). Untangling intense engagement in entrepreneurship: Role overload and obsessive passion in early-stage entrepreneurs. <i>Journal of Business Research</i> , 90, 59-66.	2018	Empirical/ Survey	Theory of identity-relevant stressors	HP and OP are both measured but subtracted at t2 to obtain a relative obsessive orientation score, the DV in linear regression.	Yes	2-items each (HP and OP) taken from Vallerand et al. 2003	Angel investors value passion in addition to tenacity, as well as both together, when evaluating entrepreneurs for investment. The entrepreneurial experience of angels also positively moderates the value provided by passion and tenacity.
Obschonka, M., Moeller, J., & Goethner, M. (2019). Entrepreneurial passion and personality: the case of academic entrepreneurship. <i>Frontiers in Psychology</i> , 9, 2697.	2019	Empirical/ Survey	Social learning theory, social identity theory	HP is considered as a partial mediator (structural equation model), leading to entrepreneurial behaviors	No	5-items: HP only adapted from Vallerand et al. 2003	Habitual entrepreneurs experience extra high passion for entrepreneurial activity. However, obsessive passion is particularly evident among habitual entrepreneurs. A comparison of novice, serial and portfolio entrepreneurs suggests that portfolio entrepreneurs score highest on the harmonious dimension of passion.

Table 2.2 Dualistic Model of Passion in Entrepreneurship

Citation	Year	Method	Theory	Passion Variable(s)	Both HP/OP	Measurement of Passion	Abstract/Results (includes some direct quotations)
Schenkel, M. T., Farmer, S., & Maslyn, J. M. (2019). Process improvement in SMEs: The impact of harmonious passion for entrepreneurship, employee creative self-efficacy, and time spent innovating. <i>Journal of Small Business Strategy</i> , 29(1), 71-84.	2019	Empirical/Survey	Self-determination theory	HP is examined as independent variable leading to time spent innovating	No	5-items; HP only adapted from Vallerand et al. 2003	Self-efficacy mediates the influence of pull entrepreneurship on founder passion.
Murnieks, C. Y., Cardon, M. S., & Haynie, J. M. (2020). Fueling the fire: Examining Identity Centrality, Affective Interpersonal Commitment and Gender as Drivers of Entrepreneurial Passion. <i>Journal of Business Venturing</i> , 35(1), 105909.	2020	Empirical/Survey	Identity theory, gender identity theory	Entrepreneurial identity centrality leads to HP; affective interpersonal commitment leads to OP. Gender moderates	Yes	6-items; 3 for HP and 3 for OP adapted from Marsh et al. 2013	Nascent women entrepreneurs perceive more risk than nascent male entrepreneurs; risk perceptions influence start-up decisions; risk preferences partial out the otherwise identified influence of passion on start-up decisions. Thus, passion is a significant variable in startup decisions.
Stroe, S., Sirén, C., Shepherd, D., & Wincent, J. (2020). The dualistic regulatory effect of passion on the relationship between fear of failure and negative affect: Insights from facial expression analysis. <i>Journal of Business Venturing</i> , 35(4), 1-20	2020	Empirical/Survey	Affective events theory, identity theory	HP and OP are examined as moderators between fear of failure and negative affect (DV)	Yes	12-items; 6 for HP and 6 for OP adapted from Marsh et al. 2013	Passion rises and falls in connection with entrepreneurial identity centrality. Furthermore, passion is associated with individual entrepreneurial behavior and entrepreneurial self-efficacy.

## 2.3 Intrapreneurship

Intrapreneurship research is closely related to corporate entrepreneurship (CE), differing primarily in the level of analysis associated with each sub-field (Rigtering & Weitzel, 2013). Proper differentiation between the two streams of research is best accomplished by providing a summary of the major topics within CE, followed by a description of intrapreneurship.

*Corporate Entrepreneurship.* Beginning at the firm-level with CE, researchers have long sought to categorize strategic processes that lead to entrepreneurial activity within existing firms (Burgelman, 1983a, b). In its broadest sense, corporate entrepreneurship describes and categorizes these activities, offering insights into successful strategies that result in sustained innovation inside established companies (Kuratko & Morris, 2018). More than forty years of research in this area has shown that pursuing CE can lead to enhanced financial performance (Zahra & Covin, 1995), improved organizational learning (Dess et al., 2003), breakthrough inventions (Ahuja & Lampert, 2001), and competitive superiority (Covin & Miles, 1999; Ireland et al., 2009). CE can be broken down into two major categories of activities within an organization; either strategic entrepreneurship or corporate venturing (Ireland & Webb, 2007b; Kuratko & Morris, 2018; Kuratko & Audretsch, 2013). Figure 2 (appendix) provides an illustration of each category and sub-category, as well as other common definitions of CE. Strategic entrepreneurship focuses on *internal* innovation that results in competitive advantage and may include activities like introducing new products to markets, fundamentally changing internal processes or structures, or redesigning core business model to differentiate from competitors (Burgelman, 1983a; Covin & Miles, 1999; Kuratko & Audretsch, 2013). Corporate venturing describes *external* innovation where established firms invest in or create new businesses through partnerships or co-investments (Covin & Miles, 2007; Guth & Ginsberg,

1990; Miles & Covin, 2002). External corporate ventures can generate “super-normal profits” for the parent company when accompanied by knowledge-sharing routines (Weber, Bauke, & Raibulet, 2016), and can yield proprietary technologies such as patents through investment in subsidiary companies (Wadhwa, Phelps, & Kotha, 2016).

*Intrapreneurship.* In comparison to corporate entrepreneurship, intrapreneurship research focuses on the individual perspective of entrepreneurial behaviors within firms. If CE can be conceptualized as a firm-level process of innovation initiated from the “top down” within an organization, then intrapreneurship is considered by many scholars to be a “bottoms-up” approach related to employee behaviors (Antoncic & Hisrich, 2003; Blanka, 2019; Rigtering & Weitzel, 2013). Examples of individual-focused studies include the interaction of human capital and organizational support on innovative behaviors (Alpkan, Bulut, Gunday, Ulusoy, & Kilic, 2010), the value of prior intrapreneurial experience in corporate venturing (Guerrero & Peña-Legazkue, 2013), and the vital role of top- and middle-managers in ensuring successful intrapreneurship (Hornsby, Kuratko, Shepherd, & Bott, 2009; Kuratko et al., 2005). Moriano, Molero, Topa, and Lévy Mangin (2014) contend that intrapreneurship research is “implicitly a psychological assessment of individual [intrapreneurial behaviors] based on self-reports” (p. 105) and offer the follow expanded description:

*“Intrapreneurship at the individual level involves networking behavior, out of the box thinking, initiative, taking charge, championing, and some degree of risk taking. Therefore, intrapreneurs are the driving forces behind product development or improvement and/or market penetration. These employees have similar drives and characteristics as entrepreneurs (Pinchot 1985). They are innovative, motivated to succeed, enjoy overcoming challenges and have a philosophy of continuous learning” (p. 105).*

Several authors have sought to elucidate differences between intrapreneurs and entrepreneurs in theoretical or empirical analyses. Corbett and Hmieleski (2007) provide insights into the conflicting cognitions of intrapreneurs, proposing similarities and differences

with entrepreneurs in a theorized model. The authors argue that the entrepreneurial process is similar for both intra- and entrepreneurs, but that work context (i.e. corporate versus start-up environment) dictates differing behavioral expectations and, ultimately, “cognitive tension” for intrapreneurs attempting to launch new internal ventures (Corbett & Hmieleski, 2007).

Martiarena (2013) considers differences in risk aversion, expected earnings, and opportunity recognition as the basis on which intrapreneurs make their career choices. Using data gathered in Spain, the author concludes that intrapreneurs are significantly more risk averse, expect a lower but more certain financial rewards, and demonstrate lower opportunity recognition skills.

Despite these findings, Martiarena suggests a distinction within the category of intrapreneurship based on the level of engagement and personal risk taken by the intrapreneur. The author advises that intrapreneurs are a heterogeneous group, and that as engagement and personal risk increase, “intrapreneurs share the attributes usually assumed to characterize entrepreneurs”

(Martiarena, 2013: 37). Along similar lines, Parker (2011) explores variables that explain the self-selection of individuals into intrapreneurial or entrepreneurial activities, resulting in either nascent intrapreneurship or nascent entrepreneurship. In Parker’s study, nascent entrepreneurs tended to leverage their general human capital and social ties to organize new customer-facing ventures, while nascent intrapreneurs disproportionately commercialized new products oriented towards other businesses. Parker’s results also support an age-based propensity towards

intrapreneurship, with statistically significant correlations shown in the under-25 and over-44 cohorts, whereas entrepreneurs were most likely to fall in the 25-44 age range. Finally, Gawke,

Gorgievski, and Bakker (2019) develop and test an intrapreneurship scale aimed at capturing strategic renewal and corporate venturing behaviors, offering further insights into behavior-based differences between intra- and entrepreneurs.



Organizational characteristics can contribute to entrepreneurship within existing firms and entrepreneurial behaviors at the employee level (De Jong, Parker, Wennekers, & Wu, 2011; Rigtering, Weitzel, & Muehlfeld, 2019; Rigtering & Weitzel, 2013). Studies have shown that organizational traits may play a key role in either promoting or preventing entrepreneurial behaviors of employees (Blanka, 2019; Mustafa, Gavin, & Hughes, 2018). Blanka (2019) highlights the general benefits of existing organizational resources and networks, which can be harnessed and leveraged to support entrepreneurial behaviors. Blanka (2019) also identifies organizational support, in the form of either supportive managers or peers, as a benefit that can assist intrapreneurs as they recover from project failures. Gerards, van Wetten, and van Sambeek (2020) posit that organizational networks facilitate entrepreneurial behaviors because of the social exchanges that occur within these networks, in turn leading to the development of new and novel ideas. On the other hand, the organizational context can create a hindrance to entrepreneurial behavior in firms where employees experience less autonomy and flexibility because of existing policies, rules, or regulations (Gerards et al., 2020). In these instances, the authors suggest that social exchanges between employees are limited or of low quality, leading to fewer ideas being generated. Scholars seeking to quantify and measure the organizational conditions that facilitate entrepreneurial behaviors developed an empirical scale referred to as the Corporate Entrepreneurship Assessment Instrument (CEAI) (Hornsby, Holt, & Kuratko, 2008; Hornsby, Kuratko, & Zahra, 2002; Kuratko, Hornsby, & Covin, 2014b). Five organizational factors supporting entrepreneurial behaviors emerged from several studies on the CEAI, categorized as management support, work discretion, organizational boundaries, rewards/reinforcement, and time availability (Hornsby et al., 2002). Table 2.3 summarizes each organizational factor assessed by the CEAI and provides a description of the associated condition

that fosters entrepreneurial behaviors. Though all factors were found to be significant in statistical testing, perceptions of supportive managers accounted for more than fifty percent of the variance identified during confirmatory factor analysis in the initial study (22.2% of 43% total variance) (Hornsby et al., 2002). Subsequent refinement and retesting of the measurement instrument indicated that management support was most strongly correlated with firm-level entrepreneurial orientation when compared with the other four factors (Hornsby et al., 2008). However, organization size and external factors may impact the predictive power of the corporate entrepreneurship assessment instrument, as a study of Kenyan small- and medium-sized businesses found that only management support and organizational boundaries were relevant antecedents for corporate entrepreneurship in an emerging economy setting (Hughes & Mustafa, 2017). Despite some agreement on the factors that may promote or hinder entrepreneurial behaviors, scholars also point to the practical difficulties of creating these conditions and successfully implementing innovation activities within organizations (Kuratko et al., 2014a). Prominent scholars in the corporate entrepreneurship domain suggest that overcoming implementation challenges requires a focus on individual employees, stating that “employees engaging in entrepreneurial behaviors are the foundation of organizational innovation” (Kuratko et al., 2014a: 654). Harnessing these behaviors also requires a focus on coordination between all levels of management within the firm (Kuratko & Audretsch, 2013; Kuratko et al., 2014a). In this dissertation, I combine these ideas by focusing on the individual behavior of employees and the quality of the employee’s relationship with their direct manager as a moderator to engagement in entrepreneurial behaviors. This choice is based on the significant role that perceived manager support has previously demonstrated relative to other factors, and in line with a social exchange based conceptualization of intrapreneurship in which

the relationship between the manager and employee is especially relevant (Rigtering & Weitzel, 2013).

*Table 2.3 Organizational Factors of the Corporate Entrepreneurship Assessment Instrument (Hornsby et al. 2009, Hornsby et al. 2002)*

Management Support	<i>The extent to which one perceives that managers support, facilitate, and promote entrepreneurial behavior; including the championing of innovative ideas and providing the resources people require to take entrepreneurial actions.</i>
Work Discretion	<i>The extent to which one perceives that the organization tolerates failure, provides decision making latitude and freedom from excessive oversight, and delegates authority and responsibility to lower-level managers and workers.</i>
Rewards and Reinforcement	<i>The extent to which one perceives that the organization uses systems that reward based on entrepreneurial activity and success.</i>
Time Availability	<i>The perception that individuals can invest “slack” time and use available time as a resource that generates entrepreneurial activities.</i>
Organizational Boundaries	<i>The extent to which one perceives that the organization creates flexible and permeable boundaries, enhancing both information flow and the evaluation of entrepreneurial ideas.</i>

As intrapreneurship has gained consensus as a discrete stream of research, literature reviews have helped to consolidate knowledge (Blanka, 2019; Gawke et al., 2019), and summarize extant research on the behavioral characteristics of the intrapreneur (e.g. Neessen et al., 2019). Innovativeness, proactiveness, risk-taking, and self-efficacy are the most studied characteristics of intrapreneurs according to the comprehensive table of traits offered by Neessen and colleagues (2019, p. 553-555). While each of these reviews provide value in taking stock of the field, all three indicate gaps in research related to motivations, attitudes, and characteristics of intrapreneurial employees, and no paper finds evidence of extant research on intrapreneurial passion. The next section will outline literature related to the role of managers in facilitating intrapreneurship, managers and social exchange theory, and a definition of manager relationship quality which is investigated as the first moderator in the research model.

## 2.4 Manager Relationship Quality

*Managers in Intrapreneurship.* A considerable body of research identifies the role that managers play in supporting intrapreneurship (e.g. Floyd & Lane, 2000; Hornsby et al., 2009). Supportive managers can facilitate and encourage intrapreneurship by championing innovative ideas and providing the resources that intrapreneurial employees need to successfully implement projects (Kuratko et al., 2005). Managers typically possess the ability to build upward consensus and support for projects within the organization, and scholars propose that building strong relationships with employees can encourage innovative initiatives (Kuratko et al., 2014a). Scholars have analyzed the role of managers at varying levels within an organization. Senior managers can seize more potential benefits from entrepreneurial opportunities when they are directly engaged in bottoms-up entrepreneurial processes (Barney, Foss, & Lyngsie, 2018). Middle-level managers play a vital role in the process of innovation, as they must act innovatively themselves while also supporting and nurturing the entrepreneurial behavior of others, especially their employees (Floyd & Lane, 2000; Kuratko et al., 2005). First-level managers are called upon to experiment with innovative projects, adjust to challenges encountered, and conform to procedures associated with innovative projects assigned by higher organization levels (Hornsby et al., 2009; Kuratko et al., 2014a).

Extending beyond the manager's level within the organization, leadership style of the manager has been linked with important outcomes at the individual level. Moriano et al. (2014) explored manager leadership style as a predictor of intrapreneurial behaviors, revealing a significant role in "encouraging (transformational leadership) or dissuading (transactional leadership) intrapreneurship" (p. 114) among team members. In their study, intrapreneurs that perceived higher levels of trust and confidence from their manager, hallmarks of

transformational leadership, reported higher frequency of engagement in intrapreneurial behaviors (Moriano et al., 2014). Engelen, Gupta, Strenger, and Brettel (2015) found similar support for transformational leadership, indicating that top management's transformational leadership behaviors are crucial inputs to integrating entrepreneurial strategies. These authors posit that top managers determine the work environment for the entire organization, and that their leadership behaviors can therefore encourage implementation of entrepreneurial activities at all levels throughout the firm (Engelen et al., 2015). Communication from managers may have an impact on intrapreneurial ideation processes, as demonstrated by Rigtering et al. (2019). Results indicate that when managerial communication is framed in an opt-out manner, participation in ideation initiatives may increase without reducing intrapreneurial idea quality.

*Managers and Social Exchange Theory.* Other researchers have drawn upon social exchange theory (Blau, 1964) to explain the dynamic role of managers in existing firms. Social exchange processes between individuals are characterized by uncertain future benefits and an inability to force a second party to fulfil its obligations (Blau, 1964; Cropanzano & Mitchell, 2005). "Social exchange therefore depends on trust and reciprocity within the exchange relationship [since] expectations about performance from another party are often formulated based on expectations" (Rigtering & Weitzel, 2013: 342) and interpersonal treatment (Emerson, 1976; Rousseau, 1989). Dess et al. (2003) suggested that leadership in corporate entrepreneurship can be conceived as a system of social exchanges between organization members. As firm members interact and exchange information, "role expectations develop which are embedded in relationships specific to the organizational context" (Dess et al., 2003: 360). As a result, effective managers must focus on the social context to foster effective exchanges between the operational level (i.e. their direct reports) and top management, and to

create congruence between the firm's vision and followers' (or intrapreneurs) self-interests (Dess et al., 2003). Rigtering and Weitzel (2013) emphasize the use of social exchange within intrapreneurship research, pointing out that the relationship between the manager and individual employee is especially relevant. Given the personal risks associated with intrapreneurship, the authors advise that the actions and decisions of individual employees should be viewed in a relational context between the employee and the manager, as this social exchange relationship forms an essential condition for encouraging intrapreneurial behaviors (Rigtering & Weitzel, 2013). Eisenberger et al. (2010) relied on principles from social exchange theory to develop the concept of supervisor's organizational embodiment (SOE). SOE helps to explain conditions under which employees view their managers as agents or representatives of the overall organization. When SOE is high and employees perceive a favorable social exchange relationship with their supervisor, employees will generalize these feelings to the organization, and may often experience higher organizational commitment and better individual performance (Eisenberger et al., 2010). Finally, Gerards and colleagues (2020) recently compared social exchanges between colleagues and managers as possible antecedents to individual entrepreneurial behaviors. Findings suggest that horizontal exchanges (i.e. exchanges with peers or colleagues) play a lesser role in entrepreneurial behavior than the vertical social exchanges that occur between employees and managers (Gerards et al., 2020). This supports longstanding research pointing towards the key role of social exchanges between managers and employees in stimulating intrapreneurship (Liden & Graen, 1980).

*Manager Relationship Quality.* Prior research on dyadic relationships in the workplace indicates that employees who perceive high quality manager relationships tend to perform better, remain more committed to their organization, and exhibit higher levels of job satisfaction

(Cogliser, Schriesheim, Scandura, & Gardner, 2009; Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). Though many diverse theories may be employed to consider the specific nature and quality of relationships between managers and employees (for a review of five prominent theories, see Kim et al., 2020), the relational and social exchange aspects of intrapreneurship (Dess et al., 2003) suggest a definition and measurement that reflects these phenomena.

Accordingly, the present study adopts a social-exchanged based measure of manager relationship quality that is typically assessed at the employee level (Kim et al., 2020), as further described in Chapter 3. Manager relationship quality is therefore defined as the perception held by employees as to whether or not voluntary actions on their part will be returned by the manager in some way (Bernerth et al., 2007). This definition is built upon the conceptualization of social exchange offered by Blau (1964), and its measures represent the “notion of social exchange between a supervisor and subordinate” (Bernerth et al., 2007: 985). Scholars have demonstrated that this measurement scale is content valid for determining social exchange relationships when quantitatively compared to other available scales (Colquitt, Baer, Long, & Halvorsen-Ganepola, 2014).

Rigtering and Weitzel (2013) invoked social exchange theory and examined the role of managers in their study of employees and intrapreneurial behaviors but operationalized the employee-manager exchange relationship using a three-item measure of trust. Extending these results by employing a measure of manager relationship quality drawn directly from social exchange principles would add the dimension of reciprocity, a key element of social exchange (Emerson, 1976). Another study of intrapreneurial employees lends support to the value of high quality manager relationships in influencing intrapreneurial behaviors (Farrukh, Meng, & Raza, 2021). Farrukh and colleagues conclude that high quality exchange relationships lead to role

clarity for both parties, resulting in feelings of higher self-esteem and autonomy for the employee. In the present research, I build upon these findings and predict that the role clarity stemming from higher quality relationships will reinforce the intrapreneurial identity, leading to increased experiences of passion and increased engagement in intrapreneurial behaviors. The final section of the literature will review the second moderator in the conceptual model, resilience.

## **2.5 Resilience**

Individual level resilience gained prominence in the 1970's through research into children and youth that were able to achieve positive developmental outcomes under chronically adverse conditions (Bonanno, 2004; Masten, 2001; Werner, 1995). Psychologists soon began to study resilience in adults, investigating resilient responses after a single traumatic or severe event (Corner, Singh, & Pavlovich, 2017). This single-event approach differed from studies of children from a temporal perspective and tended to treat resilience as a trait that a person either did or did not possess (Bonanno, 2012). Lacking consistent empirical support for the trait approach with studies of adults (Corner et al., 2017), scholars then shifted to the notion of resilience as a construct or state that could be developed over time (Masten, 2001). Researchers argued that individuals could learn to address the stress associated with adverse events (Corner et al., 2017) and that these behavior patterns were relatively common (Bonanno, 2004; Luthans, Vogelgesang, & Lester, 2006). Importantly, scholars began to characterize resilience as a process with multiple factors leading to emotional and psychological equilibrium after a serious event (Bonanno, Westphal, & Mancini, 2011). Masten (2014) offers a thorough overview of the



evolution of the resilience construct over the past 50 years, including critiques, prominent theorists, and its important role in development science broadly.

As resilience matured within areas of behavioral and medical sciences (Smith et al., 2008), entrepreneurship scholars also investigated the construct, most often presenting resilience as an explanation of entrepreneurs' success (Fisher, Maritz, & Lobo, 2016; Korber & McNaughton, 2018). Despite significant definitional ambiguity within entrepreneurship literature (Chadwick & Raver, 2020), I follow the suggestions outlined in a systematic literature review of entrepreneurial resilience presented by Korber and McNaughton (2018). These authors quote Norris et al. (2008) and argue that entrepreneurial resilience is best defined as "a process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance" (130). Positive emotions serve as the foundation for these adaptive capacities (Tugade & Fredrickson, 2004) which may include traits such as optimism, self-efficacy, persistence, and hardiness (Korber & McNaughton, 2018). Resilient individuals may also develop better coping mechanisms to deal with stressful events, viewing them as challenges rather than threats (Bonanno et al., 2011; Mancini & Bonanno, 2009). Recent research asserts that while resilience remains a multi-dimensional construct (Ayala & Manzano, 2014), it is also viewed "an essential personal resource" that can be leveraged to respond to stresses associated with entrepreneurs' start-up activities (Chadwick & Raver, 2020: 235). Consistent with this viewpoint, I contend that resilience will offer similar benefits to employees who engage in intrapreneurial behaviors within the context of existing organizations.

Following the idea of resilience as a process, scholars have investigated resilient responses by entrepreneurial organizations (Powell & Baker, 2012) and resilience as a predictor of entrepreneurial success (Ayala & Manzano, 2014). Powell and Baker (2012) showed that

when founders held different views of their identity, the differences in these views led to variation in founders' resilient responses to adverse conditions caused by the global financial crisis of 2009. Through detailed interviews with participants, the authors build and present a concise process model outlining identity congruence at the individual (founder) level as a first step leading to ideological narrative generation for the firm, culminating in various resilient responses at the organization level (Powell & Baker, 2012). Ayala and Manzano (2014) described resilience as a dynamic adaption process that enables entrepreneurial individuals to overcome difficult circumstances. In a five-year longitudinal study of Spanish entrepreneurs, the authors found that individual resilience was positively related to both objective and subjective measures of firm growth, concluding that resilience should be developed and encouraged through individual training programs. Hmieleski and Carr (2007) positioned resilience as an element of psychological capital, whereby higher levels of overall psychological capital improved job satisfaction and reduced work tension for nascent entrepreneurs.

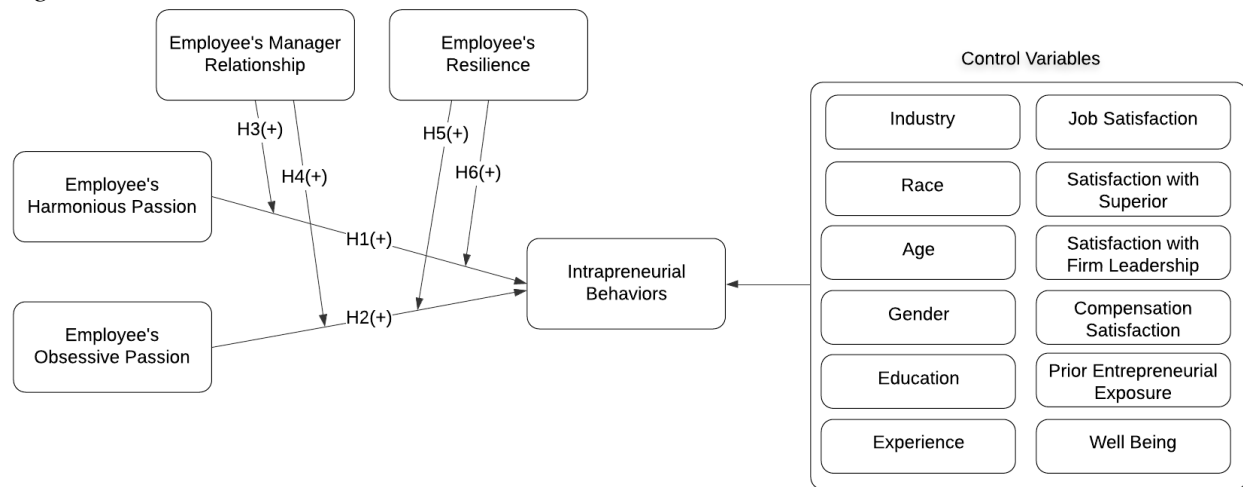
Other research has explored resilience as an overall mindset allowing bounce-back from failed entrepreneurial ventures (Corner et al., 2017; Hayward, Forster, Sarasvathy, & Fredrickson, 2010). By monitoring eleven entrepreneurs that experienced a venture failure, Corner et al. (2017) distinguished between resilience and the construct of recovery, challenging the assumption that recovery is a necessary component of a severe business event. The majority of the entrepreneurs in their study displayed resilient trajectories after the setback, experiencing only mild and short-lived disruptions in functioning (Corner et al., 2017). Combining multiple perspectives on confidence and positive emotions, Hayward et al. (2010) contend that various forms of resilience (emotional, cognitive, social, and financial) enable founding entrepreneurs to persist through failures and start new ventures.

Some studies have linked entrepreneurs' individual resilience with entrepreneurial intentions. Two such studies presented by Bullough et al. (2014) and Bullough and Renko (2013) found a strong positive association between resilience and entrepreneurial intentions in the challenging setting of an Afghan war zone, an effect made even stronger by the presence of entrepreneurial self-efficacy. Related to the success of established businesses, Santoro, Messeni-Petruzzelli, and Del Giudice (2021) measured the resilience of both employees and entrepreneurs within the same family firm, demonstrating that "dimensions of employee-level resilience affect firm performance positively" (p. 455) when the entrepreneur exhibits higher levels of personal resilience. This result is consistent with Fisher et al. (2016) who calculated a statistically significant correlation between the individual-level resilience of entrepreneurs and self-reported measures of entrepreneurial success.

An overview of the resilience construct within entrepreneurship research has been analyzed through a systematic literature review, offering a consolidation of research streams and suggestions for future research. (Korber & McNaughton, 2018). The authors selected 144 studies in their review, and summarized results according to categories that include level of analysis, temporal orientation (i.e. *ex ante* vs *ex post*), and conceptualization of resilience within each paper. Korber and McNaughton suggest that six "conversations" have emerged, with resilience cast as an antecedent, an outcome, an organizational trait, and an individual characteristic (2018). Despite the wide variation identified in both scope and focus of existing publications, the authors offer a more holistic definition of resilience drawn from numerous disciplines, while providing a starting point for future discussions on resilience. In this dissertation, I adopt the definition of resilience as suggested by these authors due to its conceptualization as an *ex ante*, multi-level capacity that promotes a positive long-term

trajectory for the individual. Other authors suggest that expanded interest in resilience within entrepreneurship may stem from the perceived benefits of resilience as “a protective factor following exposure to stress and trauma” (Green et al., 2014: 443). Engaging in entrepreneurial behaviors often involves overcoming stress, adversity, or outright failure (Fisher et al., 2016). In turn, project failures or failed ventures may lead to a grieving process for intrapreneurs enduring the failure experience (Shepherd, Covin, & Kuratko, 2009). Thus, understanding resilience becomes a priority if scholars are to assist those who engage in entrepreneurial behaviors inside or outside of existing firms. Combining these ideas, this dissertation may offer insights into how resilience enhances or diminishes employees’ engagement in intrapreneurial behaviors. In the next section the research model is presented, and hypotheses are introduced and discussed.

Figure 1. Research Model



## 2.6 Research Model and Hypothesis Development

The research model illustrating the hypothesized relationships is shown in Figure 1, along with control variables that will be discussed in Chapter 3. The primary aim of this dissertation is to consider passion as an antecedent to employees' engagement in intrapreneurial behaviors and explore possible moderating effects. The next section defines intrapreneurial behavior, and the following section details the rationale for the passion framework chosen for the research study. Following this, hypotheses are developed and presented.

*Intrapreneurial Behavior.* For the dependent variable in the study, I follow Sieger and colleagues (2013) and define intrapreneurial behaviors as all actions taken by firm members that relate to the discovery and exploitation of entrepreneurial ideas and opportunities. These actions may include the creation or reconfiguration of business units, interactions with new customers or entry into new markets, or assisting others in the firm to act entrepreneurially (Hornsby et al., 2009; Kuratko et al., 2014a; Kuratko et al., 2005). Intrapreneurial behavior is considered to be conceptually distinct from firm-level constructs such as entrepreneurial orientation (EO) or corporate entrepreneurship, and is thus suitable for a study conducted at the individual level

(Sieger et al., 2013). As entrepreneurial-thinking employees within existing firms, intrapreneurs are more likely than other employees to engage in these types of behaviors.

*Passion Framework.* To evaluate passion within intrapreneurial employees, a framework must be selected that is best suited for the research purpose (Ho & Pollack, 2014). Vallerand's conceptualization is appropriate when the focus is on passion for a general identity (such as intrapreneur), and how passionate experiences are internalized into one's identity (Murnieks et al., 2020; Vallerand & Houliort, 2019). Utilizing the dualistic model of passion also allows for differentiation between harmonious and obsessive forms, which has recently been characterized as a more theoretically rich approach due to the identity internalization aspect (Pollack et al., 2020). This model has been applied by entrepreneurship scholars to explore how harmonious and obsessive passion for *being an entrepreneur* influences key outcomes, both positive and negative (Ho & Pollack, 2014; Murnieks et al., 2020; Murnieks et al., 2014), and has recently been recommended specifically when examining passion in work settings (Pollack et al., 2020; Vallerand & Houliort, 2019). Since this dissertation examines the identity of the intrapreneur in a general sense, Vallerand's theoretical perspective is a better fit to consider the research questions at hand. As such, I adopt a definition consistent with this framework to define intrapreneurial passion as a strong inclination towards entrepreneurial activities that individuals like, that they find important and invest time and energy, and that are part of their identity (Vallerand, 2015). The target of employee passion is for "being entrepreneurial", as described more fully in section 2.2. An additional benefit in adopting the DMP may lie in answering a recent call for DMP-based research that can "provide a more nuanced picture of how passion in its various forms relates to the activities and roles that individuals engage in at work" (Pollack et al., 2020: 326). Specifically, the present study considers an element of work-related behaviors

and how those behaviors relate to individual identity, rather than “passion for work” in its broadest sense (Vallerand & Houliort, 2019).

*H1: Harmonious Passion and Intrapreneurial Behaviors.*

Intrapreneurs are entrepreneurial thinking employees within existing firms (Blanka, 2019). These individuals accumulate skills and knowledge within their respective industries through a combination of training, experience, professional networks, and personal observations (Neessen et al., 2019). According to identity theory, accumulating these specialized, entrepreneurial skills will also involve some degree of observing others who perform similar roles, including the behaviors and meanings ascribed to them (Stryker, 1968; Stryker & Burke, 2000). I argue that, similar to entrepreneurs, intrapreneurs also internalize their roles and form identities that define them as having unique and distinguishable characteristics (Stets & Serpe, 2013). Though the name of a given intrapreneurial role may vary significantly (i.e. real estate developer, investment banker, venture manager) intrapreneurs will begin to see themselves as people who carry out the activities related to their role (Murnieks et al., 2020). Further, intrapreneurial role identities are likely to be reinforced by the work organization, since the firm relies upon and compensates the intrapreneur to engage in entrepreneurial behaviors and create value through these activities (Neessen et al., 2019).

Intrapreneurial role identities are particularly important in the context of the DMP, because the way that associated activities are internalized are a central driver of each type of passion (Vallerand, 2015; Vallerand et al., 2003). According to the dualistic model, harmonious passions should arise when an employee engages in intrapreneurial behaviors freely and autonomously (Vallerand, 2000). Intrapreneurial employees experiencing harmonious passions

should feel strong but controllable desire to engage in intrapreneurial behaviors, while maintaining balance with other aspects of their life and their work role (Vallerand, 2015). The positive feelings resulting from engaging in intrapreneurial behaviors should lead to repeat engagement, since the behaviors also serve a verification function for the intrapreneurial identity of the employee (Carter, 2013; Murnieks et al., 2014). Empirical evidence supports the idea that entrepreneurs' harmonious passions are positively associated with their entrepreneurial behaviors (Fisher et al., 2018; Gielnik et al., 2017; Ho & Pollack, 2014; Murnieks et al., 2014), but this relationship is not well-established for intrapreneurial employees (Vallerand & Houliort, 2019).

I contend that intrapreneurs' harmonious passion for being entrepreneurial will be positively related to their engagement in intrapreneurial behaviors. Employees with higher levels of harmonious passion for being entrepreneurial will be more likely to engage in intrapreneurial behaviors because they enjoy and derive meaning from these actions, and engagement will contribute to their intrapreneurial identity (Vallerand, 2015; Vallerand, 2016). The feelings of enjoyment and accomplishment associated with a highly central intrapreneurial identity (Murnieks et al., 2014) will in turn produce feelings of self-esteem and other positive emotions (Burke & Stets, 1999). These positive feelings will lead to higher and more frequent levels of engagement in intrapreneurial behaviors. Therefore, I propose the following hypothesis:

*H1: Employees' harmonious passion for being entrepreneurial is positively related to their intrapreneurial behaviors.*



## *H2: Obsessive Passion and Intrapreneurial Behaviors.*

According to the DMP, obsessive passions may also arise in intrapreneurs whereby engaging in entrepreneurial behaviors involves a controlled process of internalization into the identity (Vallerand et al., 2003). Causes of controlled internalization might include pressures associated with entrepreneurial behaviors such as social acceptance, burden from the organization or manager, self-doubt, or other self-esteem issues (Vallerand & Verner-Filion, 2013). Pressures or contingencies such as these are theorized to result in partial identity integration (Deci & Ryan, 2004), and may also conflict with other aspects of the employee's life or work role (Curran et al., 2015). Employees experiencing obsessive passions may feel compelled to engage in entrepreneurial behaviors to affirm, protect, or defend their ego (Mageau et al., 2011). These individuals may be motivated to surpass others and be recognized for their performance, or to hide their incompetence and circumvent negative judgments from colleagues or superiors (Ho & Pollack, 2014; Vallerand, 2008).

Despite the understanding that obsessive passions stem from different motivational pathways that may not generate psychological well-being for the individual, research has also shown that obsessive passions may lead to intense engagement in the activity and to the achievement of performance goals (Curran et al., 2015; Vallerand, 2015). A recent meta-analysis found that obsessive passions correlated with behavioral engagement and performance at approximately equal degrees as harmonious passion (Curran et al., 2015). For entrepreneurs, obsessive passion has been associated with sustained entrepreneurial commitment (Fisher et al., 2018) and as an attribute or characteristic that results in higher probability of angel investing (Murnieks et al., 2016). On the other hand, obsessive passions can lead to instances of burnout, since this form of passion results in overwhelming desire to engage in the passionate activity

without the control to disengage from it (de Mol et al., 2018). Research also indicates that high levels of harmonious and obsessive passions are often experienced at the same time (Fisher et al., 2018; Newman et al., 2019), and that studies of passion should account for the presence of both dimensions (Schellenberg et al., 2019).

Given these prior findings, I argue that obsessively passionate employees will be motivated to engage in intrapreneurial behaviors to surpass others, hide their incompetence, or avoid negative judgments (Sieger et al., 2013; Vallerand, 2008). Whereas harmonious passions influence intrapreneurial behaviors through feelings of satisfaction and positive emotions, employees with higher levels of obsessive passion will be driven by a compulsive desire to engage in intrapreneurial behaviors in order to develop or protect their intrapreneurial identities (Vallerand & Houliort, 2019). For these employees, being entrepreneurial may still be enjoyable, but the enjoyment will stem from the need for self-validation or to garner approval from others (Curran et al., 2015). For example, an investment banker tasked with generating new banking relationships and exploiting market opportunities may engage in intrapreneurial behaviors to prove his or her identity as an investment banker. The desire to be identified as an investment banker may stem from internal sources (i.e. ego or self-worth) or external sources (i.e. pressure from the organization or management) (Mageau et al., 2011; Vallerand & Houliort, 2019). In this case, the employee would experience higher levels of obsessive passion stemming from their desire to develop and defend the intrapreneurial identity, leading to engagement in intrapreneurial behaviors. Notwithstanding the differences in how they are internalized into the identity, obsessive and harmonious passions are thought to be equally as energizing for the individual as, leading to similar levels of engagement in the passionate activity (Vallerand et al., 2003; Vallerand & Houliort, 2019). As a result, I propose the following hypothesis:

*H2: Employees' obsessive passion for being entrepreneurial is positively related to their intrapreneurial behaviors.*

*H3: Manager Relationship Quality and Harmonious Passion.*

Intrapreneurship has been characterized as system of social exchanges where the actions and decisions of individual employees should be seen in a relational context with the direct manager (Dess et al., 2003; Rigtering & Weitzel, 2013). From this perspective, employees who perceive higher quality exchange relationships with their manager should be more willing to engage in intrapreneurial behaviors (Hayton, 2005; Rigtering & Weitzel, 2013). As used herein, manager relationship quality is defined according to social exchange principles (Blau, 1964) as, “the perception held by employees as to whether or not voluntary actions on their part will be returned by the manager in some way” (Bernerth et al., 2007). When higher quality manager relationships are present, employees' increased willingness to engage in intrapreneurial behaviors likely stems from the knowledge that the employee can rely on the manager for support and encouragement as they encounter organization hurdles (Floyd & Lane, 2000; Hornsby et al., 2009; Kuratko et al., 2005). In addition, managers are thought to be important contributors to an employee's role identity within an organization, as managers often embody or personify the entire firm (Eisenberger et al., 2010). Identity theory suggests that the viewpoints and reactions of others to an enacted identity can influence individual motivations through the identity verification process (Burke, 1991; Carter, 2013; Murnieks et al., 2020). The quality of the manager relationship may therefore impact the employee's intrapreneurial identity, leading to instances of identity congruence or incongruence. In turn, this may impact the employee's willingness or desire to engage in intrapreneurial behaviors.

Integrating these ideas, I posit that manager relationship quality is an important moderating variable that changes the way employees identity themselves in their role and impacts their willingness to engage in intrapreneurial behaviors. In cases where harmonious passions are higher, a higher quality manager relationships will reinforce the intrapreneurial identity and enhance the positive emotions associated with this type of passion (Philippe, Vallerand, Houliort, Lavigne, & Donahue, 2010). This will lead to increased engagement in intrapreneurial behaviors. Prior research indicates that harmonious passions are often associated with higher quality relationships between superior and subordinate, since this type of passion allows the individual to invest the time and energy necessary to maintain their relationships with others (Jowett et al., 2012; Lafrenière et al., 2008). On the other hand, the organizational context may lend itself to instances where harmonious passions are high, but the employee perceives a lower quality relationship with the manager. In these cases, I predict that the employee's desire to engage in intrapreneurial behaviors will diminish because the quality of manager relationship will stand at odds with their harmonious feelings, creating conflict with the intrapreneurial identity. The employee may feel that engaging in intrapreneurial behaviors will not be supported by the manager, and instead focus on other aspects of their work role. As a result, I expect engagement in intrapreneurial behaviors to be reduced.

When harmonious passions are lower, higher quality manager relationships may provide an incentive to engage in intrapreneurial behaviors beyond the employee's passion. Managers can often facilitate intrapreneurship by developing strong exchange relationships or by implementing performance goals and rewards (Hornsby et al., 2009). As such, engagement in intrapreneurial behaviors should increase when harmonious passions are lower but accompanied by higher quality manager relationships. Finally, when harmonious passions are low, lower

quality manager relationships will further diminish the employee's desire to engage in intrapreneurial behaviors. I predict that the intrapreneurial identity will be less central and salient to the employee in these situations, and when faced with the prospect that managers may not reciprocate intrapreneurial efforts, employees will engage in intrapreneurial behaviors less frequently. Therefore, I propose that:

*H3: Employees' manager relationship quality will moderate the relationship between harmonious passion and intrapreneurial behaviors such that higher quality manager relationships will enhance the positive relationship between harmonious passion and intrapreneurial behaviors*

*H4: Manager Relationship Quality and Obsessive Passion.*

Even for employees driven by obsessive passion, I posit that manager relationships will moderate the path between passion and intrapreneurial behaviors. Obsessive passions are often associated with interpersonal conflict and low levels of relationship satisfaction due to the overwhelming space that the passionate activity occupies within the individual's identity (Jowett et al., 2012; Lafrenière et al., 2008). Individuals with higher levels of obsessive passions are thought to experience more arguments, disagreements, and misunderstandings within their relationships due to their aggressive pursuit of the passionate activity (Philippe et al., 2010; Vallerand & Houliort, 2019). Hence, employees with higher levels of obsessive passion are more likely to develop lower quality manager relationships, which I predict will lead to diminished engagement in intrapreneurial behaviors. Employees in a lower quality exchange relationship with their manager will find it more difficult to engage in intrapreneurial behaviors because these employees will lack the support or reciprocity from the manager that is needed to

implement intrapreneurial projects (Rigtering & Weitzel, 2013). Poor relationships may add to experiences of identity incongruence from the employee (Carter, 2013), shifting focus away from intrapreneurial behaviors and towards resolving the identity conflict with the manager. Though the employee's desire to engage in intrapreneurial behavior may be strong or even overwhelming, I posit that lower quality manager relationship will cause a reduction in the observed frequency of engagement in intrapreneurial behaviors.

In situations where the employee can overcome the interpersonal challenges typically associated with higher levels of obsessive passion and develop higher quality manager relationships, the manager relationship may serve as an endorsement for the employee's intrapreneurial identity. Bolstered by this endorsement, employee's may increase their obsessive engagement in intrapreneurial behaviors, especially when the employee feels that their compulsive behaviors will be supported and rewarded within the organization. Coach-athlete relationships have shown evidence of this dynamic (Jowett et al. 2012), indicating that higher obsessive passions may at times be associated with positive coach relationship quality. Coaches may view obsessive passion as commitment and devotion to an activity, generating feelings of satisfaction and resulting in higher quality relationships between athlete and coach (Jowett et al., 2012). Investigating the presence of these effects between employee-manager dyads may contribute to extant research on relationships relative to the DMP (Philippe et al., 2010).

For employees experiencing lower levels of obsessive passion, their desire to engage in intrapreneurial behavior should not be uncontrolled or overwhelming. Higher quality manager relationships should still exhibit a positive moderating in these instances, as evidenced by prior research identifying the role of strong relationships in creating environments where intrapreneurial behaviors can prosper (Kuratko et al., 2005; Rigtering & Weitzel, 2013). Finally,

when lower obsessive passions combine with lower quality manager relationships, I predict a further reduction in intrapreneurial behaviors due to limited sources of motivation for the employee. Hypothesis four is formally stated as:

*H4: Employees' manager relationship quality will moderate the relationship between obsessive passion and intrapreneurial behaviors such that higher quality manager relationships will enhance the positive relationship between obsessive passion and intrapreneurial behaviors.*

*H5: Resilience and Harmonious Passion.*

Intrapreneurial employees must often overcome organizational hurdles to advance their initiatives (Rigtering & Weitzel, 2013). These individuals may face setbacks, rejection, and failure as part of their pursuit of innovative projects and ideas (Parker, 2011; Parker & Collins, 2010; Shepherd, Haynie, & Patzelt, 2013). Resilience, defined herein as “a process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance” (Norris et al., 2008: 130), has been linked to optimism in the face of entrepreneurial challenges (Bullough et al., 2014) and described as an essential personal resource when engaging in entrepreneurial activities (Chadwick & Raver, 2020). Similarly, employees who are more resilient are likely armed with additional protection against the stress and adversity of pursuing their intrapreneurial projects within the firm (Fisher et al., 2016; Green et al., 2014). Extant research points to the benefits of entrepreneurial resilience (Ayala & Manzano, 2014; Corner et al., 2017; Hayward et al., 2010), but few studies have considered the individual resilience of intrapreneurial employees. For these reasons, I consider the role of resilience as a second moderator in the relationship between passion and behaviors. Through the lens of identity

theory, resilient employees should be less affected by stresses and negative emotions that results from instances of identity incongruence (Burke & Harrod, 2005). This should lead to greater commitment to the intrapreneurial identity and increased confidence to pursue the behaviors that generate feelings of passion. Additionally, resilience extends beyond other concepts such as persistence, coping, and self-efficacy (Korber & McNaughton, 2018), and its effects have yet to be considered along with the dualistic model of passion in intrapreneurship.

Therefore, I argue that resilience will moderate the relationship between harmonious passion and individual entrepreneurial behaviors. Employees with higher levels of resilience will be equipped with more adaptive capacities such as self-efficacy and optimism (Korber & McNaughton, 2018) that will result in self-belief and higher commitment to their intrapreneurial identities (Murnieks et al., 2014). In addition, the frequency of engagement in intrapreneurial behaviors will increase because highly resilient employees will possess more personal resources to address the challenges of intrapreneurship (Neessen et al., 2019). For these reasons, when harmonious passions are higher, I predict that higher levels of resilience will strengthen the relationship between passion and intrapreneurial behavior. When harmonious passions are lower, I predict that highly resilient employees will be able to draw upon their adaptive capacities and continue engaging in intrapreneurial behaviors, strengthening the hypothesized relationship. Conversely, employees with lower levels of resilience will be less well-equipped to engage in intrapreneurial behaviors, whether harmonious passion is high or low. In these cases, I posit that lower levels of resilience will diminish the relationship between passion and intrapreneurial behaviors. Hypotheses five is formally stated as:



*H5: Employee resilience will moderate the relationship between harmonious passion and intrapreneurial behaviors such that higher levels of resilience will enhance the relationship between harmonious passion and intrapreneurial behaviors.*

*H6: Resilience and Obsessive Passion.*

Obsessive passions are characterized by compulsion to engage in the activity due to feelings of pressure or a need to defend the ego of the individual (Mageau et al., 2011). Employees possessing higher levels of resilience will be able to draw upon their adaptive capacities to serve as a buffer against any negative consequences stemming from engagement in their obsessively passionate activity. Thus, when obsessive passions are higher, higher levels of resilience will strengthen the compulsion or pressure to engage in intrapreneurial behaviors, enhancing this hypothesized relationship. Employees with lower levels of obsessive passion for being entrepreneurial may still engage in intrapreneurial behaviors more frequently when resilience levels are higher, since resilience should confer the same benefits and adaptive capacities to the employee. In these cases, the relationship between passion and intrapreneurial behaviors will be strengthened. Lower levels of resilience will serve to diminish the relationship between obsessive passions and behaviors, whether these passion levels are high or low. Lacking the adaptive capacities and coping mechanisms associated with resilient individuals, I predict that employees will be less likely to engage in intrapreneurial behaviors in these instances.

Accordingly, I posit that:

*H6: Employee resilience will moderate the relationship between obsessive passion and intrapreneurial behaviors such that higher levels of resilience will enhance the relationship between obsessive passion and intrapreneurial behaviors.*

## **2.7 Summary**

Passion research is of high interest to scholars and practitioners. An area of potential expansion is to consider the role of passion as a motivating force for intrapreneurs. Do these employees engage in intrapreneurial behaviors because of their passionate feelings? I predict that they do, and this chapter has presented a summary of literature in support of the claim. I examined identity theory, prominent conceptualizations of passion, and distinguished corporate entrepreneurship from intrapreneurship research. I then introduced literature related to the role of managers, social exchange, and resilience before presenting the research model and hypothesis. The next chapter of this dissertation will introduce the methodology used for the research study.

## **CHAPTER 3: METHODOLOGY**

This chapter begins with a general overview of the study methods, followed by a description of the survey measures, controls, and the approach to sampling. The chapter concludes by outlining the data analysis process, including the steps taken to reduce common method bias associated with the study design.

### **3.1 Overview**

The research design involved nonexperimental regression using data collected from employees through the Qualtrics Experience Management (XM) platform. The study employed quantitative methods (Creswell, 2010) consisting of a cross-sectional survey instrument containing 78 items drawn primarily from existing validated scales. The scales measuring harmonious and obsessive passion were adapted to the intrapreneurship environment as described in the sections below. In addition, control variables and self-reported assessments of firm performance were included in the survey. The complete survey is included in the Appendix.

Participants were identified using convenience and snowball sampling techniques (CITE). Each participant received a link to the survey via email or text message, and data was captured anonymously within the Qualtrics platform. Ordinary least square (OLS) regression was used to analyze data in SPSS, with tests for moderation and a post-hoc analysis.

### **3.2 Survey Instrument**

The full survey instrument is included in the Appendix. I selected the Qualtrics Survey Platform based on its compatibility with numerous browsers and mobile devices, and due to its

flexibility in exporting data for further analysis. Additionally, Qualtrics allows for anonymous collection of data and is available through the University system. After building the survey using the Qualtrics XM online tool, the published survey generated a QR code and a hypertext transfer protocol link. Depending on their preference, each participant received one of the two links with instructions to complete the survey within Qualtrics. Respondents were asked to check “I agree” to indicate informed consent about the purpose of the study; contact information for the principal investigator and faculty adviser was also provided. Finally, participants were offered the choice to abandon the survey at any time and were informed that each response would be anonymous.

### **3.3 Survey Approach**

I used G\*Power 3.1 software for statistical power analysis in order to determine the minimum required sample size required. This program utilizes user-specified values for significance, statistical power, and effect size (Faul, Erdfelder, Buchner, & Lang, 2009). The preliminary power analysis used a medium effect size of 0.15, a significance level of 0.05, and a power of 0.8, with 21 predictor variables (2 independent variables, 2 moderators, 4 interaction effects associated with the moderators, and 13 controls). The software program indicated a sample size of 160, which was incorporated into the study design as the target sample size.

### **3.4 Sampling Frame**

Convenience and snowball sampling techniques were used for the research study (Creswell, 2010). Intrapreneurial employees within my personal and professional network that fit the desired respondent profile were contacted and recruited for participation. During a three-

month period, I solicited survey responses via phone, email, text messaging, and face-to-face conversations. In some cases, participants referred me to other individuals that were then contacted directly and screened for participation. In total, I contacted approximately three-hundred individuals within my personal network that engage in intrapreneurial behaviors for their company. As part of this outreach, I connected with two human resource directors of professional services firms within the southeastern United States. After explaining the survey design and the intent of the study, both HR directors distributed the survey to employees within their firm that regularly engage in intrapreneurial behaviors on behalf of the firm. All contacts received invitations to participate in written or verbal formats approved by the University's Institutional Review Board (IRB). The target sample size was 160 individuals as calculated using G\*Power software described in the previous section.

### **3.5 Measures**

This section describes each variable included in the research model. The dependent variable is described first, followed by the independent variables, the moderators, and concluding with the control variables. Established measures were used for the main effects and moderators in the research model with 7-point Likert scales. Twelve control variables were selected, consisting of some Likert-style questions, open text entry, and multiple-choice options. Table 3.1 contains a summary of the measures and controls used in the survey.

Table 3. 1 Summary of Measures and Controls

Variable	Measure
<b>Dependent Variable</b>	
Intrapreneurial Behavior	6-item scale (Sieger, Zellweger, & Aquino, 2013)
<b>Independent Variables</b>	
Harmonious Passion	6-item scale (Vallerand et al. 2003, Marsh et al. 2013)
Obsessive Passion	6-item scale (Vallerand et al. 2003, Marsh et al. 2013)
<b>Moderators</b>	
Manager Relationship Quality	8-item Leader-Member Social Exchange scale (Bernerth et al., 2007)
Resilience	6-item Brief Resilience Scale (Smith et. al, 2008)
<b>Controls</b>	
<b>Demographic Controls</b>	
Age	Continuous variable, in years
Education	Score based on highest degree completed (0 = no secondary degree, 1 = undergraduate, 2 = masters, 3 = doctoral degree)
Experience	Continuous variable, in years
Race	Multiple choice with 6 options including “other”, converted to two categories to control for Caucasian or non-Caucasian
Gender	Dichotomous variable (0 = female, 1 = male)
Industry – two controls	Open text entry, converted to three categories (commercial real estate, software, other)
<b>Satisfaction Controls</b>	
Compensation Satisfaction	Pay Satisfaction Questionnaire (PSQ) (Heneman & Schwab, 1985; Memon et al. 2017)
Job Satisfaction	“I am satisfied with my job, in general.” Single-item using a 7-point Likert scale
Satisfaction with Manager	“In general, I am satisfied with my manager.” Single-item using a 7-point Likert scale
Satisfaction with Firm Leadership	“I am satisfied with my firm’s leadership, in general.” Single-item using a 7-point Likert scale
<b>Well-Being Control</b>	3-item well-being (WB) index (Shir, Nikolaev, & Wincent, 2019) Life satisfaction, global happiness, and subjective vitality
<b>Prior Entrepreneurial Exposure</b>	3 dichotomous variable questions (yes or no response) related to self, parents, or close friends involved in entrepreneurship. Composite score created ranging from 0 to 1.

*Dependent Variable.* To assess the dependent variable, I used an established measure with a specific focus on individual-level entrepreneurial behaviors. Sieger et al. (2013) developed and tested a 6-item scale within the context of existing firms labeled Individual Entrepreneurial Behaviors (IEB). According to the authors, IEB is appropriate when examining individuals, and is distinct from other firm-level corporate entrepreneurship (CE) and entrepreneurial orientation (EO) constructs. In their study, Cronbach's alpha was reported as 0.83 suggesting internal consistency, and all 6-items loaded on a single factor (Sieger et al., 2013). As part of their research, Sieger and colleagues (2013) synthesize definitions of individual entrepreneurial behaviors from other scholars as "all actions taken by firm members that relate to the discovery and exploitation of entrepreneurial ideas and opportunities" (p. 362), citing Hornsby et al. (2009), Shane and Venkataraman (2000), and Smith and Di Gregorio (2002). To ensure that intrapreneurs responded in a manner consistent with the intent of the scale, Section 4 of the survey included a similar definition of entrepreneurial behaviors with examples drawn from Sieger and colleagues (2013).

*Independent Variables.* Harmonious and obsessive passion were measured according to the Dualistic Model of Passion taken from Vallerand et al. (2003) and validated by Marsh, Vallerand, and colleagues (2013). I adapted the full 12-item scale, with 6-items each for harmonious and obsessive passion, measured on 7-point Likert scales. In line with guidance offered by Marsh et al. (2013) and specific phrasing used by Murnieks et al. (2020), items were adjusted to capture the target activity of being entrepreneurial or engaging in entrepreneurial behaviors.

*Manager Relationship Quality.* Measuring individual relationship perceptions has been shown to be beneficial when examining antecedents and outcomes at the individual level (Kim et al., 2020). Therefore, the first moderator – manager relationship quality – was captured using a social exchange-based measure known as the Leader-Member Social Exchange (LMSX) scale. The scale was initially developed by Bernerth et al. (2007) based on theoretical foundations drawn from social exchange theory. Integrating the definition offered by these authors, I define manager relationship quality as the perception held by employees as to whether or not voluntary actions on their part will be returned by the manager in some way (Bernerth et al., 2007). The scale is intended to assess the subordinate's perspective of the social exchange relationship between a leader and follower/member (Bernerth et al., 2007) and has previously demonstrated sound reliability and validity (Colquitt et al., 2014; Gooty, Thomas, Yammarino, Kim, & Medaugh, 2019). The scale consisted of eight items used in prior studies assessing subordinate perceptions as part of the research design (e.g. Gooty & Yammarino, 2016), with responses captured on 7-point Likert scales.

*Resilience.* The second moderator, resilience, was assessed using the brief resilience scale (BRS) developed by Smith et al. (2008). This scale consists of six items intended to assess an individual's ability to bounce back or recover from stress and is therefore aligned with this dissertation's definition of resilience. As part of initial scale development and testing, Cronbach's alpha across four samples ranged from 0.81 to 0.91, indicating good internal consistency (Smith et al., 2008). Each item utilized a 7-point Likert scale, with three items reverse scored.



*Control Variables.* The inclusion of control variables can reduce potential errors when determining significance level of observed relationships (Hair, 2011). Variables selected should be identified as possible contributors to the measured effects of the study, reducing uncertainty related to unaccounted variance (Hair, 2011). In addition, prior research has shown that the level of entrepreneurial behavior may vary with an individual's background and life experience (Cardon et al., 2013; Obschonka et al., 2019). Consequently, twelve (12) variables were selected as controls as shown in Table 3.1. The first group of variables were demographic measures in line with prior studies of entrepreneurial passion and include respondent age, education, experience, race, gender, and industry. Past studies of passion have included age as a control (e.g. Fisher et al., 2018; Murnieks et al., 2020), and Parker (2011) demonstrated that age can impact willingness to engage in either entrepreneurship or intrapreneurship. Experience level is also included in recent studies using the dualistic model of passion (Murnieks et al., 2020; Murnieks et al., 2014), hence it is included in the present study. Both age and experience were recorded as continuous variables, measured in years. Since education level may play a similar role as experience by differentiating intrapreneurs' training and knowledge, education was coded into four categories according to the highest degree completed on a scale ranging from 0 (less than high school) to 3 (doctoral level of education). Rates of participation in entrepreneurship may differ based on race (Bates, Bradford, & Seamans, 2018) and similar effects have been observed in selection into intrapreneurial careers (Adachi & Hisada, 2017). To account for any differences in level of entrepreneurial behavior based on race, respondent race was recorded and subsequently converted into two groups consisting of Caucasian and non-Caucasian, in line with categories analyzed by Elston and Audretsch (2010) and similar to the distinction drawn by Bates and colleagues (2018). Gender has been linked to differences in the rate of engagement in

intrapreneurship generally (Adachi & Hisada, 2017) and intrapreneurial behaviors specifically (Valka, Roseira, & Campos, 2020), therefore gender was included as a dichotomous control variable (1 for male, 0 for female). Following controls used by Ho and Pollack (2014), industry was included and initially captured as a free-entry text box, then organized into categories since most respondents indicated either commercial real estate (CRE) or software and information technology (Software) as their industry.

The second set of control variables were selected due to their possible contribution to the measured effects of the study (Hair, 2011). Given the extensive body of research connecting satisfaction with job performance spanning nearly 100 years (Judge, Thoresen, Bono, & Patton, 2001; Judge, Weiss, Kammeyer-Mueller, & Hulin, 2017), I selected several controls related to intrapreneurs' work-related satisfaction. Three of these measures were captured using single-item 7-point Likert style questions, including satisfaction with manager, satisfaction with firm leadership, and overall job satisfaction. Compensation also contributes to overall job satisfaction (Judge, Piccolo, Podsakoff, Shaw, & Rich, 2010), therefore I adopted a version of the pay satisfaction questionnaire (PSQ) originally developed by Heneman and Schwab (1985). The original was reduced to 4-items corresponding with the four primary dimensions relating most closely to satisfaction (Memon, Salleh, & Baharom, 2017; Scarpello & Carraher, 2008). Finally, a measure of general well-being was assessed using three global measures that were summed to form a well-being index (Shir et al., 2019). Following the procedure outlined by Shir and colleagues (2019), survey questions captured perceptions of life satisfaction, global happiness, and subjective vitality, all measured on a 7-point Likert scale.

The final control variable was a measure of prior entrepreneurial exposure. Respondents were asked about their own prior involvement in entrepreneurship, as well as any prior

entrepreneurial experience of parents or close friends. Responses were summed to create a composite measure. Each control variable was analyzed for significance in the regression analysis as described in Chapter 4.

### **3.6 Data Analysis**

Data were collected from participants at a single point in time using self-reported scales, raising concerns of common method variance. Common method variance (CMV) occurs in behavioral research when there is variance attributable to the measurement method, rather than the constructs of interest intended to be assessed by the measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Acquiring data from alternative sources may reduce CMV (Podsakoff, MacKenzie, & Podsakoff, 2012), but due to the nature of this study and its focus on individual-level perceptions and motivations, alternative source collection would likely come from the intrapreneur's manager and would be difficult to implement. Further, respondent perception constructs in workplace settings often involve self-report items and have been shown to be valid, justifiable, and often preferable to non-self-report measures (Chan, 2010; Conway & Lance, 2010). In order to reduce CMV where possible, I took several steps within the survey design including assurances of anonymity, variation in question type, reverse coding of some items, and completion requirements for all sections within Qualtrics.

To analyze data, I used IBM SPSS Statistics 27 on a secure personal computer. Descriptive statistics including means, standard deviations, and bivariate correlations are reported in the next chapter. Each construct was checked for normality and reliability (Cronbach's alpha).

## **CHAPTER 4: RESULTS**

This chapter describes the quantitative results from testing the hypothesized relationships in the research model. The software used to complete the analysis was IBM SPSS Statistics, Version 27. Descriptive statistics, correlations, collinearity diagnostics, and regression analyses were conducted as outlined in the sections below.

### **4.1 Preliminary Data Analysis**

After recruiting participants and providing each with an anonymous links to Qualtrics XM, 212 individuals started the online survey and 165 completed the required fields. This resulted in a usable completion rate of 77.8%. Among completed surveys, eight respondents elected not to provide their age, and each missing value was replaced with the sample mean to preserve the sample size. Similarly, one respondent did not provide their level of education and this value was replaced with the mean education level for subsequent analyses. There were no other missing data in the sample and no observable pattern of missing values.

The average age of the respondent was 42, ranging from 23 to 70 years old. On average, respondents held 17 years' experience within their respective industry. Nearly 38% of respondents were female, and 18% identified as non-Caucasian. Two industries accounted for more than 65% of responses. Commercial real estate and related fields (CRE) made up 41% of respondents' industry, while software and information technology (Software) accounted for 24%. These two industries were coded into dummy variables and included in regression and correlation analyses. Most respondents (94%) reported at least one form of prior entrepreneurial exposure through parents (46%), close friends (87%), or their own experience (38%). Entrepreneurial exposure was then summed and converted to a standardized composite score.

Participants in this study reported high levels of college education, with 94.5% obtaining at least an undergraduate degree. By contrast, the US Census Bureau reported 2020 college educational attainment of 36% among adults 25 and older in the United States (2021).

Next, each multi-item scale was evaluated for reliability. Cronbach's alpha is the most common way to assess the reliability of self-report items, with values ranging from 0 to 1.0 (Vanderstoep & Johnson, 2008). Higher values indicate a stronger relationship between scale items, with composite alpha of 0.70 serving as an accepted threshold minimum for social science research (Hair, 2011). Three of the six items related to the resilience construct were first transformed to adjust for reverse scoring within the original survey, then reliability analysis was performed on the scales. As shown in Table 4.1, all multi-item constructs exhibited alphas above the acceptable threshold of 0.70, therefore all items were included in the composite scores for each construct. The next section will describe the correlation and collinearity testing.

*Table 4.1 Scale Reliability Analysis*

<b>Construct</b>	<b>Items</b>	<b>Alpha</b>
<b>Dependent Variable</b>		
Intrapreneurial Behaviors	6	0.878
<b>Independent Variables</b>		
Harmonious Passion	6	0.873
Obsessive Passion	6	0.897
<b>Moderators</b>		
Manager Relationship	8	0.932
Resilience	6	0.850
<b>Control Scales</b>		
Well-Being Index	4	0.901
Pay Satisfaction	3	0.888

## 4.2 Descriptive Statistics and Bivariate Correlations

The bivariate correlations and descriptive statistics are provided in Table 4.2. Pearson's  $r$  product-moment correlation is the formula used to examine and interpret the strength of

Table 4.2 Descriptive Statistics and Bivariate Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Age	41.64	8.45																	
2 Education	1.29	0.61	-0.08																
3 Race	0.18	0.39	-0.10	<b>.224**</b>															
4 Industry Tenure	17.38	8.50	<b>.819**</b>	-0.15	-0.04														
5 Gender	0.62	0.49	-0.01	0.12	0.01	0.03													
6 Pay Satisfaction	4.80	1.45	0.15	0.05	-0.04	0.10	-0.04												
7 Job Satisfaction	5.72	1.22	0.13	-0.06	<b>-.164*</b>	0.10	0.03	<b>.445**</b>											
8 Leadership Satisfaction	5.39	1.51	0.01	-0.13	-0.14	0.03	0.03	<b>.493**</b>	<b>.660**</b>										
9 Manager Satisfaction	5.80	1.29	-0.01	-0.01	-0.02	-0.06	-0.04	<b>.357**</b>	<b>.475**</b>	<b>.540**</b>									
10 Entrepreneurial Exposure	0.57	0.27	0.10	0.03	0.13	0.13	-0.05	-0.05	-0.05	-0.05	0.00								
11 Well Being	5.87	0.87	0.12	0.00	0.08	0.07	0.06	<b>.245**</b>	<b>.455**</b>	<b>.265**</b>	<b>.172*</b>	0.00							
12 CRE Industry	0.41	0.49	<b>-.164*</b>	-0.05	<b>-.267**</b>	-0.08	0.09	0.01	<b>.172*</b>	<b>.193*</b>	0.07	-0.13	-0.05						
13 Software Industry	0.24	0.43	0.08	<b>-.173*</b>	0.06	0.09	0.09	0.156*	0.03	<b>.193*</b>	0.08	0.00	0.10	<b>-.474**</b>					
14 Harmonious Passion	5.72	0.89	<b>.164*</b>	0.04	0.06	0.07	0.08	0.13	<b>.245**</b>	<b>.211**</b>	0.12	<b>.235**</b>	<b>.273**</b>	-0.12	<b>.204**</b>				
15 Obsessive Passion	3.29	1.30	-0.09	0.00	<b>.208**</b>	-0.01	0.08	-0.02	<b>-.177*</b>	-0.07	-0.14	0.10	-0.09	-0.09	<b>.161*</b>	<b>.293**</b>			
16 Resilience	5.06	0.88	<b>.166*</b>	-0.03	0.03	0.15	<b>.178*</b>	0.12	0.190*	0.08	0.04	0.08	<b>.331**</b>	0.04	0.01	<b>.408**</b>	0.06		
17 Manager Relationship	5.45	1.09	0.02	-0.02	-0.08	-0.03	0.03	<b>.426**</b>	<b>.468**</b>	<b>.541**</b>	<b>.814**</b>	0.00	<b>.191*</b>	0.06	<b>.155*</b>	<b>.157*</b>	0.02	<b>.187*</b>	
18 Intrapreneurial Behaviors	5.69	0.82	0.10	-0.05	0.10	0.09	0.04	0.01	0.05	0.04	-0.07	<b>.157*</b>	<b>.228**</b>	<b>-.224**</b>	<b>.233**</b>	<b>.660**</b>	<b>.263**</b>	<b>.356**</b>	-0.01

Note: N = 165. SD = Standard Deviation. CRE = Commercial Real Estate.

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

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

relationships between variables (Chen & Popovich, 2002). The range of Pearson's  $r$  falls between -1 and 1, indicating strength of relationships as values move away from zero. Standard ranges for interpreting relationship strength between variables are, in absolute values: 0.8 to 1.0 = very strong; 0.6 to 0.8 = strong; 0.4 to 0.6 = moderate; 0.2 to 0.4 = weak; 0.0 to 0.2 = absent (Salkind, 2014).

The dependent variable for the study, intrapreneurial behaviors, showed a strong positive correlation to harmonious passion ( $r = 0.660, p < .01$ ) and weak but statistically significant correlations with obsessive passion ( $r = 0.263, p < .01$ ) and resilience ( $r = 0.356, p < .01$ ). To ensure validity, an exploratory factor analysis was performed to examine factor loadings. In the first test, the dependent variable (IB) and the two independent variables (HP, OP) separated cleanly into three factors, with the first factor explaining 22.7% of the total 65.1% of variance. In the second test, all of the major constructs in the research model, including control constructs and moderators, were analyzed; the items separated into ten factors as expected. Overall, 72.2% of the variance was explained in the second factor analysis, with factor one explaining 13.5%. Taken together, these results suggest that common method bias was not a problem in the data (Podsakoff et al., 2003; Podsakoff et al., 2012).

Several other variables exhibited either strong or moderate correlations as shown in Table 4.2, many of which were expected due to their inclusion as control variables. For example, the manager satisfaction control was very strongly positively correlated with the moderating variable of manager relationship quality ( $r = 0.814, p < .01$ ), and industry tenure was very strongly positively correlated with age ( $r = 0.819, p < .01$ ). All the satisfaction control variables were moderately positively correlated with one another, which were in turn weakly positively correlated with well-being. During initial regression testing using the unstandardized controls,

collinearity diagnostics suggested that the condition index in model 4 was above the acceptable threshold of 30 (Hair, 2011). Each of the controls were then standardized and the regression was performed again. The condition index in model 4 dropped to 5.243, attenuating concerns of multicollinearity. The regression results were then interpreted as described in the next section.

After completing the regression analysis, a paired samples t-test was performed on the composite for obsessive passion (mean composite score of 3.29) and harmonious passion (mean composite score of 5.72) to check for differences in reported levels of passion. The paired samples t-test indicated a statistically significant difference in means between harmonious and obsessive passion ( $t_{164} = 23.2, p < .001$ ). On average, harmonious passion scores were 2.43 units higher than obsessive passion scores (95% CI [2.22, 2.63]). The implications of these differences are discussed in Chapter 5.

### **4.3 Regression Results**

The hypotheses for this study were tested using a hierarchical regression analysis comprised of four models. Table 4.3 summarizes the results of the regression analysis showing standardized regression coefficients to allow for more equal comparison between analyses (Hair, 2011). All four models controlled for age, education, race, industry tenure, gender, pay satisfaction, job satisfaction, leadership satisfaction, manager satisfaction, entrepreneurial exposure, well-being, and two industry categories. Model 1 tested the control variables, with well-being showing a significant positive relationship to intrapreneurial behavior ( $\beta = 0.205, p < .05$ ). The model was significant with an adjusted  $R^2$  of 0.079 ( $p < .05$ ). This result suggests that in the absence of other predictors, general well-being explained 7.9% of the variance in intrapreneurial behavior, which is considered a very low amount. In Model 2, Hypotheses 1 and



Table 4.3 Regression Results

Construct	Model 1 Controls	Model 2 Main Effects	Model 3 Moderators	Model 4 Interactions
<b>Dependent Variable</b>				
Intrapreneurial Behaviors				
<b>Controls</b>				
Age	0.051	-0.146	-0.144	-0.145
Education	-0.033	-0.070	-0.061	-0.053
Race	0.035	0.003	-0.003	-0.015
Industry Tenure	-0.022	0.137	0.125	0.123
Gender	0.031	-0.010	-0.026	-0.049
Pay Satisfaction	-0.042	-0.018	-0.028	-0.026
Job Satisfaction	0.023	-0.061	-0.062	-0.087
Leadership Satisfaction	0.063	-0.015	0.000	0.000
Manager Satisfaction	-0.135	-0.109	-0.102	-0.105
Entrepreneurial Exposure	0.139	-0.023	-0.022	-0.008
Well-Being	<b>0.205*</b>	0.104	0.080	0.096
CRE Industry Dummy	-0.120	-0.118	-0.128	-0.111
Software Industry Dummy	0.148	0.031	0.040	0.047
<b>Independent Variables</b>				
Harmonious Passion		<b>0.660**</b>	<b>0.617**</b>	<b>0.632**</b>
Obsessive Passion		0.027	0.032	0.031
<b>Moderating Variables</b>				
Manager Relationship			-0.008	0.002
Resilience			0.112	0.129
<b>Interaction Effects</b>				
Manager Relationship and Harmonious Passion				-0.036
Manager Relationship and Obsessive Passion				<b>0.131*</b>
Resilience and Harmonious Passion				0.083
Resilience and Obsessive Passion				-0.058
R <sup>2</sup>	0.152	0.500	0.509	0.527
Adjusted R <sup>2</sup>	0.079	0.450	0.452	0.457
Std. Error of Estimate	0.788	0.609	0.608	0.605
Δ R <sup>2</sup>	0.152	0.348	0.009	0.018
F	<b>2.081*</b>	<b>9.942**</b>	<b>8.968**</b>	<b>7.582**</b>

Standardized Regression Coefficients shown

\*\* Correlation is significant at the 0.01 level.

\* Correlation is significant at the 0.05 level.

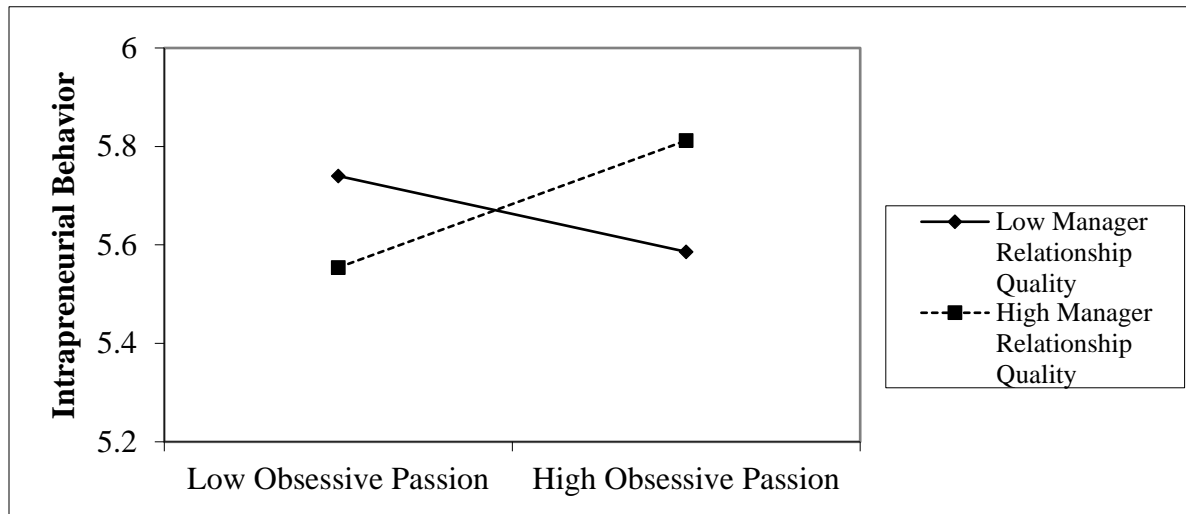
2 were tested by regressing intrapreneurial behavior on the independent variables of harmonious and obsessive passion. Only harmonious passion was significant, indicating a positive relationship with intrapreneurial behavior ( $\beta=0.660$ ,  $p < .01$ ), and the model's adjusted  $R^2$  increased to 0.450 ( $p < .01$ ). This indicates that 45% of the variance in intrapreneurial behaviors was explained by harmonious passion. Therefore, Hypothesis 1 (HP) was supported but Hypothesis 2 (OP) was not supported. The third model added the moderating variables of manager relationship and resilience, though neither of these variables indicated statistical significance in the regression. Model 3 produced an adjusted  $R^2$  of 0.452 ( $p < .01$ ), with harmonious passion remaining as the only significant variable in the regression.

The fourth model tested for the interaction effects of the moderators (Hypotheses 3 through 6). Only the interaction of manager relationship and obsessive passion had a statistically significant relationship with intrapreneurial behaviors ( $\beta=0.131$ ,  $p < .05$ ), indicating support for Hypothesis 4 (see figure 3, described further below). Hypotheses 3, 5, and 6 were not supported.

Figure 3 shows that the relationship between obsessive passion and manager relationship yield different levels of engagement in intrapreneurial behaviors. When employees perceive low quality manager relationships, engagement in intrapreneurial behaviors exhibits a negative relationship with obsessive passions. However, in support of Hypothesis 4, results indicate that when manager relationship quality is high, obsessive passion and intrapreneurial behaviors display a positive relationship. In this condition, high manager relationship quality and high obsessive passion lead to the highest level of engagement in intrapreneurial behaviors. Thus, the data indicate that high-quality manager relationships strengthen the relationship between obsessive passion and intrapreneurial behaviors.

Post-hoc regression testing was performed with a reduced set of control variables in order to compare results with the hypothesized model. Following recent passion studies by Stroe, Siren, Shepherd, and Wincent (2020) and Murnieks, Mosakowski, and Cardon (2014), controls were reduced to the standardized variables for respondent age, gender, education, and industry experience. The resultant regression yielded similar results as the full model, indicating support for Hypothesis 1 and 4 and associated constructs.

*Figure 3. Interaction of Obsessive Passion and Manager Relationship Quality*



#### 4.4 Summary

Each hypothesized relationship and a summary of statistical test results are presented in Table 4.4. Two of the six hypotheses considered in this dissertation were supported, while four were not supported. The next chapter includes a discussion of the results, a description of the limitations of the study, areas for future research, and conclusions.

*Table 4.4 Hypothesized Relationships and Results*

<b>Passion and Intrapreneurial Behaviors</b>		
H1	Employees' harmonious passion for being entrepreneurial is positively related to their intrapreneurial behaviors.	<b>Supported</b>
H2	Employees' obsessive passion for being entrepreneurial is positively related to their intrapreneurial behaviors.	Not Supported
<b>The Moderating Effect of Manager Relationship Quality</b>		
H3	Employees' manager relationship quality will moderate the relationship between harmonious passion and intrapreneurial behaviors such that higher quality manager relationships will enhance the positive relationship between harmonious passion and intrapreneurial behaviors	Not Supported
H4	Employees' manager relationship quality will moderate the relationship between obsessive passion and intrapreneurial behaviors such that higher quality manager relationships will enhance the positive relationship between obsessive passion and intrapreneurial behaviors.	<b>Supported</b>
<b>The Moderating Effect of Resilience</b>		
H5	Employee resilience will moderate the relationship between harmonious passion and intrapreneurial behaviors such that higher levels of resilience will enhance the relationship between harmonious passion and intrapreneurial behaviors.	Not Supported
H6	Employee resilience will moderate the relationship between obsessive passion and intrapreneurial behaviors such that higher levels of resilience will enhance the relationship between obsessive passion and intrapreneurial behaviors.	Not Supported

## **CHAPTER 5: DISCUSSION**

This section begins with a general overview of the study and research questions, followed by a discussion of the findings. Contributions are then outlined, as well as the limitations of the present study and suggestions for future research. The final section concludes by offering answers to the initial research questions.

### **5.1 Overview**

Passion research is fundamentally appealing as it provides a framework that can be used to explain human behaviors across a wide range of applications (Stroe et al., 2020). In work settings, passion has been shown to serve as a motivating force for employees that leads to positive workplace activities (Ho, Kong, Lee, Dubreuil, & Forest, 2018; Ho, Wong, & Lee, 2011). As research has steadily expanded to include and consider entrepreneurship, entrepreneurs' level of passion has been linked with their frequency of engagement in entrepreneurial behaviors (Murnieks et al., 2014; Obschonka et al., 2019). Building upon these established relationships, the primary purpose of this study was to examine passion as an antecedent to employees' engagement in intrapreneurial behaviors and to explore possible moderating effects. Employees that engage in intrapreneurial behaviors have been described as the foundation for innovation within an organization (Kuratko et al., 2014a), and extant research identifies that many employees choose intrapreneurial roles within existing firms instead of launching an entrepreneurial venture of their own (Douglas & Fitzsimmons, 2013). Despite this, passion has rarely been examined as an antecedent to employee intrapreneurial behaviors (Blanka, 2019; Newman et al., 2019). This dissertation drew upon identity theory to argue that the choice to be an intrapreneur and engage in intrapreneurial behaviors contributes to the

development of an intrapreneurial role identity. I predicted that employees would engage in intrapreneurial behaviors when they were meaningful and carried importance to their intrapreneurial identities, resulting in experiences of passion (Vallerand, 2008; Vallerand et al., 2003). Harmonious and obsessive forms of passion were considered, as well as the moderating effects of resilience and manager relationship quality. This dissertation sought to answer the following research questions: *Do employees experience passion for being entrepreneurial as part of their work? If so, does employee passion for being entrepreneurial lead to engagement in intrapreneurial behaviors?*

## **5.2 Research Findings**

The empirical results of the study were mixed, yielding partial support of the conceptual model, in addition to some other notable results. Hypotheses 1 and 2 predicted that an employee's passion for being entrepreneurial (harmonious and obsessive forms) would each be positively related to employee intrapreneurial behaviors. The results indicated support for the relationship between intrapreneurial behaviors and harmonious passion (H1), but not for the relationship with obsessive passion (H2). The significant positive relationship between harmonious passion and engagement in intrapreneurial behaviors (H1) is consistent with prior findings focused on entrepreneurs and their entrepreneurial behaviors (Fisher et al., 2018; Gielnik et al., 2017; Ho & Pollack, 2014; Murnieks et al., 2014) and demonstrates evidence of a similar phenomenon involving intrapreneurial employees. Applying core principles from Vallerand's dualistic model of passion, the relationship identified in Hypothesis 1 suggests that employees are able to autonomously internalize their passionate activity into their identity and self, maintaining control over the desire to engage in intrapreneurial behaviors (Vallerand et al.,

2003; Vallerand & Verner-Filion, 2013). The corresponding emergence of harmonious passion likely allows the employee to pursue intrapreneurial behaviors with a sense of enjoyment while maintaining harmony with other elements of their job function (Curran et al., 2015; Vallerand, 2015).

On the other hand, the non-significant relationship between intrapreneurial behaviors and obsessive passion (H2) stands in contrast to previous findings in both leisure activity and entrepreneurial contexts. Prior research has shown that harmonious and obsessive passions are often observed at similar levels within individuals (Curran et al., 2015; Fisher et al., 2018; Newman et al., 2019) and that obsessive passions may lead to achievement of performance goals in leisure activities (Curran et al., 2015; Vallerand, 2015) or settings involving entrepreneurs (Fisher et al., 2018; Murnieks et al., 2016). Examining the mean score for each variable in this study shows that respondents reported lower levels of obsessive passion (mean of 3.29) than harmonious passion (mean of 5.72) for being entrepreneurial. Paired samples t-testing indicated a statistically significant difference in means between these two variables ( $t_{164} = 23.2, p < .001$ ). Consequently, the data suggest that harmonious and obsessive passions may occur at different levels within individual employees, and that high levels of obsessive passions do not necessarily lead to higher levels of engagement in intrapreneurial behaviors. Combining the mixed results from Hypotheses 1 and 2 may offer some initial insight into questions posed by Newman and colleagues (2019; for a summary of questions, see page 9) regarding intra-individual differences in observed levels of harmonious versus obsessive passion related to entrepreneurial activities. In the present study, employee passions for being entrepreneurial occurred at dissimilar levels, with only harmonious passion showing association with the dependent variable in regression analysis.

A possible explanation for the non-significant relationship between obsessive passion and intrapreneurial behaviors may stem from the type of employees that self-select into, or are selected by managers for, intrapreneurial roles. Respondents were employees of existing companies, with an average age of 42 and average industry tenure of more than 17 years. Given this amount of experience, it is plausible that employees may have learned to control their compulsive desires to engage in intrapreneurial behaviors and balance their other job requirements, leading to lower levels of obsessive passion. It is also possible that managers may seek out employees with lower levels of obsessive passion to fill important intrapreneurial roles within the firm, since obsessive passions are often associated with overwhelming desires to engage in the target activity and a lack of general psychological well-being (de Mol et al., 2018; Vallerand, 2015). As such, employees with higher levels of obsessive passion may not be well-suited for intrapreneurial roles due to an inability to balance other job requirements or work well with others. Instead of lingering in intrapreneurial roles and pursuing intrapreneurial behaviors, obsessively passionate employees may be more likely to launch their own entrepreneurial ventures at higher rates. If so, this may contribute to the observed similarities in passion levels that have been measured and reported for entrepreneurs (Fisher et al., 2018; Newman et al., 2019).

Moreover, underlying differences between entrepreneurs and employee intrapreneurs may have contributed to the non-significant finding in Hypothesis 2 and lower levels of obsessive passion. Extant research portrays obsessive passion as a valuable attribute for entrepreneurs involved in business startup (Dalborg et al., 2015), angel investing (Murnieks et al., 2016), and other entrepreneurial activities (e.g. Stroe et al., 2018b). Drawing from a practical



example, CEO and founder Charles Hoskinson from the Cardano blockchain project recently referenced the obsessive aspect of founding a new venture as follows:

*“The problem with being an entrepreneur is that you start out obsessed with something, and it becomes your life mission, and you go and follow that. Concepts like work/life balance, health, sanity... they go out the window [for] five or ten years while you are building your company (Hoskinson, 2022).”*

Hoskinson’s description is consistent with many of the maladaptive outcomes associated with higher levels of obsessive passion and rigid pursuit of the focal activity (Curran et al., 2015; Schellenberg et al., 2019). Thus, employees engaging in intrapreneurial behaviors may not possess the same level of obsessive passion, or the same rigidity of pursuit, as entrepreneurial founders. At a minimum, results from Hypotheses 1 and 2 demonstrate the importance of measuring both forms of passion, especially since many scholars have operationalized only one dimension (either harmonious or obsessive) in prior research designs<sup>1</sup>.

Hypotheses 3 and 4 predicted that employees’ manager relationship quality would strengthen the relationship between passions and intrapreneurial behaviors. Though a significant body of research identifies the important role that managers play in encouraging intrapreneurial behaviors (e.g. Floyd & Lane, 2000; Hornsby et al., 2009; Kuratko et al., 2014a; Kuratko et al., 2005), only one of these hypotheses were supported. The interaction between obsessive passion and manager relationship (H4) led to different levels of engagement in intrapreneurial behaviors, and support of Hypothesis 4. High levels of obsessive passion and a high-quality manager relationship resulted in the highest level of engagement in intrapreneurial behaviors, though unexpectedly the lowest engagement in intrapreneurial behaviors occurred when obsessive passions were low and manager relationship quality remained high. Additionally, despite

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<sup>1</sup> Table 2.2 outlines studies involving the DMP in entrepreneurship research. Seven of fifteen studies analyzed (46.6%) use only one passion variable (either harmonious or obsessive passion) in the research design.

evidence that high quality manager relationships are a positive resource and an antecedent to entrepreneurial behaviors (Gerards et al., 2020), harmonious passions were not impacted by the presence of high-quality manager relationships. As with the main effect of obsessive passion, experience level of the respondents may have limited the influence of manager relationship quality as a moderator. Specifically, experienced employees with more fully developed intrapreneurial identities may need less support and encouragement from managers as they engage in intrapreneurial behaviors, thereby reducing the importance of the manager relationship. Similarly, employees with high levels of harmonious passion may possess sufficient self-motivation to engage in their activity freely and with a sense of enjoyment (Vallerand & Verner-Filion, 2013), requiring less external input from others.

Hypotheses 5 and 6 proposed that resilience would exhibit a positive moderating effect on the relationship between passions and intrapreneurial behaviors. Prior research identifies resilience as an essential personal resource when engaging in entrepreneurial activities (Chadwick & Raver, 2020) and as a benefit to entrepreneurs (Ayala & Manzano, 2014; Corner et al., 2017; Hayward et al., 2010), yet the empirical findings did not show evidence of resilience strengthening the relationship between passion and employee intrapreneurial behaviors. One explanation for the lack of significant results related to resilience could be that the construct is part of a larger set of personal resources known as psychological capital (Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007). Researchers define psychological capital as a group of individual level variables that include hope, self-efficacy, optimism, and resilience (Pandey, Gupta, & Hassan, 2020). Limiting the present study to one variable from a larger set of psychological capital resources may have diminished the predictive power of resilience as a stand-alone moderating variable. Future studies could include additional variables and use a

composite measure of psychological capital as a moderator to the relationship between passion and intrapreneurial behaviors. Another factor contributing to the lack of a significant moderating relationship may be related to the study design and the use of self-report items to capture resilience levels. Respondents may have viewed the resilience survey items as desirable or appropriate, and tended to over-report their resilient behaviors (Donaldson & Grant-Vallone, 2002; Podsakoff et al., 2003). Self-report bias has been identified as “particularly likely in organizational behavior research because employees often believe there is at least a remote possibility that their employer could gain access to their responses” (Donaldson & Grant-Vallone, 2002: 247). This concern could be attenuated by including multiple raters in subsequent studies (Podsakoff et al., 2003).

### **5.3 Contributions**

This dissertation contributes to research on both passion and intrapreneurship by considering employees’ harmonious and obsessive passion for being entrepreneurial as antecedents to individual-level intrapreneurial behaviors. Empirical results from this study suggest that harmonious passions exhibit a positive relationship on engagement in intrapreneurial behaviors, while obsessive passions do not. These are nonetheless significant findings for both scholars and practitioners, adding to our empirical understanding of how passion for being entrepreneurial can occur within workplace settings. Intrapreneurship scholars may benefit from including harmonious passion as a key trait – in addition to innovativeness, proactiveness, and self-efficacy – in future profiles of intrapreneurial employees (e.g. Neessen et al., 2019). Practitioners could select candidates for intrapreneurial roles within existing firms by screening for high levels of harmonious passion and low levels of obsessive passion, particularly when

intrapreneurial behaviors are an important part of the job function. Furthermore, this study follows recent recommendations to apply the dualistic model of passion to work settings (Newman et al., 2019; Pollack et al., 2020), and provides some insights into how employee passion for being entrepreneurial impacts innovative work behaviors.

Given that high levels of harmonious passion for an activity leads to the formation of a substantial portion of one's identity (Vallerand, 2015), the results of this study add to our understanding of identity theory generally and employee role identity specifically. High levels of harmonious passion, such as those reported by employees in this study, indicates that the focal activity is self-defining and important to the individual's identity (Curran et al., 2015). Accordingly, employees who are passionate about "being entrepreneurial" have likely formed role identities that are both central and salient to the individual (Murnieks et al., 2014; Stryker & Serpe, 1994). This finding is in line with prior studies associating entrepreneurs' identity centrality with their harmonious passion (Murnieks et al., 2014), and demonstrates evidence of the same dynamic effecting employees of existing firms. Recognizing that employees develop intrapreneurial role identities could inform future research into workplace identities, or assist practitioners seeking to optimize employee workplace performance. Scholars could explore the level of identity congruence between the employee and other colleagues related to the intrapreneurial identity, or test explicitly for the presence of identity centrality as an antecedent to harmonious passion (e.g. Murnieks et al., 2014). Practitioners could initiate processes designed to develop the intrapreneurial identity of those employees who deem it important, leading to identity verification and experiences of positive emotion for the employee (Stets & Serpe, 2013).

The inclusion of manager relationship quality and resilience as moderators is also not without merit. Previous research has shown empirical evidence of positive outcomes associated with each variable, and current results indicate that manager relationship quality can influence the relationship between obsessive passion and intrapreneurial behaviors. Still, the current results can inform scholars considering similar moderating effects, leading to further testing of resilience and manager relationship quality as mediators, antecedents, or outcome variables. Intrapreneurial behaviors are an important building block leading to innovation within existing firms, therefore refining the set of variables and circumstances that contribute to their occurrence yields benefit for both theory and practice.

#### **5.4 Limitations and Future Research**

This study is not without limitations. First, cross-sectional data were obtained from individuals for both the independent and dependent variables at a single point in time. Research designs that obtain measures of predictor and criterion variables from a single rater can introduce common method bias (Podsakoff et al., 2003). Following suggestions offered by Podsakoff and colleagues (2003), attempts were made to reduce common method bias in the study design, including the use of different response formats, the assurance and maintenance of anonymity, and the inclusion of survey instructions intended to reduce evaluation apprehension. In addition, since this study primarily measured employee attitudes, these constructs could not be measured by alternate sources (e.g., the employee's manager) without increased risk of either compromised anonymity or reduction in employee willingness to participate. Future research could include employee-manager pairs to measure the dependent variable from two sources (Podsakoff et al., 2012) or capture managers' perceptions of the employee relationship (Bernerth et al., 2007;

Eisenberger et al., 2010). In addition, future studies could employ a longitudinal design to measure variables at different points in time, allowing researchers to analyze temporal changes in both employee passion and intrapreneurial behaviors.

Second, the study design centered around convenience and snowball sampling techniques for data collection due to the inherent difficulty in reaching qualified respondents. These techniques afforded the advantage of leveraging my existing relationships, which in turn allowed for rapid screening of qualified study participants and high survey completion rates. Despite efforts to collect data from a diverse sampling of participants from multiple industries, selecting participants through convenience and snowball sampling carries inherent risk, as the sample may not be representative of the overall population (Vanderstoep & Johnson, 2008). Results from the current study should be interpreted with caution, and future studies could include a larger sampling frame of employees or stratified random sampling techniques to reach participants.

Third, this study employed a relatively small sample size of employees ( $n=165$ ). The sample was sufficient for purposes of statistical power analysis, though future studies with larger sample sizes could improve the generalizability of the present findings. Further, most respondents were US-based, therefore including additional perspectives from employees in other world regions would be beneficial.

Beyond the methodological improvements offered above, additional research possibilities exist. Scholars could attempt to validate the present findings by testing the main effects on other samples of employees, then compare results among different groups based on job type or function. Prior studies examining antecedents to intrapreneurship "...have treated employees as a homogenous group. However, it may be that for some groups of employees, intrapreneurship is more important than for others" (Neessen et al., 2019: 564). Assessing various groups of

employees for their level of engagement in intrapreneurial behaviors, and their passion to do so, could allow for more nuanced employee profiles based on job type. An interesting design conducted within existing firms might include the company's expected level of job-specific engagement in intrapreneurial behaviors compared to observed levels, simultaneously testing for the presence of passions.

The presence of dissimilar passion levels within employees also offers an opportunity for future research from a theoretical perspective. Though additional empirical evidence is needed, differentiated theory could be developed that helps to clarify differences in passion levels between entrepreneurs and intrapreneurs. Studies of entrepreneurs reveal wide variation in observed levels of passion based on factors such as role stress, startup stage, and experience as an entrepreneur, with some groups indicating high levels of obsessive passion (Stroe et al., 2018a; Stroe et al., 2020; Stroe et al., 2018b; Thorgren & Wincent, 2015). For example, Thorgren and Wincent (2015) applied the dualistic model of passion to groups of habitual and novice entrepreneurs, demonstrating that obsessive passion occurred at high levels within serial entrepreneurs, while portfolio entrepreneurs exhibited both harmonious and obsessive passions. Scholars could attempt to develop similar profiles of intrapreneurs, along with a theoretical justification for how and why harmonious passions may be more observable than obsessive passions. Conceivably, systems of social exchange within organizations (Dess et al., 2003) may also have an indirect influence on the expression of employee passions for intrapreneurial behaviors. Social exchange relationships have been described as an essential condition for encouraging intrapreneurial behaviors (Rigtering & Weitzel, 2013), leading to role expectations for employees that are specific to the organizational context (Dess et al., 2003). These role expectations may also influence development and selection of different forms of passion within

employees, with a bias towards harmonious passion and its associated adaptive outcomes. Exploring these ideas from a theoretical perspective may help to establish a set of factors that distinguish between intrapreneurial and entrepreneurial passion.

Another fertile area for future research lies in the use of different methodologies to study intrapreneurial behaviors. Few studies have employed methods beyond single-use questionnaires, creating ample opportunity for both longitudinal and case study designs (Neessen et al., 2019). For instance, in-depth case studies would allow researchers to ask probing questions regarding identity, passion, and behaviors and may offer deeper understanding of each concept. Likewise, scholars could use a case-study approach to determine how employees' intrapreneurial behaviors impacts their colleagues, teams, or organizations. This could be extended to include the influence of employee passions as perceived by others, and how these perceptions strengthen or diminish working relationships.

The use of other passion frameworks provides another area of prospective research on employees and their intrapreneurial motivations. In the present study, I considered the differential effects of passion for “being entrepreneurial” in a general sense, consistent with the DMP. However, future research could adopt Cardon and colleagues (2009) conceptualization of passion and investigate whether any of the three distinct identities – inventor, founder, or developer – influence the level of engagement in intrapreneurial behaviors. It may be that employees' passions are closely related to specific activities that they engage in regularly for their firm, with correspondingly diverse feelings of passion for each activity. Though the inventor, founder, and developer roles may need to be translated into similar or related descriptions that are more pertinent to employees, application of the Cardon framework may add to our understanding of how employee passions occur.



Last, as described in prior sections, obsessive passion levels could be examined more closely by comparing groups of intrapreneurial employees with entrepreneurial founders and analyzing the results. With respect to resilience, future studies could draw from psychological capital literature (Pandey et al., 2020) and test for additional variables that may moderate the relationship between employee passion and behaviors. Including a composite measure of multiple psychological traits may also add to our understanding of how and why employees engage in intrapreneurial behaviors.

## **5.5 Conclusion**

This dissertation examined passion as an antecedent to employees' engagement in intrapreneurial behaviors and explored the moderating effect of resilience and manager relationship quality. By conducting a review and synthesis of relevant literature on these topics and including identity theory as the theoretical framework, the empirical results gathered from individual employees allows me to address the research questions guiding my dissertation. Employees can experience harmonious passion for being entrepreneurial, and high levels of harmonious passion is associated with increased engagement in intrapreneurial behaviors. These findings offer an opportunity for further exploration of these relationships, while adding to literature on both passion and intrapreneurship.

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## APPENDIX

### ENTREPRENEURIAL EMPLOYEE SURVEY

A research team from UNC-Charlotte is interested in learning about innovation within existing firms. Specifically, we are studying entrepreneurial employees and are interested in hearing from you! The questions below have no right or wrong answers – we are interested in your opinions. Your responses will assist in the development of research on innovation and entrepreneurial behaviors.

#### Key Information about this study:

Our survey is anonymous, and includes questions about your work environment, your behaviors while at work, your relationship with your direct manager, and your general feelings about your work and compensation. Some basic demographic related questions, employment history with the firm, and firm characteristics are also included in the survey.

- All responses are completely *anonymous*.
  - This survey contains no identifiers that could point to your identity.
- The survey will take *approximately 10-15 minutes* to complete.
- Your *participation is voluntary*.
  - You are free to stop or exit the survey at any time.
- All survey data will be used *exclusively for academic research* only.
  - This data may be included in future academic research studies.
  - The data may be included in academic or business-related publications in the future.
- The data collected from this survey will not be sold.
- There are *no known adverse consequences* associated with either choosing or forgoing participation in this research study.

*If you have questions about participating in the study, please contact:*

Principal Investigator, Mark Holoman by email at [mholoma1@uncc.edu](mailto:mholoma1@uncc.edu)

Faculty Advisor, Franz Kellermanns by email at [kellermanns@uncc.edu](mailto:kellermanns@uncc.edu)

*Additional questions or concerns about your rights as a participant in this study can be directed towards The Office of Research Protections and Integrity (704) 687-1871 or [uncc-irb@uncc.edu](mailto:uncc-irb@uncc.edu).*

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#### Section 1: First, please provide some background information about yourself and your role.

Age: \_\_\_\_\_ years.

Gender: \_\_\_\_ Male \_\_\_\_ Female.

Race: \_\_\_\_\_

Your position in the firm: \_\_\_\_\_

Your title in the firm (if different from previous question): \_\_\_\_\_

How would you describe your role (i.e. developer, venture manager, broker, etc):  
\_\_\_\_\_

Time with your current firm (years): \_\_\_\_\_ Firm Industry: \_\_\_\_\_

Overall tenure within your industry (years): \_\_\_\_\_

**Highest education degree earned:** \_\_\_\_\_ **Field of study (highest degree):** \_\_\_\_\_

**Do either of your parents have experience as an entrepreneur?** YES NO

**Do you have a close friend that owns their own business?** YES NO

**Have you ever started your own business?** YES NO

**Section 2:** In this section we are interested in learning about your resilience. Please indicate your level of agreement with each of the statements below (1 = Strongly disagree; 7 = Strongly agree).

	Strongly Disagree		Neutral			Strongly Agree	
I tend to bounce back quickly after hard times.	1	2	3	4	5	6	7
I have a hard time making it through stressful events. (R)	1	2	3	4	5	6	7
It does not take me long to recover from a stressful event	1	2	3	4	5	6	7
It is hard for me to snap back when something bad happens. (R)	1	2	3	4	5	6	7
I usually come through difficult times with little trouble.	1	2	3	4	5	6	7
I tend to take a long time to get over setbacks in my life. (R)	1	2	3	4	5	6	7

**Section 3:** In this section we are interested in learning about interactions with your direct manager. Please indicate your level of agreement with each of the statements below (1 = Strongly disagree; 7 = Strongly agree).

	Strongly Disagree			Neutral		Strongly Agree	
My manager and I have a two-way exchange relationship.	1	2	3	4	5	6	7
I do not have to specify the exact conditions to know my manager will return a favor.	1	2	3	4	5	6	7
If I do something for my manager, he or she will eventually repay me.	1	2	3	4	5	6	7
I have a balance of inputs and outputs with my manager.	1	2	3	4	5	6	7
My efforts are reciprocated by my manager.	1	2	3	4	5	6	7
My relationship with my manager is composed of comparable exchanges of giving and taking.	1	2	3	4	5	6	7
When I give effort at work, my manager will return it.	1	2	3	4	5	6	7

Voluntary actions on my part will be returned in some way by my manager.	1	2	3	4	5	6	7
In general, I am satisfied with my manager.	1	2	3	4	5	6	7

**Section 4:** In this section, we define **entrepreneurial behaviors** as “actions taken that relate to the discovery and exploitation of entrepreneurial ideas and opportunities”. Examples might include identifying new ways to create new businesses or reconfigure existing ones; scanning the environment for opportunities and threats; recognizing, surfacing, and generating innovative and entrepreneurial ideas by observing the market and competition; or helping others to act entrepreneurially.

Consider the entrepreneurial behaviors that you engage in for your firm. We are interested in how you feel about being entrepreneurial, and how often you engage in entrepreneurial behaviors. Please indicate your level of agreement with each of the statements below. (1 = Strongly disagree; 7 = Strongly agree).

	Strongly Disagree			Neutral			Strongly Agree
For me, being entrepreneurial is in harmony with activities at my work.	1	2	3	4	5	6	7
The new things that I discover by being entrepreneurial allow me to appreciate it even more.	1	2	3	4	5	6	7
My entrepreneurial behaviors reflect qualities that I like about myself.	1	2	3	4	5	6	7
Entrepreneurial activities allow me to live a variety of experiences.	1	2	3	4	5	6	7
My entrepreneurial behaviors are well integrated into my life.	1	2	3	4	5	6	7
My entrepreneurial behaviors are in harmony with other things that are a part of me.	1	2	3	4	5	6	7
Entrepreneurial activities are the only activities that really engage me.	1	2	3	4	5	6	7
I have a tough time controlling my need to be entrepreneurial.	1	2	3	4	5	6	7
I have almost an obsessive feeling for being entrepreneurial.	1	2	3	4	5	6	7
Being entrepreneurial is so exciting, that I can sometimes lose control over it.	1	2	3	4	5	6	7
If I could, I would only focus on entrepreneurial activities.	1	2	3	4	5	6	7
At times, my need to be entrepreneurial controls me.	1	2	3	4	5	6	7
I often make innovative suggestions to improve our business.	1	2	3	4	5	6	7
I often generate new ideas by observing our markets.	1	2	3	4	5	6	7
I often come to new ideas when observing how people interact with our products and services.	1	2	3	4	5	6	7

I often generate new ideas by observing our customers.	1	2	3	4	5	6	7
I boldly move ahead with promising new approaches when others might be more cautious.	1	2	3	4	5	6	7
I devote time to help others find ways to improve our products and services.	1	2	3	4	5	6	7

**Section 5:** Next, we are interested in how you spend your time at work, and how this might differ from what your firm expects. Please answer the questions below.

In your current role, how much of your time <i>should be</i> devoted to entrepreneurial behaviors (i.e. pursuing new business or new opportunities)?	___ hours	___ hours	
	Hours per week that <b>should be</b> devoted to entrepreneurial behaviors	Hours per week that <b>should be</b> spent on all other job functions	Total
How much of your time do you <i>end up</i> spending on entrepreneurial behaviors (i.e. pursuing new business or new opportunities)?	___ hours	___ hours	
	Hours per week that you <b>end up</b> spending on entrepreneurial behaviors	Hours per week that you <b>end up</b> spending on all other job functions	Total

**Section 6: How would you rate your firm's performance as compared to your competitors?**

Indicator	Current (past 12 months)							Past three years						
	Much Worse Much Better			About the Same				Much Worse Much Better			About the Same			
Growth in revenue	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Growth in market share	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Growth in number of employees	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Growth in profitability	1	2	3	4	5	6	7	1	2	3	4	5	6	7
New ventures launched	1	2	3	4	5	6	7	1	2	3	4	5	6	7
New business lines created	1	2	3	4	5	6	7	1	2	3	4	5	6	7

<b>Entrepreneurial Ideas implemented</b>	1	2	3	4	5	6	7	1	2	3	4	5	6	7
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**How many entrepreneurial ideas have you successfully implemented within your firm in the past year:** \_\_\_\_\_

**How many entrepreneurial ideas have you successfully implemented within your firm in the past three years:** \_\_\_\_\_

**Section 7:** In this section, we are interested in your satisfaction about various aspects of your firm, including your compensation. Remember, all responses are anonymous.

	Strongly Disagree			Neutral			Strongly Agree		
I am satisfied with my job, in general.	1	2	3	4	5	6	7		
I am satisfied with our firm's leadership, in general.	1	2	3	4	5	6	7		
I am satisfied with my current compensation.	1	2	3	4	5	6	7		
I am satisfied with the differences in compensation levels among jobs in the company.	1	2	3	4	5	6	7		
I am satisfied with my compensation based on the effort I have to exert.	1	2	3	4	5	6	7		
I am satisfied with my compensation compared to similar jobs in other companies.	1	2	3	4	5	6	7		

**Section 8:** In this final section, we are interested in your overall life satisfaction. Remember, all responses are anonymous.

	Not at all Satisfied			Neutral			Very Satisfied		
All things considered, how dissatisfied or satisfied are you with your life as a whole these days?	1	2	3	4	5	6	7		
	Not at all Happy			Neutral			Very Happy		
Taking all things together, how happy would you say you are?	1	2	3	4	5	6	7		
	Not at all True			Neutral			Very True		
I feel alive and vital.	1	2	3	4	5	6	7		

**Please return questionnaire via email to Mark Holoman – mholoma1@uncc.edu Thank you very much for your participation!**

Figure 2.

## Categories of Corporate Entrepreneurship

