

MOTIVES, SELF-REGULATION, AND A RE-CONCEPTUALIZATION OF
ENTREPRENEURIAL SUCCESS

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Abstract: This study examines the role of intrinsic motives and self-regulatory factors on entrepreneurs' goal progress, career success, and subjective well-being. A review of the literature on entrepreneurial motives found that not only do entrepreneurs have a broad range of motives for starting a business, they tend to emphasize intrinsic motives above financial motives. This indicates the need to re-conceptualize entrepreneurial success to include dimensions beyond the financial measures typically used to measure entrepreneurial success, such as subjective career success and global life satisfaction/subjective well-being. Structural equation modeling of survey responses from entrepreneurs indicated that self-control was positively related to goal progress, and goal progress fully mediated the positive relationship between self-control and career success. Locomotion was positively related to goal progress and career success, and goal progress partially mediated the relationship between locomotion and career success. Career success fully mediated the relationship between goal progress and subjective well-being. Locomotion fully mediated the positive relationship between intrinsic motives and goal progress. Results suggest that intrinsic motives alone are not adequate for goal progress and career success -- high levels of locomotion are also necessary. This finding contributes to self-determination theory by identifying why some individuals fail to act regardless of having high levels of intrinsic motivation. Additionally, self-control, which contributes to higher levels of goal progress, is a self-regulatory skill that can be learned. Practical implications suggest that helping entrepreneurs increase their self-regulatory skills can enhance their subjective and objective success, leading to better performance and higher levels of subjective-well being.

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CHAPTER I

INTRODUCTION AND OVERVIEW

“The life that entrepreneurship can bring through a broadened understanding of human goals and values pursued through organizing could easily be suffocated if the calloused heel of homo economicus is allowed to stand too heavily upon entrepreneurship’s throat.”

-- Ted Baker & Tim Pollock (2007: 306)

Entrepreneurs have many different motives for choosing entrepreneurship as a career. Much previous research, however, seems to assume that entrepreneurs’ motives are primarily financial, yet growing evidence suggests otherwise (e.g. Amit, MacCrimmon, Zietsma, & Oesch, 2001; Cassar, 2007; Hayter, 2011). Because there is a broad heterogeneity of entrepreneurial motives, how entrepreneurs define their own success may vary based on the motives that underlie their behavior. Considering that entrepreneurs are pursuing different goals (based on contrasting motives), we may need alternate measures of success (other than just financial measures). In essence, success may be defined both by individual entrepreneurs and external observers as the extent to which they actually achieve their key goals. Additionally, entrepreneurs may have multiple motives leading to multiple goals, suggesting that we need multi-faceted measures of success -- measures that are consistent with the way in which entrepreneurs assess and perceive their own success. These measures may include not only objective extrinsic financial indicators (e.g. profits, personal income, increased value of company ownership), but also take into account entrepreneurs’ subjective perceptions of their own success

based on their intrinsic motives, including indicators of satisfaction with their career and work life, as well as indicators of global life satisfaction.

Global life satisfaction (or subjective well-being) has been associated with many aspects of work, including work satisfaction, income, occupational attainment, work autonomy, meaning and variety, creativity, supervisory evaluations and overall performance (Cropanzano & Wright, 1999; Diener, Nickerson, Lucas, & Sandvik, 2002; Marks & Fleming, 1999; Roberts, Caspi, & Moffitt, 2003; Staw, Sutton, & Pelled, 1994). While a number of studies suggest that success contributes to subjective well-being, there is also convincing evidence that subjective well-being contributes to success (Lyubomirsky, King, & Diener, 2005). To paraphrase Lyubomirsky et al., not only does success lead to happiness/subjective well being, happiness actually contributes to success. This suggests there may be a reciprocal relationship between career success and subjective well-being. Furthermore, numerous studies found evidence that intrinsic motives (which pertains to reasons for doing something because it is inherently interesting or enjoyable as described by self-determination theory [Deci & Ryan, 2000; Ryan & Deci, 2000]) are more highly associated with job satisfaction and subjective well-being compared to extrinsic motives (which pertains to reasons for doing something because it provides an external reward or separable outcome [Deci & Ryan, 2000; Ryan & Deci, 2000]) such as financial status and wealth (e.g. Benz & Frey, 2008; Martos & Kopp, 2012; Sheldon, Ryan, Deci, & Kasser, 2004). However, these findings may be more complex than they at first seem, as Srivastava and colleagues provide convincing evidence for the existence of second-order motives underlying the extrinsic motives of financial success (Srivastava, Locke, & Bartol, 2001). These findings further establish the importance of considering entrepreneurs' various motives and subjective

perceptions when defining entrepreneurial success.

While examining the meaning and measurement of success for entrepreneurs, we should also take into account factors that contribute to higher levels of success. Self regulation, defined as an array of cognitive processes through which individuals monitor, assess, direct, and adjust their behaviors so as to facilitate progress toward desired goals (Forgas, Baumeister, & Tice, 2009), has been found to facilitate high levels of performance and success for individuals in many different fields and contexts. In other words, self regulation guides, directs, and monitors goal progress. Effective self-regulatory processes help individuals attain their goals by keeping them focused on these goals, helping them choose the appropriate strategies for reaching the goals, and facilitating the actions necessary to make progress toward their goals possible.

Motives influence specific goals, and higher goals often lead to higher levels of success. Self-regulatory skills have been linked to goal progress (e.g. Sheldon & Kasser, 1998). Goal progress, in turn, has been linked not only to objective measures of goal achievement and performance, but also to well-being at work (Pomaki, Karoly, & Maes, 2009) and to life satisfaction and global well-being (Lent, Singley, Sheu, Gainor, Brenner, Treistman, & Ades, 2005; Sheldon & Elliot, 1999). Furthermore, progress toward and attainment of goals are key contributors to increased life satisfaction (Diener, Suh, Lucas, & Smith, 1999; Emmons, 1986).

While there are many different aspects of self-regulation, the self-regulatory processes addressed in the current study include self-control (Baumeister & Alquist, 2009), locomotion, and assessment (Kruglanski, Thompson, Higgins, Atash, Pierro, Shah, & Spiegel, 2000). Self-control influences efforts to reach goals by helping individuals avoid distracting temptations while approaching goals (Fishbach & Shah, 2006; Hofmann, Baumeister, Forster, & Vohs, 2012),

and by helping individuals regulate competing motives so as to shift, effectively, between goals to facilitate progress toward multiple goals (Fujita, 2011). By doing so, self-regulation contributes to higher levels of career success. Self-control has been found to predict both extrinsic career success (defined as “outcomes that are both instrumental rewards from the job or occupation and are objectively observable”), such as salary and/or promotions, and intrinsic career success (which “refers to factors that are inherent in the job or occupation itself and is dependent on the incumbent’s subjective evaluation relative to his or her own goals and expectations”) (Seibert & Kraimer, 2001: 2), such as career satisfaction (Converse, Pathak, DePaul-Haddock, Gotlib, & Merbedone, 2012). Because self-control helps entrepreneurs attain the goals they seek, it enhances multiple dimensions of career success, including extrinsic objective dimensions such as financial indicators, and intrinsic subjective dimensions such as career satisfaction and life satisfaction.

One of the limitations of self-determination theory is that while it addresses failure to act when the individual does not value or desire the activity, the theory does not provide an explanation for why individuals fail to act on desired outcomes and valued activities. The tendency to act or not act is captured in a variable known as locomotion, which reflects an individual’s tendency to take action -- to “do it now” rather than waiting to ensure one is “doing it right” -- and tends to be associated with individuals who are “high energy ‘doers’ and ‘go-getters’ who welcome the opportunity to act in relative disregard of the costs and who loathe merely waiting and watching rather than acting” (Kruglanski et al., 2000: 796). Locomotion has been found to be positively associated with effort exertion, goal attainment expectancy, goal commitment, and subjective well-being (Hong, Tan, & Chang, 2004; Kruglanski et al., 2000;

Pierro, Kruglanski, & Higgins, 2006). As such, locomotion can contribute to higher levels of goal progress, which will lead to higher levels of career success and well-being.

While high levels of locomotion may facilitate goal progress through an individual's tendency to act and "do it now," locomotion alone may not be enough to contribute to high levels of career success. In addition to "doing it now," entrepreneurs also need to "do it right" in order to attain their goals and be successful. A variable known as assessment addresses an individual's tendency to critically evaluate entities or states such as goals and means in relation to alternatives (Kruglanski et al., 2000:794). High levels of achievement require "both a correct choice (high assessment) and a commitment to following through on the choice (high locomotion)" (Higgins, Kruglanski, & Pierro, 2003: 398). An interaction between locomotion and assessment has been shown to predict goal attainment (Kruglanski et al., 2000; Pierro et al., 2006), suggesting that entrepreneurs who are high on both locomotion and assessment are more likely to attain their goals and be successful. Thus, the tendency to "take action" (locomotion), combined with the ability to assess the most appropriate actions (assessment), along with the ability to limit impulsivity and refrain from actions that are not directed toward goal achievement/progress (self-control), contributes to goal progress which leads to all dimensions of career success and well-being.

The current study seeks to contribute by providing an alternate understanding of how to conceptualize and measure success among entrepreneurs. While there has been a recognition among some scholars that entrepreneurs have a variety of motives and that primary motives may not necessarily be financial in nature, measures of success and performance for entrepreneurs tend to emphasize financial criteria such as profitability, firm revenue, personal wealth creation,

revenue growth and employee growth (Amit, MacCrimmon, Zietsma, & Oesch, 2001; Buttner & Moore, 1997). “Despite the abundance of evidence about diversity and richness in entrepreneurial motivations, entrepreneurship research has paid little attention to how wishes for autonomy, expression of personal values, and making a difference in the world can be accomplished” (Rindova & Ketchen, 2009: 478). The assumption of economic motives as the primary motive for entrepreneurship constrains our understanding of how individuals influence the structures, strategies and growth of organizations (Baker & Pollock, 2007: 301). Furthermore, among those whose primary motives are financial, we need to consider that variations in second-order motives (i.e. are the financial motives based on the desire to provide security for family, are they based on an underlying desire for the freedom and autonomy that financial success can provide, are they based on the motive of gaining recognition by impressing others... just to name a few.) Considering that there are a variety of reasons individuals decide to become entrepreneurs -- and many of them are not purely economic reasons -- gaining a true and accurate understanding of the meaning of success for entrepreneurs is critical. Moreover, we need to follow this understanding with a means for measuring entrepreneurial success that takes into account the multiple motives of entrepreneurs and that provides for multiple dimensions on which to measure entrepreneurial success. Career success, in short, is not synonymous with financial performance and firm level performance, or with the measures of these variables, which are often used to define entrepreneurial success. Career success encompasses both objective and subjective dimensions, and addresses both extrinsic and intrinsic motives.

This study contributes to theory by addressing two gaps in self-determination theory. As mentioned, self-determination theory addresses failure to take action as resulting from a lack of

value or interest in the activity, not feeling competent, or not expecting the desired outcome. Self-determination theory does not provide an adequate explanation for why some individuals fail to take action when the outcome is desired, when they feel competent, and when the activity is valued and enjoyable. I address this gap by incorporating the concept of locomotion as a self-regulatory factor. Secondly, self-determination theory identifies motivations as generally extrinsic or intrinsic -- based on the desire for an external reward versus based on internal rewards such as enjoyment of the activity. However, there are a number of examples of motives or goals based on extrinsic rewards but which are intrinsically motivated (e.g. the desire for financial gain to allow for increased autonomy to pursue one's passions). This study empirically investigates the underlying motives of extrinsic goals.

The current study also seeks to contribute to current knowledge of the cognitive processes and behaviors that facilitate positive entrepreneurial outcomes by providing new insight on the role of self-regulation in some dimensions of entrepreneurs' success. To the best of my knowledge, the constructs of locomotion and assessment have not been applied to entrepreneurship. Furthermore, to the best of my knowledge, the construct of self-control has not been included in empirical published studies of entrepreneurship. Gaining a better understanding of entrepreneurs' tendency to "just do it," and the extent to which this tendency to act is tempered by self-control and assessment, will provide new information on how self-regulatory factors contribute to the success and well-being of entrepreneurs. Furthermore, there is growing interest in the role of self-control and how it contributes to the goal achievement and success of entrepreneurs (e.g. Nambisan & Baron, in press). However, our knowledge about the role of self-control in entrepreneurship remains very limited. New insights on the role of self-regulation in

entrepreneurship will facilitate a greater understanding of the cognitive processes and behaviors that contribute to all dimensions of entrepreneurial success. Having a better understanding of the skills that contribute to entrepreneurial success will have practical implications as a diagnostic tool for why some entrepreneurs fail to succeed, and will also provide crucial information on the type of skills that can be improved upon as a means for increasing likelihood of success.

Moreover, by allowing for the broad heterogeneity of entrepreneurial motives, and by addressing multiple dimensions of career success, we gain a broader understanding of just what constitutes entrepreneurial success.

CHAPTER II

THEORETICAL BACKGROUND AND DERIVATION OF HYPOTHESES

Self-Determination Theory

Self-determination theory examines the role of autonomy, competence and relatedness in motivational processes, and addresses how different goal contents and regulatory processes underlying goal pursuits influence well-being (Deci & Ryan, 2000). One of the key tenets of self-determination theory is the distinction between intrinsic motivation and extrinsic motivation. Intrinsically motivated individuals are motivated to pursue goals and engage in activities that they find inherently enjoyable, significant or challenging, while extrinsically motivated individuals are motivated to pursue a goal or complete a task for an external reward or tangible incentive (Deci & Ryan, 2000; Ryan & Deci, 2000). Furthermore, self-determination theory differentiates between goals that are associated with intrinsic motivation and goals that are associated with extrinsic motivation. Goals associated with intrinsic motivation include motives such as those based on personal growth and enjoyment, and because they satisfy fundamental needs, they increase intrinsic motivation and promote well-being (Deci & Ryan, 2000; Ryan & Deci, 2000). Goals associated with extrinsic motivation, such as desiring money, fame, or good looks, are believed to hinder fulfillment of innate needs and be less likely to contribute to

feelings of well-being when they are based on attempts to gain a sense of self-worth through external means (Ryan, Sheldon, Kasser, & Deci, 1996).

Self-determination theory suggests that individuals have three fundamental needs that they strive to fulfill: autonomy (having the power of choosing or determining), relatedness (the need to feel belongingness and connectedness with others) and competence (feeling effective), and that fulfillment of these needs optimizes functioning (Deci & Ryan, 2000; Ryan & Deci, 2000). Intrinsically motivated activities tend to be the activities that fulfill these needs. Satisfaction of these needs are believed to lead to individuals' feelings of well-being. The work environment is an important context in which these needs can be met, and empirical evidence suggests that meeting these needs in the workplace has led to better performance, good psychological adjustment, higher self-esteem, more positive attitudes toward work, and higher levels of well-being among employees (Baard, Deci, & Ryan, 2004; Ilardi, Leone, Kasser, & Ryan, 1993).

Career Success: Definitions and Operationalizations

Defining career success. Career success is defined as the positive psychological or work-related achievements or outcomes one has accumulated (intrinsic or extrinsic in nature) as a result of one's work experiences (Judge & Bretz, 1994; Judge, Cable, Boudreau, & Bretz, 1995; London & Stumph, 1982; Seibert, Crant, & Kraimer, 1999). Career success includes both objective and perceived achievements and is comprised of extrinsic factors such as level of income and occupational status, and of intrinsic factors such as job satisfaction (Judge, Higgins, Thoresen, & Barrick, 1999). Extrinsic career success "refers to outcomes that are both instrumental rewards from the job or occupation and are objectively observable" while intrinsic

career success “refers to factors that are inherent in the job or occupation itself and is dependent on the incumbent’s subjective evaluation relative to his or her own goals and expectations” (Seibert & Kraimer, 2001: 2).

While organizational literature in general has historically focused on objective career success as determined by factors such as higher salaries and faster promotions, there is an increasing emphasis on individuals’ subjective evaluations of their career and career satisfaction as a means for obtaining a more accurate and comprehensive understanding of career success (Ng, Eby, Sorensen, & Feldman, 2005). In fact, subjective assessment of career success may be a more salient and important component of career success compared to objective assessments. For instance, subjective success has been found to influence objective success to a strong degree, while objective career success had no influence on self-referent subjective career success, and only a small influence on other-referent subjective success (Abele & Spurk, 2009a). Additionally, a factor analysis based on 15 potential indicators of career success as rated by over 800 business professionals indicated that the meaning of career success for these participants was based on status, time for self, challenge, security, and social dimensions, of which all but status are considered to be subjective dimensions of career success (Friedman & Greenhaus, 2000).

Self-determination theory would suggest that subjective intrinsic criteria for career success may actually be more important than objective extrinsic criteria (such as financial measures), because activities associated with intrinsic motivation lead to higher levels of well-being, while activities associated with extrinsic motivation are less likely to (Deci & Ryan, 2000; Ryan & Deci, 2000). Furthermore, empirical evidence suggests that individuals within a variety of work contexts seem to place more emphasis on intrinsic factors within subjective criteria for

career success. For example, focus group discussions between young professionals indicated that while income is a signifier of objective career success, they emphasized adequate income rather than wealth (i.e. enough to meet basic needs plus a little more), and discussed the importance of work-life balance as a critical indicator of success (McDonald & Hite, 2008). Additionally, qualitative interviews with managers revealed that the vast majority of participants defined career success based on non-financial criteria such as achievement, accomplishment, personal recognition, and influence (only 7 out of 36 participants defined career success in terms of hierarchical position or pay) (Sturges, 1999). Likewise, interviews with managers and professionals in reduced-load work arrangements on the meaning of career success revealed that the primary themes were not financial; instead, the most frequently occurring theme was being able to have a life outside work (74%), followed by performing well (63%), and doing challenging work and continuing to grow professionally (62%) (Lee, Lirio, Karakas, MacDermid, Buck, & Kossek, 2006). Similarly, interviews with blue collar workers revealed that monetary rewards and satisfaction were not the only criteria for defining career success; they included other factors such as life balance, reputation, inter-personal success and recognition (Hennequin, 2007).

Moreover, the tendency for individuals to place more weight on subjective criteria when defining career success is just as pronounced among entrepreneurs. For instance, Buttner and Moore (1997) found that entrepreneurs tend to define success in terms of self-fulfillment and goal achievement, and reported that measures of profit and business growth were less substantial in comparison. In-depth interviews with entrepreneurs revealed that there were a number of various reasons for establishing their companies, and their various motives factor into their

definitions of success; while the entrepreneurs in the sample showed interest in financial gain, they did not cite money as their primary motive, and “described money as a beneficial side effect of entrepreneurial activity” (Hayter, 2011: 347). An examination of the meaning of success to owners of small businesses revealed that while the business owners measure their success using both financial and non-financial criteria, the non-financial measures of success were considered more important -- personal satisfaction, having pride in their work, having a flexible lifestyle, and being their own boss were all rated as more important than making money (Walker & Brown, 2004).

Operationalizing career success. Objective (extrinsic) career success is typically operationalized using financial indicators, and may include other objective criteria such as status (e.g. Abele & Spurk, 2009a; Abele & Spurk, 2009b) or promotion (e.g. Judge et al., 1995; Seibert & Kraimer, 2001). Subjective (intrinsic) career success is most frequently operationalized as career satisfaction, and often measured with the 5-item career satisfaction scale from Greenhaus, Parasuraman, and Wormley (1990). While both objective and subjective criteria are being examined in more recent research on career success, these dimensions of career success are empirically distinct. Evidence indicates that some predictors of career success may influence different dimensions of career success differently. For instance, Abele and Spurk (2009b) found that over a seven year period, objective career success operationalized as hierarchical status was positively influenced by career advancement goals while subjective career success operationalized as job satisfaction was negatively influenced by career advancement goals. They suggested that a possible explanation for this finding may be based on self-determination theory (Ryan & Deci, 2000) such that extrinsic goals such as status and money are less personally

rewarding compared to intrinsic goals such as personal growth (Abele & Spurk, 2009b).

Furthermore, a meta-analysis empirically supported the hypothesis that subjective and objective career success, despite being positively related, are empirically distinct, such as the finding that objective criteria (salary and promotion) were only moderately correlated with with each other and with subjective criteria (satisfaction) (Ng et al., 2005).

Job satisfaction and subjective career success, while they may be related, should be viewed as conceptually distinct constructs (Heslin, 2005). Job satisfaction is defined as “a pleasurable or positive emotional state resulting from an appraisal of one’s job or job experiences” (Judge et al., 1995; Locke, 1976: 1300), while career success (as mentioned previously) is defined as the positive psychological or work-related achievements or outcomes one has accumulated (intrinsic or extrinsic in nature) as a result of one’s work experiences (Judge & Bretz, 1994; Judge et al., 1995; London & Stumph, 1982; Seibert et al., 1999). Heslin (2003) suggested that career satisfaction alone is not adequate for validly assessing subjective career success because by doing so, the tendency of individuals to make social comparisons while assessing their own level of career success is overlooked. He suggested another dimension -- other-referent career success -- and found that other-referent career success accounted for an additional 12% of variance in overall career success, holding self-referent career success constant (Heslin, 2003: 276). By comparing these three facets of career success (objective success, self-referent subjective success, and other-referent subjective success), Abele and Wiese (2008) examined the relationships between different dimensions of career success. They found that objective success was much more strongly associated with other-referent subjective success than with self-referent subjective success, leading the authors to suggest that distinguishing

between different aspects of subjective career success may be worthwhile. Focus group discussions between young professionals stressed the importance of “individualizing career success, creating one’s own multifaceted definition of what it means to be successful,” indicating that success is indeed multidimensional, and a combination of factors are included in their personal definitions of success (McDonald & Hite, 2008: 96).

Career success as a measure of entrepreneurial success. Entrepreneurs may have multiple motives leading to multiple goals, and entrepreneurs report a broad range of motives for starting a business (see Review of Entrepreneurial Motives section of this paper, and Table 1 in appendix). Because there is a broad range of entrepreneurial motives, how entrepreneurs define their own success may vary based on their motives for starting the business, and based on their primary motives that underlie their behavior. Considering that entrepreneurs are pursuing different goals (based on contrasting motives), the already established and empirically supported construct of career success can provide an alternate measure of success for entrepreneurs. Using career success as a measure for entrepreneurial success includes not only an objective financial component, but also includes the subjective component that allows for the importance of intrinsic motives such as autonomy and personal growth. Additionally, career success can be defined both by individual entrepreneurs and external observers, based on the extent to which the entrepreneurs actually achieve their key goals. Furthermore, considering that entrepreneurs may have multiple motives leading to multiple goals, we need multi-faceted measures of success -- measures that are consistent with the way in which entrepreneurs assess and perceive their own success. Such measures should include not only objective extrinsic financial indicators (e.g. profits, personal income, increased value of company ownership), but also measures that take

into account entrepreneurs' subjective perceptions of their own success based on their motives, including indicators of satisfaction with their career and work life. Measures based on the construct of career success provide these dimensions.

The Role of Self-Regulation as it Pertains to Success

As we investigate the meaning and measurement of success for entrepreneurs, we should also examine the factors that contribute to higher levels of success. Self-regulation, defined as an array of cognitive processes through which individuals monitor, assess, direct, and adjust their behaviors so as to facilitate progress toward desired goals (Forgas et al., 2009), has been found to facilitate high levels of success and performance for people in many different fields and contexts. In essence, self-regulation monitors and directs goal progress. Effective self-regulatory processes lead to goal progress and attainment by helping individuals stay focused on key goals, helping them choose effective strategies for reaching the goals, and by facilitating the necessary actions that makes goal progress possible. Although there are a number of constructs pertaining to self-regulation, the self-regulatory processes addressed in the current study include locomotion and assessment (Kruglanski et al., 2000), and self-control (Baumeister & Alquist, 2009).

Locomotion

In self-determination theory, failing to act is described as amotivation, stated as “lacking the intention to act” and is believed to be a result of not valuing the activity, not feeling competent, or not expecting a desired outcome (Ryan & Deci, 2000: 72). However, self-determination theory does not address failure to act when the individual *does* feel competent, desire the outcome, and/or values the activity, nor does it provide an explanation for why individuals choose to act or not act, regardless of the type underlying motivation or goals (i.e.

intrinsic or extrinsic). This study seeks to fill this gap and contribute to self-determination theory by providing an explanation for why individuals act (or do not act) under certain circumstances. This is captured in a variable known as locomotion, which reflects an individual's tendency to take action -- to "do it now" rather than waiting to ensure one is "doing it right," and has been defined as a motivational construct that "constitutes the aspect of self-regulation concerned with movement from state to state and with committing the psychological resources that will initiate and maintain goal-related movement in a straightforward and direct manner, without undue distractions or delays" (Kruglanski et al., 2000: 794). The general term "locomotion" is defined by most dictionaries as "movement from place to place," and the psychological construct of locomotion tends to be associated with individuals who are "high energy 'doers' and 'go-getters' who welcome the opportunity to act in relative disregard of the costs and who loathe merely waiting and watching rather than acting" (Kruglanski et al., 2000: 796). Locomotion could be described as an orientation for change -- to do something different. Locomotion has been further described as an "intrinsic motivation" to experience movement (Pierro, Kruglanski, & Higgins, 2006b), which suggests that individuals high in locomotion enjoy taking action as opposed to feeling stalled, stagnant, or stationary. While one might suspect that locomotion would be similar to or positively associated with impulsivity, studies have actually illustrated a significantly negative relationship between locomotion and impulsivity (Bornovalova, Fishman, Strong, Kruglanski, & Lejuez, 2008; Shalev & Sulkowski, 2009). Explanations for the negative relationship between locomotion and impulsivity include the arguments that while impulsivity may seem active, it is primarily unrelated to long-term goals, while locomotion involves goal-related movement and the commitment of psychological resources that will initiate and maintain

the goal-related actions (Bornovalova, et al., 2008). Locomotion is more than being a “self-starter” (i.e. undertaking a task under one’s own initiative) because it goes beyond the initial initiative to get started. Locomotion includes the tendency to keep moving after getting started, and addresses the tendency to move to and from various goal pursuits. Locomotion is also different from multi-tasking in that locomotion does not necessarily imply that several tasks are being acted on concurrently -- rather, locomotion addresses the tendency to move from one goal pursuit to another. (Furthermore, multi-tasking does not necessarily include the initiative to take action.) In other words, individuals who are high in locomotion are inclined to keep moving on various goals because they dislike feeling stagnant and enjoy the process of taking action.

Locomotion has been linked to a number of positive outcomes. For instance, individuals who were high (vs. low) in locomotion also had higher levels of positive affect, self-efficacy, and optimism (Kruglanski et al., 2000). Additionally, individuals high on locomotion experienced higher levels of self-promotion success (Moss-Racusin & Rudman, 2010), experienced greater movement toward their ideal selves, reported greater couple well-being (Kumashiro, Rusbult, Finkenauer, & Stocker, 2007), and reported higher levels of life satisfaction (Hong et al., 2004).

Locomotion is particularly relevant to the current study in that it addresses the tendency to “take action,” which is a critical component of making progress on one’s goals. One of the primary problems that prevent individuals from making progress toward and achieving their goals is failure to get started, which includes failure to seize the opportunity to act (such as failing to recognize the opportunity to act or uncertainty on how to act when the moment to act is at hand), and failing to overcome reluctance to act (Gollwitzer & Sheeran, 2006). In essence, entrepreneurship will not occur unless individuals “take action” to pursue an opportunity (Shane,

Locke, & Collins, 2003). Because individuals who are high on locomotion are intrinsically motivated to act on their goals, they are more likely to overcome problems that are associated with failure to get started.

Locomotion has been positively associated with a number of goal-related constructs including goal expectancy, goal commitment, and mastery/learning goals (e.g. Kruglanski, et al., 2000; Scholer & Higgins, 2012). Kruglanski et al. (2000) found that individuals high (vs. low) in locomotion had higher goal attainment expectancy and emphasis on attainment progress. Additionally, they found that locomotion was more strongly associated with mastery/learning goals (goals focused on the development of proficiency and competence) compared to performance goals (goals which involve proving one's competence or gaining favorable judgments from others) (Kruglanski et al., 2000). Learning goals lead to higher levels of performance and success compared to performance goals, and the relationship is even stronger when the individuals are under pressure and when they are performing complex tasks (Dweck, 1986; Elliott & Dweck, 1988; Utman, 1997). As such, higher levels of locomotion likely contribute to goal progress, goal attainment, and success. Furthermore, locomotion has been found to be positively associated with effort exertion (Pierro et al., 2006a), which should also contribute to goal progress, goal achievement, and subsequent success.

Locomotion is a construct that is particularly relevant to entrepreneurs. Entrepreneurs often encounter high levels of risk and uncertainty as well as novelty, frequent change, and time pressure (Alvarez & Barney, 2005; Baron, 1998; Schumpeter, 1934). Such environments require the ability to be decisive, to take risks, and to tolerate ambiguity. Higher locomotion is associated with higher levels of decisiveness (Kruglanski et al., 2000). Also, higher locomotion is positively

associated with behavioral activation, mediating the relationship between intentions and overt behavior, and is particularly associated with the components that represent motivation to pursue things and willingness to take risks (Higgins et al., 2003). Because individuals high in locomotion typically view change as positive and are motivated to choose new goals and select new experiences, individuals high in locomotion are attracted to organizational change (Kruglanski, Pierro, Higgins, & Capozza, 2007). Furthermore, locomotion has been found to be positively associated with successful coping with change for a number of different work samples and for all types of organizational change studied (i.e. increased responsibility and independence, job change, increased task flexibility, procedural and other organizational changes) (Kruglanski, et al., 2007). High locomotors prefer work environments that allow them to multi-task (Pierro, Giacomantonio, Pica, Kruglanski, & Higgins, in press), and are likely to switch goals when they see signs of progress (Fitzsimons, Friesen, Orehek, & Kruglanski, 2009). High locomotors likely feel frustrated in organizational environments where they are subject to the opinions of others and have to coordinate with the activities of others (Pierro et al., 2006a). Consequently, individuals high in locomotion may be inclined to start their own business rather than working under someone else's authority. Additionally, while locomotion is often viewed as a dimension of individual differences, there is evidence that it can also be a situationally inducible state (Pierro et al., 2006). As such, individuals who have become entrepreneurs may have learned to be locomotors as a way to more effectively pursue work-related goals in a dynamic and changeable environment characterized by high levels of risk and uncertainty.

In summary, locomotion has been found to be positively associated with effort exertion, goal attainment expectancy, goal commitment, and mastery/learning goals. Additionally,

locomotion has been associated with a number of behaviors that are highly relevant to an entrepreneurial context (i.e. decisiveness, willingness to take risks, attraction to organizational change and ability to effectively cope with organizational changes such as increased responsibility and independence, job change, task flexibility, and other organizational changes). Furthermore, higher locomotion has been found to be positively associated with subjective well-being (Hong et al., 2004;). As such, locomotion can contribute to higher levels of goal progress and goal achievement. Goal progress has been linked not only to objective measures of goal achievement and performance, but also to well-being at work (Pomaki et al., 2009) and to life satisfaction and global well-being (Lent et al., 2005; Sheldon & Elliot, 1999). Based on the above reasoning, I propose the following hypotheses:

Hypothesis 1a: There will be a positive relationship between locomotion and goal progress.

Hypothesis 1b: There will be a positive relationship between goal progress and career success.

Hypothesis 1c: Goal progress will mediate the positive relationship between locomotion and career success.

Hypothesis 2a: There will be a positive relationship between goal progress and subjective well-being.

Hypothesis 2b: The positive relationship between locomotion and subjective well-being will be mediated by goal progress.

Assessment

While high levels of locomotion may lead to goal progress through an individual's tendency to take action and "do it now," locomotion alone may not be enough to contribute to high levels of career success. In addition to "doing it now," entrepreneurs also need to "do it right" in order to make progress on their goals, reach goal attainment, and be successful. A variable known as assessment denotes an individual's tendency to make critical evaluations and assess alternatives. Kruglanski et al. (2000: 794) defined assessment as another distinct self-regulatory function that "constitutes the comparative aspect of self-regulation concerned with critically evaluating entities or states, such as goals or means, in relation to alternatives in order to judge relative quality (i.e. judging the quality of something by considering both its merits and demerits in comparison with an alternative)." An individual high in assessment values the process of making comparisons and finds taking no action preferable to making a potentially wrong change (Higgins et al., 2003). Locomotion and assessment are both distinct self-regulatory functions, and individuals can have high levels of both locomotion and assessment, can be low on both locomotion and assessment, or can have high levels of one and low levels of the other (Kruglanski et al., 2000).

High levels of achievement require "both a correct choice (high assessment) and a commitment to following through on the choice (high locomotion)" (Higgins et al., 2003: 398). For example, in studies on academic achievement among college students and successful program completion for soldiers, Kruglanski et al. (2000) found that locomotion had no significant impact on success for those who scored below the median in assessment, but scoring above the median in assessment was associated with high achievement in both groups;

assessment did not have a main effect on achievement, but there was a locomotion x assessment interaction. A series of studies conducted in both field and laboratory settings also identified an interaction between locomotion and assessment, such that high levels of locomotion led to goal attainment, and the interaction of locomotion and assessment lead to even higher levels of goal attainment (Pierro et al., 2006b). “High locomotion is necessary to succeed at endeavors that require persistence over a long period, but it is not sufficient. High assessment is also important because considering alternatives, which includes managing one’s time and effort, enhances performance on such endeavors” (Higgins et al., 2003: 333). Furthermore, if entrepreneurs are high on locomotion and low on assessment, while they may be inclined to take action, they may be less likely to be as successful at choosing the correct actions to take, which may decrease levels of success. Likewise, poor self-regulation in the form of high assessment combined with low locomotion not only leads to lower levels of performance and success, but has also been linked to maladaptive behaviors such as poor psychological functioning, negative affect, procrastination, anxiety, impulsivity, and obsessive-compulsive symptoms (Bornovalova, et al., 2008; Giacomantonio, Mannetti, & Pierro, in press; Pierro, Giacomantonio, Pica, Kruglanski, & Higgins, 2011; Shalev & Sulkowski, 2009). As such, entrepreneurs are more likely to make progress on their goals and subsequently have higher levels of career success and well-being when high levels of locomotion are enhanced with high levels of assessment. Based on this evidence, I present the following hypothesis.

Hypothesis 3: The relationship between locomotion and goal progress will be moderated by assessment such that the effects of locomotion are stronger when assessment is high.

Self-Control

Self-control is defined as “the process by which individuals bring themselves into line with their goals and standards. It encompasses efforts by individuals to alter their thoughts, feelings, and behaviors” (Baumeister & Alquist, 2009: 22). Central to self-control is “the ability to override or change one’s inner responses, as well as to interrupt undesired behavioral tendencies and refrain from acting on them” (Tangney, Baumeister, & Boone, 2004: 275). A number of studies have provided evidence that individuals who score higher on self-control perform better on a number of dimensions. For example, Tangney et al., 2004 found that individuals with higher levels of self-control had better grades, were better at impulse control, had higher levels of self-esteem, were more conscientious, were more emotionally stable, had beneficial interpersonal patterns, were more likely to report a positive family environment in their family of origin, and had an adaptive moral emotional style. Additionally, self-control has been found to predict GPA significantly more so than IQ (Duckworth & Seligman, 2005), and has been associated with positive interpersonal behaviors in romantic relationships (Finkel & Campbell, 2001).

One of the primary self-regulatory problems that prevent individuals from reaching their goals is the issue of getting derailed, such as giving in to distractions and failure to control behavior responses to unwanted influences in the environment (Gollwitzer & Sheeran, 2006). Self-control has been found to facilitate efforts to reach goals by helping individuals avoid distracting temptations when they are approaching key goals (Fishbach & Shah, 2006). Another primary self-regulatory problem that prevents individuals from achieving their goals is overextending oneself, which is a particular concern considering that individuals typically

concurrently pursue multiple goals (Gollwitzer & Sheeran, 2006). However, self-control has also been found to assist in the regulation of competing motives by enhancing individuals' abilities to effectively shift between goals which facilitated progress toward multiple goals (Fujita, 2011). Nambisan and Baron (in press) proposed that self-control is particularly relevant for entrepreneurs' ability to refrain from desired activities that do not advance goal attainment, their ability to pursue multiple competing goals, and is necessary for the success of entrepreneurs' new ventures.

By facilitating goal progress and increasing the likelihood of goal attainment, self-control should contribute to higher levels of career success. This is likely to be true for all dimensions of career success, including both extrinsic and intrinsic dimensions. Extrinsic career success is defined as "outcomes that are both instrumental rewards from the job or occupation and are objectively observable," and intrinsic career success "refers to factors that are inherent in the job or occupation itself and is dependent on the incumbent's subjective evaluation relative to his or her own goals and expectations" (Seibert & Kraimer, 2001: 2). In illustration, one of the first studies linking self-control with career success, using a sample of 249 full-time employees from various occupations, found that self-control was positively associated with both extrinsic career success (operationalized as salary and occupational prestige) and with intrinsic career success (operationalized as job satisfaction) (Converse et al., 2012). Converse and colleagues (2012) also examined the relationship between self-control and career success in a longitudinal study with 1568 individuals from a wide range of occupations who were rated on self-control during childhood, and who completed career-related measures approximately 20 years later. Consistent with their previous study, self-control predicted extrinsic career success operationalized as salary

and occupational prestige through educational attainment. Furthermore, self-control also predicted intrinsic career success operationalized as career satisfaction through occupational achievement opportunity, providing evidence based on a longitudinal design that higher levels of self-control contribute to higher levels of both intrinsic and extrinsic career success (Converse et al., 2012). Thus, because self-control helps entrepreneurs attain the goals they seek, it enhances multiple dimensions of career success, including extrinsic objective dimensions such as financial indicators, and intrinsic subjective dimensions such as career satisfaction and life satisfaction. Based on this evidence, I present the following hypothesis.

Hypothesis 4a: There will be a positive relationship between self-control and goal progress.

Hypothesis 4b: There will be a positive relationship between self-control and career success, mediated by goal progress.

Hypothesis 5a: There will be a positive relationship between self-control and subjective well-being.

Hypothesis 5b: The positive relationship between self-control and subjective well-being will be mediated by goal progress.

Review of Research on Entrepreneurial Motives

“Entrepreneurship research needs to give closer consideration to entrepreneurs’ dreams for autonomy and change and the processes through which these dreams, as opposed to the pursuit of wealth, may be accomplished.” (Rindova & Ketchen, 2009:479)

Many within the field of entrepreneurship seem to assume that entrepreneurs’ motives -- the reasons underlying individuals’ choices of goals (Locke & Latham, 1990) -- are primarily financial, as evidenced by the frequent use of financial measures as indicators of performance

and success among entrepreneurs. This assumption has not been limited to entrepreneurship. Historically, the measurement of career success in management and OB/HRM literature viewed individuals who earned higher salaries as more successful in their careers; however, in recent years, management and OB/HRM literature indicates an increased emphasis on individuals' subjective evaluations (such as assessment of career satisfaction) to gain a more comprehensive understanding of career success (Ng et al., 2005). The deficiency of traditional financial criteria for measuring success comes from the fact that these are not the only outcomes individuals seek from their careers (Heslin, 2005). This criticism of the idea that success should be conceptualized and measured primarily based on financial criteria is also beginning to gain attention in entrepreneurship literature (e.g. Baker & Pollock, 2007; Calas, Smircich, & Bourne, 2009; Rindova & Ketchen, 2009).

However, measures of success and performance for entrepreneurs emphasize financial criteria such as profitability, firm revenue, personal wealth creation, revenue growth and employee growth (Amit et al., 2001; Buttner & Moore, 1997). There is a large literature on entrepreneurial motives, and most of the evidence indicates that autonomy and independence, along with a variety of other motives, are significantly more salient than economic motives. "Despite the abundance of evidence about diversity and richness in entrepreneurial motivations, entrepreneurship research has paid little attention to how wishes for autonomy, expression of personal values, and making a difference in the world can be accomplished" (Rindova & Ketchen, 2009: 478). Money is assumed to be "the foremost motive for venturing," leading to the "common practice for researchers to focus only on money as a proxy for that which is truly being maximized" (Amit et al., 2001: 121). Much of this may be due to the field of entrepreneurship's

early roots being based in economics and strategy. However, the assumption of economic motives as the primary motive for entrepreneurship constrains our understanding of how individuals influence the structures, strategies and growth of organizations (Baker & Pollock, 2007: 301). Furthermore, among those individuals for whom economic reasons may seem to be a primary motive, there may be underlying motives for which financial success is merely a means to an end such as fulfilling personal values and life goals. In a series of studies, Srivastava et al. (2001) found a number of second-order motives underlying the motive for making money, which were factor analyzed into 10 factors (i.e. security, family support, market worth, pride, leisure, freedom, impulse, charity, social comparison, and overcoming self-doubt), which were further factor analyzed into the three categories of (1) positive motives, (2) freedom of action, and (3) negative motives. These findings suggest that even among those individuals who report financial motives as primary reasons for becoming an entrepreneur, there may be underlying intrinsic motives such as freedom to implement their ideas by starting their own business, or the ability to spend time and resources pursuing leisure activities. Considering that there are a variety of reasons individuals decide to become entrepreneurs -- and many of them are not economic reasons -- gaining a true and accurate understanding of the meaning of success for entrepreneurs is critical.

As a means for gaining a more comprehensive understanding of the primary motives of entrepreneurs, I conducted a review of extant literature on the motives of entrepreneurs. Using the Business Source Premier (BSP) database and the keywords “motive” or “motivation” or “goal” and the keyword “entrepreneur,*” I searched the following top academic journals as per Short (2009): *Academy of Management Review*, *Academy of Management Journal*,

Administrative Science Quarterly, Journal of Management, Organization Science, Strategic Management Journal, Journal of Management Studies, Academy of Management Learning and Education, Organizational Behavior and Human Decision Processes, Journal of Organizational Behavior, Journal of Applied Psychology, Personnel Psychology, Journal of Business Venturing, Entrepreneurship Theory and Practice, and Strategic Entrepreneurship Journal. A search of these journals using the keywords “motive” or “motivation” or “goal” and the keyword “entrepreneur*” in the ‘Abstract’ field produced 77 results. I reviewed the articles and eliminated those in which the motives or goals of entrepreneurs were not a primary topic. Additional articles were identified by searching the reference sections of key articles on the topic of entrepreneurial motives and goals. In Table 1 and the following sections, I review the literature on entrepreneurial motives to ascertain the primary motives of entrepreneurs that have been empirically reported, and to examine the motives ranked or scored most important or most highly by entrepreneurs. By identifying the primary motives for becoming an entrepreneur, as scored or ranked mostly highly by entrepreneurs, we gain a fuller understanding of their reasons for starting a venture which will facilitate a more accurate understanding of the meaning of success for entrepreneurs.

Insert Table 1 about here

As Table 1 illustrates, a number of studies have examined the motives of entrepreneurs. Of those reported in the table, seven studies used qualitative interviews to determine motives for becoming an entrepreneur, and an additional two used open ended questions to obtain qualitative

data. Ten of the studies administered various surveys, and a number of studies used archival data. One study used conjoint analysis. Of those using archival data, six studies used SARIE data and four studies used PSED data (PSED questionnaire is adapted from SARIE questionnaire). One study used GEM data. Three of the studies focused primarily on growth willingness as opposed to motives for becoming an entrepreneur, and six of the studies addressed potential push motives by examining reasons why individuals left pre-entrepreneurs jobs to become entrepreneurs.

From the studies reported in Table 1, a list of entrepreneurial motives was compiled. Some reported motives were combined into one (i.e. autonomy and independence, contribution and communitarianism, recognition and need for approval, self development and self realization, security and stability, etc.). Some studies were not included in Table 2 for various reasons including the following: a focus on push factors -- reasons for leaving previous employment -- as opposed to motives for starting a business, a focus on motives for growth willingness rather than motives for founding, when the data were at the national rather than individual level, and when studies focused primarily on between-group comparisons.

Insert Table 2 about here

This resulted in a list of 28 entrepreneurial motives, reported in Table 2. Using this list, each motive was examined, and the ranking of each particular motive was reported for each study. Additionally, the number of studies examining each motives is reported in Table 2. For example, ‘avoid discrimination’ as a motive was examined in one study, and the ranking of the motive was 10/11, indicating that out of 11 motives examined, ‘avoid discrimination’ was ranked or scored

as 10th motives for starting a business. Likewise, 'independence/autonomy' was examined as a motive in fourteen studies, and the ranking of 2/8 indicates that 'independence/autonomy' was ranked or scored as the second most important motive for becoming an entrepreneur out of a selection of eight motives.

As Table 2 indicates, the two entrepreneurial motives most frequently examined in the studies reported in Table 1 are 'independence/autonomy' which is included in fourteen studies, and 'money/wealth' which is included in fifteen studies. They are followed by 'self development/self realization' which was included as an entrepreneurial motive in eight studies, and 'innovation' which was examined as an entrepreneurial motive in six studies. As Table 2 indicates, 'independence/autonomy' was ranked as either first or second primary motive for becoming an entrepreneur in all but one study. 'Money/wealth' was not ranked as first primary motive in any study, and was ranked toward the lower end in many studies. These findings provide additional support for the argument that economic reasons are not the primary motive for most individuals who choose to become an entrepreneur. By examining the mean scores and rankings of primary entrepreneurial motives throughout the literature, it is evident from the mean scores and rankings that 'independence/autonomy' is considered of primary importance by entrepreneurs who have participated in these studies. Additionally, by examining the number of studies for each motive, it is very clear that researchers consider 'independence/autonomy' and 'money/wealth' to be of primary importance when studying motives of entrepreneurs.

For example, Canadian technology entrepreneurs and comparison groups in the U.S. and U.K. ranked financial motive for incorporating a business as lower compared to every other motive aside from a miscellaneous 'other' category (Litvak & Maule, 1976). Cassar (2007)

found that although entrepreneurs who intend to grow ventures as large as possible rate financial success more highly, money was not the most important motive for starting high-growth ventures -- independence and self-realization both had higher mean scores than financial success.

Similarly, Wicklund, Davidsson and Delmar (2003) found that non-economic concerns such as employee well-being provided a better explanation for growth willingness compared to expected financial outcomes. In fact, entrepreneurs do not necessarily increase their level of income by starting their own businesses. Hamilton (2000) found that many entrepreneurs have lower initial earnings and lower earnings growth when compared to employees with the same observed characteristics, with median earnings differential of 35% for individuals who have been in business for ten years, and that the median self-employment earnings never overtake the alternative entry wage for a paid job.

Amit et al. (2001) conducted interviews with entrepreneurs and non-entrepreneurs in a high technology sector (a sector often assumed to be one in which the pursuit of wealth is common) to examine the role of wealth as a motive for starting a venture. They found that among participating entrepreneurs, wealth attainment was significantly less important and less salient compared to an aggregate of 10 other motives (among which innovation, vision, independence and challenge were most important), and that entrepreneurs regarded wealth as a less salient factor to their career decisions compared to non-entrepreneurs. They suggested that “theoretical models that assume money is the primary motive for entrepreneurial activity require re-examination” and “future research in entrepreneurship should focus less on wealth attainment and more on other motives for the venturing decision” (Amit et al., 2001: 120).

Considering that the primary motives for starting and growing ventures are based on

intrinsic reasons such as independence and autonomy rather than extrinsic financial motives, entrepreneurial success should not be defined solely based on financial or extrinsic measures. In fact, owners of small businesses indicated that non-financial measures of success were more important than financial measures. On a 6-point Likert scale, the mean for an item stating financial measures as the primary way to measure success of a business was 2.79 while the mean for the item stating personal satisfaction as more important than making money was 4.70 (means for other intrinsic items are: pride in the job=4.62, flexible lifestyle=4.35, being own boss=4.04) (Walker & Brown, 2004). Furthermore, in defining career success for entrepreneurs, we should take into consideration the well established career success literature (presented in the following section) by including the subjective intrinsic dimension of career satisfaction. This is even more important when one takes into account Cooper and Artz's (1995) finding that three years following the establishment of their businesses, entrepreneurs with non-economic goals were more satisfied with their ventures compared to entrepreneurs with economic goals (performance being controlled). Essentially, individuals are likely becoming entrepreneurs as a means for creating the ideal or perfect job for themselves -- a work environment that provides the autonomy, variety, significance and meaningfulness they would likely not find in other jobs (Baron, 2010). As we define what success means for an entrepreneur, we must take into account their motives for becoming an entrepreneur in the first place.

Career Success and Subjective Well-Being

“The integration of life satisfaction as an outcome of interest in the field of management would highlight the relevance of the field for improving people’s lives, which is a key goal included in the mission statement of Academy of Management.”

-- Erdogan, Bauer, Truxillo, & Mansfield (2012: 1040)

Definition of subjective well-being. Subjective well-being “refers to people’s evaluations of their lives -- evaluations that are both affective and cognitive. People experience abundant SWB when they feel many pleasant and few unpleasant emotions, when they are engaged in interesting activities, when they experience many pleasures and few pains, and when they are satisfied with their lives” (Diener, 2000: 34). Subjective well-being is a broad category that includes individuals’ emotional responses including positive affect and negative affect, domain satisfactions that cover a number of domains including work, family, leisure, health, finances, self, and one’s group, and global judgments on one’s life satisfaction (Diener, Suh, Lucas, & Smith, 1999). Although subjective well-being is a construct of which affect is a component, it is still distinct from affect (e.g. an individual with a positive affective disposition may be unhappy in a difficult environment) (Judge & Hulin, 1993: 393).

Differentiating life satisfaction and career satisfaction. While the management literature has “largely ignored the concept of life satisfaction, the life satisfaction literature has similarly tended to ignore the work domain,” with most life satisfaction literature focusing on non-work populations such as students, children, geriatric populations, and issues such as health problems, (Erdogan, Bauer, Truxillo, & Mansfield, 2012: 1039). Life satisfaction is much broader than career satisfaction, as career or job satisfaction would only comprise one of many domains. When individuals report their life satisfaction, they are reporting a complex compilation of separate but interrelated domains, and individuals differ in how they weigh each domain based on their personal values (Erdogan et al., 2012).

Career satisfaction, which is different from job satisfaction in that it refers to satisfaction with accumulated experiences, should be a more salient indicator of individuals’ satisfaction with

the work domain (Erdogan et al., 2012), and is the intrinsic component of career satisfaction (Judge et al., 1999). Although there are not a large number of studies examining the relationship between career satisfaction and life satisfaction, existing evidence supports career satisfaction, the intrinsic dimension of career success, as a mediator between work-related antecedents and life satisfaction (Erdogan et al., 2012).

Thus far I have proposed that the construct of career success provides an alternate measure for indicating entrepreneurial success based on its objective (extrinsic) dimensions and subjective (intrinsic) dimensions. As illustrated above, the subjective component of the construct career success primarily addresses satisfaction pertaining to work experiences. As discussed, entrepreneurs have a broad range of motives for starting a business. Their primary motives can influence not just one's work life, but all areas of one's life. For instance, an individual may choose to become an entrepreneur primarily for autonomy, and while the motive for autonomy and subsequent goals will influence career satisfaction, satisfying the autonomy motive may also influence factors of life satisfaction that are unrelated to work (such as the flexibility to spend time with loved ones, to pursue favorite hobbies, etc.). In the same manner, an individual may choose to become an entrepreneur for primarily financial reasons, and the underlying motive for financial reasons may be for social comparison (Srivastava et al., 2001). As such, the underlying motive of social comparison as the driver of a financial motive will influence not only one's career satisfaction and success, but will also influence other areas of one's life such as how family income is spent, the type of friends one keeps, the amount of emphasis placed on materialism, etc. -- all factors that may influence global life satisfaction and happiness in areas other than the work domain. In other words, career satisfaction is a part of career success, but it

only pertains to work-related satisfaction and does not include global life satisfaction -- subjective well-being goes beyond career success and encompasses other dimensions of well-being. The consequences of one's particular motives for starting a business, while influencing one's career success, may also spill over into other areas of one's life. Therefore, measures for entrepreneurial success should include not only the objective financial indicators and subjective indicators of career success, but should also include indicators of global life satisfaction.

Work life and goal progress as predictors of subjective well-being. Subjective well-being has been associated with many aspects of work, including work satisfaction, income, occupational attainment, work autonomy, meaning and variety, creativity, supervisory evaluations and overall performance (Cropanzano & Wright, 1999; Diener et al., 2002; Marks & Fleming, 1999; Roberts et al., 2003; Staw et al., 1994). One of the more commonly researched aspects of subjective well-being related to work is the positive relationship between subjective well-being and job satisfaction (Bowling, Eschleman, & Wang, 2010; Judge & Hulin, 1993; Weiss, 2002; Wright & Cropanzano, 2000). Benz and Frey (2008) found that self-employed individuals displayed higher levels of satisfaction from work compared to those employed in organizations, regardless of amount of income or number of hours worked, and suggested that self-employed individuals experience a higher level of work-related subjective well-being.

Goal progress contributes to life satisfaction and well-being (Lent et al., 2005; Sheldon & Hoon, 2007). Latham and Locke (2006) suggested that individuals appraise their performance based on their goals, and that the more successful individuals are at attaining high goals that they consider important, the greater the individuals' levels of subjective well-being should be. An examination of the possession of various resources and goal strivings related to subjective well-

being indicated that possession of resources independent of goal strivings was not related to subjective well-being, but the more peoples' resources were congruent with their goals, the higher the levels of subjective well-being experienced (Diener & Fujita, 1994). An experience sampling study on goal striving and subjective well-being found that high life satisfaction was associated with perception of one's strivings as important, valued, less likely to produce conflict, and expectations for success (Emmons, 1986). A longitudinal study examining goals and subjective well-being indicated that having a high level of both goal commitment and favorable conditions for attaining personal goals lead to positive increases in subjective well-being over time, while having high levels of goal commitment but unfavorable conditions for achieving the goals lead to lower levels of subjective well-being. Furthermore, the study indicated that perceived progress in goal attainment influences subjective well-being, indicating a causal direction with goal achievement leading to positive changes in subjective well-being (Brunstein, 1993). Likewise, MacLeod, Coates, and Hetherington (2008), using an intervention that taught goal setting and planning skills, illustrated that goal-related skills can be learned as a means for improving subjective well-being, as well as provided evidence for the causal link between goal setting and planning skills and subjective well-being.

While a number of studies suggest that success contributes to subjective well-being, there is also convincing evidence that subjective well-being contributes to success. Lyubomirsky, King and Diener (2005) conducted an extensive meta-analysis using three classes of evidence (cross-sectional, longitudinal, and experimental) providing evidence that not only does success lead to happiness/subjective well-being, but happiness/subjective well-being (based on personality as well as based on past successes) can lead to further success. In other words, not only does

success lead to happiness/subjective well being, happiness actually contributes to success. This suggests there may be a reciprocal relationship between career success and subjective well-being. Based on this evidence, I present the following hypothesis.

Hypothesis 6: There will be a positive relationship between career success and subjective well-being of entrepreneurs.

Primary Motives and Subjective Well-Being

It is “the content of what a person is trying to do, the motivations underlying the strivings, and the framework within which the goals are organized” that are essential elements of subjective well-being, and that subjective well-being involves meaningfulness in one’s life which results from goal attainment of intrinsically meaningful goals

--Emmons (1996: 333)

Entrepreneurial motives. In the earlier review of entrepreneurial motives, a large number of motives for becoming an entrepreneur were identified and discussed. The two motives most frequently discussed in the literature and included in studies were autonomy and financial motives. Motives pertaining to autonomy are clearly intrinsic motives, as they involve having the power of choosing or determining. Likewise, many of the other motives rated highly by entrepreneurs pertain to the meeting of the innate needs described by self-determination theory: autonomy, relatedness (the need to feel belongingness and connectedness with others) and competence (feeling effective) (Deci & Ryan, 2000; Ryan & Deci, 2000). For example, in addition to autonomy as a frequently rated primary motive for entrepreneurs, the desire to feel challenged, to innovate, and to engage in self development (competence/feeling effective), and the desire to contribute back to the community (relatedness). These innate and essential universal needs are necessary for the psychological health and optimal development of everyone, and provide a basis for predicting positive outcomes and whether individuals will thrive (Deci &

Vansteenkiste, 2004). Self-determination theory suggests that “fluctuations in need satisfaction will directly predict fluctuations in well-being” (Deci & Ryan, 2000: 243). The opportunities to experience autonomy, competence and relatedness and the satisfaction of these three needs is directly associated with psychological health and well-being (Deci & Ryan, 2000; Sheldon & Elliot, 1999; Sheldon & Kasser, 2001; Sheldon et al., 2004).

Intrinsic versus extrinsic motives and the relationship to well-being. A number of studies have indicated a positive relationship between intrinsic motives and well-being. For instance, intrinsic motives such as autonomy have been attributed to higher levels of job satisfaction and life satisfaction among entrepreneurs compared to non-entrepreneurs, irrespective of factors such as number of hours worked, amount of income, and financial and liquidity constraints (Benz & Frey, 2004; Benz & Frey, 2008a; Benz & Frey, 2008b; Blanchflower & Oswald, 1998; Blanchflower, Oswald, & Stutzer, 2001; Carree & Verheul, 2012).

However, findings on the relationship between extrinsic desires for income and subjective well-being are mixed. Some studies indicate a positive association between income and subjective well-being (e.g. Diener et al., 2010; Diener & Oishi, 2000; Schyns, 2000), while other studies suggest that concern with money and other extrinsic desires (i.e. materialism) is negatively associated with well-being (e.g. Christopher, Saliba, & Deadmarsh, 2009; Hudders & Pandelaere, 2012; Kasser & Ahuvia, 2002; Sheldon et al., 2004; Vansteenkiste, Duriez, Simons, & Soenens, 2006). The importance of extrinsic goals (wealth, fame, attractiveness) has been negatively associated with meaning in life (Martos & Kopp, 2012), and materialism and social recognition as specific forms of extrinsic motives have been associated with lower levels of well-

being (e.g. Christopher, et al., 2009; Kashdan & Breen, 2007; Kasser & Ryan, 1993).

The mixed findings on the relationship between extrinsic motivation or goals and subjective well-being may be due to a failure to identify the underlying motives of extrinsic goals. One of the limitations of using “extrinsic” as a means for categorizing certain motivations and goals is the external nature of the meaning of “extrinsic” as coming from factors outside the individual. With intrinsic motivation, the rewards for the activity are inherent in the doing of the activity (such as the affects and spontaneous cognitions), while with extrinsic motivation, the reward is separable from the behavior itself -- a separable consequence (Ryan et al., 1996). Because the reward for doing the behavior is not inherent in the activity itself, there may be a multitude of potential underlying motives for pursuing an external/extrinsic goal. For instance, perhaps an individual wants the external reward of money (or power, or promotion, etc.), but *why* does the individual desire money? When entrepreneurs report financial reasons as one of their primary motives for pursuing entrepreneurship, what is the underlying motive for this extrinsic goal? Is it based on the motive to provide security for family? Is it based on the more materialistic value of desiring a fancy car and big house, which may be based on an underlying motive of feeding one’s insecurity by attempting to impress others? Perhaps the underlying motive for wealth is a desire to have the autonomy and freedom to pursue interests such as enjoyment of travel. In such cases, money is simply a means to an end, and having the goal of travel for the pure enjoyment of it would be intrinsic rather than extrinsic. As such, it has been argued that the motive -- the “why” underlying the goal -- is necessary for explaining the relationship between financial pursuit and subjective well-being (Carver & Baird, 1998; Srivastava et al., 2001).

This limitation of using “extrinsic” as a means for categorizing certain motivations, and the resulting likelihood of underlying motives that may be intrinsic in nature, provides an opportunity for the current study to contribute to self-determination theory. In illustration, Srivastava, et al. (2001) suggested that individuals may have different motives for pursuing financial success. To examine this idea, Srivastava, et al. (2001) developed a 10-item scale of motives for making money which are categorized into the three second-order factors: (1) positive motives (security, family support, pride, market worth), (2) freedom of action motives (leisure, freedom, impulse, charity), and (3) negative motives (social comparison, seek power over others, to show off, overcoming self-doubt). They found that the positive and freedom motives were not strongly correlated with well-being in either direction, but negative motives mediated the negative relationships between levels of importance placed on money and subjective well-being. This finding suggests that simply identifying a motive as “financial’ may not be sufficient -- it may be necessary to correctly identify the underlying motive for *why* the entrepreneur seeks financial gain. Consequently, in the cases in which an individual identifies a motive or goal that is based on an external reward (described by self-determination theory as extrinsic), it is necessary to identify potential underlying motives for why the individual desires the external reward. It may be that the underlying motive for seeking the reward is, in fact, intrinsic in nature.

In summary, numerous studies found evidence that intrinsic motives are more highly associated with job satisfaction and subjective well-being compared to extrinsic motives such as financial status and wealth (e.g. Benz & Frey, 2008; Martos & Kopp, 2012; Sheldon et al., 2004). These findings may be due to underlying motives that are negative in nature such as overcoming self-doubt and social comparison (Srivastava et al., 2001). These findings further establish the

importance of considering entrepreneurs' various motives and subjective perceptions when defining entrepreneurial success. Furthermore, these findings suggest that entrepreneurs who rank intrinsic motives as their primary motives are likely to also report higher subjective well-being. Therefore, I submit the following hypothesis.

Hypothesis 7: There is a positive relationship between the importance assigned by individuals to intrinsic motives and subjective well-being.

CHAPTER III

METHODOLOGY

Participants

Participants were randomly selected from a nationwide list of Oklahoma State University's alumni who are designated as business founders or business owners. For business owners who had email addresses listed, an initial email was sent that briefly described the study and provided a link to the online survey. For business owners who did not have an email address listed, initial phone calls were made to assess business owners' willingness to participate in the survey. Those who indicate a willingness to participate in the survey received an email with a link to an online survey created using Qualtrics software. Those who did not complete the survey within two weeks of the initial email were sent a follow-up reminder email. The use of online surveys complicates the response rate calculation, particularly when the software does not indicate which or how many emails bounced (as is the case with the Qualtrics settings used by the Spears School of Business). However, the software tracks each time someone clicks the survey link, regardless of whether they complete any questions. Qualtrics indicated that 333 surveys were opened. Of these, 233 surveys were completed, indicating a response rate of 69%. I received several emails from individuals who reported that they started the survey, but did not continue to fill out the survey because they were not currently a business founder or owner (e.g. they were retired, were an employee rather than owner/founder, etc.).

Descriptive statistics indicated that the majority of respondents were male (79%) and Caucasian (93%). Their ages ranged from 28 to 84 with a mean age of 54.5 (SD = 11.58). The highest level of education completed by participants was as follows: 1% high school, 6% some college, 60% bachelor's degree, 24% master's degree, 9% PhD (or other advanced degree). The online survey included established and validated measures for self-control, locomotion and assessment, entrepreneurial motives, career success, and subjective well-being operationalized as life satisfaction. The measure for entrepreneurial motives is based on an established and validated measure used by PSED, and is supplemented with items based on an extensive review of the literature on entrepreneurial motives. To indicate goal progress, a question was included that asked participants to report their top three work-related goals they focused on over the past few months. Demographic questions were also included. Measures are described more fully below.

Measures

See Appendix A for full measures for each variable.

Locomotion and Assessment. Locomotion and assessment was measured with Kruglanski et al.'s (2000) Locomotion and Assessment Scales, which have 12 items for locomotion and 12 items for assessment. Responses were scored on a 6 point Likert type scale where 1=strongly disagree and 6=strongly agree. Kruglanski et al. (2000) found that both scales were unidimensional and have satisfactory degrees of internal consistency and temporal stability as demonstrated across numerous replications, including a cross-cultural replication. They state that the Locomotion and Assessment Scales "related in a theoretically predicted way to several individual difference constructs and demonstrated discriminant validity in regard to other

constructs including the Big Five personality factors” (Kruglanski et al., 2000: 812). “For the Locomotion Scale, Cronbach’s alpha ranged from .78 to .85. Collapsing across the 13 samples, the overall alpha for locomotion was .82.” and “for the Assessment Scale, alpha ranged from .57 to .80. Collapsing across the 13 samples, the overall alpha for assessment was .78” (Kruglanski et al., 2000: 799). The current study used a brief form of the measure, which has 6 items for locomotion and 6 items for assessment. The current study indicated an alpha of .68 for locomotion and an alpha of .75 for assessment. Sample items for locomotion include: “When I decide to do something, I can’t wait to get started,” “By the time I accomplish a task, I already have the next one in mind,” and “Most of the time my thoughts are occupied with the task I wish to accomplish.” Sample items for assessment include: “I often critique work done by myself and others,” “I spend a great deal of time taking inventory of my positive and negative characteristics,” and “I like evaluating other people’s plans.”

Self-control. Self-control was measured with the short version of the Self-Control Scale from Tangney et al., 2004), which is a 13-item Likert type scale with a range of 1 to 5 where 1=Not at all and 5=Very much. Both the long version and the short version of the self-control scale indicated adequate internal reliability with alphas for the total self-control scale being .89 in both studies, and alphas for the brief self-control scale being .83 in the first study and .85 in the second study (Tangney et al., 2004). Test-retest reliability was also adequate with test-retest reliability being .89 for the total self-control scale and .87 for the brief self-control scale (Tangney et al., 2004). The current study indicated an alpha of .79. Sample items for self-control include: “I am good at resisting temptation,” “I have a hard time breaking bad habits” (reverse scored), and “I refuse things that are bad for me.”

Goal progress. To measure goal progress, participants were asked to list the three most important goals they have been working toward during the past 8 to 12 months. They were then asked to rate the extent to which they've made progress toward these goals over the past 8 to 12 months based on a 7-point scale with 1 = "not at all" and 5 = "to a very great extent."

Career success. Self-referent subjective career success. Career success relative to self-referent criteria was assessed using a slightly modified version of Greenhaus et al.'s (1990) widely used career satisfaction scale, which has an acceptable internal consistency ($\alpha = .83$) as reported by Seibert and Kraimer (2001). The scale was slightly modified by Heslin (2003) who reported an acceptable internal consistency of his 6-item modified version ($\alpha = .88$). Sample questions include: "How satisfied are you with (1) "the overall success I have achieved in my career," (2) "the income I have attained," and (3) "the skill development I have attained." Ratings will be made on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Responses to the six items regarding success "relative to my career aspirations" were averaged to produce a success relative to self-referent criteria score. As per Heslin (2003), the following item evaluating overall career success was added, also using a 7-point scale: "Everything considered, how successful do you consider your career to date?" One item was omitted ("the advancement I have attained") as it refers to advancement within an organization and as such, is geared more toward employees.

Other-referent subjective career success. To measure other-referent subjective career success, the following two items were included. The following item was adapted from Abel and Spurk (2009) and Abel and Wiese (2008): "Compared with other entrepreneurs, how successful do you think your career has been so far?" To fit the context of the current study, the words

“fellow students” were changed to “other entrepreneurs” and the word “development” was removed. The other item which has been previously used to measure other-referent subjective career success and which was included in this study is, “How successful is your organization in comparison to other companies in the same line of industry and of (about) the same size?” (Baer & Frese, 2003; Van Dyck, Frese, Baer, & Sonnentag, 2005; Van Dyck, Frese, & Sonnentag, 2002 submitted manuscript). Both items were measured using a 7-point scale (1=not at all successful, 7=highly successful). Self-referent subjective career success and other-referent subjective career success were combined to create the variable overall career success. In the current study, the scale combining items from self-referent subjective career success and items measuring other-referent subjective career success indicated an alpha of .86.

Primary Motives. A measure for primary motives was compiled based on an extensive review of the literature on entrepreneurial motives. The primary motives for becoming an entrepreneur reported in Table 1 were compiled into Table 2 which lists the ranking of each motive in each study, and number of studies that included the motive. Several motive categories were eliminated because of replication of similar items categorized under other primary motives. For example, accommodation items and lifestyle items were similar to autonomy related items, challenge items were similar to items under self-realization, and creativity is included in an item under innovation. Additionally, items that were previously categorized under achievement in studies using SARIE data were later moved to different categories when the SARIE questionnaire was adapted and factor analyzed for additional studies (i.e. Birley & Westhead, 1994). Motive categories and items that are carried forward into the measure for type of motive were selected based on factor analyses reported in previous studies, using items with the highest

factor loadings for each category (i.e. Birley & Westhead, 1994; Blais & Toulouse, 1990; Carter, Gartner, Shaver, & Gatewood, 2003). Items with low factor loadings were not included in the final measure for type of motive (i.e. “Power to influence an organization” had a low factor loading of .41 under self-realization in Carter et al., 2003, and was dropped from the current study). The entrepreneurial motives measure used in this study includes the categories from the PSED survey which are: Independence/Autonomy (sample item: “To have freedom to adapt my own approach to work”), Financial Reasons (sample items: “To earn a larger personal income,” and “To build great wealth or a very high income”), Innovation (sample item: “To introduce novel, innovative, or creative solutions”), Recognition (sample item: “To achieve something and get recognition for it”), Roles (sample item: “To follow example of a person I admire”), and Self Realization (sample items: “To fulfill a personal vision,” and “To grow and learn as a person”). Additional categories added based on the review of literature include Opportunity (sample item: “I had identified a market need”) and Contribution/Communitarianism (sample items: “To contribute to my community or society by providing products or services” and “To contribute to economic development in my community or society”). The measure also includes an item titled “other” in which respondents will be allowed to include primary motives not covered in the survey. In summary, the measure used in this study for type of motive includes many items adapted from the PSED surveys, most of which are adopted from the SARIE survey, and additional items developed based on an extensive review of the literature on entrepreneurial motives (i.e. “Identified a market need” is from Gatewood, Shaver, & Gartner, 1995, “A desire to introduce novel, innovative, or creative solutions” was listed as a motivational base of task theory for personal innovation in Miner, Smith, & Bracker, 1989). Respondents were asked to

what extent the motives were important to their decision to establish their new business. Responses were measured on a 5-point scale ranging from 1="To no extent" and 5="To a very great extent." The entrepreneurial motives compiled based on the above description had an alpha of .79.

Subjective well-being. Subjective well-being was measured with the widely-used Satisfaction With Life Scale (SWLS), a five-item scale developed to measure global life satisfaction. The SWLS demonstrates good psychometric properties including high temporal reliability, high internal consistency, and discriminant validity from emotional well-being measures, and demonstrates long-term stability while also being able to capture changes that occur during the life span (Deiner, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 1993). When assessing subjective well-being, although a significant degree of temporal stability was found in subjective well-being and life events, changes in life events can (at least temporarily) change the level of an individual's subjective well-being, and it is primarily only life events from the previous three months that influence life satisfaction and positive and negative affect (Suh et al., 1996). The current study reported a Cronbach's alpha of .82 for this scale. Sample items include: "In most ways my life is close to my ideal," "The conditions of my life are excellent," and "If I could live my life over, I would change almost nothing." Responses are scored on a 7-point Likert-type scale with 1=strongly disagree to 7=strongly agree. The SWLS has undergone more extensive validation procedures than any other measures for life satisfaction, and is recommended as the "soundest instrument currently available" for measuring life satisfaction (Erdogan et al., 2012: 1069).

Control variables. Demographic control variables include age, sex, level of education,

and ethnicity/race. The individual age of the entrepreneur was measured as the number of years old. Gender was measured as male (coded as 0) and female (coded as 1). Education level was measured with five categories: high school/GED, some college, four year college degree, master's degree, and professional or doctoral degree.

CHAPTER IV

RESULTS

Multicollinearity Test

The Variance Inflation Factor (VIF) indicates the severity of multicollinearity between variables in a model by indicating the extent to which variance is increased as a result of collinearity. A VIF exceeding 10 is believed to be a reason for concern regarding multicollinearity within the model (Myers, 1990). I tested for multicollinearity between the variables locomotion, assessment, self-control, intrinsic motives, and subjective career success by using the Variance Inflation Factor in SPSS. Five separate analyses were run, each iteratively changing the dependent variable until all variables were tested against all other variables. In all analyses, all VIF values were below 2 (the highest VIF value was 1.29 for locomotion on assessment). These analyses suggest that multicollinearity is not an issue between the variables included in the model. (See Table 3.)

Insert Table 3 about here

Common Method Bias Test

All data for the current study were self-reported and collected by the same survey during

the same period of time. Consequently, common method variance (variance as a result of the measurement method) may be a potential concern. Harman's single factor method in SPSS was used to test for common method bias. All items for all variables were entered into an exploratory factor analysis using principal component extraction, and the unrotated solution was examined to determine whether one general factor accounts for the majority of variance in the model, which would indicate a substantial amount of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Harmon's single factor method indicated that only 14% of the total variance is explained by a single factor, which is not a substantial enough amount of variance to indicate that common method bias is not a serious problem with respect to the present data.

Exploratory Factor Analysis on Motives for Starting a Business

An exploratory factor analysis (EFA) was performed using SPSS to assess the factor structure of the 14 item scale examining motives for starting a business. Principal component analysis was used as the extraction method, and Oblimin with Kaiser Normalization was used as the rotation method. Principle components analysis was used because the purpose was to identify the factors underlying the 14 items used to determine primary motives for starting a business. Oblimin was used as the rotation method because it is a commonly used method for allowing a non-orthogonal (oblique) solution, which allows factors to be correlated. Possible correlation of factors is a more realistic assumption compared to the assumption of orthogonality (complete independence) of the factors.

The Kaiser-Meyer-Olkin measure of sampling adequacy was .748, above the recommended value of .6, and Bartlett's test of sphericity was significant with a Chi-Square of 1091.493, $p < .001$. Four components were extracted. All items correlated at .3 or above with at

least one other item, suggesting reasonable factorability. The initial eigen values showed that the first factor explained 28.992% of the variance, the second factor explained 15.453% of the variance, the third factor explained 9.989% of the variance, and the fourth factor explained 8.395% of the variance. Cumulatively, the four factors explained 62.83% of the variance. Both the pattern matrix and the structure matrix were examined to interpret factors. (See tables below.)

Insert Tables 4 and 5 about here

As indicated by the pattern matrix and structure matrix, several items loaded onto more than one factor with factor loadings higher than .3. One clear factor emerged, consisting of the two financial items (Financial_LargerIncome and Financial_GreatWealth), in which factor loadings were .914 and .889 (consecutively), and neither item loaded on another factor at .3 or higher. However, a number of items had similar factor loadings on more than one factor (i.e. SelfRealization_vision, Opportunity, MeaningfulnessMotive), suggesting that a four factor explanation for the items is not adequate.

To further explore potential factors, and based on theory that describes extrinsic and intrinsic motives, an exploratory factor analysis was performed to assess the potential factor structure of two underlying factors that may represent extrinsic and intrinsic motives. All items were included in the analysis; no items were eliminated. A fixed number of factors to extract was set at 2. All items correlated at .3 or above on one of the factors. The initial eigen values showed that the first factor explained 28.992% of the variance, the second factor explained 15.453% of the variance. Cumulatively, the two factors explained 44.445% of the variance. Both the pattern

matrix and the structure matrix were examined to interpret these factors. (See tables below).

Insert Tables 6 and 7 about here

As indicated in the pattern matrix and structure matrix, autonomy items and recognition items have cross loadings higher than .3. In an attempt to maximize the variance of the squared loadings of each factor and further differentiate the items by extracted factors, an additional exploratory factor analysis was performed using Varimax rotation, which is an orthogonal rotation, which increases the likelihood of identifying each item with a single factor.

KMO value, Bartlett's Test of Sphericity, and variance explained remained unchanged.

The rotated component matrix is displayed below.

Insert Table 8 about here

As indicated in Table 7, despite using an orthogonal rotation method, a number of items continue to load on both factors, suggesting that some items may not be exclusive to either extrinsic or intrinsic motives. As such, some items may not be useful for distinguishing between intrinsic and extrinsic motives, and should be eliminated from analyses that seek to determine levels of intrinsic or extrinsic motivation. The potential need for dropping items is examined through principal axis factoring and confirmatory factor analysis.

Principal axis factoring (common factor analysis) was performed to further assess the

potential for a two factor outcome. Principal axis factoring looks for the least number of factors that can account for the correlation of the set of items. The PAF, using Promax with Kaiser Normalization rotation method (an oblique/non-orthogonal method), produced the following factor loadings (see Table 8).

Insert Table 9 about here

As indicated in the above table, analysis using Principal Axis Factoring revealed fewer cross loadings above .3, with the exception of recognition items which remain problematic with cross loadings above .3. The cross loadings for the item Recognition_Achievement were very similar and both under .4, so the item was discarded in future analyses. The remaining items were grouped into two factors (INTRINSIC and EXTRINSIC for further analyses. The intrinsic factor consisted of SelfRealization_challenge, SelfRealization_vision, Self-Realization_growth, InnovationMotive, Autonomy_freedom, Autonomy_decisions, Opportunity, Communitarianism_ProductsServices, Communitarianism_EconDev, and MeaningfulnessMotive. The extrinsic factor consisted of Financial_LargerIncome, Financial_GreatWealth, and Recognition_Status. This analysis provides support for the theoretical distinction between intrinsic and extrinsic motives, and also indicates construct validity of the measure. The factors were further analyzed using Confirmatory Factor Analysis for all indicators and latent variables included in the proposed structural model.

Measurement Model

Using AMOS, a confirmatory factor analyses (CFA) was performed to assess the factor

structure of latent variables included in the proposed structural model. The Chi-square for the model was 2045.932 with 1075 degrees of freedom and p-value < .001. The X2 statistic for model fit is significant, suggesting that the null hypothesis of a good fit for the data can be rejected. The RMSEA value is .062, which slightly exceeds the recommended value of .06 (Hu & Bentler, 1999), and the CFI is .719, which is lower than the recommended value of .9 or higher (Hu & Bentler, 1999). As such, both values indicate a poorly performing model. For this six factor model, the regression weights are all significant. However, the R2 corresponding to many of the observed variables is less than .5. These items are SelfControl2 (.40), SelfControl3 (.385), SelfControl4 (.26), SelfControl6 (.386), SelfControl11 (.447), SelfControl13 (.447), Locomotion5 (.438), Locomotion6 (.404), Assessment7 (.417), Autonomy_freedom (.422), Autonomy_decisions (.367), and Opportunity (.480). (See Figure 2.)

Insert Figure 2 about here

In an attempt to further improve the fit of the model, I eliminated the items that loaded at lower than .50. The Chi-square for this model is 1131.348 with 589 degrees of freedom and p-value < .001. The X2 statistic for model fit remains significant. The RMSEA value remains at .062, and the CFI is slightly higher at .797. The regression weights all remain significant, but many of the factor loadings are slightly above .50. (See Figure 3 below.)

Insert Figure 3 about here

In an attempt to further improve the model and eliminate the indicators with lower factor loadings, I retained the three indicators per each respective factor that had the highest factor loading. This includes the following: for SELFCONTROL_{lv}, SelfControl8 (.566), SelfControl9 (.597), and SelfControl12 (.598) were retained; for LOCOMOTION_{lv}, Locomotion2 (.543), Locomotion3 (.705), and Locomotion4 (.592) were retained; for ASSESSMENT_{lv}, Assessment9 (.712), Assessment10 (.622), and Assessment11 (.650) were retained; for CAREER_SUCCESS_{lv}, OverallCareerSuccess (.772), ComparedCompetitors (.737), and OverallSuccess (.769); for SWB_{lv}, SWB1 (.763), SWB2 (.755), and SWB3 (.818) were retained; for INTRINSIC_{lv}, MeaningfulnessMotive (.657), InnovationMotive (.611), and SelfRealization_growth (.659) were retained.

The Chi-square for this model is 217.845 with 130 degrees of freedom and p-value < .001. The X2 statistic for model fit remains significant. The RMSEA value is .053, which is lower than the recommended maximum value of .06 (Hu & Bentler, 1999), suggesting good model fit. Additionally, the CFI is now .915, which meets the recommendation of a value of .9 or higher (Hu & Bentler, 1999), also indicating good model fit. (See Figure 4.)

Insert Figure 4 about here

Structural Model Analyses: Testing the Hypothesized Model

Structural equation modeling (SEM) with AMOS 19 was used to examine the hypothesized model. One of the advantages of using SEM is the ability to simultaneously test the full system of variables in a hypothesized model, allowing an assessment of the extent to which

the model and the data are consistent (Byrne, 1994). To test the hypothesized model, I used the top three indicators for each latent variable identified during the CFA process based on the best performing CFA measurement model. The control variables age, sex, race and education were also included in the model. (See Table 10 for descriptive statistics and variable correlations.)

Insert Table 10 about here

The Chi-square for model 1 was 245.216 with 206 degrees of freedom and p-value of .032 ($p < .05$). The χ^2 statistic for model fit is significant, suggesting that the null hypothesis of a good fit for the data can be rejected. Although the chi-square value is too large to suggest a good fit for the model (and the p-value is too small), the RMSEA value is .029, which is below the recommendation of .06 or lower (Hu & Bentler, 1999), and the CFI is .961, which is above the recommended value of .9 or higher (Bentler, 1990; Hu & Bentler, 1999). Both values suggest that the model provides a good fit for the data. (Control variables were included in all model analyses, but are not shown in diagrams for ease of presentation.)

Insert Figure 5 about here

Testing of hypotheses. In order to test the proposed model, hypotheses were examined based on the SEM analyses. Hypothesis 1a states that there will be a positive relationship between locomotion and goal progress, and hypothesis 1b states that there will be a positive relationship between goal progress and career success. Maximum likelihood estimates for the

hypothesized model indicated a significant path between locomotion and goal progress (standardized coefficient = .313, $p < .001$), and a significant path from goal progress to career success (standardized coefficient = .314, $p < .001$). Thus, support was obtained for hypotheses 1a and 1b. Hypothesis 1c predicted that goal progress would mediate the positive relationship between locomotion and career success. Results indicate partial mediation (Baron & Kenny, 1986), with locomotion being significantly related to goal progress, and goal progress being significantly related to career success; in addition, the relationship of locomotion to career success (standardized coefficient = .183, $p < .05$) is diminished when goal progress is in the model. Support was obtained for hypotheses 1a and 1b, and partial support was obtained for hypothesis 1c. This indicates partial mediation since the relationship remains, but is reduced, when the mediator is included.

Hypothesis 2a predicted a positive relationship between goal progress and subjective well-being, and hypothesis 2b predicted that goal progress would mediate a positive relationship between locomotion and subjective well-being. While the path from locomotion to goal progress was significant (as indicated in hypothesis 1a), the path from goal progress to subjective well-being was not significant (standardized coefficient = -.005, $p = .495$). Thus, full support for hypothesis 2 was not obtained. Previous research indicates that goal progress is a predictor of subjective well-being, and correlations indicated a positive relationship between goal progress and subjective well-being (correlation coefficient = .165, $p < .05$). As indicated by hypothesis 1b, there was a significant relationship between goal progress and career success. This relationship, combined with a positive significant relationship between career success and subjective well-being, would indicate that career success fully mediates the positive relationship

between goal progress and subjective well-being. Hypothesis 6 predicted a positive relationship between career success and subjective well-being. Results indicate a significant relationship between career success and subjective well-being (standardized coefficient = .492, $p < .001$). Thus, support was obtained for hypothesis 6. These results also explain why hypothesis 2 was not supported – the relationship between goal progress and subjective well-being was fully mediated by career success.

Hypothesis 3 predicted that the relationship between locomotion and goal progress will be moderated by assessment such that the effects of locomotion are stronger when assessment is high (an interaction effect). To test the interaction effect, the interaction variable C_LOCOMOTIONxC_ASSESSMENT was added to the structural model. The interaction variable was not significant in the current model, so hypothesis 3 was not supported.

Hypothesis 4a predicted a positive relationship between self-control and goal progress. The path from self-control to goal progress was significant (standardized coefficient = .263, $p < .01$).

Hypothesis 4b predicted a positive relationship between self-control and career success, mediated by goal progress. Results indicated a significant relationship between self-control and goal progress (hypothesis 4a), and a significant relationship between goal progress and career success (hypothesis 1b). These results, combined with the finding that there was no direct effect of self-control on career success (standardized coefficient = .107, $p = .22$), indicate that goal progress fully mediates the positive relationship between self-control and career success. Thus, support was obtained for hypotheses 4a and 4b.

Hypothesis 5a predicted a positive relationship between self-control and subjective well-being, and hypothesis 5b predicted that the positive relationship between self-control and

subjective well-being will be mediated by goal progress. Results indicated a positive relationship between self-control and subjective well-being (standardized coefficient = .233, $p < .05$).

However, although the path from self-control to goal progress was significant (hypothesis 4a), the path from goal progress to subjective well-being was not significant (hypothesis 2a). Support was obtained for hypothesis 5a but not for hypothesis 5b.

Hypothesis 7 predicted a positive relationship between intrinsic motives and subjective well-being. The path between intrinsic motives and subjective well-being was marginally significant at $p < .05$ (standardized coefficient = -.232, $p = .048$), but the probability is so close to .05, I hesitate to conclude that the relationship is significant. It is possible that the relationship between intrinsic motives and subjective well-being may rely upon the extent to which individuals' motives are met through goal progress and career success.

Despite the fit indices (with the exception of the chi-square and p-value) indicating that the model provided a good fit to the data, support was not obtained for some of the hypothesized relationships. The hypothesized interaction of locomotion and assessment was not significant, and the hypothesized positive relationship between intrinsic motives and subjective well-being was not supported. Because assessment does not appear to influence the model, further model analyses may provide a better fit for the data when the assessment construct is eliminated from the model. Furthermore, theory suggests that intrinsic motives play an important role in goal progress, career success, and subjective well-being. It is possible that the positive relationship between intrinsic motives and subjective well-being is fully mediated by another variable(s). Because of strong theoretical support for the role of intrinsic motives to goal progress, success, and well-being, alternative models examining the role of intrinsic motives should be

investigated. (See Table 11 for fit indices.)

Insert Table 11 about here

Alternative models were analyzed to identify a theoretically supportable model that is more parsimonious and provides a better fit for the data. For the subsequent models, the variable ASSESSMENT and the interaction term C_LOCOMOTIONxC_ASSESSMENT were dropped from analysis based on their insignificance in model 1. Additionally, for model 2, the insignificant path between self-control and career success, the insignificant path between locomotion and subjective well-being, and the insignificant path between goal progress and subjective well-being were dropped to assess the significance of the model with insignificant relationships removed.

The Chi-square for model 2 was 165.68 with 143 degrees of freedom and p-value of .094 ($p > .05$). The X^2 statistic for model fit is not significant, suggesting that the null hypothesis of a good fit for the data is supported. The RMSEA value is .026, which is below the recommendation of .06 or lower (Hu & Bentler, 1999), and the CFI is .976, which is above the recommended value of .9 or higher (Bentler, 1990; Hu & Bentler, 1999). These values suggest that the model provides a good fit for the data, and are a slight improvement from the fit indices of model 1. Most significant relationships between variables in model 1 remained significant in model 2. Self-control was positively related to subjective well-being (standardized coefficient = .199, $p < .05$) and positively related to goal progress (standardized coefficient = .231, $p < .05$). Locomotion was positively related to career success (standardized coefficient = .201, $p < .05$)

and to goal progress (standardized coefficient = .336, $p < .001$). Goal progress was positively related to career success (standardized coefficient = .332, $p < .001$), and career success was positively related to subjective well-being (standardized coefficient = .501, $p < .001$). The standardized coefficient for the relationship between intrinsic motives and subjective well-being is lower in model 2 (-.157) and is no longer marginally significant ($p = .066$).

Insert Figure 6 about here

For model 3, the insignificant path between intrinsic motives and subjective well-being was dropped. Instead, a path was estimated from intrinsic motives leading to goal progress. Self-determination theory (Deci & Ryan, 2000) suggests that individuals who have intrinsic motives are motivated to pursue goals that they enjoy and find challenging. If the goals entrepreneurs are pursuing are based on personal growth and enjoyment, then according to self-determination theory, intrinsic motivation will be increased. As entrepreneurs become more motivated to pursue goals, they will make more progress on their goals. Thus, higher levels of intrinsic motives may lead to higher levels of goal progress.

The Chi-square for model 3 was 168.99 with 143 degrees of freedom and p-value of .068 ($p > .05$). The X2 statistic for model fit is not significant, suggesting that the null hypothesis of a good fit for the data is supported. The RMSEA value is .028, which is below the recommendation of .06 or lower (Hu & Bentler, 1999), and the CFI is .973, which is above the recommended value of .9 or higher (Bentler, 1990; Hu & Bentler, 1999). These values suggest

that the model provides a good fit for the data. The positive relationship between locomotion and career success (standardized coefficient = .193, $p < .05$) and between locomotion and goal progress (standardized coefficient = .342, $p < .01$) remained significant. The positive relationships between goal progress and career success (standardized coefficient = .334, $p < .001$), and between career success and subjective well-being (standardized coefficient = .469, $p < .001$) also remained significant. The positive relationship between self-control and goal progress remained significant (standardized coefficient = .235, $p < .05$), but the relationship between self-control and subjective well-being was no longer significant (standardized coefficient = .152, $p = .075$).

Insert Figure 7 about here

Although model fit indices continue to suggest a close fit for the model, thus far, none of the models provided an adequate explanation for the role of intrinsic motives within this set of variables. One of the limitations of self-determination theory is that while it addresses failure to act when individuals do not value or desire the activity, the theory does not provide an adequate explanation for why individuals fail to act on desired outcomes and valued activities. The insignificant relationship between intrinsic motives and goal progress in model 3 may be due to the absence of a mediating variable. Because the tendency to act or not act is captured in the variable locomotion, entrepreneurs may need adequate to high levels of locomotion in order to take action on their goals, which would lead to goal progress. In other words, simply having intrinsic motives may not be enough to make progress on goals. Without adequate to high levels

of locomotion, individuals may not take action on their goals. Based on this argument, I made adjustments to the model using the same variables. In this model (model 4), self-control and intrinsic motives are the exogenous variables. Self-control leads directly to goal progress (as before), but locomotion mediates the relationship between intrinsic motives and goal progress. (See Figure 8). As in previous models, goal progress leads to career success, and career success leads to subjective well-being.

Insert Figure 8 about here

The Chi-square for model 4 was 176.525 with 150 degrees of freedom and a p-value of .068 ($p > .05$). The X2 statistic for model fit is not significant, suggesting that the null hypothesis of a good fit for the data is supported. The RMSEA value is .027, which is below the recommendation of .06 or lower (Hu & Bentler, 1999), and the CFI is .972, which is above the recommended value of .9 or higher (Bentler, 1990; Hu & Bentler, 1999). These values suggest that the model provides a good fit for the data. Furthermore, in this model, all estimated paths are significant. Self-control is significantly related to goal progress (standardized coefficient = .236, $p < .01$), goal progress is significantly related to career success (standardized coefficient = .334, $p < .001$), and career success is significantly related to subjective well-being (standardized coefficient = .495, $p < .001$) (as hypothesized). The positive relationship between self-control and career success remains fully mediated by goal progress (as hypothesized). Likewise, locomotion is positively related to goal progress (standardized coefficient = .337, $p < .001$) and to career success (standardized coefficient = .197, $p < .05$), indicating a partial mediation of the

relationship between locomotion and career success by goal progress (as hypothesized). Additionally, this model accounts for a significant role of intrinsic motives within the model. With locomotion serving as a mediator between intrinsic motives and goal progress, the relationship from intrinsic motives to locomotion is highly significant (standardized coefficient = .588, $p < .001$), and the relationship from locomotion to goal progress is significant (standardized coefficient = .337, $p < .001$). Considering that a direct relationship from intrinsic motives to goal progress was not significant in model 3, these results support the idea that regardless of one's level of intrinsic motives, locomotion must be present for significant goal progress.

Based on fit indices, and more importantly, based on the fact that model 4 is the only model that provides a significant explanation for the role of intrinsic motives in reference to theoretically supported relationships (i.e. the relationship from intrinsic motives to goal progress, career success, and subsequent subjective well-being), model 4 provides the best explanation for the relationships between the variables. Assessment is the only variable which did not have a significant role within the model, and by leaving out assessment, the model was strengthened. This suggests that assessment may not be central to entrepreneurs' goal progress, career success, and subjective well-being. Furthermore, model 4 not only supports theory, model 4 provides new information that is useful for theory development by highlighting the crucial role of locomotion -- that intrinsic motives are not significantly related to goal progress or career success without the presence of locomotion.

CHAPTER V

DISCUSSION AND CONCLUSION

This study examined the role of intrinsic motives and self-regulatory factors on entrepreneurs' goal progress, career success, and subjective well-being. Structural equation modeling of survey responses from entrepreneurs yielded intriguing and informative results. Self-control was positively related to goal progress, and goal progress fully mediated the positive relationship between self-control and career success. Additionally, locomotion (which reflects the individual's tendency to take action and "do it now" rather than waiting in order to further assess the situation) was positively related to both goal progress and to career success, and goal progress partially mediated the relationship between locomotion and career success. Career success fully mediated the positive relationship between goal progress and subjective well-being. Assessment was not found to be significantly relevant. Particularly interesting was the finding that locomotion fully mediated the positive relationship between intrinsic motives and goal progress. Intrinsic motives were not positively related to goal progress, career success, or subjective well-being within the model, but were significantly related to these measures when locomotion was included. This suggests that locomotion is necessary for intrinsic motives to positively influence goal progress, career success, and subjective well-being. In other words, unless people want to take action and move ahead, intrinsic motives will not influence progress,

success, or subjective well-being. In the words of Shane, Locke and Collins (2003: 259), “Entrepreneurship involves human agency. The entrepreneurial process occurs because people act to pursue opportunities. People differ in their willingness and abilities to act on these opportunities because they are different from each other. We argue that the variation among people in their willingness and ability to act has important effects on the entrepreneurial process.” Locomotion provides the explanation for why individuals differ in their willingness and ability to act on entrepreneurial opportunities, and why they fail to make progress on their goals.

Contribution and Implications for Theory and Research

An extensive review of the literature on entrepreneurial motives emphasized the fact that entrepreneurs not only have a broad variety of motives for starting a business, but that financial motives are not as salient as the field of entrepreneurship seems to assume; yet, at present, there is a heavy emphasis on financial indicators used as the measure for entrepreneurial success. Although financial outcomes are important, entrepreneurs also strongly emphasize intrinsic motives for starting a business, such as autonomy, self-realization, and meaningfulness. Based on these previous findings, intrinsic motives were included in our analyses as a variable that might play a significant role in goal progress and career success of entrepreneurs.

Self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000) suggests that intrinsic motives are strongly associated with goal achievement, job satisfaction, and subjective well-being (Deci & Ryan, 2000; Ryan & Deci, 2000). This theory further suggests that failure to act is the result of not valuing the activity, not feeling competent, or not expecting a desired outcome (Ryan & Deci, 2000: 72). However, one of the limitations of self-determination theory

is that while the theory addresses failure to act when the individual does not value or desire the activity, the theory does not provide an adequate explanation for why individuals fail to act on desired outcomes and valued activities. In other words, the theory does not address why some individuals can have high levels of intrinsic motivation (their motives and goals are based on what they find to be inherently interesting and highly enjoyable), yet they fail to take action toward obtaining their valued activities or desired outcomes. This study partially fills that gap by examining the role of locomotion (the tendency to take action and “do it now”) in the relationship between intrinsic motives and goal progress, and between intrinsic motives and career success. Results indicated that the positive relationship between intrinsic motives and goal progress, and the positive relationship between intrinsic motives and career success, are fully mediated by locomotion. Although intrinsic motives are highly correlated with goal progress and career success, these positive relationships are only significant within the model when locomotion is included as a mediator. In other words, without a significant level of locomotion, intrinsic motives do not significantly contribute to goal progress or career success. Thus, the presence or absence of high levels of locomotion fills a theoretical gap by answering the question, “Why do some individuals who are intrinsically motivated -- who seem to be highly excited about and focused on (even passionate about) their entrepreneurial goals -- fail to make adequate progress toward meeting those goals?” One answer, based upon these results, is that they do not have adequate levels of locomotion. Thus, intrinsic motivation, alone, is not enough. The entrepreneurship process occurs because individuals act to pursue opportunities (Shane et al., 2003), and as such, they are the “active element” in new venture creation (Baron, 2007). Consequently, if entrepreneurs do not have high levels of locomotion, they may not act to pursue

the opportunities and goals necessary for successful venture creation and subsequent venture performance.

Because individuals high in locomotion are “high energy ‘doers’ and ‘go-getters’ who welcome the opportunity to act in relative disregard of the costs and who loathe merely waiting and watching rather than acting” (Kruglanski et al., 2000: 796), individuals high in locomotion may have the tendency to take on too many activities, or to pursue multiple goals without taking the time to prioritize. Literature on locomotion suggests that assessment (the tendency to critically evaluate goals and means in relation to alternatives) interacts with locomotion to facilitate higher levels of success (Kruglanski et al., 2000). However, assessment had no significant effects in the current study. This may be due to the presence of another variable that better addressed entrepreneurs’ ability to stay on target and effectively pursue their most important goals -- self-control. To make adequate progress on their most important goals, entrepreneurs need to have the ability to prioritize their actions and limit distracting activities. Self-control, a primary aspect of self-regulation, influences individuals’ abilities to reach goals by helping them avoid distractions (Fishbach & Shah, 2006; Hofmann et al., 2012). The results of this study indicate that self-control is positively associated with goal progress, and that goal progress fully mediates the positive relationship between self-control and career success.

This study is, to the best of the author’s knowledge, one of the first to empirically examine the role of self-control among entrepreneurs, and the extent to which self-control contributes to entrepreneurs’ goal progress and career success. It is important to note that self-control only influences career success through goal progress. Merely resisting distractions isn’t enough. An entrepreneur’s self-control must be engaged in a way that facilitates movement

toward goals, such as being able to focus on tasks that are necessary for adequate goal progress while also avoiding activities that will impede goal progress. In other words, entrepreneurs must employ self-control to direct their energies and focus on activities related to goal pursuit.

Because our knowledge about the role of self-control in entrepreneurship is very limited, this study contributes to current knowledge by providing new insights on the role of self-regulation and how it facilitates higher levels of success for entrepreneurs. Furthermore, gaining a better understanding of the skills that contribute to entrepreneurial success has the practical implication of providing a diagnostic tool for why some entrepreneurs do not succeed. Additionally, it provides crucial information on specific skills that can be improved as a means for increasing entrepreneurs' likelihood of success. Research on self-control has indicated that it can be learned, strengthened, and enhanced (Muraven, Baumeister, & Tice, 1999). As such, it might well prove useful to focus on development of self-control as a crucial skill for nascent entrepreneurs—one that will assist them, especially in the context of high locomotion, move toward the goals they seek.

While there has been some recognition that entrepreneurs have a broad range of motives and that primary motives may not necessarily be financial in nature, measures of success and performance for entrepreneurs tend to emphasize financial criteria such as profitability, firm revenue, personal wealth creation, revenue growth, and employee growth (Amit et al., 2001; Buttner & Moore, 1997). Despite the empirical evidence on the broad diversity of entrepreneurial motives, past research and theory in entrepreneurship have generally directed relatively little attention to the role of autonomy and other intrinsic motives in entrepreneurship (work by Rindova & Ketchen, 2009 and Baron, 2010 are exceptions to this general rule).

Gaining accurate understanding of the meaning of success for entrepreneurs is critical. The meaning of success in general is based on achievement of key goals. Thus, entrepreneurial success is based on achievement of the entrepreneurs' goals, and their goals are based on their entrepreneurial motives (which often emphasize intrinsic motives over financial motives). Consequently, measures that focus primarily on financial outcomes will not adequately capture the full meaning of success for entrepreneurs. A means for measuring entrepreneurial success that takes into account the multiple motives of entrepreneurs and that allows for multiple dimensions on which to measure entrepreneurial success will provide a more comprehensive and accurate measure of entrepreneurial success.

Based on both the review of entrepreneurial motives for starting a business, and on results of the present study, subjectively reported career success and subjective well-being (measured as global life satisfaction) can serve as additional indicators of entrepreneurial success. As discussed earlier, because entrepreneurs have a broad variety of motives for starting a business, when the field of entrepreneurship relies primarily (or even solely) on financial indicators to measure such success, this may not be an accurate indicator in instances in which entrepreneurs' primary motives and goals are not financial in nature. Although a certain level of financial success is necessary for entrepreneurs to continue to operate their businesses, if their primary motives are intrinsic in nature (such as gaining increased autonomy, meaningfulness, and self-actualization), then their self-reported success in achieving their goals may be an equally important (if not more important) indicator of entrepreneurial success. The results of this study indicate that career success fully mediates the positive relationship between goal progress and subjective well-being. Goal progress and goal achievement have been empirically identified as

predictors of subjective well-being (e.g. Brunstein, 1993; Lent et al., 2005; MacLeod et al., 2008; Sheldon & Hoon, 2007), and numerous studies indicate a positive relationship between job satisfaction (a dimension of subjective career success) and subjective well-being (Bowling et al., 2010; Judge & Hulin, 1993; Weiss, 2002; Wright & Cropanzano, 2000). Considering that subjective well-being was operationalized as global life satisfaction, job satisfaction is likely an important contributor to life satisfaction. Goal progress, particularly work-related goal progress (as was measured in the current study), is likely to influence global life satisfaction/subjective well-being by increasing levels of job satisfaction. The results of this study provide new insights into the role of goal progress on subjective well-being by illustrating the mediating role of career success, thus linking prior research on subjective well-being and goal progress/achievement with prior research that indicated a positive relationship between subjective well-being and job satisfaction. Furthermore, literature indicates that high levels of subjective well-being can contribute to success (Lyubomirsky et al., 2005), which suggests the possibility of a reciprocal relationship between career success and subjective well-being.

Prior literature, combined with the results from the current study, suggests that simply using subjective well-being as an indicator of subjective entrepreneurial success is not adequate. Likewise, only using a measure of career success as an indicator of entrepreneurial success would not be adequate. Rather, including measures for both subjective well-being and for career success (subjective and objective dimensions) provides a more comprehensive means for measuring entrepreneurial success. Furthermore, although career success and subjective well-being are highly correlated, the multicollinearity test using the variance inflation factor and the confirmatory factor analysis both indicate that career success and subjective well-being are

distinct factors each providing unique information. As such, I recommend that measurement of entrepreneurial success should not be limited to financial indicators, but should be extended to include measures of subjective career success and global life satisfaction (subjective well-being).

Opportunities for Future Research

Regarding types of motives, the current study primarily focused on the role of intrinsic motives within the hypothesized model. Future research may include the extent to which extrinsic motives versus intrinsic motives have different relationships with the outcome variables, or influence these dependent measures to contrasting degrees. For instance, is the strength of extrinsic motives negatively related to subjective well-being? Do extrinsic motives, compared to intrinsic motives, influence levels of career success to a higher or lower extent? For example, if an entrepreneur is focused primarily on an extrinsic motive such as gaining status rather than intrinsic motives such as meaningfulness, increased autonomy, or self-growth, will type of motive influence dimensions of career success differently? It is possible that strength of intrinsic motives is more positively related to subjective dimensions of career success (such as job satisfaction) while strength of extrinsic motives is more positively related to objective dimensions of career success (such as financial performance). What is the relationship between extrinsic motives and locomotion, and to what extent does it differ from the positive relationship between intrinsic motives and locomotion? For instance, while the combination of intrinsic motives and locomotion leads to goal progress, during instances in which individuals primarily focus on extrinsic motives (desiring money, fame, status), will they be equally likely to take action on their goals compared to those whose goals are based on enjoyment and self-growth? Are extrinsic motives more likely to be related to assessment (making critical evaluations and

assessing alternatives), and less likely to be related to locomotion?

Future research should closely examine the extrinsic motives of entrepreneurs to determine the potential existence of second-order motives underlying extrinsic motives such as financial success. This would not only further establish the importance of considering entrepreneurs' various motives and subjective perceptions when defining entrepreneurial success -- this would also have the potential to further contribute to theory by identifying the possible existence of second-order intrinsic motives underlying extrinsic motives. For example, by identifying the extent to which a motive typically viewed as extrinsic has positive underlying motives (i.e. to provide for family) versus motives based on insecurity (i.e. to improve my self-image by raising my social status) may play a significant role in the extent to which the extrinsic motive has a positive or negative effect on factors such as goal progress and subjective well-being.

Future research should also obtain lagged data to examine the extent to which there is a reciprocal relationship between subjective well-being and career success. Additionally, research should also be designed so as to acquire objective performance data, and include it with subjective measures such as subjective career success and subjective well-being/global life satisfaction, could further test the efficacy of a multi-dimensional measure for entrepreneurial success.

Future research may examine potential relationships between locomotion and entrepreneurial passion. Entrepreneurial passion is described as intense positive feelings resulting from entrepreneurial activities that are meaningful to one's self-identity (i.e. inventor identity, founder identity, developer identity) (Cardon, Wincent, Sing, & Drnovsek, 2009). For

example, is locomotion more highly associated with a particular entrepreneurial role identity such as the developer identity (which is focused on creating venture growth which requires persistent action), compared to the inventor identity (which is focused on opportunity recognition)? Additionally, future research may examine the extent to which certain entrepreneurial motives are more highly associated with passion. For example, meaningfulness as a motive is likely to be related to high levels of entrepreneurial passion, because entrepreneurial passion results from engaging in activities that contribute to identity meaning and salience.

Limitations

This study has a number of limitations that should be noted. The included variables were measured with the use of a single survey. This raises concerns pertaining to potential common-method variance. However, findings from the CFA and Harman's single factor test suggested that common method bias may not be a substantial concern. Of more concern is the absence of lagged data, particularly for the measurement of goal progress. In the current study, goal progress was assessed with a question asking individuals to assess their level of goal progress over the past few months, in reference to the primary goals they have been seeking to meet during these months. The survey employed in the current study also asked respondents to list, in order of importance, three primary goals they expected to focus on over the next few months. A more effective means to measure goal progress would be through administration of a second survey, approximately 6 months (or some other adequate amount of time) following the first survey, providing the list of goals they indicated on the first survey, and asking them to then rate their level of goal progress. Unfortunately, scheduling difficulties (e.g., obtaining permission to access

the appropriate population) made it impossible to collect such measures within the allotted time span.

Time constraints also contributed to a related limitation, which was the inability to obtain lagged data for subjective well-being and career success. Literature suggests that there may be a reciprocal relationship between career success and subjective well-being (e.g. Lyubomirsky et al., 2005). However, this relationship cannot be tested without lagged data. Instead, this potential relationship will need to be examined in a future study.

An additional limitation is that all variables were self-reported. This is a particular concern for the variable career success. In the current study, only subjective career success was included as an indicator of success. Verifiable financial information (such as archival data), if it were attainable, could serve as an objective dimension of career success. Additionally, because the variables were self-reported, social desirability may be a possible concern. For example, individuals may be reluctant to explicitly state that they are strongly motivated solely by financial gain if they believe doing so may reflect badly on them.

Conclusion

The current study contributes to the field of entrepreneurship by illustrating the existence of both financial and non-financial motives through a systematic review of the current literature on entrepreneurial motives. This study also contributes the field of entrepreneurship by providing a means for conceptualizing and measuring success among entrepreneurs that is more comprehensive than the financial indicators that are generally used at present. The construct of career success can provide both objective and subjective dimensions, extending beyond financial performance, and as such, can address both extrinsic and intrinsic motives. Furthermore, the

inclusion of subjective well-being as an indicator of entrepreneurial success further captures broader entrepreneurial motives -- motives that go beyond extrinsic rewards and motives pertaining to one's work life and career, such as how one's entrepreneurial success positively influences satisfaction and happiness in other areas of one's life.

The current study also contributes to current knowledge of the cognitive processes and behaviors that lead to successful entrepreneurial outcomes by providing new insights concerning the role of self-regulation in entrepreneurial success. To the best of the author's knowledge, the constructs of locomotion and assessment have not been applied to entrepreneurship, and the construct of self-control has not been included in published empirical studies of entrepreneurship. An understanding of entrepreneurs' tendency to "just do it," and the extent to which self-control and locomotion contribute to goal progress, provides new information on how self-regulation contributes to the success and well-being of entrepreneurs. Furthermore, by gaining a more complete understanding of the skills that contribute to success among entrepreneurs, we will be better able to diagnose potential issues that contribute to business failure, and will have identified skills that can be improved upon as a means to increase the likelihood of entrepreneurial success.

Self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000), though widely applied in education and other fields, has not been widely incorporated into entrepreneurship research, despite its useful ability to explain the role of autonomy and intrinsic motivation in success and well-being in other contexts. This study contributes to the field of entrepreneurship by illustrating the usefulness and application of self-determination theory to entrepreneurial behavior. Self-determination theory addresses how different types of motives and goals influence

well-being (Deci & Ryan, 2000; Ryan & Deci, 2000). Central to self-determination theory is the distinction between intrinsic and extrinsic motivation, and the suggestion that intrinsic motives and intrinsically motivated goals are more likely to meet one's innate needs, thus leading to higher levels of well-being. The distinction between intrinsic motives and extrinsic motives is particularly relevant to entrepreneurship literature considering the findings reported in the review of literature on entrepreneurial motives -- that entrepreneurs tend to place a stronger emphasis on intrinsic motives such as gaining more autonomy, meaningfulness, and self-growth, compared to financial motives. However, one of the limitations of self-determination theory is that while the theory addresses failure to act when the individual does not value or desire the activities, the theory does not provide an adequate explanation for why some intrinsically motivated individuals fail to act on valued goals and desired outcomes. By identifying the mediating relationship of locomotion between intrinsic motives and goal progress, the current study contributes to self-determination theory by providing empirical evidence for when and why some individuals tend to act while others hesitate. In conclusion, by explicitly recognizing the broad heterogeneity of entrepreneurial motives, by examining the role of self-regulatory processes in goal progress and entrepreneurial success, and by addressing multiple dimensions of career success, the present research contributes to the goal of attaining broader understanding of factors that combine to generate high levels of entrepreneurial success.

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APPENDIX A

MEASURES

Locomotion and Assessment Measures*

Read each of the following statements and decide how much you agree with each according to your beliefs and experiences. Please respond according to the following scale:

1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = slightly agree, 5 = moderately agree, 6 = strongly agree

Locomotion items:

I don't mind doing things even if they involve extra effort.

I feel excited just before I am about to reach a goal.

When I decide to do something, I can't wait to get started.

By the time I accomplish a task, I already have the next one in mind.

Most of the time my thoughts are occupied with the task I wish to accomplish.

When I get started on something, I usually persevere until I finish.

Assessment items:

I spend a great deal of time taking inventory of my positive and negative characteristics.

I like evaluating other people's plans.

I often compare myself with other people.

I often critique work done by myself and others.

I often feel that I am being evaluated by others.

When I meet a new person I usually evaluate how well he or she is doing on various dimensions (e.g., looks, achievements, social status, clothes).

* *From Kruglanski, et al. (2000).*

Self-Control Scale*

Using the scale provided, please indicate how much each of the following statements reflects how you typically are. 1=Not at all to 5=Very much.

I am good at resisting temptation.

I have a hard time breaking bad habits. (R)

I am lazy. (R)

I say inappropriate things. (R)

I do certain things that are bad for me, if they are fun. (R)

I refuse things that are bad for me.

I wish I had more self-discipline. (R)
People would say that I have iron self-discipline.
Pleasure and fun sometimes keep me from getting work done. (R)
I have trouble concentrating. (R)
I am able to work effectively toward long-term goals.
Sometimes I can't stop myself from doing something, even if I know it is wrong. (R)
I often act without thinking through all the alternatives. (R)

**From Tangney et al. (2004)*

Current Goals (for measuring goal progress)

Initial survey:

Please list the most important goals you want to reach over the next few months.

- 1.
- 2.
- 3.

Goal Progress

Follow-up survey:

Approximately 4 months ago, you listed the following as your top three goals on which you intended to make progress over the next few months. Please rate the extent to which you've made progress toward each of the goals listed below:

1 = to no extent, 2 = to a little extent, 3 = to some extent, 4 = to a great extent, 5 = to a very great extent

1. (previous answer inserted here by qualtrics software)
2. (previous answer inserted here by qualtrics software)
3. (previous answer inserted here by qualtrics software)

Career Success Measure

Everyone defines "career success" in personal terms. Below, please indicate how you define it, by indicating the extent to which you agree or disagree with each of the following statements:

1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree.

*Self-referent subjective career success**

I am satisfied with the overall success I have achieved in my career.

I am satisfied with the income I have attained.

I am satisfied with the skill development I have attained.

I am satisfied with the autonomy I have attained.

I am satisfied with the intellectual stimulation I have attained.

**From Greenhaus et al. (1990), slightly modified by Heslin (2003)*

Other-referent subjective career success

Please evaluate your own success in terms of the key goals you are seeking to reach:

1=not at all successful, 2=minimally successful, 3=slightly successful, 4=neutral, 5=moderately successful, 6=very successful, 7=highly successful

Compared with your competitors and other entrepreneurs, how successful do you think your career has been so far?*

**Adapted from Abel & Spurk (2009) and Abel & Wiese (2008)*

How successful is your organization in comparison to other companies in the same line of industry and of (about) the same size?*

**From Baer & Frese (2003) and Van Dyck et al. (2005)*

*Overall career success**

Everything considered, how successful do you consider your career to date to be?

**From Heslin (2003)*

Objective career success

Please indicate the extent to which your personal income has increased over the past three years: (1) income has declined, (2) income has remained the same, (3) up to 10% increase, (4) 11-25% increase, (5) 26-50% increase, (6) 51-75% increase, (7) 76-95% increase, (8) above 95% increase (income has approximately doubled or more).

What is your organization's approximate net income for the past three years?

2011 _____

2010 _____

2009 _____

What is your approximate personal income from the business for the past three years?

2011 _____

2010 _____

2009 _____

Entrepreneurial Motives Measure

What were your top three motives for starting your business, in order of priority (where 1=primary/top reason for starting your business).

- 1.
- 2.
- 3.

To what extent are these still your primary motives for running the business? In other words, have your primary reasons for being an entrepreneur changed since you started the business?

If so, when did your primary reasons for being an entrepreneur change, and what are your primary reasons for continuing the business?

To what extent were the following reasons important to you when establishing your business? In other words, what were your primary motives for starting a business?

1 = to no extent, 2 = to a little extent, 3 = to some extent, 4 = to a great extent, 5 = to a very great extent

Self-Realization:

To have a career that offers a challenge.*

To fulfill a personal vision.*

To grow and learn as a person.*

Financial Success:

To earn a larger personal income.*

To build great wealth or a very high income.*

Innovation

To introduce novel, innovative, or creative solutions.

Recognition

To achieve something and get recognition for it.*

For increased status and prestige.*

Autonomy

To have freedom to adapt my own approach to work.*

To be able to make my own decisions and follow my own judgment.

Opportunity

I had identified a market need.

Communitarianism

To contribute to my community or society by providing products or services.

To contribute to economic development in my community or society.

Meaningfulness

To do work I find meaningful.

**Items adapted from PSED survey/Carter et al. (2003)*

Money Motives Scale

Please indicate **how important** each of the following is as a **reason** for you to earn money.

1 2 3 4 5 6 7 8 9 10

(totally **unimportant**)

(extremely **important**)

(Security - positive motive)

To take care of the basic requirements for living such as decent housing.

To maintain a reasonable bank balance for emergencies.

To have a feeling of security.

(Family support - positive motive)

To be able to support a family.

To take care of the college education of my children.

To leave behind enough money for my spouse and kids when I die.

(Market worth - positive motive)

To get just compensation for my work.

To get what I believe I should earn as a result of my thinking and effort.*

To be paid fairly for my work-achievements.

(Pride - positive motive)

To feel proud of myself.

To know that I earned my way in life.

To know that I can deal with the life's challenges.

(Leisure, including luxury - freedom of action motive)

To spend time and resources pursuing leisure activities (e.g., poetry, literature, photography, painting, music, etc.).

To spend time and money on my hobbies.

To get personal pleasure from luxuries (e.g., cars, houses, art).

(Charity - freedom of action motive)

To donate money to those who need it.

To start a charitable trust dedicated to a cause that I value.

To have enough spare time that could be devoted to volunteer activities.

(Freedom - freedom of action motive)

To implement my ideas by starting my own business.

To not be accountable to anyone for what or how I do things.

To direct my own life with no interference from anyone else.

(Impulse - freedom of action motive)

To let my mood guide me at times so that I can blow money in shopping just for the thrill of it.

To play exciting games in casinos (gamble).

To spend money on impulse.

(Overcoming self-doubt - negative motive)

To prove I am not a failure.

To prove that I am not incompetent.*

To prove that I am not dumb.*

(Social comparison - negative motive)

To show I am better than others.*

To have a house and cars that are better than those of my neighbors.

To attract the attention and admiration of others.

Note. The first order motive corresponding to the items is indicated in bold within parentheses. Three second-order factors were identified as (1) Positive motives, (2) Freedom of Action, and (3) Negative motives, and are indicated above.

Items are from Srivastava et al. (2001).

** Items that have been adapted/modified.*

Satisfaction With Life Scale*

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, please indicate your agreement with each item by placing the appropriate number of the line preceding that item. Please be open and honest in your responding. The 7-point scale is: 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree.

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

**From Deiner et al. (1985).*

Demographic Questions

Current work:

I run a business venture I started.

I run a business venture I purchased or someone else started.

Other (please specify).

How many years have you been running your current business?

How many businesses have you started?

Of the businesses you started, how many are still in operation?

How many years of experience do you have running businesses?

What is your age?

What is your sex?

Male

Female

What is your highest level of education?

High School

Some College

Bachelor's Degree

Master's Degree

Ph.D., J.D. (or other advanced degree)

Other (please specify) _____

What is your ethnicity/race?

White/Caucasian

African American

Hispanic

Asian

American Indian

Pacific Islander

Other (please specify)

APPENDIX B

IRB APPROVAL LETTER

Oklahoma State University Institutional Review Board

Date: Thursday, November 29, 2012
IRB Application No BU1227
Proposal Title: Motives, Self-Regulation, and a Re-Conceptualization of Entrepreneurial Success
Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 11/28/2013

Principal Investigator(s):
Rebecca Franklin Robert A. Baron
106 Business
Stillwater, OK 74078 Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI, advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,



Shelia Kennison, Chair
Institutional Review Board

Dial entrepreneur number

Phone answered: Hello?

YOU: May I speak with Mr./Mrs. XXX please?

Mr./Mrs.XXX: Yes?

YOU: Hello, sir/ma'am. My name is _____, I'm a PhD student here at Oklahoma State University, and I'm calling you from the Spears School of Business. How are you doing today?

We are calling you because you are listed as an alumni of OSU and an entrepreneur in our alumni database. I was wondering if I could take a few minutes of your time to talk about a new initiative we are starting here at the School of Entrepreneurship?

Mr./Mrs.XXX: Hopefully yes.

As you might be aware, OSU has a vibrant, energetic, and quickly growing entrepreneurship department. We've been very fortunate to have a large numbers of alumni like you who are willing to support the entrepreneurial program and students. Our current initiative is focused on collecting survey data from entrepreneurs regarding their skills, motives for starting a business, and business success, in an attempt to better identify factors that are most important to new venture success. This information is absolutely critical for us to expand upon what we know about entrepreneurs in order to better inform, teach, and train students in the future.

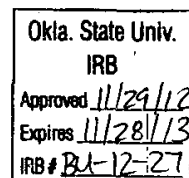
We've created an online survey that takes approximately 15 to 20 minutes to complete and are hoping that you may be willing to help us by completing this survey. We're more than willing to share the results of the survey at the conclusion of the stud. Is this something that you might be interested in helping us with?

Mr./Mrs.XXX: YES/NO

YOU: If yes – thank you so much, Mr./Mrs.XXX. Again, we are just so appreciative of the generous investment of your time in this project.

One additional aspect of this project is that we are also hoping to briefly survey a partner, colleague, or employee of your company in an effort to gain an additional perspective on you and your company. This survey will take only 10-15 minutes. This individual would need to have a history of working closely with you in your company and be able to speak accurately and confidently about you as an entrepreneur. Do you know of two people at your business who might be qualified for this?

Would you like to contact these individuals to inform them about this survey, or would you prefer that I contact them in order to request their participation in this study?



Could you give me a preferred phone number and email address for these individuals?

In terms of your participation in the study, we will simply send you an email that has a link to our online survey. May I have your email address in order to set this up?

Thank you again for your willingness to help us with this project. I will be sending an email out to you shortly, along with my contact information in case you have any questions or concerns. Thanks again, and have a great day!

Okla. State Univ.
IRB
Approved 11/29/12
Expires 11/28/13
IRB # BU-12-27

Email script with consent form:

Dear Participant,

By completing this survey, you will assist us in identifying important factors that play a key role in successful business outcomes. Our research seeks to acquire new information on the question: "What skills, knowledge, and capacities are related to success?" This is a web-based survey research study and your answers to the following items will help us gain important insights into this issue -- insights we will be happy to share with you once the research is completed.

Thank you very much for your willingness to participate! By completing the survey you are providing a valuable service to your business community.

Consent Form

Proceeding with the web-based survey will imply your consent to participate in this study. If you decide to participate, please complete all the questions in the survey. There are no "right" or "wrong" answers, but please try to be as accurate as possible.

To protect the confidentiality of your responses, your answers will be combined with those of hundreds of others for purposes of data analysis. Responses are confidential, and no individual responses will be reported. The survey will take about 15 to 20 minutes to complete and you can withdraw at any time without penalty. The risks associated with this study are minimal and are not greater than those ordinarily encountered in daily life.

If you have any questions about the survey, you may contact: Rebecca Franklin, Ph.D. Candidate, Spears School of Business, Oklahoma State University - rebecca.franklin_bryant@okstate.edu referencing survey titled "Motives, self-regulation, and success." If you have questions about your rights as a research volunteer, you may contact the Oklahoma State University Institutional Review Board (IRB) Chair, Dr. Shelia Kennison, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu. By continuing to the survey, you indicate that you understand that your participation is voluntary, have read and understand this consent form, freely and voluntarily agree to participate in this study, and that you are at least 18 years of age. It is recommended that you print a copy of this consent letter for your records.

Okla. State Univ.
IRB
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TABLES

Table 1: Primary motives for starting a business/becoming an entrepreneur.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Ageev, A. J., Gratchev, M. V., and Hisrich, R. D. (1995) in <i>Small Business Economics</i>	(E) An examination of entrepreneurship in Russia that includes a study of 32 Russian entrepreneurs who identified entrepreneurial motives during interviews.	<ul style="list-style-type: none"> • Achievement • Job satisfaction • Opportunity • Status/prestige • Independence • Money • Economic necessity • Career/security 	<p>Percentage of respondents on rank order of motives (priority 1, priority 2, priority 3):</p> <p>Achievement: 9%, 13%, 13%</p> <p>Job satisfaction: 31%, 13%, 3%</p> <p>Opportunity: 16%, 25%, 19%</p> <p>Status/prestige: 0%, 0%, 3%</p> <p>Independence: 22%, 6%, 9%</p> <p>Money: 3%, 9%, 6%</p> <p>Economic necessity: 16%, 6%, 6%</p> <p>Career/security: 0%, 0%, 9%</p>	<p>The departure points most frequently mentioned for leaving their situation prior to entrepreneurship were job frustration (59%) and interest in the area of business (28%).</p> <p>The top priority of motives for starting a venture were lack of job satisfaction (31%), desire for independence (22%), economic necessity (16%) and opportunity (16%). Money was ranked at 3%.</p>
Amit, R., MacCrimmon, K. R., Zietsma, C. and Oesch, J. M. (2001) in <i>Journal of Business Venturing</i>	(E) Conducted interviews with 51 entrepreneurs and 28 non-entrepreneurs in a high technology sector to examine the role of wealth as a motive to start a business. Focused on importance, salience and satisfaction as key manifestations of value.	<ul style="list-style-type: none"> • Wealth • Vision • Stability • Power • Lifestyle • Leadership • Innovation • Independence • Ego • Contribution • Challenge 	<p>Ratings for entrepreneurs. I=importance, S=Salience:</p> <p>Wealth: I=100, S=3.67</p> <p>Vision: I=309, S=5.58</p> <p>Stability: I=150, S=2.78</p> <p>Power: I=208, S=5.04</p> <p>Lifestyle: I=229, S=5.00</p> <p>Leadership: I=242, S=4.29</p> <p>Innovation: I=317, S=5.74</p> <p>Independence: I=315, S=5.18</p> <p>Ego: I=160, S=4.53</p> <p>Contribution: I=221, S=4.60</p> <p>Challenge: I=305, S=4.94</p>	<p>Among participating entrepreneurs, wealth attainment was significantly less salient and less important compared to an aggregate of 10 other motives.</p> <p>Compared to non-entrepreneurs, entrepreneurs regard wealth as less salient factor to their career decisions.</p>

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Apospori, E., Papalexandris, N., and Galanaki, E. (2005) in <i>Leadership and Organization Development Journal</i>	(E) Structured interviews were conducted with 47 entrepreneurial CEOs and CEOs or top managers in large companies in Greece	<ul style="list-style-type: none"> • Achievement motive • Affiliation motive • Power motive 	Achievement: M=5.87 for entrepreneur, 2.87 for non-entrepreneur Affiliation: M=1.48 for entrepreneur, 1.51 for non-entrepreneur Power: M=2.83 for entrepreneur, 3.08 for non-entrepreneur	For the entrepreneurs, achievement was the strongest variable in a comparison of all variables within the study. Also, discriminant analysis between the two groups (entrepreneurs and non-entrepreneurs) indicated that achievement motivation was one of the two discriminant factors (obligation disposition being the other).

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Birley, S. and Westhead, P. (1994) in <i>Journal of Business Venturing</i>	(E) Extended SARIE research using reduced 23-item questionnaire and by surveying 405 business owner-managers in the U.K. to determine if there are differences in why owners start their businesses and if the differences affect business growth and size. Factor analyzed 23 literature-identified motives into seven factors.	<ul style="list-style-type: none"> • Following role models M=1.33 • Need for approval M=2.038 • Need for independence M=3.468 • Need for personal development M=2.765 • Perceived instrumentality of wealth M=3.0 • Tax reduction M=1.68 • Welfare considerations (contributing to community) M=1.61 (means shown above were calculated based on results of varimax rotated component matrix reported in Table 2)	Mean scores for items: Freedom to adapt own approach to work=3.74; Take advantage of opportunity=3.67; Control own time=3.60; Made sense at that time in life=3.52; Give self, spouse & children security=3.44; Greater flexibility for personal & family life=3.37; Desire high earnings=3.12; To be challenged=3.11; Achievement & recognition=2.93; Continue learning=2.89; Welfare of relatives=2.44; Achieve higher position in society=2.27; Innovation & technological development=2.26; Develop idea for product=2.24; Tax exemptions=1.91; Increase status & prestige of family=1.87; Community welfare=1.75; Respected by friends=1.67; Welfare of people with same background=1.47; Reduce tax burden=1.45; Influence in community=1.45; Follow example of person I admire=1.37; Continue family tradition=1.29	Cluster analyzed founder types into the following: insecure (104), followers (49), status avoiders (169), confused (15), tax avoiders (18), community (49), and unfocused (1), but these types were not indicators of growth or size of business. Concluded that motives for venture start-up do not significantly influence the growth and wealth creation of the business.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Blais, R. A., and Toulouse, J. M. (1990) in <i>Journal of Small Business and Entrepreneurship</i>	(E) International study examining national culture and entrepreneurial motivation using data from a 14 country sample (entrepreneurs n=2,278).	Respondents rated 38 motives on a Likert scale, which were grouped into the following categories: <ul style="list-style-type: none"> • Achievement • Independence • Opportunity • Money • Accommodation • Recognition • Escape • Communitarianism 	Overall means on each motive for all countries combined: <ul style="list-style-type: none"> Independence: M=54 Achievement: M=50 Opportunity: M=48 Accommodation: M=41 Money: M=34 Recognition: M=20 Communitarianism: M=20 Escape: M=18 	Factor analysis reduced motives to five: Independence, Achievement, Recognition, Communitarianism, and Money. Motives may differ somewhat based on national culture. Independence and Achievement are the highest motives and are present in every country. Money is more likely to be a motive in poorer countries.
Brockhaus, R. H. (1980) in <i>Journal of Small Business Management</i>	(E) New business owners who had recently quit other jobs (N=31) were compared with managers (n=71). Respondents rated job satisfaction (JDI scale) for their previous positions and current positions. New business owners were also compared to normative data for the scale.	Dissatisfaction with prior job was examined as a source of “push” motive for entrepreneurs.	Mean scores of entrepreneurs and normative population (respectively): <ul style="list-style-type: none"> Promotion opportunity = 16.00, 20.99 Satisfaction with co-workers = 35.58, 43.14 Work satisfaction = 22.77, 36.37 Satisfaction with supervision = 28.03, 41.11 Pay satisfaction = 31.04, 29.40 	The entrepreneurs were significantly less satisfied with previous employment compared to normative data on the general population, particularly on promotion opportunities, supervisors, and co-workers. 59% of the entrepreneurs desired to start a business prior to having a product or service idea.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Buttner, E. H., and Moore, D. P. (1997) in <i>Journal of Small Business Managment</i>	(E) 129 female entrepreneurs who exited large organizations prior to becoming entrepreneurs rated the importance of 32 reasons for exiting the organization. They also rated the importance of six measures of success including profits, business growth, self-fulfillment, goal achievement, social contribution, and work family balance.	17 motives (defined as reasons for leaving) organized into 5 categories of motives: <ul style="list-style-type: none"> • Organization dynamics (M=4.34) • Blocks to advancement (M=3.42) • Challenge (M=2.48) • Self-determination (M=2.77) • Family concerns (M=2.94) 	Means scores for reasons for leaving: Lack of shared information=4.28, No urgency to finish=4.77, Little motivation to produce=4.02, Low quality standards=4.28, Discrimination=3.99, Overcome career barriers=2.48, Didn't fit corporate culture=3.72, For more respect=2.78, To be in charge=2.22, To regain excitement=2.14, Recognition=2.83, Make it on my own=2.59, For self-esteem=2.60, To become an entrepreneur=3.09, Freedom=2.73, Family/work balance=3.61, To control my time=2.28	Primary reasons for leaving were factor analyzed into 5 primary motives: organization dynamics, blocks to advancement, challenge, self-determination, and family concerns. Self-fulfillment was rated as most important measure of success, followed by goal achievement. Profit was rated third, and growth was rated fourth. Work-family balance was rated fifth, and social contribution was rated sixth.
Carter, N. M., Gartner, W. B., Shaver, K. G., and Gatewood, E. J. (2003) in <i>Journal of Business Venturing</i>	(E) Examined career choice reasons among nascent entrepreneurs, compared to reasons among non-entrepreneurs. Identified 6 categories based on prior research. Used 18 items from mail survey of PSED database, 12 of which are adopted from SARIE survey.	<ul style="list-style-type: none"> • Independence • Financial success • Self-realization • Recognition • Innovation • Roles 	Mean scores for Female Male Independence: M=4.23 M=4.10 Financial success: M=3.68 M=3.92 Self-realization M=3.67 M=3.56 Recognition M=2.76 M=2.71 Innovation M=2.61 M=2.74 Roles M=1.96 M=1.88	Factor analysis supported theoretical dimensions with exception of 2 items. No significant difference between groups on self-realization, financial success, innovation, and independence. Found significant difference between groups on recognition and roles. Both groups rated independence, financial success, and self-realization as more important than recognition, roles, or innovation.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Cassar, G. (2007) in <i>Entrepreneurship and Regional Development</i>	(E) Used PSED data to examine whether reasons for starting a business reported by nascent entrepreneurs vary after the business is established, and whether career reasons vary based on growth intentions, preferences, and growth and size of business.	18 survey items were categorized into the following: <ul style="list-style-type: none"> • Self-realization • Financial success • Roles • Innovation • Recognition • Independence 	Means scores for motives (career reasons). N=nascent entrepreneurs, A=Actual entrepreneurs, retrospectively. Self-realization: N=3.59, A=3.39 Financial success: N=3.52, A=3.34 Roles: N=1.90, A=2.00 Innovation: N=2.74, A=2.60 Recognition: N=2.75, A=2.59 Independence: N=4.23, A=4.15	Entrepreneurial motives are not homogeneous, and vary based on growth intentions and preferences. Money is not the most important motive for starting high-growth ventures. Reported importance of self-realization and financial success are both reduced after venture is operational, while importance of roles is increased. Self-realization, financial success and innovation are all significantly associated with intended future sales and intended employment size. Entrepreneurs who intend to grow ventures as large as possible rate financial success more highly.
Cooper, A. C., and Artz, K. W. (1995) in <i>Journal of Business Venturing</i>	(E) 3-year longitudinal survey of new businesses (n=287) examined the extent to which entrepreneurs are satisfied with their business and related factors including economic performance, initial goals, expectations, and demographic attributes.	Most important goal is: “to make more money than otherwise” or “to do the kind of work I wanted to do.”	Goal (motive) variable was dichotomously scored with 1= “to make more money than otherwise” and 0= “to do the kind of work I wanted to do.” Goal variable mean = .43.	Entrepreneurs with primarily economic goals were significantly less satisfied than entrepreneurs with non-economic goals, regardless of performance.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Cooper, A. C., and Dunkelberg, W. C. (1986) in <i>Strategic Management Journal</i>	(E) Potential relationships between characteristics of entrepreneurs (background, motivations, attitudes, previous careers, incubators) and alternative pathways to business ownership (starting, purchasing, inheriting, and promoted or brought in by existing owners) are examined using survey data from 1756 business owners/managers.	Categorized into two types of entrepreneurs: <ul style="list-style-type: none"> • “Craftsmen” who are “motivated to being able to do the work they want to do and to avoid working for others” and • “Managerial” who are “motivated by the desire to achieve economic gain or to build an organization.” (p.57) 	Primary motive for each path to ownership(started, purchased, inherited, promoted), respectively: Craftsman: <ul style="list-style-type: none"> • to do the kind of work wanted to do: 32%, 25%, 27%, 24% • avoid working for others: 19%, 23%, 17%, 7% Managerial: <ul style="list-style-type: none"> • 22%, 26%, 21%, 27% • 23%, 21%, 30%, 42% 	Primary motive was used as a partial measure for “degree of entrepreneurship.” Those who were promoted or brought in had more managerial motives.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Cromie, S., and Hayes, J. (1991) in <i>Personnel Review</i>	(E) Examined the negative features of pre-entrepreneurial work as motives for business founding, and compared job satisfaction at pre-entrepreneurial jobs with job satisfaction 4 years after business founding. Interviews of nascent entrepreneurs (n=67) were followed up 4 years later at which time respondents filled out a job satisfaction scale.	Authors suggested that primary sources of dissatisfaction at pre-entrepreneurial jobs are primary motives for business founding.	Means for lowest scoring items on job satisfaction at pre-entrepreneurial jobs are: Way organization is managed: female = 3.6, male = 3.1 Promotion prospects: female = 3.2, male = 3.6 Labor relations between management and employees: female = 3.8, male = 3.9 Immediate boss: female = 4.1, male = 3.9	Job satisfaction of business founders during pre-entrepreneurial jobs was significantly lower compared to non-entrepreneurs (other employees), and the authors suggested that job dissatisfaction is related to decision to found a business. Primary sources of dissatisfaction are promotion prospects and issues related to superior-subordinate relations.
Davidsson, P. (1989) in <i>Journal of Business Venturing</i>	(E) 439 small Swedish firms were interviewed and 337 follow-up questionnaires were completed to determine factors associated with willingness of small business owner-managers to pursue business growth.	Growth motives: Need for achievement and Expected outcomes (examined as motivator or deterrent): <ul style="list-style-type: none"> • Workload • Work tasks • Employee well-being • Private finances • Control • Independence • Stability • Quality 	Ranking of expected outcomes as motivators: 1 = Independence 2 = Private finances 3 = Employee well-being 4 = Stability 5 = Work tasks 6 = Quality 7 = Workload 8 = Control	Based on explanatory power, private finances and independence have the strongest relationship to growth willingness. Employee well-being and control are also highly important. Fear of reduced control and reduced employee well-being were the most powerful growth deterrents. Results also found a positive relationship between achievement motivation and growth willingness, contingent on expectation of financial rewards.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
DeMartino, R., and Barbato, R. (2003) in <i>Journal of Business Venturing</i>	(E) Examines motivational differences between females and males using a sample of entrepreneurs who graduated from an MBA program (n=261).	Career motivators: <ul style="list-style-type: none"> • Career flexibility • Family policies • Family obligations • Co-career issues • Advancement • Wealth creation 	Motive preference percentages (women, men): <ul style="list-style-type: none"> Career flexibility: w = 15.4, m = 50.8 Family policies: w = 64.4, m = 28.7 Family obligations: w = 54.1, m = 22.8 Co-career issues: w = 58.3, m = 21.8 Advancement: w = 23.4, m = 42.7 Wealth creation: w = 29.1, m = 75.9 	Primary motives for starting a business may vary based on sex. Women were found to prefer family/lifestyle career motives such as career flexibility, family friendly policies, family obligations and spouse/co-career employment as highly important, while men ranked wealth creation, career flexibility and advancement more highly.
Douglas, E. J., and Shepherd, D. A. (2002) in <i>Entrepreneurship Theory and Practice</i>	(E) Examined the relationship between attitudes (toward work, risk, independence and income) and intentions to become self-employed using conjoint analysis (n=94).	Attributes examined as considerations when evaluating career options: <ul style="list-style-type: none"> • Work effort • Risk • Independence • Income 	Mean B scores for attributes associated with entrepreneurial intentions: <ul style="list-style-type: none"> Work effort = -0.344 Risk = 0.460 Independence = 0.631 Income = 0.098 	Entrepreneurial intentions were significantly associated with positive attitudes toward risk (risk tolerance) and independence. Income was not a significant determinant of entrepreneurial intentions, nor was work effort.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Dubini, P. (1988) in <i>Journal of Business Venturing</i>	(E) This study is an examination of the relationship between entrepreneurial motives and environmental conditions among in six cities in Italy representing different geographical criteria and different degrees of munificence. Founders of new businesses established for the principal purpose of profit and growth completed questionnaires (n=163).	Factor analysis of 28 motivational items revealed the following factors: <ul style="list-style-type: none"> • Achievement • Philanthropy • Status • Money • Escape • Freedom • Role models Cluster analysis revealed three types of entrepreneurs: <ul style="list-style-type: none"> • Self-actualizers • Discontented (driven by negative situations) • Family tradition 	Mean scores for 3 types of entrepreneurs (self-actualizers, discontented, and family tradition, respectively): <p>Achievement: 0.13, -0.07, -0.05 Welfare: 1.30, -0.22, -0.39 Status: 0.23, 0.10, 0.04 Money: 0.78, -0.25, 0.12 Escape: -0.59, 0.44, -0.41 Freedom: -0.34, -0.26, 0.92 Role models: -0.09, -0.53, 0.29</p>	Results indicated that there are a number of very different motives for starting a business. Cluster analysis revealed three different classes of entrepreneurs, each of which were driven by very different motives. (Self-actualizers driven by achievement, independence and autonomy; discontented entrepreneurs driven by dissatisfaction with working conditions; and followers of family tradition driven by role models.)
Edelman, L. F., Brush, C. G., Manolova, T. S., and Greene, P. G. (2010) in <i>Journal of Small Business Management</i>	(E) An examination of differences between black and white nascent entrepreneurs on start-up motives and growth intentions. using data from PSED (n=401).	Performed factor analysis on 18 motives resulting in the following six factors: <ul style="list-style-type: none"> • Self-realization • Financial success • Recognition • Roles • Innovation • Independence 	Mean scores for motives: <p>Independence = 4.09 Self-realization = 3.86 Financial success = 3.45 Innovation = 2.54 Recognition = 2.46 Roles = 1.86</p>	Results suggest that motives are not always associated with growth intentions, supporting the idea that there are primary motives for starting a business other than growth and maximizing economic returns. While motives are not significantly different across race, growth intentions vary across race.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Feldman, D. C., and Bolino, M. C. (2000) in <i>Journal of Small Business Management</i>	(E) Examined career motives for starting a business and subsequent outcomes including job satisfaction, psychological well-being, and skill utilization. Surveys were completed by members of the National Association for the Self-Employed (n=153).	<ul style="list-style-type: none"> • Control over life • Use skills/abilities • Live where/how I like • Creativity • Challenge • Good ideas for business • Earn lots of money • Respect/recognition • Career plateau in last job • Avoid workplace discrimination • Retired from last job 	Mean scores for motives: Control over life = 4.45 Use skills/abilities = 4.29 Live where/how I like = 4.14 Creativity = 4.13 Challenge = 3.85 Good ideas for business = 3.73 Earn lots of money = 3.59 Respect/recognition = 2.98 Career plateau in last job = 2.92 Avoid workplace discrimination = 2.67 Retired from last job = 1.74	Findings suggest that there is much variation in individuals' motives to start businesses. Entrepreneurial creativity career anchor was associated with higher levels of life and work satisfaction and psychological well-being, while autonomy and independence career anchor was mostly highly associated with skill utilization and intention to remain self-employed. Security and stability career anchor was lowest on all career outcomes.
Gatewood, E. J., Shaver, K. G., and Gartner, W. B. (1995) in <i>Journal of Business Venturing</i>	(E) To explore whether cognitive factors (efficacy and motives for starting venture) predict venture creation persistence and success in a longitudinal research design. 142 small business development center pre-venture clients were asked their reasons for starting a business (open-ended).	<ul style="list-style-type: none"> • Autonomy and independence • Desire to make more money • Desire to show that it could be done • Desire to use knowledge and experience • Enjoyment of self-employment • Identification of a market need 	1st reason, 2nd reason: Identified market need= 37%, 17%; Autonomy & Independence= 24%, 8%; Make more money= 9%, 30%; Use knowledge & experience= 11%, 21%; Enjoyment through self-employment= 8%, 7%; Show I could do it= 2%, 9%; Other (opportunity to learn, need job, be creative, provide jobs, avoid taxes, God's will)= 9%, 8%	Six primary types of answers were identified. Combination of both motives are as follows: identification of market need= 29%; autonomy and independence= 18%; desire to make more money= 18%; desire to use knowledge and experience=16%; enjoyment of self-employment=7%; desire to show I could do it=5%, other= 7%. (Found some gender differences.)

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Hayter, C. S. (2011) in <i>Journal of Technology Transfer</i>	(E) An examination of the motives and definition of success among academic entrepreneurs from university spinoffs). Qualitative interview-based study of nascent academic entrepreneurs (n=74).	Motives of academic entrepreneurs also carried over to their definitions of success and include: <ul style="list-style-type: none"> • Technology diffusion • Technology development • Personal financial gain • Public service • Career enrichment • Job creation • Skill enhancement 	Means scores for motives (which are also carried over to definitions of success): <p>Technology diffusion: .9459</p> <p>Technology development: .7568</p> <p>Personal financial gain: .5946</p> <p>Public service: .2973</p> <p>Career enrichment: .1757</p> <p>Job creation: .1351</p> <p>Skill enhancement: .1081</p>	Academic entrepreneurs had a variety of motives for establishing their businesses, a their motives carried over to their definition of success. Money was not their primary goal. “They often see financial gain as compensation for the time they spend away from their academic jobs as opposed to an end in itself. Several academic entrepreneurs described money as a beneficial side affect of entrepreneurial activity.” p347
Hessels, J., van Gelderen, M., and Thurik, R. in <i>Small Business Economics</i>	(E) Investigation of whether socioeconomic variables and incidence of particular business start-up motives within a country is related to prevalence of entrepreneurship (using GEM data, n=36 countries).	<ul style="list-style-type: none"> • Necessity motive • Independence motive • Increase-wealth motive 	Variables significantly related to motives: <ul style="list-style-type: none"> • Increase wealth motive positively related to job growth rate and export rate • GDP per capita is negatively related to necessity motive and increase-wealth motive, and positively related to independence motive • GDP growth is negatively related to independence motive and positively related to increase-wealth motive • Social security is positively related to necessity motive and negatively related to independence motive 	Although the increase wealth motive was positively related to job growth rate and export rate at the country level, there was no relationship between the increase wealth motive and innovative entrepreneurship. Various country level factors may contribute to prevalence of type of motive for starting a business.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Hisrich, R. D. and Brush, C. (1986) in <i>Journal of Small Business Management</i>	(E) Surveyed minority entrepreneurs to examine the motivations for venture creation.	<ul style="list-style-type: none"> • Achievement • Opportunity • Anticipated job satisfaction • Interest in the business area • Frustration with existing job 	Ranking of motives starting with top motive: 1 - Achievement 2 - Opportunity 3 - Job Satisfaction 4 - Independence 5 - Money (wealth) 6 - Economic necessity 7 - Career/Security 8 - Power 9 - Status/prestige	Top 3 reasons for starting a venture were achievement, opportunity, and anticipated job satisfaction. Power and status ranked lowest.
Kolvereid, L. (1992) in <i>Journal of Business Venturing</i>	(E) An examination of the relationship between founders' motives to start a business and growth aspirations, and characteristics of the entrepreneur, the organization, and the environment. Used data from the Society for Associated Researchers on International Entrepreneurship data bank collected in Norway (n=250).	22 items factor analyzed into the following categories: <ul style="list-style-type: none"> • Independence • Status • Taxes • Achievement • Welfare • Roles • Opportunity 	Mean scores for motives for contingencies of growth aspirations (no growth, revenue growth, and revenue and employment growth, respectively): Independence: .06, -.10, -.02 Status: -.01, -.01, .03 Taxes: -.12, .14, .03 Achievement: -.21, .06, .18 Welfare: -.20, .15, .09 Roles: .05, -.11, .02 Opportunity: .11, -.20, .07	Approximately 40% of participants indicated that they did not want their firm to grow. Only two motives were significantly related to growth aspiration: achievement and welfare. High achievement motive is related to revenue and employment aspirations, and lower levels of concern with welfare was related to lack of growth expectations.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Kolvereid, L. (1996a) in <i>Entrepreneurship Theory & Practice</i>	(E) Examined reasons for self-employment vs. organizational employment among 372 business-school graduates in Norway. Mailed questionnaires that included the open ended question, "What is the main reason for your preference of one career path over the other?" Classified responses into 11 motives for employment choice.	<ul style="list-style-type: none"> • Authority • Autonomy • Challenge • Economic opportunity • Participation in the whole process • Self-realization 	# of participants who preferred self-employment cross-tabulated with reasons: Autonomy=37; Challenge=17; Authority=14; Self-realization=11; Economic opportunity=6; Participation in the whole process=2; Security=2; Career opportunity/promotion=1; Work load=1; Social environment=0; Avoid responsibility=0	Those who preferred self-employment: N=91 (139 preferred occupational employment). Participants who preferred self-employment, compared to those preferring organizational employment, were more likely to select economic opportunity, authority, autonomy, challenge, self-realization, and participation in the whole process as primary reasons to prefer self-employment.
Litvak, I. A. and Maule, C. J. (1976) in <i>Journal of International Business Studies</i>	(E) An examination of characteristics (background, circumstances around business establishment, perception of environment) of Canadian technology entrepreneurs (n=112, survey data) compared to entrepreneurs in the U.S. and U.K. (reported in prior studies).	Reasons for incorporation: <ul style="list-style-type: none"> • Salary • Being own boss • Challenge • Explore new ideas • Other 	Percentages of respondents for each item (Canadian and Non-Canadian, respectively): Salary: 19.2, 5.2 Being own boss: 48.0, 56.4 Challenge: 74.0, 74.4 Explore new ideas: 45.2, 43.6 Other: 8.2, 5.2	Financial motive for incorporating a business was ranked lower in both groups compared to every other motive except for 'other.' Challenge was rated the highest for both groups, followed by being own boss, then followed by explore new ideas.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Miner, J. B., Smith, N. R., and Bracker, J. S. (1989) in <i>Journal of Applied Psychology</i>	(E) An examination of the relationship between task motivation and firm growth using a comparison of business founders (n=118) and manager/scientists (n=41) who were not founders. Surveys were completed by NSF grant applicants.	Based on task motivation theory, five separate motive patterns were identified: <ul style="list-style-type: none"> • Self-achievement/individual achievement • Risk taking • Feedback of results/seeking results of behavior • Personal innovation • Planning for the future/planning and goal setting 	Means scores on task motivation for entrepreneurs and manager/scientists (respectively): <ul style="list-style-type: none"> Self-achievement: 1.64, .61 Avoiding risks: .80, .00 Feedback of results: -.54, -1.63 Personal innovation: 2.88, 2.37 Planning for the future: 1.15, .61 Total score: 5.93, 1.95 	Task motivation distinguishes entrepreneurs from non-entrepreneurs such that entrepreneurs scored significantly different on self-achievement, avoiding, risks, feedback of results, and the total overall score for task motivation. All dimensions of task motivation were significantly related to firm growth in annual sales and in number of employees with one exception. Personal innovation was not significantly related to growth in sales.
Rindova, V., Barry, D., and Ketchen, D.J., Jr. (2009) in <i>Academy of Management Review</i>	(T) The authors suggest viewing entrepreneurship as an emancipation process (breaking free from the authority of another), suggesting that entrepreneurship research should pay closer attention to entrepreneurs' desire for autonomy and change as opposed to the pursuit of wealth.	<ul style="list-style-type: none"> • Seeking autonomy • Authoring • Making declarations 	Examples from Google provide illustrations for each of the three components of emancipation and change creation (seeking autonomy, authoring, making declarations).	The authors “argue that entrepreneurship research needs to give closer consideration to entrepreneurs’ dreams for autonomy and change and the processes through which these dreams, as opposed to the pursuit of wealthy, may be accomplished,” and that “by viewing entrepreneuring as change creation through removal of constraints, an emancipatory perspective both departs from and complements existing research that emphasizes wealth creation...” p.479.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Scheinberg and MacMillan (1988) paper presented at the <i>Eighth Annual Babson College Entrepreneurship Research Conference</i>	(E) Developed a list of 38 reasons for starting a business based on prior theories and research for SARIE research. Surveyed over 1400 business owners in 11 countries. Factor analyzed the 38 items into 6 factors.	<ul style="list-style-type: none"> • Degree of communitarianism • Need for approval • Need for escape • Need for independence • Need for personal development • Perceived instrumentality of wealth 	Article reports significant differences between countries on each motive: highly significantly motivated to a great extent, and highly significantly motivated to no extent at all. (I.e. The U.S. scored highest on need for independence and low on communitarianism.	Primary motives for starting a business varied across countries. Instrumentality of wealth was significantly high only in Puerto Rico, where the sample size was very small (n=19). Instrumentality of wealth was significantly motivated to no extent at all for 3 countries: Sweden, Norway and Denmark.
Schjoedt, L., and Shaver, K. G. (2007) in <i>Entrepreneurship Theory and Practice</i>	(E) Used PSED data to analyze whether individuals are 'pulled' toward entrepreneurship for increased life satisfaction or 'pushed' toward entrepreneurship due to job dissatisfaction.	<ul style="list-style-type: none"> • 'Push' due to prior job dissatisfaction (found contrary evidence) • 'Pull' do to desire for more life satisfaction (found no evidence) 	Reported means of life satisfaction and job satisfaction. Did not find evidence that job dissatisfaction or desire for more life satisfaction were motives.	Found evidence that nascent entrepreneurs were actually more satisfied with their pre-entrepreneurial jobs compared to other individuals. There were no differences between groups on life satisfaction. Found no evidence for the 'pull' motive and found evidence that disputes the 'push' motive.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
Shane, S., Kolvereid, L., and Westhead, P. (1991) in <i>Journal of Business Venturing</i>	(E) Extending SARIE research by examining the reasons for new venture formation across gender and nationality. SARIE questionnaire was reduced from the original 38 motives to 21 plus 2 additional items on tax considerations. Surveyed 597 business owners in 3 countries.	<ul style="list-style-type: none"> • Independence • Learning • Recognition • Roles 	They only reported on the 14 items that loaded onto one of the four factors, which left 9 items not reported on (including all items pertaining to financial motives).	Identified 4 factors that explained reasons for starting a business, and that were consistent across all 4 countries. Identified gender differences and nationality differences.
Stoner, C. R., and Fry, F. L. (1982) in <i>Journal of Small Business Management</i>	(E) Compared entrepreneurs who started businesses in areas similar to previous job to entrepreneurs who started businesses in areas different from previous jobs on satisfaction with previous job and motives for starting the business (survey data, n=76).	Reasons for leaving previous job and starting a business: <ul style="list-style-type: none"> • Job declining • Questionable advancement • Desire for freedom/independence • Economic dissatisfaction • Greater economic potential • Opportunity • Frustration or conflict of job 	Percentage of respondents per motive for 'similar' group and 'different' group, respectively: Job declining: 9.10, 6.25 Questionable advancement: 6.80, 12.50 Desire for freedom/independence: 15.90, 9.40 Economic dissatisfaction: 2.30, 6.25 Greater economic potential: 15.90, 0.0 Opportunity: 11.40, 9.40 Frustration or conflict of job: 13.60, 28.10	Motives vary between groups. Findings indicated a significant difference between the groups on motives such that entrepreneurs who started businesses in areas similar to previous job were higher on opportunity/growth reasons, while those who started businesses in different areas were higher on reasons related to dissatisfaction with previous job.

Authors	Description (E= Empirical / T= Theoretical)	Motives of Entrepreneurs	Ranking or Scoring of Motives	Findings Relevant to Current Study
van Gelderen, M., and Jansen, P. (2006) in <i>Journal of Small Business and Enterprise Development</i>	(E) Semi-structured interviews were conducted with 167 nascent entrepreneurs to determine why entrepreneurs want autonomy.	Motives for which autonomy is instrumental <ul style="list-style-type: none"> • to avoid a boss or restrictions • to act in a self-endorsed and self-congruent manner • to be in charge 	Independence: avoid boss/ rules - M=2.12 Self: endorsement/ congruence - M=3.27 Determination: decision control/power - M=2.91	Nascent entrepreneurs differ in their reasons for desiring autonomy. None of the three motives were particularly associated with eventual success in starting a business.
Wilson, F., Marlino, D., and Kickul, J. (2004) in <i>Journal of Developmental Entrepreneurship</i>	(E) An examination of career motivators and leadership skills among adolescents interested in becoming entrepreneurs (survey data, n=1971).	Factor analysis of 11 items revealed three motives: <ul style="list-style-type: none"> • Relational • Social • Autonomy Also included the financial motive item “making lots of money”	Results of ANOVAS of the motive means: Various significant differences between racial groups and gender were found for all motives (relational, social, autonomy, and financial).	Motives varied by gender such that males were higher on autonomy and females were higher on social and relational factors. Males and black females were more likely to be motivated by financial gain.

Table 2: Ranking of primary motives from Table 1.

Motive	Number of Studies	Ranking (i.e. 2/8 = ranked 2nd out of 8 motives)
Autonomy/ Independence	14	2/8, 2/11, 1/7, 1/8, 1/6, 1/6, 1/2, 1/2, 1/6, 1/11, 2/7, 4/9, 1/7, 2/5
Money/Wealth	15	6/8, 11/11, 2/7, 5/8, 2/6, 3/6, 2/2, 2/2, 3/6, 7/11, 4/7, 3/7, 5/9, 5/7, 4/5
Accommodation	1	4/8
Achievement	4	5/8, 1/3, 2/8, 1/9
Affiliation	1	3/3
Avoid Discrimination	1	10/11
Career plateau in last job	1	9/11
Challenge	4	4/11, 5/11, 2/7, 1/5
Contribution/ Communitarianism	4	7/11, 6/7, 7/8, 4/7
Creativity	2	4/11, 3/5
Economic Necessity	2	4/8, 6/9
Escape	1	8/8
Innovation	6	1/11, 3/7, 5/6, 4/6, 4/6, 2/7
Leadership	1	5/11
Lifestyle	2	6/11, 3/11
Opportunity	7	3/8, 3/7, 3/8, 6/11, 1/7, 1/7, 2/9
Other (misc. category)	2	5/7, 5/5
Power/Authority	4	8/11, 2/3, 8/9, 3/7
Recognition/Need for Approval	7	4/7, 6/8, 4/6, 5/6, 5/6, 8/11, 7/7
Retired from last job	1	11/11
Role Models	1	7/7
Roles	3	6/6, 6/6, 6/6
Satisfaction/Enjoyment	4	1/8, 6/7, 3/9, 6/7
Security/Stability	5	7/8, 7/8, 10/11, 7/9, 7/7
Self Development/Self Realization	8	3/7, 3/6, 2/6, 2/6, 2/11, 3/7, 5/7, 4/7
Status/Prestige/Ego	3	8/8, 9/11, 9/9
Tax Purposes	1	5/7
Vision	1	3/11

Table 3: Variance Inflation Factor Multicollinearity Test

Variables	1		2		3		4		5	
	<i>Tolerance</i>	<i>VIF</i>	<i>Tolerance</i>	<i>VIF</i>	<i>Tolerance</i>	<i>VIF</i>	<i>Tolerance</i>	<i>VIF</i>	<i>Tolerance</i>	<i>VIF</i>
1. Locomotion	--	--	.778	1.286	.778	1.285	.849	1.178	.769	1.300
2. Assessment	.978	1.022	--	--	.961	1.041	.939	1.065	.940	1.063
3. Self-Control	.923	1.083	.906	1.103	--	--	.886	1.128	.921	1.085
4. Intrinsic Motives	.947	1.056	.833	1.200	.833	1.200	--	--	.843	1.186
5. Career Success	.901	1.110	.876	1.141	.910	1.099	.886	1.129	--	--

Table 4: EFA 4 Factors Pattern Matrix

Motives Item	Factor 1	Factor 2	Factor 3	Factor 4
SelfRealization_challenge	.365			-266
SelfRealization_vision	.341		-249	-.315
SelfRealization_growth	.567	.235		
Financial_LargerIncome		.936		
Financial_GreatWealth		.883		
InnovationMotive	.263	-213		-.561
Recognition_Achievement				-.856
Recognition_Status				-.772
Autonomy_freedom			-.896	
Autonomy_decisions			-.895	
Opportunity	.370	-205		-.445
Communitarianism_EconDev	.889			.260
Communitarianism_ProductsServices	.831			
MeaningfulnessMotive	.442		-.364	

Note: Factor loadings <.2 are suppressed. Bold text denotes loadings over .3.

Table 5: EFA 4 Factors Structure Matrix

Motives Item	Factor 1	Factor 2	Factor 3	Factor 4
SelfRealization_challenge	.481		-.318	-.432
SelfRealization_vision	.510		-.409	-.491
SelfRealization_growth	.622		-.329	-.432
Financial_LargerIncome		.914		
Financial_GreatWealth		.889		-.202
InnovationMotive	.503	-.205	-.286	-.655
Recognition_Achievement				-.824
Recognition_Status		.285	-.267	-.753
Autonomy_freedom	.203		-.878	
Autonomy_decisions			-.879	-.209
Opportunity	.505	-.247		-.498
Communitarianism_EconDev	.793			
Communitarianism_ProductsServices	.820			-.245
MeaningfulnessMotive	.603		-.495	-.391

Note: Factor loadings <.2 are suppressed. Bold text denotes loadings over .3.

Table 6: EFA 2 Factors Pattern Matrix

Motives Item	Factor 1	Factor 2
SelfRealization_challenge	.552	
SelfRealization_vision	.636	
SelfRealization_growth	.612	.204
Financial_LargerIncome		.791
Financial_GreatWealth		.827
InnovationMotive	.691	
Recognition_Achievement	.398	.466
Recognition_Status	.307	.564
Autonomy_freedom	.429	.244
Autonomy_decisions	.347	.378
Opportunity	.573	
Communitarianism_EconDev	.607	-.280
Communitarianism_ProductsServices	.713	-.267
MeaningfulnessMotive	.718	

Note: Factor loadings <.2 are suppressed. Bold text denotes loadings over .3.

Table 7: EFA 2 Factors Structure Matrix

Motives Item	Factor 1	Factor 2
SelfRealization_challenge	.569	
SelfRealization_vision	.649	
SelfRealization_growth	.640	.287
Financial_LargerIncome		.764
Financial_GreatWealth		.801
InnovationMotive	.694	
Recognition_Achievement	.462	.520
Recognition_Status	.383	.605
Autonomy_freedom	.463	.302
Autonomy_decisions	.398	.425
Opportunity	.553	
Communitarianism_EconDev	.569	
Communitarianism_ProductsServices	.677	
MeaningfulnessMotive	.712	

Note: Factor loadings <.2 are suppressed. Bold text denotes loadings over .3.

Table 8: Rotated Component Matrix

Motives Item	Factor 1	Factor 2
SelfRealization_challenge	.534	.232
SelfRealization_vision	.618	.222
SelfRealization_growth	.588	.323
Financial_LargerIncome	-.242	.751
Financial_GreatWealth	-.234	.788
InnovationMotive	.677	
Recognition_Achievement	.363	.543
Recognition_Status	.267	.622
Autonomy_freedom	.406	.327
Autonomy_decisions	.317	.445
Opportunity	.571	
Communitarianism_EconDev	.613	
Communitarianism_ProductsServices	.716	
MeaningfulnessMotive	.707	

Note: Factor loadings <.2 are suppressed. Bold text denotes loadings over .3.

Table 9: Principal Axis Factoring Pattern Matrix

Motives Item	Factor 1	Factor 2
SelfRealization_challenge	.504	
SelfRealization_vision	.592	
SelfRealization_growth	.579	
Financial_LargerIncome		.740
Financial_GreatWealth		.820
InnovationMotive	.648	
Recognition_Achievement	.399	.350
Recognition_Status	.324	.427
Autonomy_freedom	.399	
Autonomy_decisions	.337	.249
Opportunity	.493	
Communitarianism_EconDev	.518	-.202
Communitarianism_ProductsServices	.640	-.214
MeaningfulnessMotive	.674	

Note: Factor loadings <.2 are suppressed. Bold text denotes loadings over .3.

Table 10: Descriptive Statistics and Variable Correlations

Variables	Mean	SD	<i>r</i>											
			1	2	3	4	5	6	7	8	9	10		
1. Age	54.51	11.58												
2. Sex	.79	.41	.191*											
3. Education	3.34	.80	.139	.052										
4. Race	1.23	.98	-.096	-.007	.063									
5. Self-Control	4.43	.70	.180*	-.002	.100	-.037								
6. Locomotion	5.27	.59	.030	-.045	.031	.001	.139*							
7. Assessment	3.66	1.09	-.128	.013	-.007	.053	-.135*	.137*						
8. Intrinsic Motives	3.58	.87	.038	-.073	.179**	.084	.167*	.414***	.050					
9. Goal Progress	4.78	1.23	-.016	-.023	.102	.004	.190**	.276***	.071	.216**				
10. Career Success	5.52	.92	.220**	-.046	.060	.038	.155*	.231***	-.017	.193**	.359***			
11. Subjective well-being	5.39	1.17	.211**	.026	-.108	.030	.193**	.111	-.082	.013	.165*	.458***		

n = 233

* p < 0.05

** p < 0.01

*** p < 0.001

Table 11: Summary of Model Fit Indices

Model Test	Chi-Square	df	CFI	AIC	NFI	RMSEA
1. Measurement model 1: full CFA with all items (p<.001)	2045.9	1075	.719	2343.932	.558	.062
2. Measurement model 2: CFA eliminated items that loaded lower than .50 (p<.001)	1131.3	589	.797	1357.348	.661	.062
3. Measurement model 3: CFA with 3 highest factor loading items per variable (p<.001)	217.85	130	.915	335.845	.818	.053
4. Model 1 - Hypothesized model (p=.032)	245.22	206	.964	481.216	.824	.028
5. Model 2 - Alternative model: removed insignificant paths (p=.094)	165.68	143	.976	339.680	.858	.026
6. Model 3 – Alternative model: intrinsic motives to goal Progress (p=.068)	168.99	143	.973	342.990	.855	.028
7. Model 4 – Alternative model: locomotion mediates between intrinsic motives and goal progress (p=.068)	176.53	150	.972	336.525	.849	.027

FIGURES

Figure 1: Theoretical Model

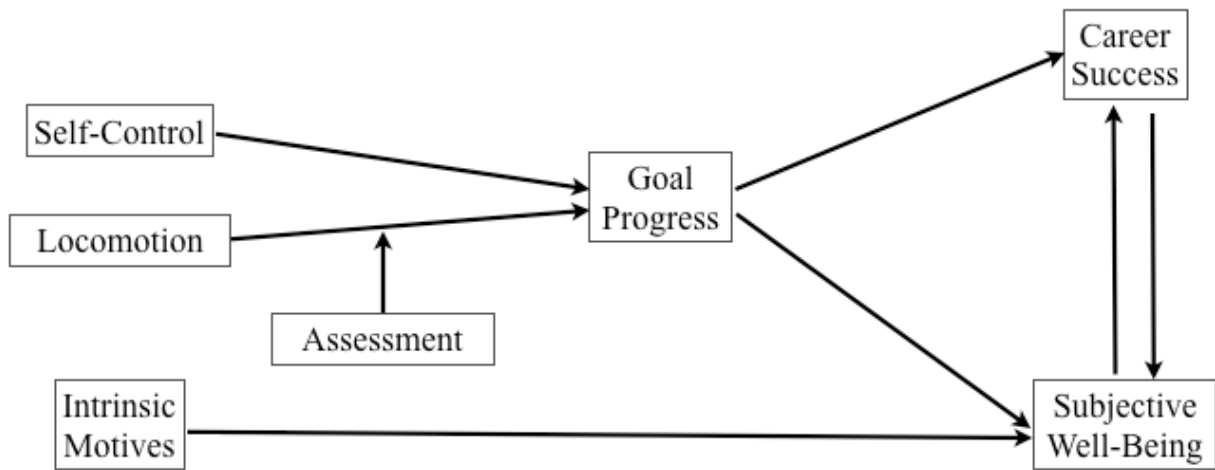


Figure 3: CFA Reduced Model

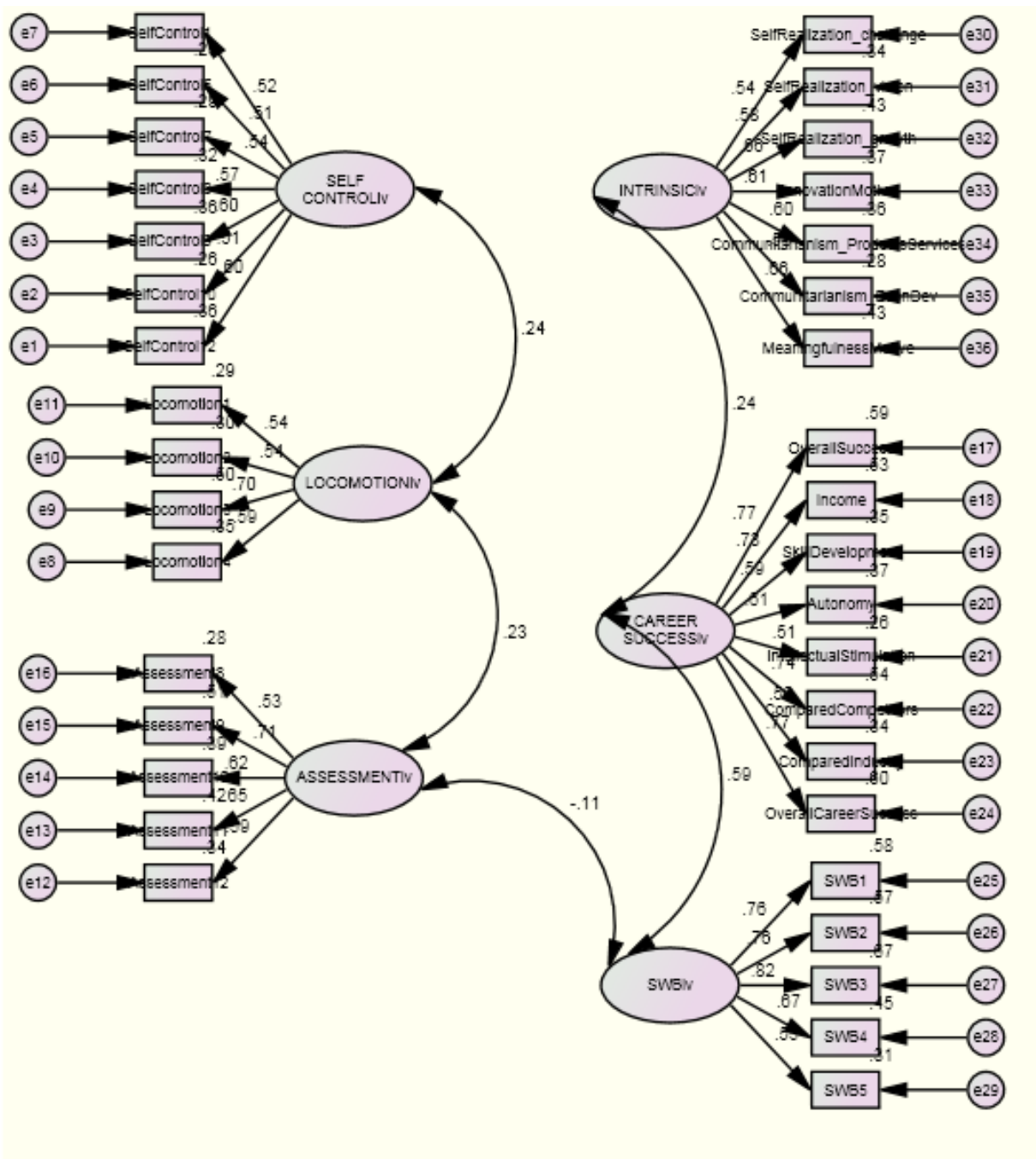


Figure 4: CFA with 3 Indicators per Factor

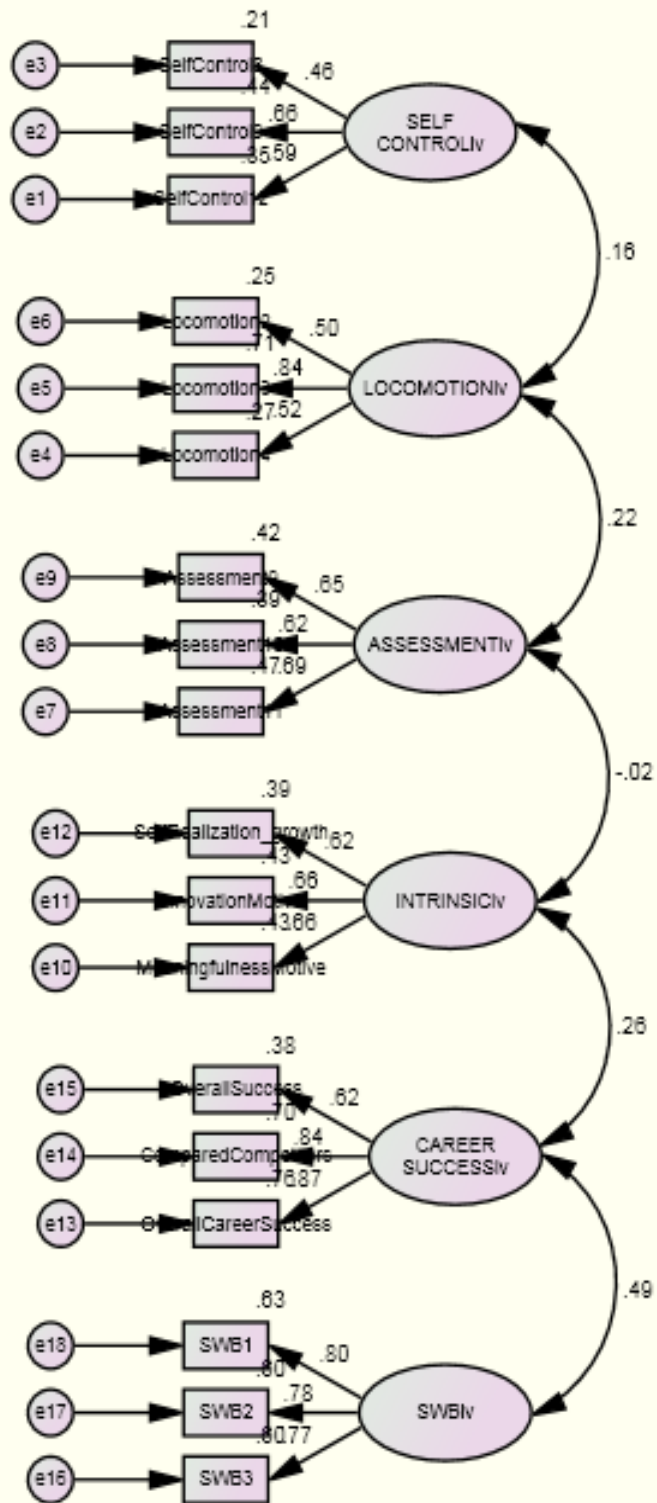
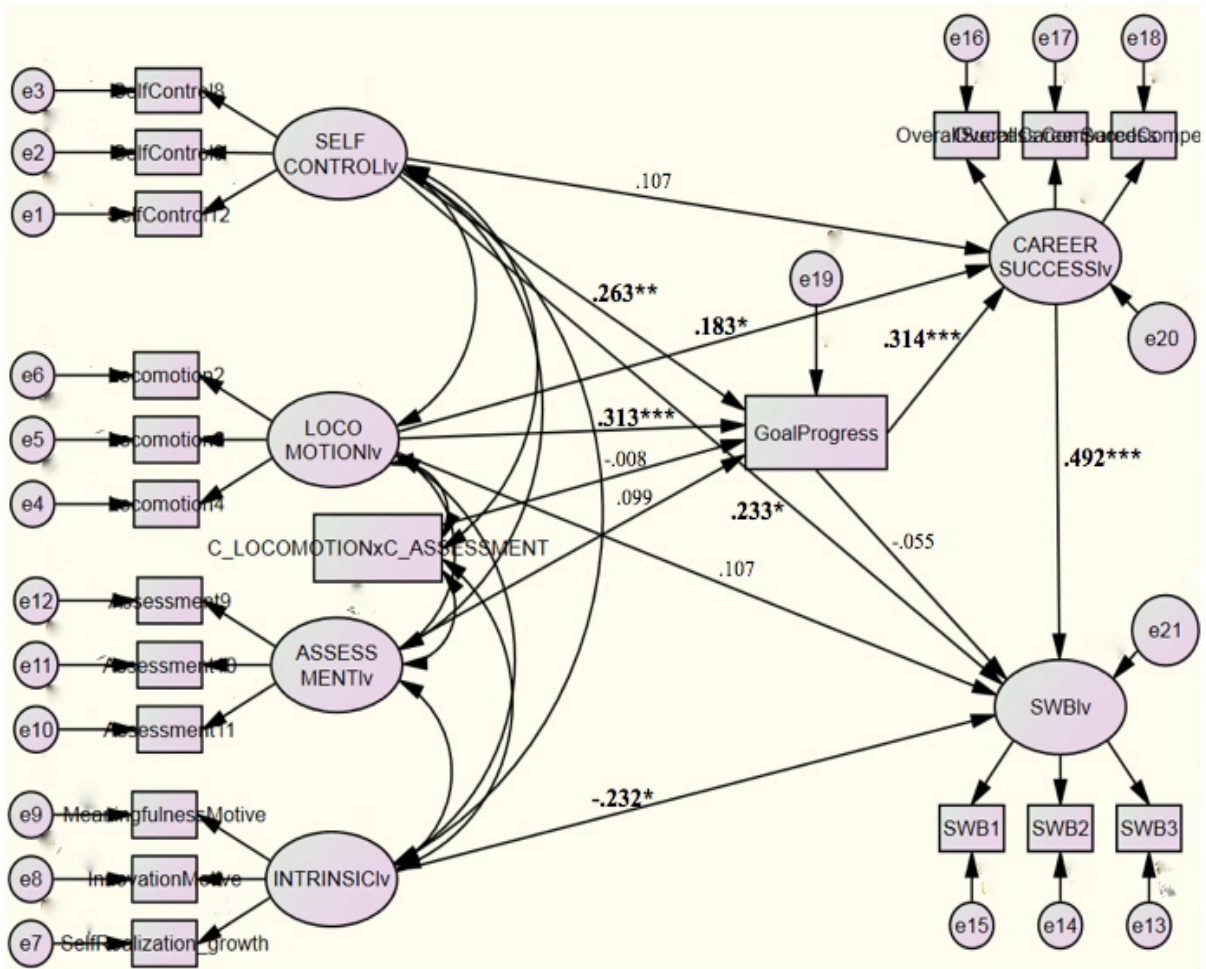
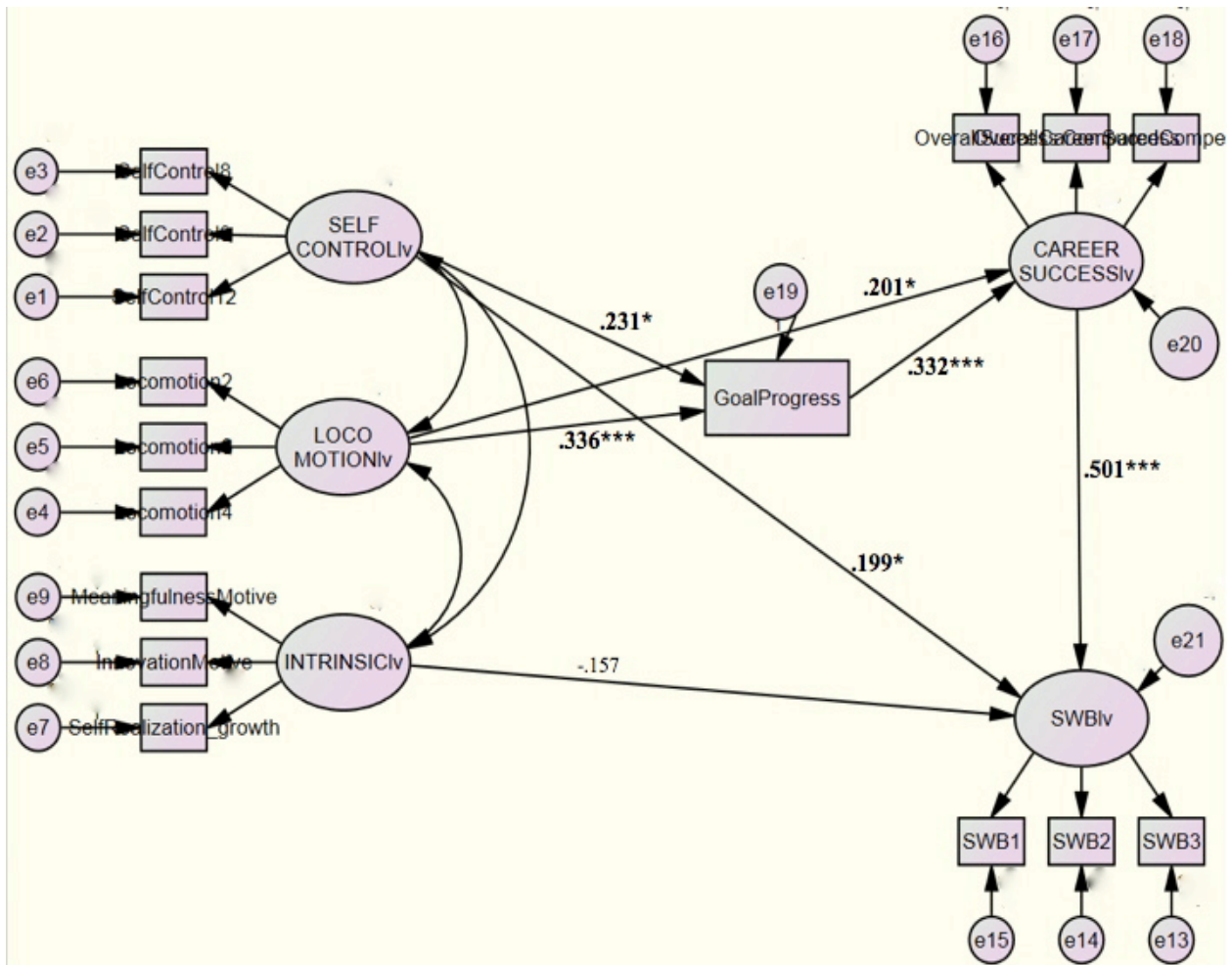


Figure 5: Model 1. Standardized Regression Weights.



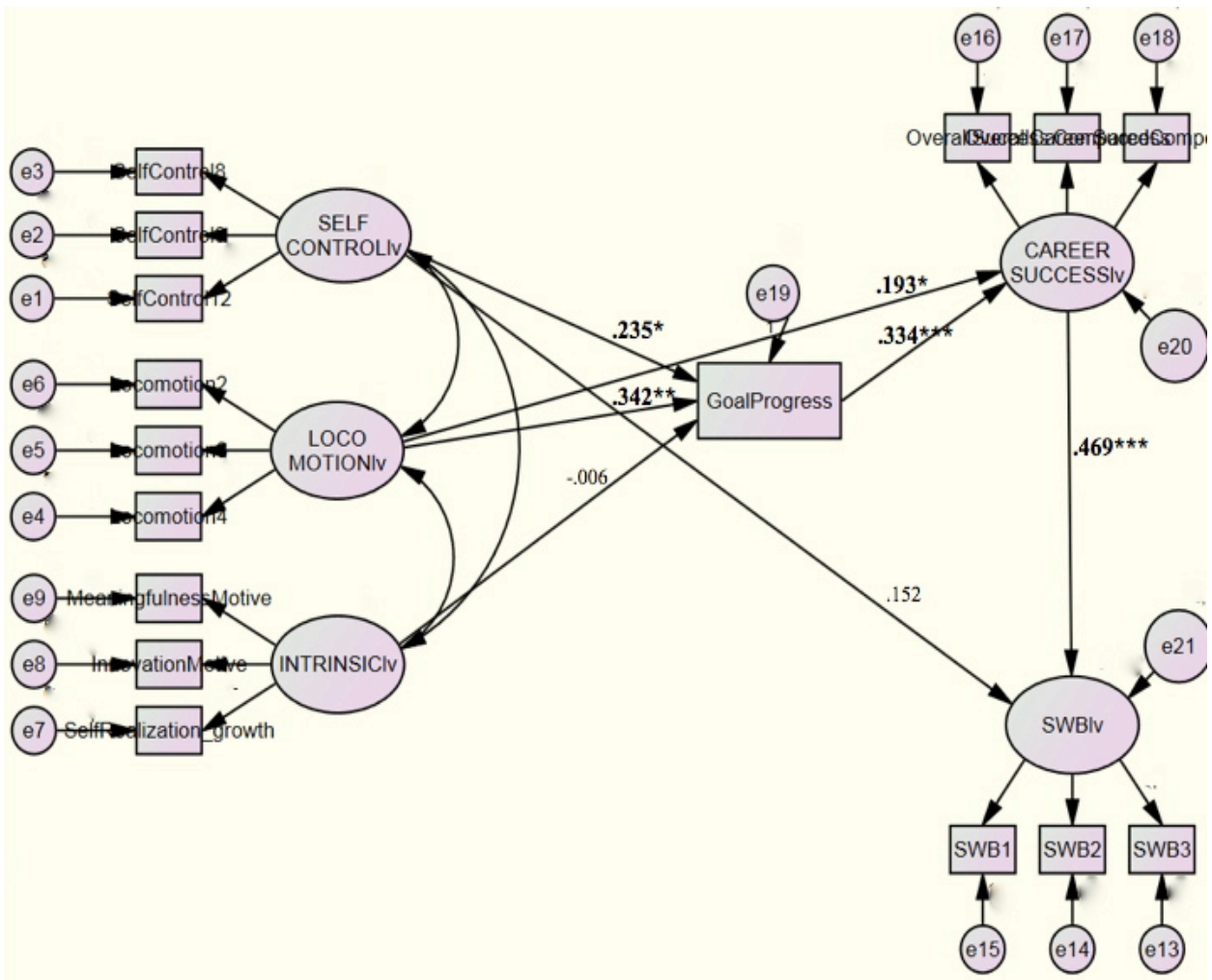
* $p < .05$
 ** $p < .01$
 *** $p < .001$

Figure 6: Model 2. Standardized Regression Weights.



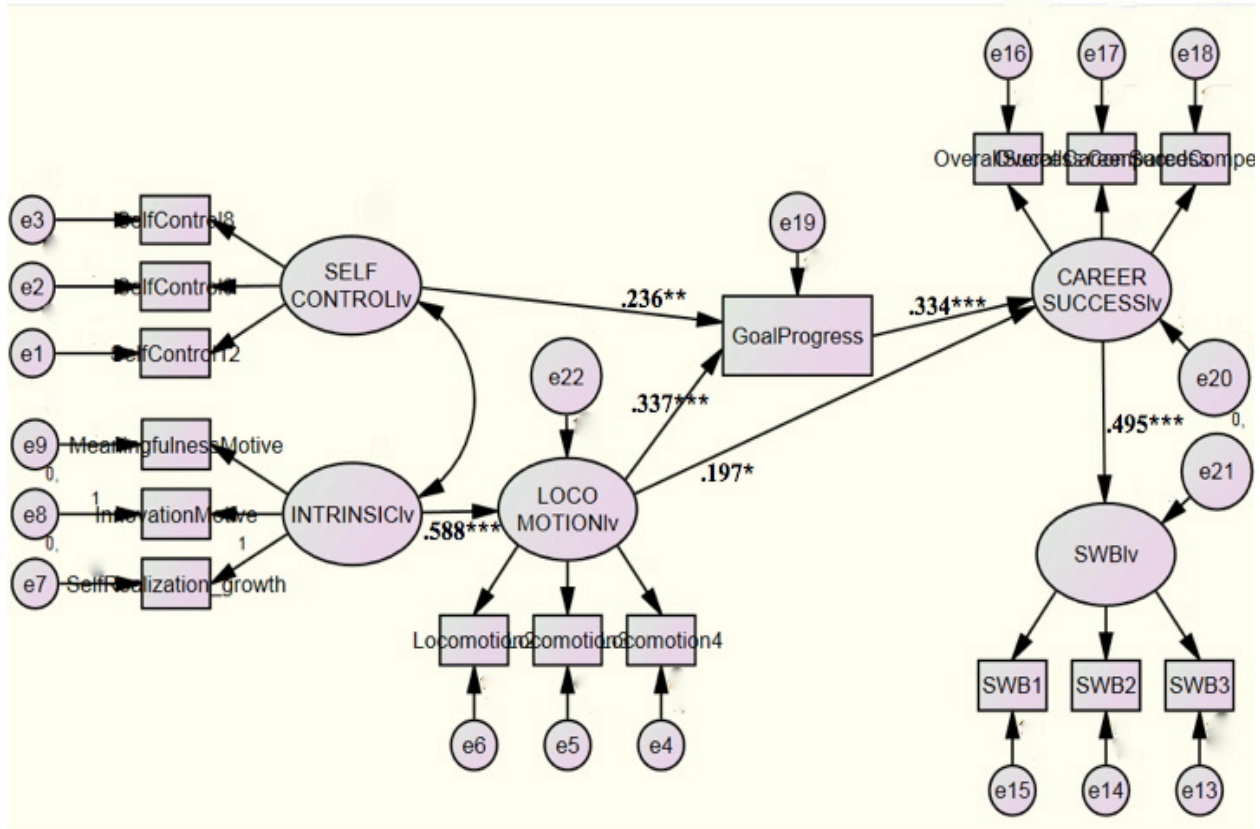
* $p < .05$
 ** $p < .01$
 *** $p < .001$

Figure 7: Model 3. Standardized Regression Weights.



* $p < .05$
 ** $p < .01$
 *** $p < .001$

Figure 8: Model 4. Standardized Regression Weights.



* $p < .05$
 ** $p < .01$
 *** $p < .001$

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Morris, M. H., Franklin, R. J., & Webb, J. W. (2013). Entrepreneurial activity in American Indian nations: Extending the GEM methodology. *Journal of Developmental Entrepreneurship* (to appear in June issue).