ABSTRACT

Kelsey E. Hardy. PREDICTORS OF ENTREPRENEURIAL SUCCESS IN TUNISIA. (Under the direction of Dr. Lisa Baranik) Department of Psychology, May 2016.

The current study explores the different psychological and cultural predictors of successful entrepreneurship in Tunisia. The relationships between entrepreneurial self-efficacy, risk-taking propensity, *wasta* (advantages through a third party), and entrepreneurial success were investigated on a sample of 135 female entrepreneurs across Tunisia. Entrepreneurial success, measured by entrepreneur performance and turnover intentions, was identified with surveys taken by staff members at entrepreneurship training centers. Results indicated that entrepreneurial self-efficacy and risk-taking propensity were not significantly related to entrepreneur performance or turnover intentions. *Wasta* was positively related to entrepreneur performance, but not related to turnover intentions. Analyses with self-efficacy and risk-taking predicting entrepreneurial success with *wasta* as a moderator fell short of significance. In conclusion, *wasta* strongly contributes to entrepreneur performance.

PREDICTORS OF ENTREPRENEURIAL SUCCESS IN TUNISIA

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PREDICTORS OF ENTREPRENEURIAL SUCCESS IN TUNISIA

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CHAPTER 1: INTRODUCTION

Although entrepreneurship is not a recent global phenomenon, psychologists have yet to explore international entrepreneurship in detail (Thomas & Mueller, 2000). Existing research shows there are vast differences in entrepreneurship across different countries (Freytag & Thurik, 2007). Therefore, understanding the psychology of entrepreneurship across cultures is critical (Stephan & Uhlaner, 2010). Hisrich (2000) explains that the relationship between culture and entrepreneurship must be studied to promote entrepreneurship internationally, and help new entrepreneurs understand how to create innovative, successful organizations in their own cultures.

Up to this point, the psychological literature has mainly focused on the antecedents of entrepreneurial success in Western countries (Hisrich, 2000). For this reason, Hisrich, Langan-Fox, and Grant (2007) specifically requested a call to action for psychologists to extend Western theory by focusing on cultural and psychological variables that lead to successful new business ventures worldwide. Additionally, suggested topics for entrepreneurial research include investigating the moderating and mediating variables that impact successful entrepreneurship (Davidsson, 2007). In order to fill these gaps, this study aims to predict the entrepreneurial success of entrepreneurs in Tunisia through two personality variables, entrepreneurial self-efficacy and risk-taking propensity. Additionally, this study investigates *wasta* as a moderator for the relationship between personality characteristics and entrepreneurial success. *Wasta* is an Arabic concept defined by gaining advantages through a third party (Mohamad & Mohamad, 2011).

Existing literature suggests that both entrepreneurial self-efficacy and risk-taking propensity are predictors of organizational success with American entrepreneurs (Frese &

Gielnik, 2014). Entrepreneurial self-efficacy is an entrepreneur's belief that he or she can perform certain tasks successfully (Chen, Greene, & Crick, 1998). The more confidence an entrepreneur has in effectively carrying out a range of tasks, the more likely he or she may be in establishing and maintaining a profitable organization. Similarly, a predictor of entrepreneurial success is risk-taking, or the propensity of individuals to take risks in new business ventures (Zhao, Seibert, & Hills, 2005). Psychologists have debated how various levels of risk-taking propensity can affect entrepreneurial success, and researchers generally agree there is a small positive correlation (Rauch & Frese, 2007). Finally, *wasta* is an Arabic concept that is best described as gaining advantages through connections of a third party, similar to social capital (Mohamad & Mohamad, 2011). Although empirical literature has yet to investigate *wasta*'s influence on entrepreneurship, the present state of research suggests that increased capital can promote new business ventures (De Mel, McKenzie, & Woodruff, 2008).

Studying the psychology of entrepreneurship from a cultural perspective is important for numerous reasons. Morris, Schindehutte, and Lesser (2002) suggest that ethnic entrepreneurship will increase in the developing world during the 21st century due to the increased levels of free trade, accessibility of venture capital, and the growth of infrastructure in developing countries. In addition, research provides evidence that entrepreneurship can serve as a way to mitigate poverty in underdeveloped countries (Hall, Matos, Sheehan, & Silvestre, 2012). More specific to this study, analyzing entrepreneurship in Tunisia can help Arabic female entrepreneurs understand how to succeed in a male-dominated environment. The purpose of the current study is to explore if entrepreneurial self-efficacy and risk-taking propensity predict entrepreneurial success with female entrepreneurs in Tunisia. Furthermore, we will investigate if *wasta*

strengthens the relationship between self-efficacy and risk-taking propensity with entrepreneurial success.

The Action Characteristics Model of Entrepreneurship

Although originally thought to have no correlation, meta-analytic literature suggests entrepreneurs' personality characteristics can be used to predict organizational success (Rauch & Frese, 2007). The rationale behind this theory can best be explained by the action characteristics model (Frese, 2009). The full model consists of many broad factors that lead to entrepreneurial success. These include motivation, personality, education, and cognitive factors (Frese & Gielnik, 2014). Each factor is comprised of corresponding psychological constructs. For example, the personality factor consists of autonomy, need for achievement, stress tolerance, generalized self-efficacy, and risk-taking propensity (Frese & Gielnik, 2014). The national culture factor is one variable shown to affect the entire action characteristics model, due to the fact that culture will influence the outcome of entrepreneurial success at every phase of entrepreneurship (Freytag & Thurik, 2007).

All broad factors do not directly affect entrepreneurial success since they are moderated by an entrepreneur's actions. The core of the model, called "action characteristics," affects every phase of entrepreneurship— from constructing the organization to maintaining organizational growth and survival (Frese & Gielnik, 2014). In other words, psychological constructs predict organizational success through the actions of the entrepreneur. The tasks performed in the action characteristics phase consist of acquiring resources, planning, goal setting, social networking, and continued feedback processing (Frese & Gielnik, 2014). Ashford and Tsui (1991) have theorized that entrepreneurs who are more active in the action characteristics phase are more likely to succeed.

The action characteristics model of entrepreneurship identifies three distinct phases that lead to the entrepreneurial success outcome variable: (1) The "pre-launch" phase acknowledges when an entrepreneur identifies a feasible business opportunity (2) the "launch" phase is the actual development of the business venture, and (3) the "post-launch" phase describes the organizational survival and growth of the firm (Frese & Gielnik, 2014). Economic dependent variables such as return on investment and earnings are not useful or indicative metrics for the pre-launch and launch phases of entrepreneurial success (Baum, Frese, Baron, & Katz, 2007). This is because particular tasks and activities performed during these phases do not correlate with economic measures (Baum et al., 2007). Therefore, for the present study, entrepreneur performance and turnover intentions will serve as our dependent variables to reflect the different phases of entrepreneurial success. The entrepreneur performance dependent variable will address the initial pre-launch and launch phases of entrepreneurial success because it corresponds with identifying a business opportunity and establishing an organization. To address the post-launch period of entrepreneurial success, turnover intentions will be used as the dependent variable to evaluate the growth and survival aspects of a new business.

For the purpose of this study, I will examine two specific predictors from the personality factor of the action characteristics model: risk-taking propensity and self-efficacy. Previous research has classified both risk-taking propensity and self-efficacy as antecedents to entrepreneurial success (Frese & Gielnik, 2014). Although mainly examined in American literature, some researchers suggest that these relationships will perform similarly across cultures (Etemad, 2004). For example, research shows entrepreneurial self-efficacy has a strong positive impact on venture performance with Indian entrepreneurs (Prajapati & Biwas, 2011; Jain & Ali, 2013). Furthermore, in Central Asian countries with transition economies, entrepreneurial self-

efficacy plays a central role in predicting the performance (profit margin and sales growth) of an entrepreneur's new business (Luthans & Ibrayeva, 2006). The relationship between risk-taking propensity and entrepreneurial success is even less studied in international literature. One study of South African entrepreneurs by Krauss, Frese, Friedrich and Unger (2005) indicated that risk-taking propensity had a positive impact on organizational growth and external success evaluation. Another study confirmed risk-taking propensity was positively correlated with several aspects of venture success in Israel, such as meeting economic goals and product potential (Pines, Dvir, & Sadeh, 2012).

For these reasons, I argue that the positive relationship between entrepreneurial self-efficacy and entrepreneurial success, as well as risk-taking propensity and entrepreneurial success, will generalize to Tunisia. Using this information, I will confirm that specific personality variables lead to entrepreneurial success in the action characteristics model. Also, I will be able to generalize the results of this phenomenon to women in an Arabic culture.

Entrepreneurial Self-Efficacy

In its broadest sense, self-efficacy is defined as a personal judgment of "how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p.122). Several studies have identified a strong relationship between self-efficacy and job performance. For example, Stajkovic and Luthans' meta-analysis (1998) clearly identified the correlation of self-efficacy and general performance at work (r = .38). Self-efficacy has been of particular interest to psychologists focusing on entrepreneurship and organizational performance, as shown in the action characteristics model (Frese & Gielnik, 2014). Entrepreneurial self-efficacy is defined as "the strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship" (Chen et al., 1998, p. 295). Entrepreneurial self-

efficacy measures how strongly one believes that he or she can execute activities involved in all stages of entrepreneurship (Chen et al., 1998).

Social-cognitive theory proposes that self-efficacy plays a central role in the personal agency of entrepreneurship (Zhao et al., 2005). Zhao et al. (2005) explain that entrepreneurial self-efficacy provides a theoretical explanation for how antecedents of entrepreneurship (perceptions of formal learning, entrepreneurial experience, and risk-taking propensity) affect entrepreneurial intentions. Therefore, entrepreneurial self-efficacy plays a central role in the identification of a business prospect, or the pre-launch phase of the action characteristics model (Frese & Gielnik, 2014). In addition, entrepreneurial self-efficacy corresponds with the launch and post-launch phases of the model. Not only will self-efficacy influence the level of effort an entrepreneur will spend on a task, but it will also influence what tasks entrepreneurs choose to expel their effort on (Zhao et al., 2005). Therefore, social-cognitive theory suggests that self-efficacy affects the antecedents of entrepreneurship (pre-launch and launch phases) in the action characteristics model.

Recent studies provide evidence that entrepreneurial self-efficacy and entrepreneurial success are strongly related. For instance, a meta-analysis done by Rauch and Frese (2007) found a large correlation between the two variables (r = .42), indicating that self-efficacy does an excellent job of explaining entrepreneurial success. Therefore, the more entrepreneurial self-efficacy one has, the greater the chance of a successful new business (Rauch & Frese, 2007). Since self-efficacy reflects competence (as shown in the action characteristics model), if an entrepreneur has high self-efficacy, it is likely that he or she has the advanced skills necessary to create and maintain a business (Muzychenko, 2008; Bandura, 1997). Therefore, if a nascent entrepreneur is confident in performing tasks related to venture creation, he or she will likely

perform these activities more successfully than someone who lacks confidence. This stems from Bandura's original theory that suggests if individuals have both self-doubt and lack of knowledge in what needs to be accomplished, their overall performance will suffer (1986). Therefore, I propose:

Hypothesis 1a: Entrepreneurial self-efficacy is positively related to entrepreneur performance

Turnover intention is defined as "the cognitive process of thinking about quitting one's job, planning on leaving, or feeling the desire to leave" (Campbell, Im, & Jisu, 2014, p. 261). Research indicates that turnover intention is the single strongest predictor of voluntary turnover in an organization (Lambert, Cluse-Tolar, Pasupuleti, Prior, & Allen, 2012). In other words, the stronger an employee feels about potentially leaving an organization, the greater the chance that he or she will actually leave. Given that entrepreneurs are the most critical employees for the overall success of their organizations, it is important to study the likelihood these individuals will voluntarily leave their positions.

Previous research has yet to explore turnover intention within the context of entrepreneurial self-efficacy. Despite this gap in entrepreneurial research, empirical literature suggests general self-efficacy is negatively correlated to turnover intention. For example, researchers found that self-efficacy interventions help to reduce turnover (McNatt & Judge, 2008). Higher levels of self-efficacy enable employees to use coping responses in negative situations, and therefore produce outcomes such as lower intention to quit (Saks, 1995). Generalizing this theory to entrepreneurship, I argue that if entrepreneurs have low self-efficacy, the tasks associated with entrepreneurship will be too intimidating, and they will want to quit at some point during organizational establishment. If entrepreneurs feel greater confidence about

completing various tasks of entrepreneurship, it is less likely they will turnover. Consequently, I propose:

Hypothesis 1b: Entrepreneurial self-efficacy is negatively related to turnover intentions

Risk-Taking Propensity

There is no debate that risk-taking is a prerequisite of entrepreneurship. When deciding whether to become an entrepreneur, one must assert certain elements of action (knowledge, motivation, and a stimulus) with regards to levels of uncertainty (McMullen & Shepard, 2006). Entrepreneurial action will occur based upon the degree of uncertainty that one has when deciding to take the action and the manner in which these actions take place (McMullen & Shepard, 2006). The levels of uncertainty an entrepreneur has when making a decision speaks directly to the widely-studied personality trait of risk-taking propensity. Risk-taking propensity is "an attitude that influences one's personal proclivity to be risk-seeking or risk-averse in particular situations" (Chow, Ng, & Gong, 2012, p.782).

Opinions on how risk-taking propensity affects entrepreneurial success are two-sided. There are two theoretical hypotheses that explain the relationship of risk-taking propensity and organizational success. One describes a direct relationship of risk-taking propensity to entrepreneurial success, and the other argues a curvilinear relationship (Stewart & Roth, 2001). A curvilinear relationship suggests that having a high level of risk-taking propensity can potentially damage the organizational performance of a new business (Stewart & Roth, 2001). Despite mixed reviews, the general conclusion of the literature remains that risk-taking propensity has a direct linear relationship with entrepreneurial success, but the correlation is small (Rauch & Frese, 2007). Researchers have identified methodological issues with gathering and interpreting data in studies that have identified strong predictors of entrepreneurial success

(Rauch & Frese, 2007). Therefore, Rauch and Frese (2007) argue that small or medium-sized correlations, especially in a meta-analysis, should not be ignored. Following the overall consensus of literature, I suggest that risk-taking propensity has a direct linear relationship with entrepreneur performance. Therefore, I propose:

Hypothesis 2a: Risk-taking propensity is positively related to entrepreneur performance

Additionally, the relationship of risk-taking propensity and turnover intentions has yet to be studied in the context of entrepreneurship. Given that turnover intention measures organizational growth and survival, it is likely that entrepreneurs with high turnover intentions will have a limited outlook on the sustainability of their organization. Individuals who enjoy taking risks will be more likely to maintain their organizations because they wish to continue the bold-natured activities involved in entrepreneurship. If they quit, they will be forced to take on less risky jobs that are likely in a corporate setting. For women in Tunisia, turnover will lead to occupations with substantially less risk, such as being the primary caretaker of their kin (Yount & Agree, 2004). Thus, I argue the relationship between risk-taking propensity and turnover intention is negatively correlated, since those who enjoy taking risks will wish to remain in risk tolerant environments, and therefore will be less inclined to quit. Subsequently, I propose:

Hypothesis 2b: Risk-taking propensity is negatively related to turnover intentions

The Concept of *Wasta*

Wasta is a concept unique to Arabic cultures, and is often referred to in French colonies as *piston* or "pulling strings" based upon relationships with key individuals of a high status (Smith et al., 2012). Despite lack of study, researchers agree that *wasta* is present in every activity in Arab cultures, regardless of complexity (El-Said & McDonald, 2001). *Wasta* is defined as "the intervention of a patron in favor of a client in attempt to obtain privileges or

resources through a third party" (Mohamed & Mohamed, 2011, p. 412). *Wasta* is centered on forming relationships with higher status individuals and gaining advantages not for reason of merit, but simply because they are acquainted with them (Mohamad & Mohamad, 2011). This benefits certain individuals over others because they possess these personal connections. The concept of *wasta* can be generalized to entrepreneurship in that those with *wasta* will obtain more resources required to begin and maintain a new business compared to others.

The two types of *wasta* described in empirical literature are intermediary *wasta* and intercessory *wasta* (Mohamed & Mohamad, 2011). Intermediary *wasta* is mainly used to resolve intergroup or interpersonal issues. For example, if a conflict arises between two groups of individuals, intermediary *wasta* is utilized to support social patterns and take action to resolve the problem (Mohamed & Mohamed, 2011, p. 413). Intercessory *wasta* is a type of *wasta* that involves an individual intervening for someone else in order to acquire some benefit or overcome those in power (Mohamed & Mohamed, 2011, p. 413). For the purpose of this study, it is assumed that intercessory *wasta* is the main type of *wasta* that Tunisian entrepreneurs experience because of the advantages it provides in regards to resource acquisition, networking, and overall financial capital to start their organizations (Mohamed & Mohamed, 2011).

Previous literature has compared *wasta* and the Chinese concept *guanxi* (Smith, Torres, Leong, Budwar, Achoui, & Lebedeva, 2012). Guanxi is a term used to describe "connections" that influence types of interpersonal relationships in Chinese culture (Smith et al., 2012, p. 334). This connection is a form of implicit psychological contract between two individuals that allow them to maintain a mutually beneficial long-term relationship built upon loyalty (Chen & Chen, 2004). Several studies show that guanxi serves as the most important way an individual can conquer the difficulties of entrepreneurship in China (Xin & Pearce, 1996). Guanxi proves that

entrepreneurs can succeed in China simply by building extensive networks (Guo & Miller, 2010). If an individual has a larger network through guanxi, they have a greater opportunity for acquisition of necessary resources to sustain their organization (Guo & Miller, 2010). Additionally, research shows capital produced from guanxi promotes interpersonal trust between the two parties (Farh, Tsui, Xin, & Cheng, 1998) and thus increases organizational performance (Barjargal & Liu, 2004).

Wasta and guanxi are comparable in that both relationships are hierarchical and involve long-term emotional commitment from both parties (Smith et al., 2012). Since guanxi has a positive relationship with entrepreneurial firm performance (Batjargal & Liu, 2004), I argue that *wasta* will function in the same way. An entrepreneur with high levels of *wasta* is more likely to overcome the challenges associated with starting a new venture due to advantages achieved from *wasta*. Tunisian entrepreneurs that have *wasta* will be more likely to succeed with new businesses since *wasta* will provide them with the financial means to start and uphold their organizations.

Additionally, U.S. research shows that social networks are extremely important in the creation, growth, and success of entrepreneurs' organizations (Aldrich & Ruef, 2006). Since individuals with *wasta* know the right people to grant them advantages of starting a new business (Mohamed & Mohamad, 2011), I argue that these same individuals have personality types that allow them to build extensive networks in their community. These entrepreneurs may be prominent social and political figures in their own society, and therefore will be able to gain support for their local businesses without difficulty. Due to the financial advantages and social-connectivity of those with *wasta*, I propose:

Hypothesis 3a: *Wasta* is positively related to entrepreneur performance

Hypothesis 3b: *Wasta* is negatively related to turnover intentions

Entrepreneurial Self-Efficacy and *Wasta*

As previously mentioned, theory suggests personality traits affect entrepreneurship. Rauch and Frese (2007) add that there may be certain contingencies for these relationships, which can be investigated with moderator variables. Moderator variables have not been studied in-depth with empirical entrepreneur research (Rauch & Frese, 2007). By adding extraneous variables such as cultural influences to existing predictive models, researchers can identify previously unknown relationships. Furthermore, creating more complex predictive models can sufficiently increase the power and strength of existing models (Rauch & Frese, 2007).

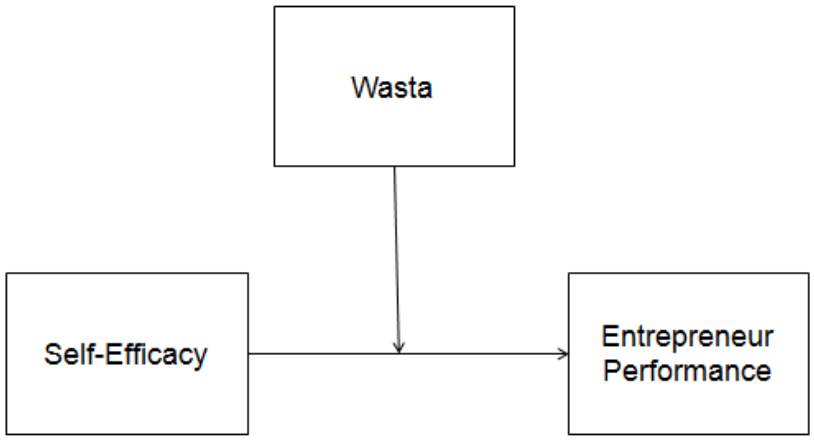
Although previous research has attempted to identify cultural predictors of entrepreneurial success, there are likely many different predictive models that could be created in order to understand entrepreneurship across different cultures (Frese & Gielnik, 2014). Similar to guanxi (Guo & Miller, 2010), I argue *wasta* is a key cultural variable that is responsible for an entrepreneur's success in Tunisia. Those with enough connections to have *wasta* are more likely to be socially accepted and established figures in their community. Consequently, these individuals will have more relationships with people that are willing to support their entrepreneurial endeavors. Entrepreneurs will maintain success with their organizations because of the community that supports them, and the self-confidence they have in overcoming the hardships associated with entrepreneurship.

I propose that entrepreneurs who have high levels of *wasta* and entrepreneurial self-efficacy will have an even higher likelihood of entrepreneurial success. The amount of *wasta* entrepreneurs have will contribute to the overall confidence that they will succeed, thus resulting in increased levels of organizational success. Therefore, the relationship between entrepreneurial

self-efficacy and entrepreneurial success is dependent upon levels of *wasta*, with a stronger positive relationship between entrepreneurial self-efficacy and entrepreneurial success for those high on *wasta*. With this, I propose:

Hypothesis 4a: The positive relationship between entrepreneurial self-efficacy and entrepreneur performance is stronger the higher entrepreneurs are on *wasta*.

Figure 1

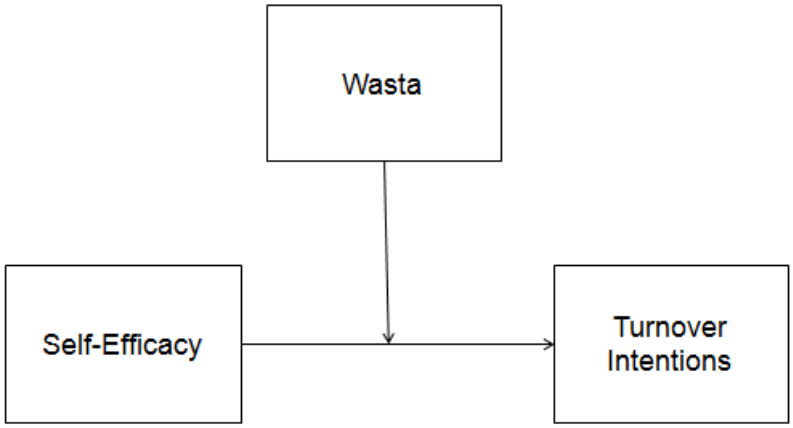


Following the rationale of the previous hypothesis, I argue that the negative relationship between entrepreneurial self-efficacy and turnover intentions is moderated by the cultural variable *wasta*. Entrepreneurs with low levels of self-efficacy and *wasta* will be even more likely to quit their companies since they do not have confidence to carry out daily tasks and lack the resources from *wasta* to maintain their businesses. Entrepreneurs with low levels of self-efficacy will be less likely to turnover if they have high levels of *wasta*. The financial resources and social capital they gain through *wasta* will give them the confidence they need to stay in their positions and maintain their organizations despite their low levels of entrepreneurial self-efficacy. Thus, the relationship between entrepreneurial self-efficacy and turnover intentions is

dependent upon levels of *wasta*, with a weaker negative relationship between entrepreneurial self-efficacy and turnover intentions for those high on *wasta*. Therefore, I propose:

Hypothesis 4b: The negative relationship between entrepreneurial self-efficacy and turnover intentions is weaker the higher entrepreneurs are on *wasta.*

Figure 2



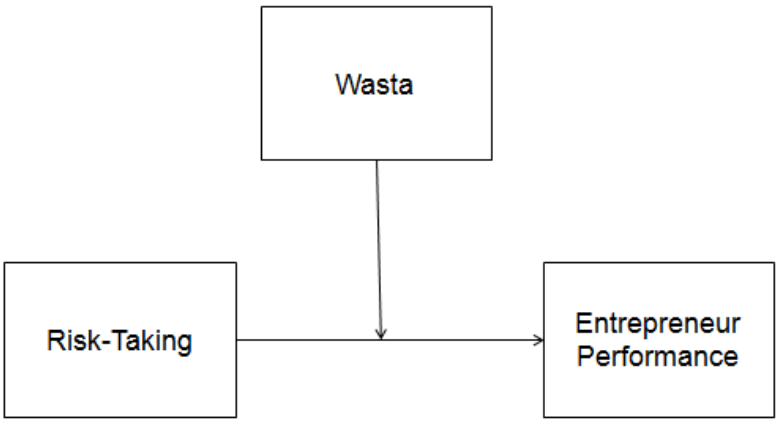
Risk-Taking Propensity and *Wasta*

Similar to entrepreneurial self-efficacy, the relationship between risk-taking propensity and entrepreneurial success likely has moderator variables that researchers have yet to explore. As mentioned previously, *wasta* is a key cultural variable that may strongly predict entrepreneurial success in Tunisia. *Wasta* will increase the odds of entrepreneurs obtaining financial capital (Mohamed & Mohamed, 2011), and therefore will weigh more heavily than risk-taking propensity when predicting entrepreneurial success. Corresponding with the pre-launch phase of the action characteristics model, the more an entrepreneur trusts that he or she will have steady financial capital and organizational resources when creating his or her business, the more likely he or she is to take risks when creating the organization. This will result in a higher likelihood of business success. Thus, the positive relationship of risk-taking propensity

and entrepreneur performance will be dependent upon levels of *wasta*, with a stronger positive relationship between risk-taking propensity and entrepreneur performance for those high on *wasta*. Thus, I propose:

Hypothesis 5a: The positive relationship between risk-taking propensity and entrepreneur performance is stronger the higher entrepreneurs are on *wasta*.

Figure 3

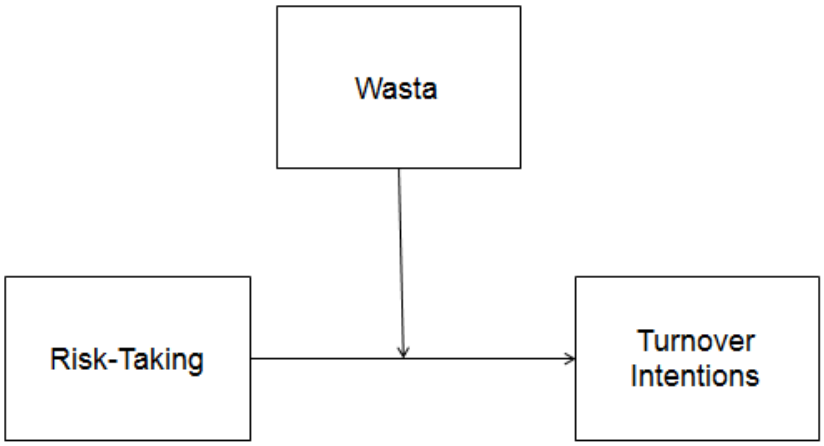


Additionally, I argue that *wasta* will modify the relationship of risk-taking propensity and turnover intentions. Since turnover intentions correspond with the post-launch phase of the action characteristics model, one can assume that the less *wasta* an entrepreneur has, the less trust he or she will have in the sustainability of his or her organization. As a result, an entrepreneur with low risk-taking propensity and low *wasta* will be more inclined to turnover. If an entrepreneur has high *wasta* but low risk-taking propensity, *wasta* will act as a protective factor and consequently decrease the likelihood that the entrepreneur will turnover. This is due to the fact that the less-risky entrepreneurs will still trust in the sustainability of their organization because of the benefits received from *wasta*. This trust will help eliminate the negative effects that result from their low risk-taking propensity. Thus, the negative relationship

of risk-taking propensity and turnover intentions will be dependent upon levels of *wasta*, with a weaker negative relationship between risk-taking propensity and turnover intentions for those high on *wasta*. Therefore, I propose:

Hypothesis 5b: The negative relationship between risk-taking propensity and turnover intentions is weaker the higher entrepreneurs are on *wasta.*

Figure 4



CHAPTER II: METHOD

Participants

Data were analyzed using an archival data set. Participants of the study were found through the Women's Enterprise for Sustainability (WES) center in Tunis, Tunisia. The participants were involved with one of thirteen different WES centers (N = 135). Through the WES centers, women entrepreneurs had access to affordable training, coaching and financial services enabling them to launch and grow businesses. Overall, 51% of participants had current ownership of an organization and 49% of participants were thinking about owning an organization in the future. The majority of business owners had organizations in the formal economy (67%). In total, 13% of participants were ages 18 to 24, 37% were ages 25 to 34, 25% were ages 35 to 44, 21% were ages 55 to 64, and 4% were ages 65 to 74. Additionally, over half of the participants were married (59%).

Procedure

The Institutional Review Board has already approved this project. In order to continue compliance, a data set with no identifying information was used. Data were collected through the administration of a self-report paper and pencil survey at the WES centers throughout Tunisia. Since the native language of the participants was Arabic, the survey was translated through an English-to-Arabic language subject matter expert prior to dispersion. Participants were entered in a drawing for 50 dinars (approximately $40 USD) among completion of the survey. The participants were guaranteed anonymity through the use of identification numbers on the front page of the survey. Items consisted of quantitative, qualitative, and demographic questions. The process of filling out the survey took approximately 60 minutes.

After the subjects completed the survey, the WES center consultants were asked to assess the performance of each individual entrepreneur from their experiences with them. The anonymity of each individual WES center consultant and each entrepreneur remained confidential through the continued use of identification numbers. The WES center consultant survey was completed within 15 minutes. Following data collection, the survey results were entered into Microsoft Excel.

Measures

Entrepreneurial Self-Efficacy Entrepreneurial self-efficacy was measured using the original Zhao et al. (2005) measure of entrepreneurial self-efficacy. The items measure specific entrepreneurial tasks and average those tasks to form a more general measure of self-efficacy based on a wide array of entrepreneurial duties (Zhao et al., 2005). This measure used a 5-point rating scale ranging from 1 (*No Confidence*) to 5 (*Complete Confidence*). An example item of the Zhao et al. (2005) measure is "I am confident about successfully identifying business opportunities." Coefficient alpha in the current sample was .74.

Risk-Taking Propensity Risk-taking propensity was measured using the Zhao et al. (2005) scale of risk-taking propensity. This scale had been previously modified from the Jackson Personality Inventory (1994) scale to measure generalized risk-taking propensity. A 5-point Likert scale was used, ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). An example item from the 3-item measure is "I enjoy the excitement of uncertainty and risk." Coefficient alpha in the current sample was .77.

Entrepreneur Performance Entrepreneurial success was measured with 8 items. The WES center staff reported this measure in reference to how well-performing the entrepreneur is in their business ventures. Originally an 18 item scale, the final 8 items were chosen through

discussions with subject matter experts, inter-item correlations and an exploratory factor analysis with maximum likelihood method in SPSS. After rotating the data with the direct oblimin method, one factor resulted, as observed in the scree plot. An example item of entrepreneur performance is "She makes a profit." The WES center staff rated each item on a 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Coefficient alpha in the current sample was .94.

Turnover Intentions The turnover intentions measure was modified from Cammann, Fichman, Jenkins and Klesh (1983). The WES staff reported this measure in reference to how likely the identified entrepreneur will quit being an entrepreneur. The staff rated each item on a 5-point Likert scale of 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). An example item from the 3-item measure is "This individual often talks about quitting entrepreneurship." Coefficient alpha in the current sample was .92.

Wasta *Wasta* was measured through originally written items to reflect the Mohamed and Mohamed (2011) definition of *wasta*, since there is no existing measure of *wasta* in literature. Originally a 7 item scale, the final 6 items were chosen through inter-item correlations and an exploratory factor analysis with maximum likelihood method in SPSS. After rotating the data with the direct oblimin method, the scree plot indicated that one factor should be retained. A 5-point Likert scale was used, ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Appendix C reports the items used in the 6-item measure. An example item is "My personal connections have helped me achieve success." Coefficient alpha in the current sample was .70.

Data Analysis

The data analysis was conducted through multiple steps using R statistical software program (R Core Team, 2012). First, missing data were handled using multiple imputation.

Using the mice package in R (Burren & Groothuis-Oudshoorn, 2011), the data was imputed 50 times to correct for the missing values. The analyses controlled for the 13 different WES centers using a series of 12 dummy variables. To test the hypotheses for direct correlations (*Hypothesis 1a, Hypothesis 1b, Hypothesis 2a, Hypothesis 2b, Hypothesis 3a, & Hypothesis 3b*), regression analyses were employed with the imputed data. Additionally, moderation (*Hypothesis 4a, Hypothesis 4b, Hypothesis 5a & Hypothesis 5b*) was assessed with the imputed data. The multiple regression R-squared and model intercept are reported for each of the hypotheses' equations.

CHAPTER III: RESULTS

Descriptive Statistics and Correlations

The data were imputed 50 times to address missing data issues. Overall, there were 16.15% missing data. Self-efficacy, risk-taking propensity, *wasta*, entrepreneur performance, and turnover intentions had missing data percentages of 5.9%, 13.33%, 8.15%, 40%, and 13.33% respectively. Variables included in the imputation model were entrepreneurial self-efficacy, risk-taking propensity, *wasta*, entrepreneur performance, and turnover intentions. Additionally, the thirteen WES centers were controlled for with each analysis. To perform each moderation hypothesis, an interaction term was created by multiplying each independent variable of interest with *wasta*. Descriptive statistics, Cronbach's alpha and Pearson's *r* intercorrelations among all variables with the non-imputed data using listwise deletion are shown in Table 1. Entrepreneurial self-efficacy was positively correlated with *wasta*, and *wasta* was positively correlated with entrepreneur performance. Additionally, *wasta* was negatively correlated with turnover intentions.

Table 1.
Descriptive Statistics and Intercorrelations

	1	2	*3*	4	5
1. Self-Efficacy	(.74)				
2. Risk-taking	.18	(.77)			
3. *Wasta*	.21*	.14	(.70)		
4. Entrepreneur Performance	.13	-.10	.45**	(.94)	
5. Turnover	-.21	.06	-.24*	-.62**	(.92)
M	4.31	2.79	3.49	3.76	1.63
SD	.53	1.12	.82	.81	.93

Note. $N = 138$. Descriptive statistics are shown using the non-imputed data with listwise deletion. Entries on the main diagonal are Cronbach's alpha. *$p < .05$. **$p < .001$.

Tests of Hypotheses

Hypothesis 1a-3b The first three hypotheses tested whether entrepreneurial self-efficacy, risk-taking propensity, and *wasta* were correlated with entrepreneurial success. The regression analysis did not provide support for Hypothesis 1a, and the relationship between entrepreneurial self-efficacy and entrepreneur performance was non-significant ($b = .12$, $SE = .13$, $t(109.3) = .924$, $p = .36$, 95% CI [-.14, .37], $R^2 = .008$). Additionally, the linear regression between entrepreneurial self-efficacy and turnover intentions (Hypothesis 1b) fell short of statistical significance ($b = -.16$, $SE = .17$, $t(113.1) = -.96$, $p = .34$, 95% CI [-.49, .17], $R^2 = .009$). Full results with control variables are shown in Table 2 in Appendix B.

Furthermore, Hypothesis 2a was not supported and the relationship between risk-taking and entrepreneur performance fell short of statistical significance ($b = -.04$, $SE = .06$, $t(95.54) = -.66$, $p = .51$, 95% CI [-.17, .08], $R^2 = .005$). Likewise, Hypothesis 2b was not supported, and the relationship between risk-taking and turnover intentions fell short of statistical significance (*b*

= .03, *SE* = .08, *t*(98.4) = .345, *p* = .73, 95% CI [-.13, .18], R^2 = .002). Full results with control variables are shown in Table 3 in Appendix B.

Hypothesis 3a was supported, indicating that the positive relationship between *wasta* and entrepreneur performance was statistically significant (*b* = .27, *SE* = .08, *t*(106) = 3.38, *p* = .001, 95% CI [.11, .43]). *Wasta* accounted for 9.4% of the variance in entrepreneur performance, R^2 = .094. Hypothesis 3b was not supported, and the relationship between *wasta* and turnover intentions fell short of statistical significance (*b* = -.11, *SE* = .11, *t*(101.01) = -.97, *p* = .33, 95% CI [-.33, .11], R^2 = .008). Full results with control variables are shown in Table 4 in Appendix B.

Hypothesis 4a-5b Hypotheses 4a-5b were tested through moderation analyses with the imputed data set. For Hypothesis 4a and Hypothesis 4b, the relationships of self-efficacy and *wasta* predicting entrepreneur performance and turnover intentions were not supported. The relationship of self-efficacy and *wasta* did not significantly predict entrepreneur performance (*b* = .13, *SE* = .15, *t*(83.5) = .86, *p* = .39, 95% CI [-.17, .44], R^2 = .10) nor turnover intentions (*b* = .04, *SE* = .22, *t*(75.6) = .17, *p* = .87, 95% CI [-.40, .47], R^2 = .02). Hypothesis 5a and Hypothesis 5b, testing the moderation effect of *wasta* between risk-taking and entrepreneur performance and turnover intentions, were not supported. The interaction of risk-taking and *wasta* did not significantly predict entrepreneur performance (*b* = -.01, *SE* = .08, *t*(81.8) = -.15, *p* = .88, 95% CI [-.17, .14], R^2 = .11) nor turnover intentions (*b* = .12, *SE* = .11, *t*(73) = 1.05, *p* = .29, 95% CI [-.10, .34], R^2 = .03).

CHAPTER IV: DISCUSSION

Current literature regarding the psychological and cultural predictors of successful entrepreneurship has mainly focused on Western countries. This study was one of the first to explore specific antecedents of entrepreneurial success in Tunisia. Numerous key findings emerged from the results of this study. Contradictory to previous Western research (Frese & Gielnik, 2014), the two personality predictor variables, entrepreneurial self-efficacy and risk-taking propensity, did not predict entrepreneur performance or turnover intentions. The Arabic concept of *wasta*, however, predicted entrepreneur performance but did not predict turnover intentions. This is a novel finding that supports key cultural differences in entrepreneurship.

Previous research has focused on *wasta* as favoritism in hiring and promotion decisions in the workplace (Mohamed & Mohamed, 2011). This is the first study conducted to investigate how *wasta* affects entrepreneurship in an Arabic culture. Results indicated that *wasta* and entrepreneur performance were positively related, which is notable because the measure of entrepreneur performance was not self-reported. Using the perspectives of the WES Center staff avoids self-report bias (Mabe & West, 1982).

There are many potential reasons that explain why *wasta* strongly contributes to successful new business ventures. Individuals who would not typically succeed in entrepreneurship may be able to do so with *wasta*. This is because their connections contribute to the powerful cycle in which those with *wasta* become stronger, and those without *wasta* become weaker (Mohamed & Mohamed, 2011). In this study, *wasta* may primarily supplement for womens' lack of access to financial capital through Tunisian financial institutions (Drine & Grach, 2012). Therefore, *wasta* may lead to increased venture capital. Venture capital is naturally associated with more financial resources and subsequently better firm performance (Vanacker, Collewaert, & Paeleman, 2013). Therefore, entrepreneurs with high levels of *wasta*

have the necessary assets that contribute to business expansion, such as human capital and social capital.

New entrepreneurs in local civil societies must rely heavily on their communities to keep their new businesses afloat (Zahra, 2011). If individuals have *wasta*, one can assume they are well connected with their peers. Research shows social connectedness can have a large impact on a new organization's customer base, similar to how guanxi helps new entrepreneurs in China (Guo & Miller, 2010). This creates a greater probability that customers will continue to purchase the goods or services of the business, subsequently increasing profitability (Guo & Miller, 2010). Therefore, if *wasta* functions similar to guanxi in entrepreneurship, individuals with more *wasta* may be well established in their communities and thus have a supportive customer base.

Unlike Frese and Gielnik's (2014) findings, the personality predictor of entrepreneurial self-efficacy did not generalize to the Middle Eastern sample. Women with more confidence in completing tasks related to entrepreneurship did not have increased firm performance or decreased turnover intentions. As a result, personality variables may not serve as the best predictors of entrepreneurial success in Tunisia. Subsequently, different levels of entrepreneurial self-efficacy may be unrelated to organizational performance. Cultural variables, such as wasta, may play a stronger role in predicting overall entrepreneurial success. Future studies should explore how self-efficacy affects entrepreneurial success in different cultures.

Similar to entrepreneurial self-efficacy, risk-taking propensity fell short of significance when predicting entrepreneurial success. Entrepreneurs who enjoyed taking risks did not have increased performance or decreased turnover intentions. As stated previously, one explanation for this finding is that personality variables are not strong predictors of new venture performance. Additionally, men may be expected to be the primary risk-takers in Arab cultures.

Other personality variables in Frese and Gielnik's action characteristics model, such as stress tolerance or innovativeness, may better predict entrepreneurial success with Tunisian entrepreneurs and should be considered for future studies (Frese & Gielnik, 2014).

Results did not support the hypotheses with *wasta* as a moderator. Although *wasta* was found to be a strong predictor of entrepreneur performance, it did not interact with self-efficacy nor risk-taking propensity to predict entrepreneur performance or turnover intentions. One explanation for this finding could be that cultural variables may work best to predict entrepreneurial success on their own. Additionally, cultural predictor variables may be highly unrelated to how personality affects new business outcomes. Future research should be done to determine if *wasta* interacts with alternative antecedents of successful entrepreneurship in Arabic countries.

Overall, the non-significant findings could be due to the fact that American literature on entrepreneurship simply does not generalize to women in Arab countries. For example, any form of risk-taking within entrepreneurship could be seen as a negative trait for female entrepreneurs because risk-taking activities may contradict the female gender role in Arab countries. Studies also show women report difficulties with balancing entrepreneurship and family life (Drine & Grach, 2012). Mothers are often highly involved in family day-to-day activities that restrict the time necessary to sustain a business (Mathew, 2010). For these reasons, qualities of successful entrepreneurship may differ across both culture and gender, and therefore require further exploration.

Limitations and Future Research

This study contains several potential limitations that could explain lack of significant findings. A power analysis indicated that 111 participants were required to detect an effect with

95% power. Therefore, although the sample size was small, it was sufficient. One key constraint was the diversity of the sample. Because the majority of participants were currently seeking assistance through the WES Center, they may not have had much experience with entrepreneurship. Individuals who were not associated with the WES Center could have added more value and diversity to the study. Furthermore, the sample consists of women only. This limits the ability to generalize to all entrepreneurs in Tunisia.

Another potential limitation is the fact that the entrepreneurs may have had unique types of relationships with the WES Center staff. During the study, the entrepreneurs were at different levels of establishing their organizations. Due to this, entrepreneur performance and turnover intentions may have been challenging to measure. For example, the staff may have had trouble rating entrepreneurs who had not yet launched their organization. Additionally, the WES Center staff may have had stronger relationships with some entrepreneurs than others depending on frequency of contact. The WES Center staff may not have been able to adequately measure entrepreneurial performance if they were not familiar with an entrepreneur and her organization. Similar to recency effect in performance appraisal (Steiner & Rain, 1989), the staff may not have been able to adequately assess turnover intentions if the entrepreneur did not recently voice concerns of business closure. Therefore, the WES Center staff may have made assumptions about an entrepreneur's turnover intentions with no substantial evidence other than organizational performance.

Similarly, a ceiling effect could have taken place with the entrepreneurial self-efficacy variable. Since the entrepreneurs took the survey at the WES centers, they may have felt compelled to answer the self-efficacy items in a certain way because they thought the WES center consultants were involved with the results. For example, individuals may have reported

high levels of self-efficacy because the purpose of the centers is to build skills and provide the entrepreneurs with confidence in starting their new business ventures. The high mean of self-efficacy (4.31) supports this theory.

Another limitation of the study was the language barrier. Although participants were given the survey in Arabic, the original items were written in English. As a result, issues may have occurred with translation from English to Arabic. Additionally, certain constructs may not have measured the same idea in Arabic. For example, risk-taking propensity may stand for a different construct in the Middle East.

Future research should focus on identifying other key psychological and social variables that predict entrepreneurial success in Non-western countries. For example, Frese and Gielnik (2014) have identified numerous predictor variables for entrepreneurial success in American samples. Perhaps different independent variables such as an individual's need for achievement or positive affect increase the likelihood of business success in Arabic countries. Researchers should conduct longitudinal studies to measure these predictor variables prior to business creation. Entrepreneurial success variables such as entrepreneur performance and turnover intentions should be measured after months and years of organizational establishment. Additionally, other criterion variables such as profitability and number of paid employees should be used to measure firm performance.

Organizational and Practical Implications

As current research suggests, entrepreneurship is a world-wide phenomenon that is on the rise (Reynolds, Bygrave, & Autio, 2004). Entrepreneurship has numerous benefits including increased employment rates, economic growth and innovation, and increased product and service quality (Hisrich et al., 2007). Previous literature has concentrated on predictors of

entrepreneurial success in Western samples (Frese & Gielnik, 2014). As results suggest, the Arabic concept of *wasta* is important to the entrepreneurial success of individuals in Middle Eastern countries. Using this information, individuals who are inclined to start their own companies should factor in their own *wasta* before business creation. If individuals have a lot of *wasta*, it is likely that their social networks and financial resources are substantial enough to establish their own organization. Furthermore, individuals with less *wasta* may take on entrepreneurship with more caution. They may also seek to increase their own *wasta* if possible.

Additionally, this study has implications for organizations whose purpose is to aid new entrepreneurs in business innovation. Non-governmental organizations established for entrepreneurs may be able to identify the amount of *wasta* individuals have through their meetings. The staff can encourage the entrepreneurs to use *wasta* to leverage their contacts and form business partnerships, and thus increase organizational performance.

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APPENDIX A: IRB CONSENT PARAGRAPH

This study used an archival dataset with no identifying information. The IRB office at East Carolina University verified that the dataset did not require secondary IRB approval. IRB was approved under “Tunisian conceptualizations of the workplace” (UMCIRB 13-001553) filed by Dr. Lisa Baranik preceding data collection.

APPENDIX B: Regression Tables

Table 2.
Predicting Entrepreneur Performance and Turnover Intentions from Self-Efficacy

	Entrepreneur Performance				Turnover Intentions			
Predictor	*b*	*se*	*p-value*	*95% CI*	*b*	*Se*	*p-value*	*95% CI*
Self-Efficacy	0.12	0.13	0.36	-0.14, 0.37	-0.16	0.17	0.34	-0.49, 0.17
WES Center 1	0.37	0.29	0.66	-1.19, 0.82	0.56	0.78	0.45	-1.23, 1.21
WES Center 2	0.62	0.28	0.04	0.06, 1.17	-0.50	0.36	0.16	-1.20, 0.20
WES Center 3	-0.40	0.22	0.07	-0.83, 0.04	-0.57	0.28	0.04	-1.11, -0.02
WES Center 4	0.17	0.23	0.47	-0.29, 0.63	-0.18	0.30	0.56	-0.77, 0.42
WES Center 5	-0.91	0.26	<.001	-1.42, -0.40	0.64	0.32	0.05	0.01, 1.28
WES Center 6	0.36	0.34	0.30	-0.32, 1.04	0.31	0.43	0.48	-0.55, 1.17
WES Center 7	-0.39	0.38	0.31	-1.15, 0.37	-0.06	0.49	0.90	-1.03, 0.90
WES Center 8	0.36	0.32	0.26	-0.27, 0.98	-0.81	0.40	0.05	-1.6, -0.01
WES Center 9	-0.09	0.25	0.71	-0.58, 0.40	-0.37	0.31	0.24	-0.99, 0.25
WES Center 10	0.29	0.46	0.53	-0.63, 1.21	0.00	0.59	1.00	-1.17, 1.17
WES Center 11	-0.28	0.53	0.61	-1.41, 0.85	0.46	0.84	0.59	-1.38, 2.29
WES Center 12	-0.34	0.70	0.63	-1.77, 1.08	0.55	1.07	0.61	-1.66, 2.75
WES Center 13	-0.41	0.52	0.45	-1.55, 0.72	0.55	0.87	0.54	-1.41, 2.52

Table 3.
Predicting Entrepreneur Performance and Turnover Intentions from Risk-Taking

	Entrepreneur Performance				Turnover Intentions			
Predictor	*b*	*se*	*p-value*	*95% CI*	*b*	*Se*	*p-value*	*95% CI*
Risk-Taking	-0.04	0.06	0.51	-0.17, 0.08	0.03	0.08	0.73	-0.13, 0.18
WES Center 1	0.39	0.55	0.31	-0.56, 1.66	0.48	0.39	0.55	-1.05, 1.66
WES Center 2	0.66	0.28	0.02	0.10, 1.22	-0.55	0.35	0.12	-1.26, 0.14
WES Center 3	-0.39	0.22	0.08	-0.83, 0.05	-0.58	0.28	0.04	-1.14, -0.03
WES Center 4	0.15	0.23	0.53	-0.32, 0.61	-0.15	0.30	0.61	-0.74, 0.44
WES Center 5	-0.90	0.26	<0.001	-1.41, -0.38	0.61	0.33	0.06	-0.03, 1.26
WES Center 6	0.35	0.35	0.31	-0.33, 1.04	0.31	0.44	0.48	-0.56, 1.17
WES Center 7	-0.39	0.39	0.32	-1.17, 0.39	-0.09	0.50	0.85	-1.08, 0.89
WES Center 8	0.39	0.32	0.22	-0.24, 1.02	-0.83	0.41	0.04	-1.63, 0.03
WES Center 9	-0.12	0.25	0.64	-0.61, 0.37	-0.34	0.31	0.28	-0.96, 0.28
WES Center 10	0.17	0.46	0.71	-0.74, 1.09	0.17	0.59	0.77	-1.00, 1.33
WES Center 11	-0.29	0.53	0.60	-1.41, 0.85	0.47	0.84	0.59	-1.36, 2.30
WES Center 12	-0.32	0.70	0.66	-1.74, 1.11	0.50	1.08	0.65	-1.71, 2.71
WES Center 13	-0.40	0.53	0.46	-1.53, 0.73	0.54	0.86	0.55	-1.42, 2.50

Table 4.
Predicting Entrepreneur Performance and Turnover Intentions from Wasta

	Entrepreneur Performance				Turnover Intentions			
Predictor	*b*	*se*	*p-value*	*95% CI*	*b*	*Se*	*p-value*	*95% CI*
Wasta	0.27	0.08	0.001	0.11, 0.43	-0.11	0.11	0.33	-0.33, 0.11
WES Center 1	0.77	0.41	0.32	-0.88, 1.02	0.51	0.48	0.22	-1.34, 0.43
WES Center 2	0.52	0.27	0.06	-0.02, 1.06	-0.49	0.36	0.17	-1.20, 0.22
WES Center 3	-0.40	0.21	0.06	-0.82, 0.01	-0.57	0.28	0.04	-1.12, -0.02
WES Center 4	0.09	0.22	0.68	-0.35, 0.53	-0.13	0.30	0.68	-0.72, 0.47
WES Center 5	-0.93	0.24	<0.001	-1.42, -0.45	0.64	0.32	0.05	-0.00, 1.28
WES Center 6	0.28	0.33	0.39	-0.37, 0.92	0.34	0.44	0.43	-0.52, 1.20
WES Center 7	-0.40	0.36	0.27	-1.13, 0.32	-0.07	0.49	0.89	-1.03, 0.90
WES Center 8	0.43	0.30	0.15	-0.16, 1.02	-0.86	0.40	0.03	-1.65, -0.07
WES Center 9	-0.06	0.23	0.77	-0.53, 0.40	-0.36	0.31	0.25	-0.98, 0.26
WES Center 10	0.25	0.43	0.56	-0.60, 1.10	0.11	0.58	0.85	-1.03, 1.26
WES Center 11	-0.32	0.53	0.56	-1.44, 0.81	0.48	0.84	0.58	-1.36, 2.32
WES Center 12	-0.23	0.69	0.74	-1.63, 1.17	0.48	1.07	0.66	-1.73, 2.69
WES Center 13	-0.40	0.52	0.46	-1.54, 0.74	0.54	0.87	0.55	-1.43, 2.52

APPENDIX C: *Wasta* Survey Measure

To what extent do you agree or disagree with the following statements (SD=Strongly Disagree, D=Disagree, N=Neither Agree nor Disagree, A=Agree, SA=Strongly Agree):

1. My personal connections have helped me achieve success
2. The connections of my friends and family have helped me be successful
3. I receive more opportunities because of my personal network
4. I have not received much help from my network to achieve success
5. I have received support for my business because of who I know
6. I know people who try to get me resources for my business