HOW DO RESILIENCE AND SELF-EFFICACY RELATE TO ENTREPRENEURIAL INTENTIONS IN COUNTRIES WITH VARYING DEGREES OF FRAGILITY?
A SIX COUNTRY STUDY

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Abstract

Conflict, poverty, and weak institutions create hardships for people, societies, and economies worldwide. We investigate macro-societal state fragility and stability. Within this context, and from a microfoundations perspective, we further analyse individual-level constructs, and particularly the importance of entrepreneurial self-efficacy and individual resilience in forming the intent to start a business. With primary data from Afghanistan, Iraq, Peru, Tajikistan, the United States, and Finland, we find that, under stable conditions, a belief in one's entrepreneurial ability (entrepreneurial self-efficacy) is particularly essential. Conversely, under adverse conditions, as evident in fragile states, the ability to grow from adversity (individual resilience) is the more meaningful resource.

Keywords

entrepreneurial intentions, entrepreneurial self-efficacy, microfoundations, resilience, state fragility

INTRODUCTION

In recent years, due to wars, conflict, and persecution, more people than at any other time (since record-keeping began) have been forced to flee their homes and seek refuge and safety elsewhere, sometimes encountering further ethnic and religious violence and discrimination in these host communities (UNHCR, 2015). These adversities inflict hardship on the affected individuals, communities, and economies. Globally, violent conflict has been found to negatively impact entrepreneurial activity (Brück, Llussáf, & Tavares, 2011) because of reduced economic momentum, resource availability constraints, and socially irresponsible behaviours, even when entrepreneurial activity is needed for growth (Solymossy, 2005).

Weak and inefficient political, regulatory, and economic institutions hurt an individual's ability to create linkages through networks, and negatively affect venture growth and innovation (Batjargal et al., 2013; Raza et al., 2020). Further, in times of conflict and insecurity, entrepreneurial talents get spent in destructive and wealth-destroying ways (Desai, Acs, & Weitzel, 2013), such as the opium drug trade (e.g. Afghanistan) or through piracy at sea (e.g. Somalia). From the viewpoint of theories developed in industrialized economies, it may seem paradoxical that positive forms of entrepreneurship transpire in adverse, resource poor, and even dangerous environments. Because of this, little is known about the interplay of societal level factors and individuals' entrepreneurial tendencies, which is a gap we aim to address in this paper.

We therefore specifically investigate the relationships among micro-level constructs — individual resilience, entrepreneurial self-efficacy (ESE), and intentions to start businesses — and the macro-level construct of state fragility, defined as the degree to which 'state power is unable and/or unwilling to deliver core functions to the majority of its people: security, protection of property, basic public services, and essential infrastructure' (Ault & Spicer, 2014; Ault, 2016; Engberg-Pedersen, Andersen, & Jung, 2008: 22). Fragility can be a result of events, such as a war, as well as ongoing conditions, such as chronic underinvestment in public services. We explain how individuals' entrepreneurial cognitions, known as the microfoundations of entrepreneurial activity, develop differently depending on state-level fragility. Microfoundations research refers to locating causes of a phenomenon at a level of analysis lower than the phenomenon itself, to accurately understand it (Coviello, Kano &

Liesch, 2017: 1155).

An individual's resilience and ESE are two key aspects of entrepreneurial thinking that matter for entrepreneurial intentions across contexts. ESE is the degree to which an individual believes that he or she can perform the roles and tasks of an entrepreneur (McGee et al., 2009). Despite it being accepted as arguably the most commonly studied positive cognitive antecedent of entrepreneurial decisions, a belief in one's own ability may, under particular circumstances, simply not be enough. Resilience has more recently drawn the attention of business scholars and continues to gain traction (Corner, Singh & Pavlovich, 2017; Bullough, Renko & Myatt, 2014; Shepherd, Saade & Wincent, 2020). In entrepreneurship, resilience has been conceptualized and defined in several ways, such as resistance or adaptation at the level of an entrepreneurial firm, individual, region, or community, or as a process of adaptation, recovery, and transformation following a failure (Korber & McNaughton, 2018). In this study, we view resilience as the ability to recover and positively adapt within the context of adversity in pursuit of personal growth (Muhamad et al., 2020; Sinclair & Wallston, 2004). The positive emotions associated with resilience enable individuals in high-risk situations to experience positive outcomes by exercising resilience (Richardson, 2002; Tedeschi & Calhoun, 2004), which is especially useful for starting a new business under adverse conditions. By focusing on self-efficacy and resilience we draw attention to the microfoundations of entrepreneurial thought and action. In so doing, we are informed by entrepreneurship research, which attends to individual-level influences, while explaining variation across countries in how and why new enterprises are conceived (Coviello et al., 2017).

Our research questions are: How are the cognitive resources of resilience and entrepreneurial self-efficacy (ESE) related to entrepreneurial intentions? And, how does this relationship vary based on an individual's macro-level environment? We analyse and present primary survey data that we collected from 1,071 individuals in Afghanistan, Iraq, Peru, Tajikistan, the United States, and Finland between 2010 and 2012. These countries represent a spectrum of state fragility, from some of the most stable to some of the most fragile contexts in the world.

Our research extends recent scholarly work that specifically explores entrepreneurial attitudes and adversity (Bullough & Renko, 2017; Desai et al., 2013; Shepherd et al., 2020). Recent work on state fragility and entrepreneurship that examines conflict, poverty, government

legitimacy, rule of law, lacking institutions (Amorós et al., 2019; Ault & Spicer, 2014; Webb et al., 2020), and positive entrepreneurial responses during times of adversity (Branzei & Abdelnour, 2010; Bullough et al., 2014; Rindova, Barry & Ketchen, 2009), in particular sets the stage for our study. By locating the antecedents of firms' emergence at the individual level, and examining how this differs across national contexts, our micro-macro-perspective provides a novel insight on how fragile versus stable contexts relate to individual interests and desires, while framing the possibilities for action.

SOCIETAL-LEVEL CONTEXT AND ENTREPRENEURIAL COGNITIONS

Macro-Societal Entrepreneurship Research

Extant research and empirical evidence suggest that societal-level adversities may, at times, provoke an entrepreneurial response, sometimes referred to as necessity entrepreneurship or push factors (Amorós et al., 2019; Wennekers et al., 2005). An overall review of the research on the contextual environment and entrepreneurship suggests that adversity negatively impacts people's willingness to exert long-term effort or invest resources behind uncertain endeavours such as new business activities (Brück et al., 2011; Bullough et al., 2014; Desai et al., 2013; McKelvie, Haynie, & Gustavsson, 2011; Solymossy, 2005; Webb et al., 2020).

Researchers have employed the theoretical construct of state fragility to address entrepreneurship in adverse environments. As Kolk and Lenfant (2015) explain, the concept of fragile states is related to conflict, poverty, weak or absent institutions, and a lack of government legitimacy and rule of law. Ault and Spicer's (2014, 2016) research on microfinance shows that state fragility can lead to greater difficulty in growing a client base (Ault & Spicer, 2014), and makes it more costly to serve the poor (Ault, 2016). The state shapes both institutional hazards and opportunities for business-led efforts to combat global poverty (Ault and Spicer, 2014, 2016). Other work on state fragility has addressed microloan recipient performance and failure (Bruton, Khavul, & Chavez, 2011; Bruton, Ahlstrom, & Li, 2015), violence, planning, resources, new business survival (Hiatt & Sine, 2014), conflict and war, the strain on the economy and access to resources, and socially-destructive behaviours (Brück et al., 2011; Desai et al., 2013; Solymossy, 2005).

Institutional theory has, thus, been used to understand the behaviour of entrepreneurial companies under adversity (Bowen & DeClercq, 2008; Webb et al., 2009). Institutional voids — the absence of specialized intermediaries, regulatory systems, and contract-enforcing mechanisms in emerging markets — are an outcome of conflict and contradiction among local political, community, and religious spheres (Mair, Marti, & Ventresca, 2012) and hamper the implementation of business strategies (Mickiewicz & Olarewaju, 2020). Weak, fragile states with institutional voids provide conditions for market exclusion of vulnerable persons as existing rules of the game, such as corruption, inequality, ethnic persecution, and limited property rights, limit access to and participation in markets. Institutional support, in the form of more active governance, characterised by higher levels of taxation and government spending, helps foster social enterprises (Stephan, Uhlaner, & Stride, 2015). Entrepreneurial activities taking place in the informal economy fall within informal institutional boundaries, but outside formal institutional boundaries, such as laws and regulations (Webb et al., 2009).

From an economic perspective, we know that the economy–entrepreneurship relationship is complex and nonlinear. Studies have suggested that the level of entrepreneurship is lower in poor countries, where business-supporting infrastructure and institutions are lacking, and in developed countries with abundant job opportunities, but highest in mid-level developing countries, where infrastructure and institutions are established enough to encourage entrepreneurship, but job opportunities are lacking (Acs & Szerb, 2014; van Stel, Carree, & Thurik, 2005; Wennekers et al., 2005).

Overall, this body of research shows that macro-societal forms of fragility and stability have a bearing on entrepreneurship. Even though they typically curb entrepreneurship, we also know that some individuals and small firms respond entrepreneurially under challenging conditions (Branzei & Abdelnour, 2010; Bullough et al., 2014; Rindova et al., 2009). To explain this, the cognitive appraisals driving start-up decisions are analysed, indicating their progression from self-efficacy and resilience, and the influence of adversity in the environment.

Entrepreneur Cognitive Appraisals

Cognitive structures are networks of associations that organize and drive how people appraise things (Estes, 1975). Entrepreneurial cognition is defined as ‘the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation,

venture creation, and growth (Mitchell et al., 2002: 97)'. Previous studies in international contexts have examined entrepreneurial cognition and decision-making among university students in developing countries (Iakovleva, Kolvereid, & Stephan, 2011), international entrepreneurs (Muzychenko, 2008), and in cross-cultural contexts generally (Begley & Tan, 2001).

As a cognitive construct, intentions have been long established to be reliable predictors of behaviour across domains (Armitage & Conner, 2001), including entrepreneurship (Weiss, Anisimova, & Shirokova, 2019). Entrepreneurial intent is a cognitive state: a self-acknowledged decision by a person that they aim to set up and own a business venture (Thompson, 2009), and it is the beginning of the new business creation process (Meoli et al., 2020). The notion of entrepreneurial intention applies to the beginnings of all kinds of organizations. Hence, by studying intentions we are not limiting ourselves to any specific type or size of business (could be necessity-, opportunity-, subsistence-, high-growth, self-employment, or something else). We define our focus more by the point along the entrepreneurial decision process—in this case of intent, early stage. Not all intended entrepreneurial activities will materialize into formal businesses, and enterprising activity does not necessarily follow from an explicit intent to start a business, but instead from the basic need to survive through transacting (Rawlence, 2016). However, a bulk of entrepreneurs' actions around the world, regardless of their contexts, are preceded by cognitive processes where entrepreneurial intention plays a key role (Bird, 1988).

Self-efficacy has been established as an important cognitive antecedent of entrepreneurial intent (Hsu et al., 2019; Liñán & Chen, 2009; Zhao, Seibert, & Hills, 2005), while the role of resilience, to a lesser extent, has also been highlighted (Bullough et al., 2014). Self-efficacy and resilience are both elements of psychological capital, that is, an individual's positive psychological state and way of thinking (Luthans et al., 2006). In this study we explain how, depending on the macro-environment, self-efficacy and resilience relate differently to entrepreneurial intention.

Self-efficacy and entrepreneurial intentions: Self-efficacy is defined as confidence in one's ability to implement all the actions required to perform well (Bandura, 1997). Self-efficacy specific to a given activity domain is instrumental in predicting performance in that domain

(Bandura, 1986). Accordingly, ESE is the degree to which individuals believe they can perform entrepreneurial roles and tasks (McGee et al., 2009). Various theoretical perspectives, such as the theory of planned behaviour (Ajzen, 1991; Zellweger, Sieger, & Halter, 2011) and social cognitive theory (Bandura, 1986; Zhao et al., 2005), have been applied in the extant research to examine the effects of ESE on entrepreneurship, including entrepreneurial intentions. ESE has been consistently associated with an individual's intent to engage in entrepreneurship (Sequeira, Mueller, & McGee, 2007; Zhao et al., 2005; Zellweger et al., 2011).

Resilience and entrepreneurial intentions: Following previous scholars (Dyer & McGuinness, 1996; Richardson, 2002; Sinclair & Wallston, 2004; Muhamad et al. 2020), we conceptualise resilience as the ability to recover from, or positively adapt to, a context of adversity, leading to the pursuit of personal growth. Resilient individuals believe in their growth potential through dealing with adversity and look for creative options and ways to compensate for losses (Sinclair & Wallston, 2004). Resilience is therefore seen as a cognitive ability that develops over time through continually handling risk, trauma, fear, and hardship (Sutcliffe & Vogus, 2003).

Resilient individuals, instead of experiencing pronounced distress reactions following traumatic events or periods of adversity, rebound and adapt positively in pursuit of personal growth, harmony, and a better life (Dyer & McGuinness, 1996; Richardson, 2002; Sinclair & Wallston, 2004). Consequently they often view entrepreneurship as emancipatory, a breaking free from perceived constraints in the pursuit of dreams and change in the world (Rindova et al., 2009; Shepherd et al., 2020). People need resilient abilities to access essential cognitive resources that drive their adaptability and creativity (Fredrickson, 2001; Fredrickson et al., 2003; Sinclair & Wallston, 2004). Resilient individuals engage in entrepreneurial activity to purposefully target their energy toward something positive, like providing for their family. Resilient individuals have greater personal resources to deal with challenges, hence they have the willingness and desire to take positive action through, for example, business ownership (Youssef & Luthans, 2007). Even if business ownership is just one avenue through which one's resilient abilities can materialize in positive thought and action (Youssef & Luthans, 2007), it is remarkable that the very components of resilience (positive emotions, creativity, and pursuit of personal growth) can directly map onto the willingness, determination, and anticipated effort to start a business, endemic to entrepreneurial intentions (Bird, 1988; Thompson, 2009; Liñán & Chen, 2009).

Based on our theoretical rational, the model we develop for empirical testing is depicted in Figure 1.

— Insert Figure 1 about here—

Macro-Societal Adversity as a Moderator in Entrepreneurial Thinking

Entrepreneurs' cognitive processes that may eventually culminate in starting a business differ across stable and adverse countries (Young, Welter, & Conger, 2018). For example, entrepreneurs confident in their pitching skills have self-efficacy in this domain. They could develop a strong desire and will (intent) to go and pitch their business idea to potential investors, with expectations of landing an eventual investment. Previous research from stable and safe environments has largely focused on scenarios, such as this, where the individual can expect their level of skill to be positively related to the likelihood of receiving funding. However, in many locales around the world, an individual's skill, and the related belief in their skill, may have little bearing on an outcome such as receiving funding. The allocation of funds to entrepreneurs may be predetermined based on bribes and kinship, whereby the pitch event simply serves as a façade. Entering a public fundraising arena may not be safe because of one's race, gender, ethnic background, or disability (Bullough, Renko & Abdelzaher, 2017). Alternatively, there may be no money available for private investment, thus precluding the highly self-efficacious entrepreneur in need of funding from pitching their business in the first place. These are possible scenarios that dampen the motivational force of self-efficacy, so often emphasized as a key driver of entrepreneurial thinking. Distinct from self-efficacy, the importance of entrepreneur's resilience may be particularly pronounced in challenging environments.

Prior research has shown resilience to be particularly useful when one has to deal with a myriad of adversities, such as physical limitations and health problems (Sinclair & Wallston, 2004), terrorist attacks (Fredrickson et al., 2003), or business failure (Corner et al., 2017). Resilience is associated with positive emotions that protect individuals from reacting negatively to adversity, while building a range of personal resources, such as health, longevity, friendships, support networks, expert knowledge, intellectual complexity, optimism, and creativity (Fredrickson, 2001; Fredrickson et al., 2003). Life in adverse environments is difficult, thus

the cognitive properties of resilience are important for human functioning. The positive emotions associated with resilience (Fredrickson et al., 2003) enable individuals in high-risk situations to plan for, and experience, positive outcomes through leveraging their resilient abilities (Richardson, 2002; Tedeschi & Calhoun, 2004). Resilience is especially useful for individuals who are attracted to starting a new business.

Since resilience can be thought of as a resource that individuals are able to mobilize under adversity, in a time of stress (Hobfoll, 2002), it follows that the more adversity there is, the more important resilience is for having the wherewithal to positively adapt and grow (Sojo & Guarino, 2011). Adversities prevalent in fragile state contexts, such as violence, infrastructural deficiencies, or internal conflict, increase the general challenges that people face, making resource acquisition difficult and negatively impacting on the purchasing power of local markets. While no environment is free of challenges, and we believe some degree of resilience is always important for developing the intent to start a business, it should be particularly important for entrepreneurship in adverse environments. Resilience becomes essential where war, insecurity, crime, and inequality compound the challenges already associated with entrepreneurship anywhere in the world (Branzei & Abdelnour, 2010; Bullough et al., 2014; Corner et al., 2017). For individuals to form the intent to start a new business under conditions of adversity, they need to work through challenges, look for creative options, and believe in their ability to rebound and grow. Therefore, we hypothesize:

> *H1: The more adverse the operating environment, the stronger the positive relationship between an individual's resilience and intention to start and own a business.*

As hypothesized, resilience is important for the decision to pursue entrepreneurship under any circumstances (Bullough et al., 2014), but its role is particularly significant in a challenging business environment. Entrepreneurial self-efficacy reveals different trends under severe adversity. A key assumption behind the motivational force of self-efficacy is that a self-efficacious individual, who believes in his/her skills and abilities, also believes that acting upon those skills and abilities leads to desired outcomes (i.e. the performance-outcomes relationship). According to Bandura's social cognitive theory (1997, p. 22), 'performance is an accomplishment' and 'an outcome is something that follows from it. In short, an outcome is the consequence of a performance, not the performance itself'. When an environment distorts the expected relationship between task performance, such as building a business from the

ground up, and outcomes, such as financial, social, and psychological rewards from business ownership, individual self-efficacy is less important in entrepreneurial decisions than previous research in stable contexts may have suggested.

Indeed, self-efficacy works in concert with other forces, like societal adversity, to influence entrepreneurship (Bacq et al., 2017; Hsu et al., 2019; Tumasjan & Braun, 2012). This focus on interactive effects supports Bandura (1997, p. 23) who suggests that there 'is no single relationship between efficacy beliefs and outcome expectancies. It depends on how tightly contingencies between actions and outcomes are structured, either inherently or socially, in a given domain of functioning'. It is thus important to consider the possibility that high levels of self-efficacy may lead to different outcomes for entrepreneurs, depending on the context (Bacq et al., 2017). The motivational ability of self-efficacy may be diminished when the consequences of actions are unclear, such as under conditions of severe societal adversity. When potential entrepreneurs observe that hard work does not pay off, and that the long-term prospects for business activity are discouraging, their belief in their entrepreneurial skills has little bearing on actual start-up intentions. This does not necessarily imply that confidence in abilities is lowered, but rather the effective ability of self-efficacy to drive entrepreneurial intent may be weaker under adversity. For example, one of the key entrepreneurial tasks for a new business is assembling resources, such as funding and human resources. In a highly corrupt and adverse environment, an entrepreneur may believe in her or his ability to raise capital, yet remain unmotivated to pursue fundraising efforts if acquired capital is likely to be needed for bribes of corrupt officials. Furthermore, in unsafe environments around the world, start-up capital or income generated by the business may expose individuals, or family members, to theft, robbery, or even kidnappings. If such consequences are likely, potential entrepreneurs may remain unmotivated to perform these entrepreneurial actions, even if they believe in their abilities to do so, thus their entrepreneurial intentions may not be as closely related to their ESE as indicated in the extant research. Therefore, we hypothesize:

> *H2: The more adverse the operating environment, the weaker the positive relationship between an individual's entrepreneurial self-efficacy and intention to start and own a business.*

METHODS

The contextual environment in our research, including our moderating variable, state fragility (adversity), is represented by the nation-state. We used secondary data, the Fragile States Index (FSI) score, to decide which countries to include in our study and to assess their level of fragility. FSI is developed and provided to the public through a partnership between the Fund for Peace and Foreign Policy Magazine (prior to 2014 it was called the Failed States Index; Fund for Peace, 2016; Hendry & Messner, 2014). In this empirical study of three groupings of countries, we compare the strength of the relationship between: first, self-efficacy and intent; and second, resilience and intent. Iraq and Afghanistan represent the most fragile states according to FSI, while Peru and Tajikistan have average scores on fragility, and United States and Finland are among the most stable (least fragile) countries in the world[1]. In each country, we collected primary survey data from the general population to assess individual-level resilience, ESE, and entrepreneurial intent.

Primary Data Collection

Primary survey data were collected from 2010 through 2012 in Afghanistan (n=164), Iraq (n=146), Tajikistan (n=89), Peru (n=265), United States (n=186) and Finland (n=221) (Total n=1,071). We targeted adults ages 18–50. Surveys were translated from English into each country's primary business language by a native speaker, and then back translated into English by a different native speaker, in order to ensure conceptual equivalence (Mullen, 1995). Data was collected by individual consultants in host countries using electronic (Finland), a combination of electronic and paper-and-pencil (the U.S.), or paper-and-pencil only surveys (all other countries). In Finland, where practically every working-age person has online access (BBC, 2010), the survey was distributed by posting it on the country's most popular public online discussion forum (www.suomi24.fi).

[1] A number of other empirical measures have been designed to operationalize macro-societal state fragility and stability, including the Worldwide Governance Indicators (WGI) database developed by Kaufmann, Kraay, and Mastruzzi (2009) and used, among others, by Ault and Spicer (2014). The different measurements of macro-societal state adversity and stability are similar conceptually but differ in terms of technical details or quantitative cut-offs. For example, FSI covers a broader range of conceptual adversity dimensions than WGI does (Mata & Ziaja, 2009, p. 25). The ordering of our six countries based on adversity remains the same whether using the WGI or FSI.

In Afghanistan, Iraq, Tajikistan, and Peru, we hired individual consultants in each country to survey participants. To ensure the integrity of the data, the research team relied on known and trusted people as consultants. They collected surveys with a paper-and-pencil format in public areas, such as restaurants, shopping centres, markets, and higher education institutions. Data collection began on university campuses, before moving on to non-university and public locations, which explains why many respondents had higher levels of education than the general population in each country. It is also more likely that educated individuals answer surveys (Tolonen et al., 2006), further explaining the high education level in our sample. The study would certainly have benefitted from data samples that better represented the less educated people, but safe and affordable access was an issue. Entrepreneurial activity tends to be higher among college educated individuals worldwide (Reynolds et al., 2005), making it important to interpret our results as reasonably representative, albeit imperfect. In all our empirical models, we control for college education, so our main results regarding self-efficacy, resilience, adversity, and entrepreneurial intentions hold after the effect of college education has been accounted for.

Where possible, the consultants also asked respondents to recommend other participants to complete the survey. This snowball sampling procedure (Gilbert, 1993) was the only viable data collection method in countries where foreign access to many areas is strictly limited, reliable directories are scarce, people are likely to distrust a request for personal data from a stranger or foreigner, and data collection funds and resources are constrained (Jones Christensen et al., 2017). Recommended best practices were followed in the recruitment, training, and follow-up with survey collection consultants (Jones Christensen et al., 2017).

Conditions in countries dealing with ongoing conflicts presented dangers for the research team. Cultural limitations, such as participants' lack of experience with survey and social science, their lower level of literacy, and attitudes of privacy or stranger nuisance, had to be overcome. Because of these challenges, the survey was short and uncomplicated, while still capturing as many relevant constructs as possible. A shorter scale was utilised even when a more complex version was available. Appendix 1 provides further details on data collection in each country.

We also attempted a second, Time 2, round of data collection by electronically surveying previous participants in each country. However, response rates were too low and thus the data

was not usable for analysis in five of the six countries. The follow-up data collected from Finland (n=60) was most successful, where the positive correlation coefficient between entrepreneurial intentions at Time 1 and completed entrepreneurial behaviours at Time 2 (six months later) is 0.50 (p =.000). This supports the assertion that our main dependent variable (entrepreneurial intent) is a good predictor of subsequent entrepreneurial behaviours, as suggested in the literature (Kautonen, Gelderen, & Fink, 2015; Meoli et al., 2020).

Measures

Dependent variable

Survey respondents in each country rated their *entrepreneurial intent* by completing a 6-item scale based on Liñán and Chen (2009). Respondents were asked to evaluate, among others, their readiness, determination, goals, and intended effort, relating to entrepreneurship (7-point scale, from 'total disagreement' to 'total agreement'). Liñán and Chen (2009) developed this scale and initially tested its reliability across a sample of 387 university students in Spain. The instrument was then refined and its psychometric properties tested on participants in a business plan competition in Taiwan (N=132). Since its publication, this scale has been used widely in entrepreneurship research (Bae et al., 2014).

Independent variables

To measure individual *resilience,* we used a 4-item scale (Sinclair and Wallston, 2004). Participants were asked to consider how certain statements — creativity dealing with difficult situations, belief in personal control over reactions, positive growth after adversity, and proactivity in loss replacement — described their behaviour (5-point scale, from 'does not describe me at all' to 'describes me very well'). Sinclair and Wallston (2004) tested the reliability and validity of their scale on individuals with rheumatoid arthritis (N=230), and this was later extended to the context of entrepreneurship (Perez-Lopez et al., 2016).

To measure *entrepreneurial self-efficacy (ESE),* we used a 4-item scale (Zhao et al., 2005). Respondents were asked to indicate their level of confidence (5-point scale) in being ready to identify business opportunities, create products, think creatively, and commercialize. Zhao and colleagues (2005) tested the reliability and validity of their scale in a sample of 265 MBA students at five different universities across the United States.

Moderating variable

We used the country's Fragile States Index (FSI) score to assess the level of adversity in the operating environment. The years for the FSI scores used as a moderator corresponded with the years in which our primary surveys were collected: USA mean of 2010–2012, Afghanistan 2010, Finland 2011, Iraq 2012, Tajikistan 2011, Peru 2011. The FSI (See Table 1) is based on twelve indicators of state vulnerability, organized into social (4 indicators), political and military (6 indicators), and economic categories (2 indicators), developed from a wide review of the relevant literature (Fund for Peace, 2016). A country's degree of adversity can shift in response to various institutional changes (Baliamoune-Lutz, 2009), and the FSI accounts for this by collecting data on a continuum and with the ability for countries to move up or down the score ranking from year to year (Hendry & Messner, 2014). As a composite index, this measurement is consistent with our theoretical arguments about adversity comprising multiple aspects. A higher country FSI score indicates a more fragile state; when ordered according to FSI scores, our sample countries (and related FSI scores) are Afghanistan (109.3), Iraq (104.3), Tajikistan (88.3), Peru (73.6), USA (34.9), and Finland (19.7).

— Insert Table 1 about here—

Control variables

Individual-level demographic factors such as gender (males=1, females=2), age (continuous variable), college education (dummy variable), number of businesses previously owned (dummy for having owned at least one business in the past), and years of work experience (to achieve normality, work experience of over 10 years was recoded as '10') were controlled for because they may have systematic relationships with self-efficacy, resilience and entrepreneurial intentions. Entrepreneurial activity tends to be higher among college educated individuals worldwide (Reynolds et al., 2005), which therefore somewhat supports our highly educated sample. Nonetheless, we have an oversampling of college educated people in some of our countries, which makes controlling for college education important.

Many people may be 'pushed' to self-employment in the absence of other work opportunities (Amorós et al., 2019), and their intentions may differ from those who are pursuing more lucrative business opportunities. Hence, we also control for the opportunity/necessity motivation (dummy) as measured with an item adopted from the Global Entrepreneurship

Monitor studies (Reynolds et al., 2005): 'Are you involved in this start-up to take advantage of a business opportunity or because you have no better choices for work?'. Responses of 'opportunity' were coded as '1' for opportunity entrepreneurship; all other responses were coded as a zero.

Reliability and Validity

All our survey measurements have been tested and validated in prior research and, as expected, they demonstrated reliability and validity in each of our country samples (See Table 4). Descriptive statistics by country are provided in Table 2 and correlations are provided in Table 3.

—Insert Tables 2 and 3 about here—

We follow Steenkamp and Baumgartner (1998) and Hult et al. (2008) for testing measurement invariance to examine whether our survey measurements are comparable between countries. If a measure is variant, conclusions based on it are biased and misleading. Measures collected in the surveys (entrepreneurial intent, resilience, and ESE) were analysed simultaneously to test their psychometric properties. To demonstrate measurement invariance, it is necessary to establish configural invariance and metric invariance (equal intercepts) for the measurement instruments (Steenkamp & Baumgartner, 1998). Configural invariance requires that all factor loadings be significantly different from zero in all six countries, and the correlations between the factors are significantly below unity in all six countries (Steenkamp & Baumgartner, 1998: 80). The absolute fit indexes indicate that the proposed measurement model fits the data reasonably well in Afghanistan (CFI=0.83; GFI=0.83; RMSEA=0.052), Iraq (CFI=0.99; GFI=0.86; RMSEA=0.054), Tajikistan (CFI=0.83; GFI=0.88; RMSEA=0.052), Peru (CFI=0.99; GFI=0.89; RMSEA=0.032), the U.S. (CFI=87; GFI=0.86; RMSEA=0.042), and Finland (CFI=0.94; GFI=0.89; RMSEA=0.051). Hence support for configural invariance was established. Factor loadings are reported in Table 4. Metric invariance was tested by constraining the factor loadings in the six groups to be equal and comparing this model with one in which the factor loadings were free to be estimated across groups. This test revealed no significant differences between the two models ($\chi 2$ (55) = 175.69, $p>0.1$), thus suggesting that there was no difference in the measurement structure between the six groups. In sum, cross-national invariance of the measures used was supported. Items were averaged for each scale to obtain composite scores for the various constructs. Given that measurement invariance is

established, we can validly estimate the relations between the constructs and test the hypotheses in a cross-national setting.

The individual-level data we analysed all come from the same survey. However, the hypothesized moderation effects, where the effect of one variable is assumed to depend on the level of another variable, are not subject to a common method bias (Siemsen, Roth, & Oliveira, 2010), especially when our moderator comes from a secondary data. Still, we accounted for the possibility of bias by following recommended best practices in the design of the study's procedures (Chang, Witteloostuijn, & Eden, 2010), and through statistical controls (Cote & Buckley, 1987; Podsakoff et al., 2003).

Construct validity was assessed based on the Cronbach's alpha, composite reliability (CR), factor loadings, and average variance estimates (AVE) (see Table 4), and all results met commonly accepted thresholds (Hair et al., 2010; Fornell & Larcker, 1981). The assessment of discriminant validity (squared AVE vs. construct correlations) shows that all three latent constructs explain more of the variance among their own items than they share common variance with each other (Table 5), with good discriminant validity of latent variables and construct independence.

—Insert Tables 4 and 5 about here—

HYPOTHESIS TEST RESULTS

To test our hypotheses, we employed several techniques, including cross-country partial least squares (PLS) (Ringle, Wende & Will, 2005), a multi-group analysis, and moderated regressions. PLS has been used in cross-country data when the number of groups (countries) is small (Batjargal et al., 2013; Brettell et al., 2008) and when intra-cluster correlation is low, which is the case in our data. Both hypotheses were supported with this method (see Table 6 and Figure 2): 1) strong resilience-intent relationship in Afghanistan and Iraq (β=0.429, p =0.000; β=0.348, p =0.000) and weaker and non-significant relationships in Finland and USA (β=0.083, p = 0.146; β=0.073, p = 0.393 respectively) (H1); and 2) strong self-efficacy-intent relationship in Finland, the U.S., and Peru (β=0.432, p =0.000; β=0.384, p =0.000; β=0.344, p =0.000 respectively) and weaker in Afghanistan, Iraq and Tajikistan (β=0.233, p =0.009; β=0.308, p =0.000; β=0.296, p =0.043; respectively) (H2). Figure 2 shows the countries'

patterns organized by FSI score.

—Insert Table 6 about here—

—Insert Figure 2 about here—

Next, we completed a multi-group analysis, reported in Table 7. Table 7 presents the PLS path coefficients by country group, divided into high, medium, and low categories of adversity. Results indicate support for both hypotheses. The structural model fits well ($\chi2$ = 1154.22; df = 498; CFI = 0.95; RMSEA = 0.04; SRMR = 0.07). The fit of the structural model with each path constrained to be equal was then calculated and shows good fit ($\chi2$ = 1209.06; df = 529; RMSEA = 0.04; SRMR = 0.08). However, this is inferior to that of the unconstrained structural model ($\Delta\chi2$ = 54.84, p =0.000). As a conclusion, we have evidence of moderation by group, and support for both hypotheses 1 and 2. Results indicate that resilience has a significant effect on entrepreneurial intentions in the high adversity group (β = 0.328, p =0.000) as well as in the medium adversity group (β = 0.195, p =0.000), but not in the low adversity group (β = 0.061, p = 0.125). The critical ratio for difference (CRD) shows that these differences are significant (at the α =0.05 level and higher than 1.96). The effect of resilience is larger in the high adversity group than in medium adversity group (CRD=2.563, p =0.008) and low adversity group (CRD=3.047, p =0.000).

Table 7 also shows that ESE has a significant effect on entrepreneurial intentions in all three country groups: low adversity (β = 0.421, p =0.000), medium adversity (β = 0.333, p =0.000), and high adversity (β = 0.246, p =0.000). Furthermore, the effect of ESE is significantly larger in the low adversity group than in the high adversity group (CRD= 2.545, p =0.01). The effect of ESE on intentions is also larger in the medium adversity group than in the high adversity group, but this difference is not significant (CRD= 1.476, p =0.107).

—Insert Table 7 here—

We also pooled the data from the six countries together and ran a moderated regression with FSI as a moderator in a PLS analysis. We found that both interaction effects (adversity x resilience and adversity x entrepreneurial self-efficacy) are statistically significant. In a more adverse operating environment, the positive relationship between an individual's resilience and her/his intentions to start and own a business becomes strengthened (β= .145, p =.001, support

for H1). At the same time, in this more adverse operating environment, the positive relationship between an individual's ESE and his/her intentions to start and own a business becomes weaker (β= -.189, *p* =.000, support for H2).

Finally, we also ran a *post hoc* analysis to test our hypotheses in a reduced dataset, utilizing random deletion of cases, where the educational levels are a better match with the educational data in each country, and the gender distribution in each country sample is more balanced. With this, we repeated our PLS multigroup analysis. Despite the reduced sample size causing us to lose almost 20 percent of our sample and weakening the statistical power of our analyses, the results of our hypothesis tests remain the same.

DISCUSSION

Findings and Theoretical Contributions

By asking purposeful questions about how cognitive resources are related to entrepreneurial intentions and how these relationships vary based on macro-level environments, and then carefully examining different country-level (fragile and stable) contexts in which people live and work, we have changed our understanding of the factors that impact people's intentions to start new businesses. Specifically, we find that in highly adverse contexts, entrepreneurial self-efficacy is less important than resilience in the formation of the intent to start a business, but in stable countries the reverse is true. As such, adversity in a macro-level context independently moderates the two cognitive resources of resilience and ESE as antecedents of entrepreneurial intentions. This main finding challenges the supremacy of self-efficacy in entrepreneurial cognition research. More specifically, previous research on this topic has paid little attention to Bandura (1986) who highlights that the importance of self-efficacy is not uniform across contexts, and the motivating force of self-efficacy only works as long as one can expect to successfully complete a task with the desired consequences.

Many, if not most, of the world's aspiring entrepreneurs face an operating environment characterized by significant adversity arising out of breakdowns in the rule of law, public services, and security, involving refugees, human rights, terrorism, and war. Yet, we still know little about whether such adverse environments present boundary conditions for theories, which have been primarily developed and tested in stable settings. The results of our study show that

boundary conditions indeed exist. We therefore encourage further work that pushes our theoretical understanding in unconventional contexts forward. In entrepreneurial cognition research, there is considerable scope for refining our research with a contextual lens (Welter, 2011).

Our findings align with the developing body of scholarship on the importance of entrepreneurial resilience under adversity (Branzei & Abdelnour, 2010; Bullough et al., 2014; Corner et al., 2017; Rindova et al., 2009; Shepherd et al., 2020). We provide one perspective into the role of individual resilience as a contributor to emancipatory entrepreneurship, expanding the work of Rindova and colleagues (2009). Future research should look to uncover additional perspectives that further clarify why resilience is so important for entrepreneurs.

Our findings also contribute to state fragility research by directing attention to its microfoundations. Our modelling of adversity as a background condition that shapes people's thinking about getting involved in entrepreneurship brings individual agency centre stage in research that has previously been focused on structure (Cardinale, 2018; Amorós et al., 2019). We reveal some of the individual-level micro-mechanisms through which the effects of fragility have been previously observed at the more aggregate level, such as for organizations (Ault, 2016; Kolk & Lenfant, 2015) and industries (Ault & Spicer, 2014) where institutional structures often directly relate to entrepreneurship-related outcomes (Bowen & De Clercq, 2008; Stenholm, Acs, & Wuebker, 2013; Stephan et al., 2015). Following the microfoundations perspective, we find that the environment frames entrepreneurial thinking, leading to distinct ways in which potential entrepreneurs develop start-up intentions across adverse and stable societies (See also Luthans & Ibrayeva, 2006).

Practical Implications

In framing the practical implications of our work, we would first like to emphasize that the purpose of our research is not to suggest that by training citizens to be more resilient, governments would not need to fix failing institutions. Healthy macro-level institutions are required for entrepreneurs to spur economic and societal progress (Urbano, Aparicio & Audretsch, 2019).

Some of the most obvious and intriguing implications of our findings concern entrepreneurship

education. Entrepreneur training programs in both stable and adverse environments can enhance entrepreneurial thinking by focusing on participants' feelings of mastery when approaching entrepreneurial tasks. Practice and experiential training can be especially important for increasing self-efficacy. Participants in these programs can learn from the example of others (Bandura, 1977) who have successfully built businesses during difficult times (Bullough et al., 2014). To positively impact self-efficacy, entrepreneurship education should give a realistic picture of what it takes to start a business, and the self-confidence that it is achievable (Wilson, Kickul & Marlino, 2007). Hands-on and experiential learning, practice with entrepreneurial activities, and exposure to relatable entrepreneurship success stories can all promote self-efficacy within new and would-be entrepreneurs (Bullough et al., 2014). Entrepreneurial tasks of building and running businesses should be represented as things that people can take on, over time, and with effort, strategy, learning, help from others, and patience.

Particularly in adverse contexts, entrepreneurship education should also stimulate and nurture resilience among participants. Findings from the extant research suggest that resilience can be developed (Coutu, 2002) and methods used by educators may influence this (Yeager & Dweck, 2012). Opportunities for participants to learn from the experiences and stories of others can be provided through guest speaking events and mentoring. Hearing from those who have survived and persevered through adverse conditions through developing their capabilities — and businesses — can, therefore, be quite motivating and empowering (Meyer, 1982; Richardson, 2002; Gonzalez-Lopez, Perez-Lopez & Rodríguez-Ariza, 2018). Building resilience among potential entrepreneurs in adverse environments encourages them to recognize, and take pride in, the everyday creative ways in which they manage difficult situations in their daily lives. By allowing individuals to realize that they are already controlling and altering the adverse circumstances they face, entrepreneurship can become a realistic way for them to take charge when experiencing challenges. Additionally, in teaching entrepreneurial resilience in adverse environments, we should embrace the emotional side of resilience. By fostering an environment where individuals honestly share their emotions when dealing with difficult situations, we reveal entrepreneurship as an emotional journey offering alternative in overcoming the losses they incur in life. Direct or vicarious experiences of failure and errors are particularly important for learning resilience as part of entrepreneurship training (Gonzalez-Lopez et al., 2018). By emphasizing the potential to change, we can prepare aspiring entrepreneurs to resiliently face emerging business challenges (Yeager & Dweck, 2012).

To that end, there are public policy and regulatory implications for making entrepreneurship easier for women growth in entrepreneurial self-efficacy and resilience. We know from prior research that women face gender-specific obstacles to securing capital for their businesses, which is a discouraging reality that has a negative impact on women's entrepreneurial activity (Bullough, Hechavarria, Brush, Edelman, 2019). Removing gender bias in funding practices, and incentivizing organizations to market existing financial products directly to women and attract more female investors, will make it easier for women access financial capital (Balachandra et al., 2019; Kanze et al., 2017; Wilson, 2016). This will in turn make entrepreneurship more achievable and attractive as a career choice, boost women's belief in their entrepreneurial competencies, and help women tackle new business challenges with resiliency, simply because structural obstacles are removed, or at least reduced.

Limitations

While the uniqueness of our data allows us to make an interesting contribution to the body of knowledge, data collection was nonetheless challenging given the adverse operating environments we were intentionally targeting. This limited the number of variables we could include in our study and the populations we could sample. These adversities also make longitudinal data difficult to collect, and we were ultimately unable to secure a second wave of data from the same respondents.

While our focus on entrepreneurial intentions allowed us to capture individuals' thinking prior to becoming business owners, before their thinking would be heavily influenced by activities in the business venture, our data were unable to detect enterprising activity that was not planned or intended. For example, Rawlence's (2016) account of African refugees highlights that the starting point for their ventures was not the intent to build a business, but rather to gain from simple barter. In such cases, the focus on entrepreneurial intentions may be irrelevant. Future research in adverse environments, like refugee camps, war zones frontlines, pandemics and health crises, or other devastated areas, should account for the fact that individual-level business activity can be a survival strategy, rather than a planned course of action. Qualitative research methods are particularly useful in conditions like this. Future qualitative research could also contribute to our understanding of how individuals interpret survey measurement items, such as those of resilience, in their own contexts.

CONCLUSIONS

Entrepreneurship is vital for economic development efforts and for peacebuilding, yet as a scholarly community we still know relatively little about the thinking of entrepreneurs in adverse conditions. The development of entrepreneurial intentions implies a willingness, even eagerness, of individuals to act towards bettering their standing in society, and to address the needs of stakeholders (customers and employees) around them. Even if those who have entrepreneurial intentions do not always go on to start businesses, this mindset still indicates that they are interested in doing something about their lives, economies, and communities (Rindova et al., 2009). For example, they are likely to be the ones rebuilding in the aftermath of war and terror. Individuals cannot just pack and move to more stable countries when adversities materialise, hence the importance of understanding how individual think about business ownership and development in accordance with adversity levels in the environment. These individuals are on the 'front lines' of developing their local and national economies, and their thinking and actions should be of primary interest to researchers looking to understand international economic development.

Individual-level research on entrepreneurial intentions from developing countries and adverse environments of the world has been severely lacking. Our study shows that to understand entrepreneurial thinking, we need to look at both the levels of adversity (fragility) and stability that exists in the operating environment, as well as individuals' cognitive resources (resilience) that allow them to persist in the face of such adversities, while believing in their entrepreneurial skills (self-efficacy). Our findings show that entrepreneurial self-efficacy and individual resilience are important factors that contribute to people's entrepreneurial intentions across environments. More specifically, we show that resilience is the more essential human resource to draw upon in adverse environments than entrepreneurial self-efficacy. Context really does matter. Further in-depth research that looks specifically at cognition in context is needed to better understand entrepreneurship internationally.

Our findings suggest two powerful implications: First, entrepreneurial training programs, as initiatives to spawn new business development and policies implemented by the public sector, would benefit from understanding the importance for potential entrepreneurs to believe in their

abilities and to be nurtured to learn and grow from adverse experiences. Two, scholars and individuals in less fragile and more stable areas of the world have a lot to learn from their entrepreneurial counterparts who live and operate businesses where high amounts of adversity and state fragility affect their daily lives.

REFERENCES

Acs, Z. J., & Szerb, L. (2014). *The Global Entrepreneurship and Development (GEDI) Index*. The Global Entrepreneurship and Development (GEDI) Institute. Retrieved from www.thegedi.org

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50: 179-211.

Amorós, J. E., Ciravegna, L., Mandakovic, V., & Stenholm, P. (2019). Necessity or opportunity? The effects of state fragility and economic development on entrepreneurial efforts. *Entrepreneurship Theory and Practice*, 43(4): 725-750.

Armitage, C.J. & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4): 471-499.

Ault, J. K. (2016). An institutional perspective on the social outcome of entrepreneurship: Commercial microfinance and inclusive markets. *Journal of International Business Studies*, 47: 951-967.

Ault, J. K., & Spicer, A. (2014). The institutional context of poverty: State fragility as a predictor of cross-national variation in commercial microfinance lending. *Strategic Management Journal*, 35: 1818-1838

Bacq, S., Ofstein, L. F., Kickul, J. R., & Gundry, L. K. (2017). Perceived entrepreneurial munificence and entrepreneurial intentions: A social cognitive perspective. *International Small Business Journal*, 35(5): 639-659.

Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice*, 38(2): 217-254.

Balachandra, L., T. Briggs, K. Eddleston, and C. Brush (2019), 'Don't pitch like a girl!: how gender stereotypes influence investor decisions', *Entrepreneurship Theory and Practice*, 43(1), 116-137.

Baliamoune-Lutz, M. (2009). Institutions, trade, and social cohesion in fragile states: Implications for policy conditionality and aid allocation. *Journal of Policy Modeling*, 31: 877-890.

Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ., Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.

Batjargal, B., Hitt, M. A., Tsui, A. S., Arregle, J.-L., Webb, J. W., & Miller, T. L. (2013). Institutional polycentrism, entrepreneurs' social networks, and new venture growth. *Academy of Management Journal*, 56(4): 1024-1049.

BBC. (2010). Finland makes broadband a 'legal right'. BBC Technology News, 1 July 2010. Accessed on Feb 1st, 2018: http://www.bbc.com/news/10461048

Begley, T. M., & Tan, W. L. (2001). The socio-cultural environment for entrepreneurship: A comparison between East Asian and Anglo-Saxon countries. *Journal of International Business Studies*, 32(3): 537-553.

Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3): 442-453.

Bowen, H. P., & De Clercq, D. (2008). Institutional context and the allocation of entrepreneurial effort. *Journal of International Business Studies*, 39(4): 747-767.

Branzei, O., & Abdelnour, S. (2010). Another day, another dollar: Enterprise resilience under terrorism in developing countries. *Journal of International Business Studies*, 41(5), 804-825.

Bruton, G. D., Ahlstrom, D., & Li, H. L. (2010). Institutional theory and entrepreneurship:

where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice*, 34(3): 421-440.
Bruton, G. D., Khavul, S., & Chavez, H. (2011). Microlending in emerging economies: Building a new line of inquiry from the ground up. *Journal of International Business Studies*, 42: 718-739.
Brück, T., Llussáf, F., & Tavares, J. A. (2011). Entrepreneurship: The role of extreme events. *European Journal of Political Economy*, 27(1): S78-S88.
Bullough, A., Hechavarria, D., Brush, C., Edelman, L. (Eds) (2019). *High-Growth Women's Entrepreneurship: Programs, Policies, & Practices*, Edward Elgar Publishing.
Bullough, A., Renko, M., & Abdelzaher, D. (2017). Women's business ownership: Operating within the context of institutional and in-group collectivism. *Journal of Management*. 43(7): 2037-2064.
Bullough, A. & Renko, M. (2017). A different frame of reference: Entrepreneurship and gender differences in the perception of danger. *Academy of Management Discoveries*. 3(1): 21-41.
Bullough, A., Renko, M., & Myatt, T. (2014). Danger zone entrepreneurs: The importance of resilience and self-efficacy for entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 38(3): 473-499.
Cardinale, I. (2018). Beyond constraining and enabling: Toward new microfoundations for institutional theory. *Academy of Management Review*, 43(1): 132-155.
Chang, S.-J., Witteloostuijn, A. v., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, 41(2): 178-184.
Corner, P. D., Singh, S., & Pavlovich, K. (2017). Entrepreneurial resilience and venture failure. *International Small Business Journal*, 35(6): 687-708.
Cote, J. A., & Buckley, M. R. (1987). Estimating trait, method, and error variance: Generalizing across 70 construct validation studies. *Journal of Marketing Research*: 315-318.
Coviello, N., Kano, L., & Liesch, P. W. (2017). Adapting the Uppsala model to a modern world: Macro-context and microfoundations. *Journal of International Business Studies*, 48(9): 1151-1164.
Coutu, D. L. (2002). How Resilience Works. *Harvard Business Review*, May: 46-55.
Desai, S., Acs, Z. J., & Weitzel, U. (2013). A model of destructive entrepreneurship insight for conflict and post conflict recovery. *Journal of Conflict Resolution*, 57(1): 20-40
Dyer, J. G., & McGuinness, T. M. (1996). Resilience: Analysis of the concept. *Archives of Psychiatric Nursing*, 10(5): 276-282.
Engberg-Pedersen L, Andersen L, Jung D. (2008). *Fragile situations*. DIIS Report 2008:11, Copenhagen, Denmark.
Estes, W. K. (1975). *Handbook of learning and cognitive processes*. Hillsdale, NJ: Lawrence Erlbaum.
Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1): 39-50.
Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3): 218-226.
Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84(2): 365-376.

Fund for Peace (2016). *The Fragile States Index*. Accessed December 1, 2013 and January 5, 2016 http://fsi.fundforpeace.org/
Gilbert, N. (1993). *Researching Social Life*. London: Sage.
Gonzalez-Lopez, M.J., Perez-Lopez, M.C. & Rodríguez-Ariza, L. (2018). Clearing the hurdles in the entrepreneurial race: the role of resilience in entrepreneurship education. *Academy of Management Learning & Education*, (forthcoming).
Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective.* Upper Saddle River (N.J.): Prentice Hall.
Hendry, K. & Messner, J. J. (2014). The Failed States Index becomes the Fragile States Index, Fund for Peace.
Hiatt, S. R., & Sine, W. D. (2014). Clear and Present Danger: Planning and New Venture Survival Amid Political and Civil Violence. *Strategic Management Journal*, 35: 773-785.
Hobfoll, S.E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4): 307-324.
Hsu, D. K., Burmeister-Lamp, K., Simmons, S. A., Foo, M.-D., Hong, M. C., & Pipes, J. D. (2019). 'I know I can, but I don't fit': Perceived fit, self-efficacy, and entrepreneurial intention. *Journal of Business Venturing*, 34(2): 311-326.
Hult, G. T. M., Ketchen, D. J., Griffith, D. A., Finnegan, C. A., Gonzalez-Padron, T., Harmancioglu, N., & Cavusgil, S. T. (2008). Data equivalence in cross-cultural international business research: assessment and guidelines. *Journal of International Business Studies*, 39(6): 1027-1044.
Iakovleva, T., Kolvereid, L., & Stephan, U. (2011). Entrepreneurial intentions in developing and developed countries. *Education+ Training*, 53(5): 353-370.
Jones Christensen, L., Siemsen, E., Branzei, O., & Viswanathan, M. (2017). Response pattern analysis: Assuring data integrity in extreme research settings. *Strategic Management Journal*, 38(2): 471-482.
Kanze, D., L. Huang, M.A. Conley and E.T. Higgins (2017), 'Male and female entrepreneurs get asked different questions by VCs — and it affects how much funding they get', *Harvard Business Review*, June 27, 2017.
Kaufmann, D., Kraay, A., & Mastruzzi, M. (2009). Governance matters VIII: aggregate and individual governance indicators, 1996-2008. *World Bank Policy Working Papers*, World Bank, Washington, D.C.
Kautonen, T., Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 39(3): 655-674.
Kolk, A., & Lenfant, F. (2015). Partnerships for peace and development in fragile states: Identifying missing links. *Academy of Management Perspectives*, 29: 422-437.
Korber, S., & McNaughton, R. B. (2018). Resilience and entrepreneurship: a systematic literature review. *International Journal of Entrepreneurial Behavior & Research*, 24(7): 1129-1154.
Liñán, F. & Chen, Y. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3): 593.
Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. M. (2006). Psychological capital development: toward a micro-intervention. *Journal of Organizational Behavior*, 27(3): 387-393.
Luthans, F., & Ibrayeva, E. S. (2006). Entrepreneurial self-efficacy in Central Asian transition economies: quantitative and qualitative analyses. *Journal of International*

Business Studies, 37(1): 92-110.
Mair, J., Marti, I., & Ventresca, M. J. (2012). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal*, 55: 819-850.
Mata, J. & Ziaja, S. (2009). Users' Guide on Measuring Fragility. Bonn: German Development Institute/UNDP. http://www.undp.org/content/dam/undp/library/Democratic%20Governance/OGC/usersguide_measure_fragility_ogc.pdf
McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship Theory and Practice*, 33(4): 965-988.
McKelvie, A., Haynie, J. M., & Gustavsson, V. (2011). Unpacking the uncertainty construct: Implications for entrepreneurial action. *Journal of Business Venturing*, 26(3): 273-292.
Meoli, A., Fini, R., Sobrero, M., & Wiklund, J. (2020). How entrepreneurial intentions influence entrepreneurial career choices: The moderating influence of social context. *Journal of Business Venturing*, 35(3).
Meyer, A. D. (1982). Adapting to Environmental Jolts. *Administrative Science Quarterly*, 27: 515-537.
Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002). Entrepreneurial cognition theory: Rethinking the people side of entrepreneurship research. *Entrepreneurship Theory & Practice*, 27(2): 93-104.
Mickiewicz, T., & Olarewaju, T. (2020). New venture evolution of migrants under institutional voids: Lessons from Shonga Farms in Nigeria. *International Small Business Journal*, forthcoming.
Muhamad, S., Rashid, N. K. A., Hussain, N. E., Akhir, N. H. M., & Ahmat, N. (2020). Resilience as a moderator of government and family support in explaining entrepreneurial interest and readiness among single mothers. *Journal of Business Venturing Insights*, 13, e00157.
Mullen, M. R. (1995). Diagnosing measurement equivalence in cross-national research. *Journal of International Business Studies*, 26(3): 573-596.
Muzychenko, O. (2008). Cross-cultural entrepreneurial competence in identifying international business opportunities. *European Management Journal*, 26(6): 366-377.
Perez-Lopez, M.C., Gonzales-Lopez, J. & Rodrigues-Ariza, L. (2016). Competencies for entrepreneurship as a career option in challenging employment environment. *Career Development International*, 21 (3): 214-229.
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5): 879.
Powell W. W., & Colyvas, J. A. (2008). Microfoundations of institutional theory. *The Sage handbook of organizational institutionalism*, 276-298.
Rawlence, B. (2016). *City of thorns: Nine lives in the world's largest refugee camp*. Picador.
Raza, A., Saeed, S., Yousafzai, S., Shahid, M. U., & Muffatto, M. (2020). Institutional adversity, external knowledge sources, and new ventures' innovation: An institutional polycentrism theory perspective. *Industrial Marketing Management*, forthcoming.
Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, & P., Chin, N. (2005). Global entrepreneurship monitor: Data collection design and implementation 1998–2003. *Small Business Economics*, 24(3): 205-231.
Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of clinical*

psychology, 58(3): 307-321.
Rindova, V., Barry, D., & Ketchen, D. J. (2009). Entrepreneuring as emancipation. *Academy of Management Review*, 34(3): 477-491.
Ringle, C. M., Wende, S., & Will, A. (2005). *SmartPLS 2.0* (beta).
Sequeira, J., Mueller, S.L., and McGee, J.E. (2007). The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. *Journal of Developmental Entrepreneurship*, 12(3): 275-294.
Shepherd, D. A., Saade, F. P., & Wincent, J. (2020). How to circumvent adversity? Refugee-entrepreneurs' resilience in the face of substantial and persistent adversity. *Journal of Business Venturing*, 35(4).
Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13, 456-476.
Sinclair, V. G. & Wallston, K. A. (2004). The development and psychometric evaluation of the brief resilient coping scale. *Assessment*, 11(1): 94-101.
Sojo, V., & Guarino, L. (2011). Mediated moderation or moderated mediation: relationship between length of unemployment, resilience, coping and health. *The Spanish Journal of Psychology*, 14(1): 272-281.
Solymossy, E. (2005). Entrepreneurship in extreme environments: Building an expanded model. *The International Entrepreneurship and Management Journal* 1(4): 501-518.
Steenkamp, J. B. E., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, 25(1): 78-107.
Stenholm, P., Acs, Z. J., & Wuebker, R. (2013). Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity. *Journal of Business Venturing*, 28(1): 176-193.
Stephan, U., Uhlaner, L. M., & Stride, C. (2015). Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies*, 46(3): 308-331.
Sutcliffe, K. M., & Vogus, T. J. (2003). *Organizing for resilience. Positive organizational scholarship: Foundations of a new discipline*, 94, 110.
Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological inquiry*, 15(1): 1-18.
Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship: Theory & Practice*, 33(3): 669-694.
Tolonen, H., Helakorpi, S., Talala, K., Helasoja, V., Martelin, T., & Prättälä, R. (2006). 25-year trends and socio-demographic differences in response rates: Finnish adult health behaviour survey. *European Journal of Epidemiology*, 21(6): 409-415.
Tumasjan, A. & Braun, R. (2012). In the eye of the beholder: How regulatory focus and self-efficacy interact in influencing opportunity recognition. *Journal of Business Venturing*, 27 (6): 622-636
UNHCR (2015). *UNHCR's annual Global Trends Report: World at War*. June 18, 2015. Visited on 12/1/2015. Available at: http://unhcr.org/556725e69.html#_ga=1.195956335.2100205564.1449001137
Urbano, D., Aparicio, S., & Audretsch, D. (2019). Twenty-five years of research on institutions, entrepreneurship, and economic growth: what has been learned? *Small Business Economics*, 53(1): 21-49.
van Stel, A., Carree, M., & Thurik, R. (2005). The effect of entrepreneurial activity on national economic growth. *Small Business Economics*, 24(3): 311-321.

Webb, J. W., Tihanyi, L., Ireland, R. D., & Sirmon, D. G. (2009). You say illegal, I say legitimate: Entrepreneurship in the informal economy. *Academy of Management Review*, 34(3): 492-510.
Webb, J. W., Khoury, T. A., & Hitt, M. A. (2020). The Influence of Formal and Informal Institutional Voids on Entrepreneurship. *Entrepreneurship Theory and Practice*, 44(3): 504-526.
Weiss, J., Anisimova, T., & Shirokova, G. (2019). The translation of entrepreneurial intention into start-up behaviour: The moderating role of regional social capital. *International Small Business Journal*, 37(5): 473-501.
Welter, F. (2011). Contextualizing entrepreneurship—Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35 (1): 165-184.
Wennekers, S., van Stel, A., Thurik, R., & Reynolds, P. (2005). Nascent entrepreneurship and the level of economic development. *Small Business Economics*, 24(3): 293-309.
Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: implications for entrepreneurship education. *Entrepreneurship Theory and Practice*, 31(3): 387-406.
Wilson, J. (2016), 'Making loan decisions in banks: straight from the gut?' *Journal of Business Ethics*, 137(1), 53–63.
Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4): 302-314.
Young, S. L., Welter, C., & Conger, M. (2018). Stability vs. flexibility: The effect of regulatory institutions on opportunity type. *Journal of International Business Studies*, 49(4): 407-441.
Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of Management*, 33(5): 774-800.
Zellweger, T., Sieger, P., & Halter, F. (2011). Should I stay or should I go? Career choice intentions of students with family business background. *Journal of Business Venturing*, 26: 521-536.
Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90(6): 1265-1272.

Table 1: The Fragile States Index components

Indicators[*]	Includes pressures and measures related to:	Afghanistan (2010)	Iraq (2012)	Tajikistan (2011)	Peru (2011)	U.S.A. (2010-12)	Finland (2011)
Social Indicators							
Demographic Pressures (DP)	Natural Disasters, Disease, Environment, Pollution, Food Scarcity, Malnutrition, Water Scarcity, Population Growth, Youth Bulge, Mortality	9.5	8.0	7.7	6.1	3.3	2.0
Refugees and Internally Displaced Persons (RD)	Displacement, Refugee Camps, IDP Camps, Disease related to Displacement, Refugees per capita, IDPs per capita, Absorption capacity	9.2	8.5	5.9	4.1	2.9	2.1
Group Grievance (GG)	Discrimination, Powerlessness, Ethnic Violence, Communal Violence, Sectarian Violence, Religious Violence	9.7	9.7	7.2	6.8	3.6	1.7
Human Flight and Brain Drain (HF)	Migration per capita, Human Capital, Emigration of Educated Population	7.2	8.6	6.0	6.7	1.2	2.5
Economic indicators							
Uneven economic development (UD)	GINI Coefficient, Income Share of Highest 10% & Lowest 10%, Urban-Rural Service Distribution, Access to Improved Services, Slum Population	8.2	8.7	6.8	8.0	5.3	1.3
Poverty and economic decline (ED)	Economic Deficit, Government Debt, Unemployment, Youth Employment, Purchasing Power, GDP per capita, GDP Growth, Inflation	8.3	7.7	7.4	5.1	3.7	2.8
Political & Military Indicators							
State Legitimacy (SL)	Corruption, Government Effectiveness, Political Participation, Electoral Process, Level of Democracy, Illicit Economy, Drug Trade, Protests and Demonstrations, Power Struggles	10	8.4	8.9	6.6	2.4	1.0

Public Services (PS)	Policing, Criminality, Education Provision, Literacy, Water & Sanitation, Infrastructure, Quality Healthcare, Telephony, Internet Access, Energy Reliability, Roads	8.9	7.8	6.9	6.1	2.6	1.5
Human Rights and Rule of Law (HR)	Press Freedom, Civil Liberties, Political Freedoms, Human Trafficking, Political Prisoners, Incarceration, Religious Persecution, Torture, Executions	9.2	8.3	8.5	5.2	3.5	1.1
Security Apparatus (SA)	Internal Conflict, Small Arms Proliferation, Riots and Protests, Fatalities from Conflict, Military Coups, Rebel Activity, Militancy, Bombings, Political Prisoners	9.7	9.9	7.4	7.2	1.7	1.0
Factionalized Elites (FE)	Power Struggles, Defectors, Flawed Elections, Political Competition	9.4	9.6	8.6	6.6	3.5	1.2
External Intervention (EX)	Foreign Assistance, Presence of Peacekeepers, Presence of UN Missions, Foreign Military Intervention, Sanctions, Credit Ratings	10	9.0	7.0	5.1	1.3	1.5

*** From the Fund for Peace, Failed States Index 2012 Report; 0.0-10.0 scale (best to worst)**

Table 2: Descriptive statistics (scale means and secondary indicators) from the data

		Afghanistan (n=164)	Iraq (n=146)	Tajikistan (n=89)	Peru (n=265)	U.S. (n=186)	Finland (n=221)
Primary data collection (surveys), scale means for each county	Entrepreneurial self-efficacy	4.04	3.24	3.47	3.75	3.36	2.85
	Resilience	4.10	3.64	3.74	4.30	3.89	3.74
	Entrepreneurial intentions	5.92	4.72	5.01	5.65	4.19	3.09
Sample demographics	Gender (% women)	78	51	48	69	38	63
	Age (mean)	29	27	24	36	33	30
	% college educated	56	66	76	27	92	55
	% previous businesses ownership experience	49	24	25	70	26	21
	% Opportunity entrepreneurs	23	15	24	28	44	29
	Years of work experience (mean)	5.4	7.2	3.3	7.6	11.5	7.8
Secondary data on country level adversity	Fragile States Index (FSI)	109.3	104.3	88.3	73.6	34.9	19.7

Table 3: Correlations in the total sample (n=1,071)

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Entrepreneurial intentions	4.82	1.90	1								
2. Resilience	3.96	1.01	.351**	1							
3. Entrepreneurial self-efficacy	3.49	.85	.554**	.400**	1						
4. Gender	1.56	.49	-.062*	.032	-.046	1					
5. Age	30.59	11.7	.054*	.117**	.085**	-.052	1				
6. College education	.59	.49	-.051	-.054*	.016	-.135**	-.054*	1			
7. Business ownership experience	.42	.49	.333**	.127**	.234**	-.100**	.302**	-.122**	1		
8. Work experience	6.66	7.85	-.035	.083**	.021	-.096**	.626**	.029	.163**	1	
9. Opportunity entrepreneur	.27	.44	.062*	.062*	.102**	-.022	-.029	.016	-.008	-.026	1

****p<.01; *p<.05**

Table 4: Confirmatory Factor analysis and Convergent and Discriminant Validity

Scale items	Afghanistan	Iraq	Tajikistan	Peru	U.S.A.	Finland
Entrepreneurial self-efficacy (Zhao Seibert & Hills, 2005): How confident are you in your present readiness for successfully managing or doing the following? (1=no confidence; 5=complete confidence)						
Identifying new business opportunities	.77	.71	.62	.75	.78	.90
Creating new products	.77	.72	.67	.73	.77	.89
Thinking creatively	.71	.64	.56	.68	.63	.75
Commercializing an idea for development	.81	.76	.68	.77	.72	.83
Cronbach's Alpha	*.82*	*.74*	*.74*	*.81*	*.78*	*.84*
Composite Reliability	*.88*	*.84*	*.84*	*.87*	*.85*	*.89*
Average Variance Extracted (AVE)	*.71*	*.60*	*.63*	*.64*	*.60*	*.68*
Resilience (Sinclair & Wallston, 2004): Circle the number below each statement that best describes your behaviour and actions. (1= Does not describe me at all; 5=Describes me very well)						
I look for creative ways to alter difficult situations.	.63	.65	.62	.78	.77	.62
Regardless of what happens to me, I believe I can control my reaction to it.	.63	.76	.69	.68	.72	.56
I believe I can grow in positive ways by dealing with difficult situations.	.59	.79	.66	.78	.78	.61
I actively look for ways to replace the losses I encounter in life.	.66	.76	.66	.75	.70	.57
Cronbach's Alpha	*.73*	*.79*	*.76*	*.79*	*.77*	*.70*
Composite Reliability	*.83*	*.86*	*.83*	*.86*	*.85*	*.79*
Average Variance Extracted (AVE)	*.65*	*.64*	*.60*	*.62*	*.60*	*.60*
Entrepreneurial intent (Liñán & Chen, 2009): Circle the number below each statement that best describes your feelings. (1=Total disagreement; 7=Total agreement)						
I am ready to do anything to be an entrepreneur	.62	.67	.59	.75	.88	.82
My professional goal is to become an entrepreneur	.72	.73	.65	.82	.95	.92
I will make every effort to start and run my own firm	.79	.77	.82	.86	.96	.89
I am determined to create a firm in the future	.85	.90	.89	.92	.98	.98
I have very seriously thought of starting a firm	.85	.84	.88	.90	.93	.92
I have the firm intention to start a firm some day	.81	.87	.78	.87	.98	.98
Cronbach's Alpha	*.89*	*.91*	*.91*	*.95*	*.96*	*.93*
Composite Reliability	*.92*	*.93*	*.93*	*.96*	*.97*	*.95*
Average Variance Extracted (AVE)	*.66*	*.70*	*.69*	*.80*	*.86*	*.76*

Table 5: Discriminant validity analyses

Latent Variables	Afghanistan			Iraq			Tajikistan		
	1.	2.	3.	1.	2.	3.	1.	2.	3.
1. Entrepreneurial intent	*.81*			*.83*			*.83*		
2. Resilience	.490**	*.80*		.367**	*.80*		.256**	*.77*	
3. Entrepreneurial self-efficacy	.459**	.518**	*.84*	.443**	.233**	*.77*	.503**	.372**	*.79*
	Peru			USA			Finland		
1. Entrepreneurial intent	*.89*			*.92*			*.87*		
2. Resilience	.290**	*.78*		.240**	*.77*		.343**	*.77*	
3. Entrepreneurial self-efficacy	.425**	.290**	*.80*	.489**	.402**	*.77*	.563**	.430**	*.82*

Off-diagonal: correlation; Along-diagonal (*italic*): square root of average variance extracted (Chin, 2010).
****p<.01; *p<.05**

Table 6: Regression coefficients from PLS Analysis predicting Entrepreneurial Intention

	Afghanistan (n=164)			Iraq (n=146)			Tajikistan (n=89)			Peru (n=265)			USA (n=186)			Finland (n=221)		
	Path	s.e.	p-value	Path	s.e.	p-value	Path	s.e.	p-value	Path	s.e.	p-value	Path	s.e.	p-value	Path	s.e.	p-value
Gender	0.026	0.08	0.749	-0.033	0.07	0.648	0.087	0.12	0.465	-0.018	0.06	0.753	-0.173	0.07	0.013	-0.14	0.06	0.024
Age	0.044	0.10	0.676	-0.168	0.10	0.077	0.096	0.19	0.62	0.015	0.06	0.792	-0.042	0.10	0.674	0.048	0.10	0.624
College education	-0.095	0.07	0.184	0.101	0.07	0.151	0.288	0.14	0.001	-0.004	0.06	0.942	0.039	0.06	0.535	0.006	0.06	0.913
Business owner exp.	0.182	0.07	0.001	0.147	0.09	0.049	0.339	0.12	0.001	0.144	0.07	0.009	0.179	0.06	0.005	0.107	0.07	0.104
Work experience	-0.043	0.11	0.695	0.177	0.09	0.048	-0.16	0.17	0.342	-0.191	0.06	0.001	-0.063	0.10	0.518	-0.004	0.08	0.957
Opportunity entrepreneur	-0.13	0.08	0.131	-0.019	0.10	0.786	-0.003	0.11	0.975	0.042	0.04	0.320	0.089	0.06	0.141	0.133	0.06	0.034
Ent. Self-efficacy	0.233	0.09	0.009	0.308	0.08	0.000	0.296	0.14	0.043	0.344	0.07	0.000	0.384	0.08	0.000	0.432	0.07	0.000
Resilience	0.429	0.07	0.000	0.348	0.08	0.000	0.21	0.14	0.132	0.184	0.07	0.006	0.073	0.09	0.393	0.083	0.05	0.146
R^2	.47			.3470			.357			.273			.311			.385		
Max. VIF	1.86			1.66			2.02			1.49			2.68			1.96		

Table 7: Standardized estimates for entrepreneurial intentions: Subgroup analyses

	High adversity (Afghanistan & Iraq)			**Medium adversity** (Tajikistan & Peru)			**Low adversity** (USA & Finland)			High – Low Adversity	High – Medium Adversity
	Paths	*s.e.*	P-value	Paths	*s.e.*	P-value	Paths	*s.e.*	P-value	Critical ratio for differences (p-value)	
Gender	0.04	.05	0.685	-0.02	.05	0.683	-0.166	.04	0.000	-2.935 (0.001)	-0.55 (0.410)
Age	-0.119	.07	0.132	0.057	.06	0.132	0.002	.07	0.158	1.144 (0.624)	1.988 (0.045)
College education	-0.012	.05	0.322	0.017	.05	0.322	0.043	.05	0.535	-0.884 (0.242)	0.403 (0.205)
Business owner exp.	0.154	.05	0.009	0.175	.06	0.009	0.132	.05	0.009	-0.309 (0.503)	0.27 (0.87)
Work experience	0.101	.06	0.127	-0.179	.05	0.113	-0.022	.06	0.974	1.409 (0.110)	-3.476 (0.001)
Opportunity entrepreneur	-0.049	.05	0.785	0.043	.04	0.785	0.107	.04	0.008	2.361 (0.049)	1.465 (0.204)
Resilience (H1)	0.328	.06	0.000	0.195	.06	0.000	0.061	.05	0.125	-3.047 (0.000)	-2.563 (0.008)
Ent. Self-efficacy (H2)	0.246	.06	0.000	0.333	.06	0.000	0.421	.05	0.000	2.545 (0.000)	1.476 (0.107)
R^2 (group size)	.346 (n=310)			.387 (n=354)			.288 (n=407)				

Figure 1: Conceptual model

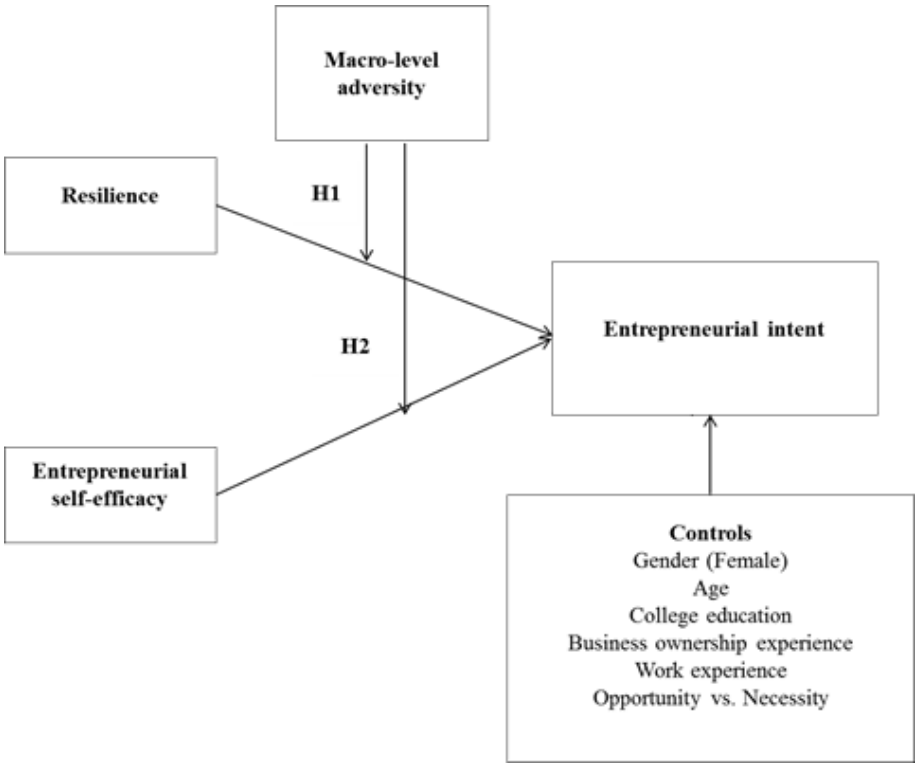
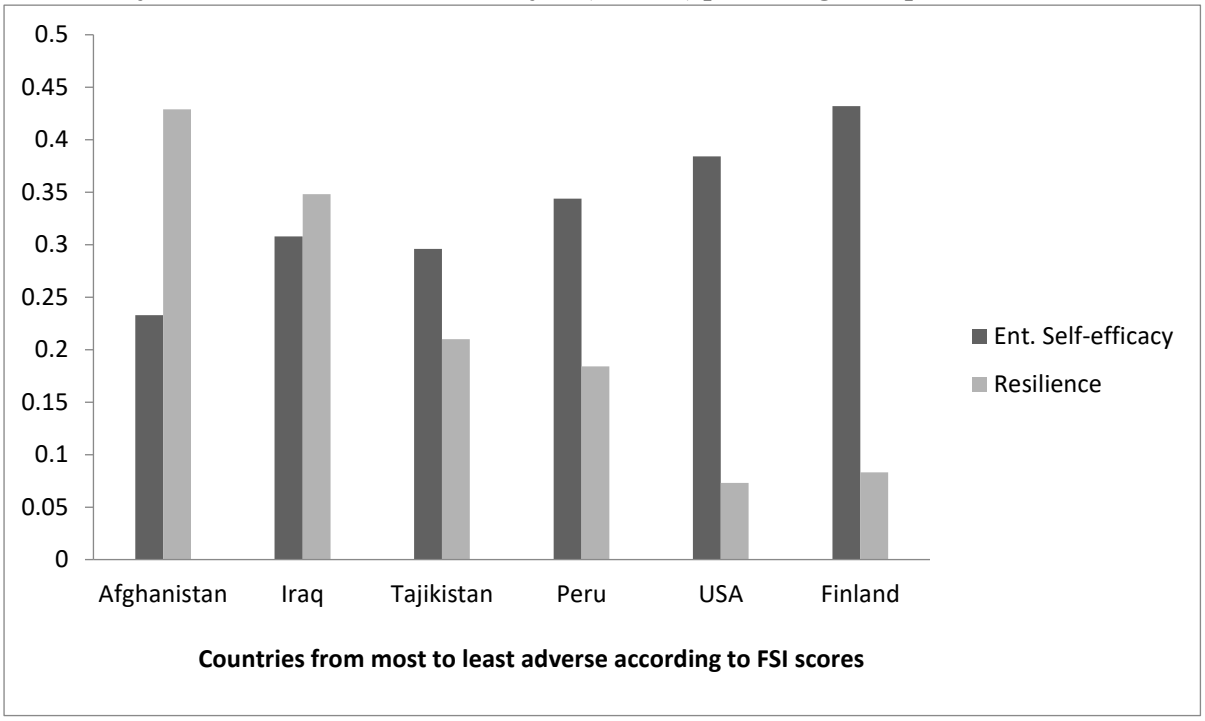


Figure 2: Country-specific regression coefficients (standardized estimates) for entrepreneurial self-efficacy and resilience from PLS Analysis (Table 6) predicting entrepreneurial intention



Appendix 1: Sampling Procedure By Country

Country	Data Collector/Location	Data transfer/Challenges/ Details
Afghanistan	Tactic 1: Canadian expatriate & university employee; college-educated population, Kabul (capital) (n=68); Tactic 2: Women entrepreneurs trained to survey in their home communities; general public, Kabul and other provinces (n=72); Tactic 3: University staff completed applicant surveys over the phone; applicants to women entrepreneurs' training program, other provinces outside Kabul (n=24)	Paper and pencil/pen, boxes mailed 2 different times to the U.S. Expat workers cannot safely access or engage freely in neighbourhoods. Needed local Afghans with rapport and courage to go into communities. Need to be mindful of the safety of Afghan data collectors. Utilized program and phone interviews to reach provinces. No funding for high-level security detail to access unsafe areas.
Iraq	Hired a female college student, through the Bagdad Women's Association and Bagdad University; Surveyed college students and went into open marketplaces to survey the general population. Bagdad (capital) (n=146)	Paper and pencil/pen, box mailed to the U.S. Iraqi national, with charisma and courage, could approach strangers and explain the study better than foreigners.
Tajikistan	Hired an American exchange student on a Fulbright scholarship; Surveyed college students, and went into open marketplaces to survey the general population in and around Dushanbe (capital) (n=89)	Paper and pencil/pen, carried back to the U.S. in checked luggage, mailed domestically. A 5-year civil war that ended in 1997 was still fresher for locals than realized at first--led to hesitation when approached for the survey. The foreign data collector took a Tajik friend with her to approach the locals to participate. No further barriers arose.
Peru	Hired an American graduate student on a study-abroad trip in Peru; Survey adults in general population, in market and shopping centres and through interactions with community organizations that build shelters and group homes for vulnerable children (n=265)	Paper and pencil/pen carried back to the U.S. in checked luggage. Foreigner collecting data made some locals a little resistant at first, but no major issues with collecting from willing participants.
United States	Members of the research team, and their student assistants; Tactic 1: Surveys administered to university graduate students, electronic, Phoenix, AZ (n=61); Tactic 2: Student assistants survey mall traffic, paper and pencil, Phoenix, AZ (n=47); Tactic 3: Student assistants in Chicago and two cities in South Carolina, surveyed other college students, electronic (n=78)	Electronic surveys and paper and pencil/pen. Americans are less curious about surveys than residents of many other countries. Survey fatigue makes Americans harder to approach and convince.
Finland	Hired a survey consultant, Finnish PhD student; Tactic 1: Electronic surveys administered to university graduate students, Helsinki, Finland (n=19); Tactic 2: Electronic survey posted on the most popular general public online discussion forum (www.suomi24.fi) (n=202)	Electronic survey. Finns are less curious about surveys than residents of many other countries. Because of the volume of postings on the online discussion forum, the survey had to be re-posted numerous times.