

# **Entrepreneurial Resilience, High Impact Challenges, and Firm Performance**

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*This paper discusses resilience in entrepreneurship as being distinct from the general construct of resilience. We make this delineation by arguing that there are specific high-impact challenges which relate to entrepreneurship but not to general living, such as a weak economy, changes in political climate, lack of access to capital, intellectual property theft, and intense competition. Following a literature review of cognitions research, and psychological resilience, we develop some theory-based propositions. We also discuss the practical implications and future research directions that should be undertaken, before concluding the paper.*

## **INTRODUCTION**

Each year, thousands of new ventures are founded (Simon, Houghton, & Aquino, 2000), yet many of these ventures do not make it beyond the first couple of years of operations (Audretsch, 1991; Phillips & Kirchoff, 1989). While research has shown that new ventures and small businesses have been largely responsible for creating most of the net new jobs in the U.S. economy over the last several decades (Birch, 1987; Kirchoff & Phillips, 1988; Scarborough, Wilson, & Zimmerer, 2009; Van Stel & Storey, 2004), the rate of job creation from new business establishments appears to be on a steady decline as entrepreneurship and economic dynamism has declined in recent years (see Pethokoukis, 2014). In fact, there are growing concerns about declining U.S. business dynamism (see Hathaway & Litan, 2014; Lockhart, 2013; Ozimek, 2013; Singh & Ogbolu, 2015). The elevated failure rates recorded in entrepreneurship (Altman, 1983; Haswell & Holmes, 1989; Perry, 2001) suggest that entrepreneurship is not an easy process; however, the economic benefits and promises of entrepreneurship such as job creation (M. Van Praag & Versloot, 2008) and innovation (Wong, Ho, & Autio, 2005) continue to make it worthy of pursuit.

Historically, research focused on the individual entrepreneur's traits (Busenitz & Barney, 1997; Carland, Hoy, Boulton, & Carland, 1984). However, this approach was not fruitful in terms of fully capturing the realities of entrepreneurship or explaining the behavior and decisions of the entrepreneur and consequently gave way to other approaches (Gartner, 1988; Mitchell *et al.*, 2002), including a shift to the psychological processes of entrepreneurs (Shaver & Scott, 1991) and entrepreneurial cognitions (Baron, 1998; Baron & Ward, 2004; Mitchell *et al.*, 2002).

In contrast to the traits approach, entrepreneurial cognition research aims to provide an answer to the central question: "*How do entrepreneurs think*"? (Mitchell *et al.*, 2002). The broad and growing body of

literature on entrepreneurial cognitions encompasses issues such as scripts, self-efficacy, cognitive styles and heuristics (Sánchez, Carballo, & Gutiérrez, 2011). Researchers examining entrepreneurial cognitions have sought to explain a wide range of processes such as why entrepreneurs take risks when others avoid them (Palich & Bagby, 1995); the influence of network formation on an entrepreneur's cognition; (De Carolis, Litzky, & Eddleston, 2009); and the role of cognitive biases and errors in the thinking of entrepreneurs (Alvarez & Busenitz, 2001). However, there remain many unexplained processes that are related to the behavior and decisions of entrepreneurs. This has created a rich opportunity for research in the growing focus area of entrepreneurial cognitions.

Psychological resilience fits within entrepreneurial cognitions research. Psychological resilience is "the capacity of individuals to cope successfully with significant change, adversity or risk" (Lee & Cranford, 2008, p. 213). While there are several definitions of psychological resilience in the literature, the most commonly cited include Masten, Best, and Garmezy (1990) who defined it as "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (p. 426), and Luthar, Cicchetti, and Becker (2000), who defined resilience as "a dynamic process encompassing positive adaptation within the context of significant adversity" (p. 543). Taken as a whole, these definitions have three common themes: adversity, positive adaptation, and risk or uncertainty.

These three themes are all relevant in entrepreneurship. For instance, Branzei and Abdelnour (2010) point out that the notion of striving under adversity is a foundation in the field of entrepreneurship research. Drawing from the works of Baron and Markman (2000), they posit that "entrepreneurs have a higher adversity quotient than non-entrepreneurs" (p. 807). The concepts of risk and uncertainty are also core in entrepreneurship, as the process of embarking on venture creation involves significant risk. We therefore argue that psychological resilience is a concept worth exploring in the entrepreneurship context.

Building on the discussion above on psychological resilience, we define entrepreneurial resilience as *the ability to overcome high-impact entrepreneurial challenges and persist in the entrepreneurial process in the face of adverse situations and unexpected outcomes*. We believe that the concept of entrepreneurial resilience accounts for why some entrepreneurs quit in the face of those challenges while others press on in the face of uncertainty and risk.

Entrepreneurial resilience may be an important construct in entrepreneurship for a number of reasons. First, it captures the cognitive processes that describe how an entrepreneur positively faces the challenges and setbacks associated with entrepreneurship and new venture creation. Second, it provides an insight into why some firms survive while others fail. Third, research has shown that psychological resilience can be developed, hence entrepreneurial resilience can be taught in entrepreneurship.

In this paper, we explore and discuss the concept of entrepreneurial resilience and its role in firm survival and success. Following a brief literature review of entrepreneurial cognitions research and psychological resilience, we develop six theory-based propositions based on the discussion throughout the paper. We also discuss the practical implications and future research directions that should be undertaken, before concluding the paper.

## **COGNITIVE PROCESSES AND PSYCHOLOGICAL RESILIENCE**

Before developing our definition and propositions with respect to entrepreneurial resilience, it is important to frame the construct within the broader research on cognitions and the resilience literature from psychological theory.

### **Entrepreneurial Cognitions**

Entrepreneurial cognition, as an area of research within the entrepreneurship literature, is based on cognitive science and psychology. According to Mitchell *et al.* (2002), entrepreneurial cognitions can be defined as "the knowledge structures that people use to make assessments, judgments or decisions involving opportunity evaluation and venture creation and growth" (p. 97). Drawing on prior research, Baron and Ward (2004) also posit that "the field of entrepreneurial cognition includes all aspects of cognition that can, potentially, play a role in important aspects of the entrepreneurial process – everything

from discovering opportunities and deciding to pursue them through making complex decisions and solving difficult and unexpected problems while running a new venture.” (Baron & Ward, 2004, p. 554). These two definitions indicate that entrepreneurship involves thinking, anticipating and solving difficult and unexpected problems in order to achieve success.

Entrepreneurial cognitions draw attention to the role of the entrepreneur within the entrepreneurial process by explaining how and why entrepreneurs think and act differently from individuals in the general population. Such thinking results in either positive or negative consequences for the venture. As an example, when an entrepreneur makes incorrect assumptions or has poor judgments about the financial prospects of an entrepreneurial opportunity, it could result in venture failure, and vice-versa. As pointed out by Mitchell *et al.* (2002), the entrepreneurial environment is characterized by a high degree of uncertainty, pressure on one’s time, information overload, stress, and intense emotions. Given that the entrepreneur has to think and make judgments in such an environment, entrepreneurial cognitions consequently affect firm performance through their effects on the psychology of the entrepreneur. These may include positive cognitive processes that help the entrepreneur, such as counterfactual thinking (Gaglio, 2004) and useful rules of thumb or heuristics (Baron, 1998), or may sometimes take the form of negative factors such as overconfidence (Simon *et al.*, 2000) and hubris (Hayward, Shepherd, & Griffin, 2006).

### **Psychological Resilience**

Despite the differences in definitions proffered for the psychological resilience construct, adversity/trauma and positive adaptation have emerged as the characteristic features of psychological resilience (Fletcher & Sarkar, 2013). Trauma is defined by the American Psychological Association (APA) as “an emotional response to a terrible event like an accident, rape or natural disaster” (APA, 2016). This definition suggests cognitive processes that are employed by a person upon the occurrence of a highly unpleasant and/or unexpected event with negative outcome or consequence. While research indicates that most people have to deal with at least one potentially traumatic event during the course of their lives (Bonanno & Mancini, 2008; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), what constitutes trauma differs from person to person. Many entrepreneurs may not necessarily face any of the popularly acclaimed traumatic events such as natural disasters, death of a loved one, serious illness, or terrorist attacks (Bonanno & Mancini, 2008); physical assault, motor vehicle crash, fire (Norris, 1992); and life hardship and health vulnerability (Shrira, Shmotkin, & Litwin, 2012) in the course of their business life.

In entrepreneurship, trauma can be conceived of in terms of the high-impact (H-I) negative events that an entrepreneur faces which could result in the closure or failure of his business. The ability of an entrepreneur to adequately and positively deal with these negative events is likely to affect firm performance.

### **High Impact Challenges in Entrepreneurship**

In line with the APA’s definition of trauma, we define H-I traumatic events in entrepreneurship as those events that have the potential to cause major negative outcomes such as firm failure, bankruptcy, business closure, and loss of customers among other things. Alpander, Carter, and Forsgren (1990) identified the 10 most critical problems faced by firms in their formative years as securing new customers; accessing funding; recruiting and hiring new managers; dealing with existing employee issues; product pricing; planning for market expansion; dealing with legal issues; ensuring quality; and dealing with various government agencies. While we agree that all of these factors will affect the firm’s survival and success/growth, we argue that some are more critical than others, as the degree of impact will vary from factor to factor. H-I traumatic events could come in different forms such as a weak economy and changes in the political climate; lack of access to capital; choosing the wrong opportunity or poor execution on a good opportunity; intense competition from bigger and more established firms; or even piracy of intellectual property (Chu, Benzing, & McGee, 2007; De Castro, Balkin, & Shepherd, 2008;

Zimmerman & Chu, 2013). These factors have the potential to “make or break” the business, hence we will adopt them in this paper.

### **Firm Survival and Success**

The survival of a firm has been shown to depend largely on pre-startup planning and entrepreneurial skills (Sexton & Van Auken, 1985). While Phillips and Kirchhoff (1989) debunked the myth that survival rates are limited to 20% of established firms within the first 5 years and showed that they are as high as 40%, the reality is that many businesses still fail within their first few years of formation. Research has documented several reasons for firm failure, including poor planning (Perry, 2001) and the cumulative effects of reduced real economic growth, stock market performance, money supply growth, and competition as a result of increased business formation (Altman, 1983). Bankruptcy, an outcome of firm failure, has also been attributed to lack of knowledge, inaccessibility to debt capital, and economic climate (Carter & Auken, 2006). These factors are similar to the H-I challenges proposed in this paper.

H-I challenges in entrepreneurship have the capacity to determine whether a firm survives or goes out of business. Specifically, we propose that the occurrence of high impact challenges in entrepreneurship will reduce the chances of a firm surviving in the first three years. In line with the work of Lewis and Churchill (1983), we argue that the first few years of a venture are the most important in terms of the survival of the venture. Decisions made in the early life of a venture are crucial, hence any major disruption during this early stage of the venture has the potential to highly impact it.

Firm survival and success are often considered to be related constructs in literature, but some researchers have questioned the idea of equating survival with success considering that some firms close voluntarily (Van Praag, 2003) or are harvested or merge with other ventures (Headd, 2003). This suggests that the performance measures of success commonly adopted in mainstream entrepreneurship research such as firm size and growth (Bates, 1990), or sales, or number of employees as pointed out by Jennings and Brush (2013) may indicate less about firm survival than has been portrayed. We therefore treat survival and success as two related but distinct constructs. We argue that H-I challenges in entrepreneurship will reduce the chances of firm survival and success within the first few years of its formation due to its liability of newness (Freeman, Carroll, & Hannan, 1983).

Put succinctly, we propose the following:

*Proposition 1a: High impact challenges are negatively related to firm survival.*

*Proposition 1b: High impact challenges are negatively related to firm success.*

### **Entrepreneurial Resilience**

Entrepreneurial resilience, the ability to overcome H-I entrepreneurial challenges and persist in the entrepreneurial process in the face of adverse situations and unexpected outcomes, rests on the decisions made by an entrepreneur. It allows the entrepreneur to remain optimistic in the face of difficult market conditions and unpredicted challenges (Ayala & Manzano, 2014). According to Van Praag (2003), the entrepreneur determines the survival duration and the success of his venture because “it is the man who makes the difference: he sets the conditions, the boundaries, the characteristics, and ultimately, the value creating ability of the newly founded firm” (p. 1). We therefore propose a relationship between entrepreneurial resilience and firm survival and success. By definition, resilient entrepreneurs are able to positively adapt in the face of H-I challenges and still succeed against the odds. According to Bullough and Renko (2013), non-resilient individuals would be less capable of engaging in the necessary entrepreneurial behaviors, choosing rather to respond to the uncertainties in the business world with caution and fearful reactions. Resilient entrepreneurs on the other hand are protected from reacting negatively to situations due to their positive emotions, thereby causing them to blossom rather than fail (Fredrickson, Tugade, Waugh, & Larkin, 2003).

As pointed out by Sine, Haveman, and Tolbert (2005), entrepreneurship is an inherently risky process, hence, the survival of a firm depends on several factors within and beyond the entrepreneur’s control. An entrepreneur, while aware of some of the possible risks they could face in the course of the business, is also affected by bounded rationality (Cooper, Folta, & Woo, 1995). Arguing along similar

lines, Ayala and Manzano (2014) pointed out that entrepreneurs often have to make decisions in the context of ambiguous, incomplete, or constantly changing information. Consequently, when certain H-I challenges occur, entrepreneurs may not be readily armed with all the information they need to make the best decision. They rely on their cognitions and experiences to make decisions that determine whether or not the firm will survive (Ireland & Miller, 2004). As an example, scholars have found that entrepreneurs are sometimes unwilling to leave or close down under-performing firms (Pierce, Kostova, & Dirks, 2001) even when the ventures appear to have little or no future potential. They attributed this unwillingness to what they termed psychological ownership – the strong psychological connectedness that entrepreneurs develop with their ventures. Entrepreneurs have been known both to impact and be impacted by events that occur in their businesses (Ucbasaran, Shepherd, Lockett, & Lyon, 2013), partly because they have invested their time, energy, and resources into the business and therefore consider the business part of themselves (DeTienne, Shepherd, & De Castro, 2008). While this may be the case, we posit that entrepreneurs who are resilient are better able to steer the under-performing firm back from the brink of failure and eventually to success, as their willingness to keep on with the business may suggest their determination to make things work in the first instance. Thus, the ability to deal with a high degree of ambiguity and adapt quickly to change differentiates resilient entrepreneurs from others, and better prepares the resilient for success (Ayala & Manzano, 2014). We therefore formally propose that:

*Proposition 2a: Entrepreneurial resilience is positively related to firm survival.*

*Proposition 2b: Entrepreneurial resilience is positively related to firm success.*

Building on the propositions regarding the negative relationship between H-I challenges and firm performance, we further posit that entrepreneurs who are resilient will be able to limit the negative effects of such challenges on firm survival and success. According to Beardslee (1989), resilience and survival are directly related such that resilient people can be called survivors. The ability of an entrepreneur to successfully cope with and manage H-I entrepreneurial challenges raises the odds of the firm surviving. Given the association of resilience with coping (Linnenluecke, 2015) and its conceptualization as a factor of psychological capacity (Luthans, Avey, Avolio, Norman, & Combs, 2006), we argue that entrepreneurial resilience moderates the negative impacts of the stress and uncertainty associated with the entrepreneurial environment, such that the more entrepreneurial resilience an entrepreneur has, the lower the negative effects of H-I challenges they experience on their firm's performance, and vice versa.

More formally:

*Proposition 3a: Entrepreneurial resilience moderates the negative relationship between high-impact challenges and firm survival.*

*Proposition 3b: Entrepreneurial resilience moderates the negative relationship between high-impact challenges and firm success.*

We believe that the presence of H-I challenges poses a threat to the survival and success of a firm. That is, H-I challenges will be negatively related to firm performance. However, entrepreneurial resilience is central to overcoming these challenges and is expected to moderate that negative relationship. At the same time, we believe that entrepreneurial resilience also has a positive direct effect on firm performance.

## **DISCUSSION**

The propositions and relationships suggested can occur at any time in the life of a venture; however, given that the failure rates of firms have been shown to be higher within their first five years of existence, we believe that it is more likely for the proposed relationships to occur during the early stages of the firm. It is during this period that uncertainty is often at its peak. The firm is working to establish itself and entrepreneurs may be most susceptible to negative outcomes as a result of H-I challenges. It is during this time - before the firm is fully established that the cognitive processes of entrepreneurs may be paramount to firm survival and ultimately to success.

As we have argued throughout this paper, entrepreneurial resilience represents an important cognitive process to achieve entrepreneurial success (Ayala & Manzano, 2010). H-I challenges affect the performance of a firm by determining its survival and success, particularly within the first five years. This is because a firm has to overcome the liability of newness (Freeman et al., 1983) within this timeframe, and the entrepreneur also has to contend with high uncertainty in the entrepreneurial environment (Mitchell et al., 2002). We have also defined the construct of resilience in entrepreneurship as encompassing positive adaptation to H-I challenges in the entrepreneurial process. In developing our propositions, we have treated firm survival and firm success as two distinct constructs similar to early research by Van Praag (2003). Specifically, we have proposed that entrepreneurial resilience has both a direct effect on firm survival and success, as well as a moderating effect on the negative relationship between H-I challenges and firm survival and success. We believe that entrepreneurs, as the driving force of the entrepreneurial process, ultimately make the decisions that impact their firms. Hence, a resilient entrepreneur will make decisions that reflect positive cognitions and a determination to see the business survive and thrive amidst adverse situations. Such resilience is associated with coping abilities and psychological capacity (Luthans *et al.*, 2006), which transfer to the firm to moderate the negative effects of high impact challenges.

In an earlier study, Ayala and Manzano (2014) questioned the predictive validity of resilience in entrepreneurship and conducted a longitudinal study to examine this. They found that the three dimensions of resilience adopted in their study (hardiness, resourcefulness, and optimism) helped in predicting entrepreneurial success. While this may call into question the uniqueness of our work, we point out that they did not specifically define entrepreneurial resilience, but rather adopted the broader concept of resilience which encompasses adversity and trauma in a general context rather than the entrepreneurship-specific context we have adopted. Additionally, we posit the possibility of confounding effects from their choice of Spain as their country of study. Given that tourism is the backbone of Spain's economy, it is possible that government policies already position tourism firms for success. Therefore, their selection of an industry considered to be the pillar of their nation's economy indicates a high probability of sampling successful firms. We do not believe our discussion or arguments are industry specific, and we expect to find the propositions holding across different groups of entrepreneurs.

### **Limitations**

This paper has tried to introduce researchers and entrepreneurs to the potential benefits of entrepreneurial resilience. However, there are several limitations that bear mentioning. First, we offered examples of H-I challenges, but did not necessarily develop a complete list. There may be certain challenges that are either not on the list; or for those that are identified, may not necessarily be as important as others on the list. Only through empirical study and verification can a parsimonious list of H-I challenges truly be determined. Second, the operationalization of the entrepreneurial resilience construct could take different forms. As a new construct, the validity of measures to empirically test the role of resilience within entrepreneurial processes and to survival and success has yet to be determined. A third, and final limitation that we considered was whether entrepreneurial resilience could result in negative outcomes. For example, if an entrepreneur was pursuing a weak opportunity with little chance of success, entrepreneurial resilience could result in an entrepreneur staying with a venture when it should be abandoned. Instead of being a positive cognitive process, it may instead be nothing more than irrational stubbornness. As further research is conducted, this possibility should be explored.

These limitations notwithstanding, the paper makes a significant contribution to the literature by laying out a largely unexplored cognitive process that could help unlock the mysteries of successful entrepreneurship.

The paper has implications for practicing entrepreneurs, researchers, and entrepreneurship educators. These are discussed below.

### **Implications for Entrepreneurs**

This paper has some implications for nascent entrepreneurs and entrepreneurs. First, by highlighting the increased chance of survival and success associated with having entrepreneurial resilience, there is a possibility that the fear of failure in entrepreneurship harbored by these entrepreneurs could be minimized as they focus on developing their entrepreneurial resilience. Secondly, this paper has highlighted H-I challenges specific to the field of entrepreneurship. By understanding these specific challenges that they could encounter in the entrepreneurial process, aspiring entrepreneurs can make more informed decisions and weigh their options carefully before launching their businesses.

### **Implications for Research**

The propositions should be tested through longitudinal research, and the limitations we have identified should be further considered in future research. We have delineated traumatic events in entrepreneurship from the general definition of traumatic events that occur in people's lives. We have also defined resilience in entrepreneurship based on this delineation and outlined six propositions which can be tested. An implication of our work for research in the field of entrepreneurship is that other researchers can test these propositions to advance theories relating to resilience in entrepreneurship. Theory development and testing can be enhanced only when constructs are properly defined. We hope that our definition of entrepreneurial resilience provides an adequate starting point to help achieve this, but further refinement may be necessary.

### **Implications for Entrepreneurship Education**

Given the argument that resilience may be encouraged and developed (Ayala & Manzano, 2014; Brewer & Hewstone, 2004), our paper also has implications for entrepreneurship education. Training programs and entrepreneurship courses may benefit by incorporating entrepreneurial resilience into their course design to teach students (1) the nature of traumatic events in entrepreneurship (2) that it is possible to cope with the H-I challenges associated with entrepreneurship, and (3) the mechanisms for positively adapting to these H-I-challenges.

### **CONCLUDING REMARKS**

While some have concluded that we will never be able to fully understand resilience (Coutu, 2002), the purpose of this paper has been to define resilience in the context of entrepreneurship and how it impacts the survival and success of a firm. Our contribution lies in the delineation of traumatic events in entrepreneurship from the general definition of resilience and the proposal of testable propositions.

As with all papers, our work is not without limitations which we discussed. However, we hope this paper will help researchers consider further study of entrepreneurial resilience as it represents a possible new line of knowledge development with respect to our understanding of entrepreneurial processes. We presented implications and possible new directions of research, but much more future research, particularly longitudinal research, is certainly needed.

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