

Exploring the Impact of Individual Resilience on Entrepreneurial Success

Chelsea B Walsh* and Walter McCollum

University of Maryland Global Campus DBA 850

Abstract

Research on resilience at an individual-level is underexplored, with even less attention on resilience in the context of entrepreneurs. The researcher explores the impact of individual resilience on entrepreneurial success and presents Social Cognitive Theory (SCT) as a well-suited theoretical framework for this topic.

Method: The study is a systematic review conducted using databases (UMGC One Search, ABI/Inform, ProQuest Dissertations & Thesis Global) and the snowball method. Articles included ranged from 2003 to 2020, narrowed to scholarly articles written in English.

Results: The results reveal that individual resilience positively impacts entrepreneurial success. Four themes emerged from the gestalt of the 26 articles, (a) there is a positive relationship between individual resilience and entrepreneurial success, (b) entrepreneurial experience fosters the development of individual resilience, (c) internal locus of control is a contributor to business success, and (d) resilience and self-efficacy reinforce one another to affect behavior and decision-making.

Conclusions: Individual resilience is a necessary skill entrepreneur's need to overcome adversity and succeed in uncertain environments.

Limitations: Cultural differences, self-reporting measures, and not incorporating a comprehensive review of the psychometric properties used are limitations of the articles included.

Implications: The research guides entrepreneurs, educators, and policy makers who are trying to increase productive entrepreneurship in a variety of adverse environments.

Originality/Value: The researcher makes a significant contribution to the literature on individual resilience in an entrepreneurial context, helping entrepreneurs to succeed by improving knowledge of the impact individual resilience has on entrepreneurial success.

Keywords: Entrepreneur • Resilience • Entrepreneurial success

Exploring the Impact of Individual Resilience on Entrepreneurial Success

Entrepreneurship is of key importance in facilitating economic recovery and growth. Entrepreneurs around the world create job opportunities and wealth in both developing and developed economies by creating new products, concepts, and processes that keep economies functioning [1]. There are numerous views on the definition of entrepreneurship, and they arise from differing perspectives including economic, social, cognitive, and behavioral. For the purposes of this study, an entrepreneur is defined as someone who develops a new idea, invests resources into making the idea a reality, and accepts the risks and rewards that come with that idea [2]. When done right, entrepreneurship can have such a positive economic impact on the industries and countries in which they operate [3]. Due to this, many may want to know the secret to becoming a successful entrepreneur.

It generally takes months or years of effort to achieve career success. Each year, thousands of new ventures are founded, yet many of these ventures do not make it beyond the first couple of years of operations. Business failures usually occur within the first five years of opening [4]. The rate of job creation from new business establishments is on a steady decline as entrepreneurship has declined in recent years [5]. According to Hyder and Lussier [6], 70 percent or more of entrepreneurs quit and the path to success is challenging,

**Address for Correspondence:* Chelsea B Walsh, University of Maryland Global Campus DBA 850, United States, Tel: 4436952172, E-mail: chelseabarker889@gmail.com

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due to high stress, multiple obstacles, and uncertainty regarding outcomes. The failure rates recorded in entrepreneurship suggest that entrepreneurship is not an easy process.

Failure, obstacles, and setbacks are daily business for entrepreneurs. Entrepreneurs are frequently confronted with unexpected events that potentially threaten business survival, such as financial crises, technological innovations, or new competitors in the field [7]. Therefore, it is crucial to develop an understanding of how entrepreneurs manage these challenges. The entrepreneurs' ability to adapt to change is theoretically considered as resilience. Resilience is the ability to respond, adapt, and start again after adversity [8]. In this study, the researcher views resilience as a learned behavior, developed over time.

There are a growing number of studies using the resilience concept in organization and management research, but resilience at an individual level in the context of entrepreneurs has received scarce attention in the literature. Although we know that entrepreneurs are essential for economic growth and societal development, research on entrepreneurial resilience is still at a preliminary stage [9]. The researcher aims to exploit this gap by taking an important step towards an overall understanding of the influence individual resilience has on entrepreneurial success. The research question is: "How does individual resilience impact entrepreneurial success?"

There is no widely accepted definition of entrepreneurial success; therefore, it is difficult to define completely. Entrepreneurial success is a multi-dimensional construct that includes subjective (i.e. personal satisfaction, feeling of gratitude, preparedness, autonomy, goal achievement) and objective indicators (i.e. venture survival, employee growth, income growth, profitability, etc.) of success [10]. Since entrepreneurial success is about achievement not only at the organizational level but also at the individual level, both are considered in this study. The findings intend to provide a better understanding of the positive impact resilience has on entrepreneurial success and encourage entrepreneurs to take action to develop and enhance their resilience. The paper starts with an introduction and includes an

explanation of the business problem, theoretical framework, methodology, results, discussion, limitations, conclusions, and implications for practice.

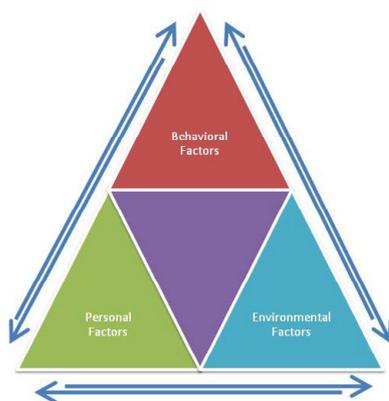
Theoretical Framework

Resilience generally indicates how well a person bounces back from, recovers, and grows through setbacks and challenges. Resilience is not an individual attribute; instead, resilience is a developmental process that can be learned and shifts relative to changes in cognition, emotion, and the social environment [11]. The researcher agrees with Rutter's [11] view that resilience is not related to the individual's psychological traits, rather it is the ability to adapt when given the right resources. The entrepreneur is at the heart of his/her organization, and therefore, this paper is concerned with the individual resilience of entrepreneurs and contributes to the literature that focuses on the entrepreneur as an individual.

If an individual strives to be a successful entrepreneur in today's world, there are skills they need to learn and develop to succeed, and they must be able to adapt these skills to the environment. Skills are generally thought to cover the talents, abilities, and expertise to perform a task proficiently and are not solely dependent on the basic inborn abilities of a person [12]. Social Cognitive Theory (SCT), developed by Albert Bandura [13] is a learning theory that provides a framework for understanding how people actively shape and is shaped by their environment. The key constructs of SCT relevant to resilience are (a) reciprocal determinism, (b) observational learning, (c) self-efficacy, and (d) self-regulation.

Reciprocal determinism means that a person is not just influenced by their environment, but they also influence the environment around them. In other words, a person can be both an agent for change and a responder to change [13]. SCT suggests that human behavior is a continuous reciprocal interaction between environmental factors, personal factors, and behavioral factors that ultimately determines human behavior [14]. The concept of reciprocal determinism is shown in Figure 1. A basic premise of SCT is that people learn not only through their own experiences but also by observing the actions of others and the results of those actions, which is referred to as observational learning. This concept aligns with the view that resilience is a skill that can be learned and developed by observing others.

Self-Regulation is the consistent and appropriate application of self-control skills to new situations [13]. Someone with good emotional self-regulation



Adapted from: Bandura A (1986)

Figure 1. Reciprocal Determinism.

can control their emotions and resist impulsive behaviors that might make their situation worse. Self-Efficacy is the confidence or belief in one's ability to perform a given behavior. Prior research Benight and Bandura [15] has shown that a person's self-efficacy contributes to his or her resilience. A belief in one's ability to exercise some measure of control over the entrepreneurial process in the face of adversity goes hand in hand with resilience [12]. Self-efficacy allows entrepreneurs to believe in their ability to cope with stressful environments. Therefore, entrepreneurs who believe in their ability to take the appropriate actions necessary for business success in challenging contexts will be better able to build their resilience.

SCT guides the pursuit of understanding the success as well as the failure of an organization from the substantial involvement of the entrepreneur, because he/she is the decision-maker and strategist, even though he/she has collaboration and support from others in the business management process [16]. The researcher presents this theory as a well-suited framework for the current study. The assumptions from SCT that pertain to resilience include: (a) human behavior is a continuous interaction between personal, behavioral, and environmental factors and this behavior is self-regulatory, (b) the individual can select, organize, and transform stressors that affect them to obtain mastery and competence, and (c) perceived self-efficacy impacts coping efforts and the stronger the self-efficacy, the more active the efforts [17].

Methodology

The researcher aimed to provide a rigorous assessment of the literature on how individual resilience impacts entrepreneurial success. Empirical research was conducted in response to the study's research question. The Population, Intervention, Comparison, Outcome, and Context (PICOC) guide from the Center for Evidence Based Management (CEBMA) was used to support the research question [18] the PICOC (see Figure 2) will help to determine whether the findings are generalizable and applicable to the entrepreneurial context.

Systematic reviews have become fundamental to evidence-based practice and represent a key methodology for locating, appraising, synthesizing, and reporting best evidence [19]. Five stages fundamental for a rigorous and complete systematic review were applied: (a) formulation of the research question, (b) relevant literature materials were located and identified, (c) the retrieved studies were sorted, assessed, and confirmed for inclusion in the review as per the set criteria, (d) relevant data and information were extracted from the studies along with thematic synthesis, and (e) recommendations and implications were provided based on the evidence. Systematic reviews differ from traditional narrative reviews in using a replicable, scientific, and transparent process that aims to minimize bias through exhaustive literature searches [20].

The search strategy for this study included an extensive and exhaustive search for literature on the subject matter. Badampudi et al. [21] noted that two main approaches for conducting literature searches are snowballing and database searches. The researcher searched for relevant studies using databases available through the University of Maryland Global Campuses library, including UMGC One Search, ABI/In form, and ProQuest Dissertations & Thesis Global. The researcher also used Google Scholar. Also, the backward snowball method was used, which involved pursuing relevant references cited in the retrieved literature and adding them to search results [22]. Snowballing represents an alternative approach to identify additional evidence that was not retrieved through conventional search and the effectiveness makes it a best practice in systematic reviews



Figure 2. PICOC Framework.

[22]. Databases were selected based on their capacity for empirical evidence centered around topic-related keywords: “entrepreneur”, “resilience”, and “entrepreneurial success.” Two search strings were applied to the databases:

- (entrepreneur* OR start-up*) AND (grit* OR resilien* OR “mental skills” OR “mental toughness”) n5 (entrepreneur* success), and
- ((entrepreneur* OR start-up*) AND (grit* OR resilien*) AND (entrepreneur* success))

The following sections present the process for inclusion and exclusion criteria, study selection, data extraction, and critical appraisal.

Inclusion and Exclusion Criteria

To be included in this systematic review, articles had to be relevant to the research question. Given the focus of this study is on the impact individual resilience has on entrepreneurial success, the research of interest had to include resilience and entrepreneurial success in a work setting. The author performed a first selection by reading the title, abstract, and keywords of the studies and selected them according to the inclusion and exclusion criteria defined below.

Inclusion criteria

1. Date and location: published in the 21st century, articles inside and outside of the U.S
2. Language: English only
3. Study type: secondary studies qualitative, quantitative, and empirical studies
4. Study design: reviews, case studies, cross-sectional, and descriptive studies
5. Measurement: studies in which individual resilience and entrepreneurial success were measured
6. Outcome: the impact resilience has on entrepreneurial success
7. Context: entrepreneurial

Exclusion criteria

1. Articles not relevant to the research question
2. Articles without a clear description, merely mention resilience and entrepreneurial success
3. Articles focused on resilience that was not in an entrepreneurial context
4. Articles that focused on macro-level(organizational) resilience

Study selection

The study selection involved screening and appraisal before final selection and was based on title relevance and abstracting. In total, 675 studies were identified after the initial screening. A second screening was carried out to assess the identified studies on their significance and quality, the context-validity, and appropriateness of their research designs to answer the research question. Excluded articles did not meet any of the requirements in the abstract, results, or discussion sections. The Prisma flow chart provided in Appendix A offers additional details and a visual of the selection process. After an exhaustive study selection process, 26 articles were found relevant and included for synthesis. These articles are designated in the reference section by an asterisk.

Data extraction

Data extraction is the process of turning unstructured or semi-structured data into structured data, allowing the researcher to extract meaningful information hidden inside. The data extracted for this study includes the title of the article, author(s), and date of publication, research design, sector

population, sample size, effect size, outcome measures, limitations, level of trustworthiness, and a narrative on the main findings. The 26 data extraction tables are displayed in Appendix B.

Critical Appraisal

There are no one-size-fits-all formulas for assessing the quality of studies in any given area. According to Berands et al. [18] a researcher can usually find a study to support or refute any theory or claim. An important component of the methodology is to determine the relevance and rigor of each piece of evidence included [23]. TAPUPAS was developed by Pawson et al. [24] to define different types of quality and knowledge. In this study, the Transparency, Accuracy, Purposivity, Utility, Propriety, Accessibility, and Specificity (TAPUPAS) tool developed by Pawson et al. [24] and described by Gough et al. [20] was selected to ensure an acceptable level of relevance and rigor were met (see Appendix C). To properly appraise quality, each article included in this study was put through the seven screening criteria of TAPUPAS, receiving a score of 1-4 for each of the criteria that are outlined: 1 = low quality, 2 = average quality, 3 = good quality, 4 = excellent quality.

Results

The results reveal that individual resilience positively impacts and predicts entrepreneurial success. Awotoye and Singh [5] explored the concept of entrepreneurial resilience and its role in firm survival and success and found that the concept of entrepreneurial resilience accounts for why some entrepreneurs quit in the face of challenges while others press on in the face of uncertainty. Individuals lacking resilience were found to be less capable of engaging in the necessary entrepreneurial activities and behaviors, choosing rather to respond to the uncertainties with caution and fear [9]. During the research process conducted by d’Andria et al. [8] the entrepreneur faced many negative thoughts and feelings, such as frustration, distress, and discouragement. Instead of abandoning the project, the entrepreneur developed a resilient behavior that allowed a refocus until a satisfactory outcome was achieved. Chadwick and Raver [25] conducted a longitudinal study that highlighted how resilience helps nascent entrepreneurs become less vulnerable to their stressful circumstances. These findings show that individual resilience is needed to help entrepreneurs overcome adversity and succeed in uncertain environments.

In the entrepreneurial context, high resilience aids the entrepreneur to overcome hardships and succeed. de Lima et al. [26] interviewed 21 entrepreneurs and resilience was highlighted as an ability to overcome obstacles. For instance, Salisu et al. [27] examined the effect of entrepreneurial career resilience on entrepreneurial career success. They found resilience predicted all three facets of career success conducted by Lau et al. [28]. Ayala & Manzano [29] found three variables of personality (need for achievement, internal locus of control, and resilience) to have a direct positive impact on venture growth, with resilience having the greatest impact on venture performance.

Santoro et al. [30] found that perceived resilience of entrepreneurs is positively associated with their perception of success, confirming results conducted by Hayward et al. [31]. Ayala and Manzano [32] conducted a longitudinal study to examine the predictive validity of resilience in entrepreneurship. They found that the three dimensions of resilience adopted in their study (hardiness, resourcefulness, and optimism) helped in predicting entrepreneurial success. These results back up the findings of previous studies [31,33-35] and add to the empirical evidence that resilience has a positive influence on the explanation of entrepreneurial growth and is a major factor underlying success in entrepreneurial settings. Based on the results from these studies, resilience is a positive predictor of entrepreneurial success and is a key ingredient in the pursuit of successful entrepreneurship.

Thematic Synthesis

Analytical memoing provided an avenue for the researcher to examine the data at a greater level of abstraction and explore hypotheses, relationships, and explanations contained within the data. The researcher then conducted two-cycle manual coding:

- First cycle coding was used to identify single words and phrases that might expose deeper meaning.
- Second cycle coding was used to identify the most frequent codes and sorted into categories.

The emerging themes identified from the gestalt of the 26 articles were: (a) there is a positive relationship between individual resilience and entrepreneurial success, (b) entrepreneurial experience fosters the development of individual resilience, (c) internal locus of control is a contributor to business success, and (d) resilience and self-efficacy reinforce one another to affect behavior and decision-making. The dataset articles by theme are displayed in Appendix D. A synthesis of the findings provides insight into understanding the themes that emerged from this study.

There is a positive and significant relationship between individual resilience and entrepreneurial success

Multiple articles found a positive and/or significant relationship between individual resilience and entrepreneurial success. Fatoki [36] investigated the relationship between entrepreneurial resilience and the success of small-medium enterprises (SMEs) in South Africa and found that there is a significant positive relationship between entrepreneurial resilience in both individual and organizational success. Jafaar et al. [37] examined small-scale business entrepreneurs, who were initially stricken by poverty, and provided supporting evidence that a positive relationship between entrepreneurial resilience and success exists. Owens et al. [38] investigated personality traits concerning business success and found that resilience was positively and significantly related to business success. The regression models conducted by Salisu et al. [27] and Santoro et al. [30] confirm the findings of Fisher et al. [10], who found a positive relationship between resilience and entrepreneurial success.

A few studies examined the relationship between Psychological Capital (PsyCap) and entrepreneurial success. Coming from positive psychology, PsyCap consists of four dimensions: self-efficacy, optimism, hope, and resilience [26]. The results of Bockorny's [39] (2015) dissertation revealed that PsyCap is a predictor of employee growth, satisfaction with life, and income growth. The multiple regression results of the relationship between PsyCap and entrepreneurial success conducted by Paul V [40] show that namely self-efficacy, optimism, and resilience positively influence entrepreneurial success. Paul V [40] found that resilience is positively correlated with financial wealth, entrepreneurial satisfaction, and feeling of gratitude. These results show that individual resilience has a positive relationship with objective and subjective indicators of entrepreneurial success.

Entrepreneurial experience fosters the development of individual resilience

Negative and positive experience should be regarded as an opportunity to learn and develop the skill of resilience to operate in uncertain and challenging business environments. Duchek [7] analyzed biographies of eight highly resilient entrepreneurs, which revealed that the entrepreneurs' big success did not come suddenly. It was preceded by a long period of learning and gaining experience. This aligns with Lafuente et al. [41] study on serial and novice entrepreneurs, which revealed that practical experience is an essential prerequisite for entrepreneurial learning. Duchek's [7] findings show that sustained entrepreneurial action is a function of early life experience that fosters the development of entrepreneurial resilience.

In exploring the link between resilience and entrepreneurship, Sun et al. [42] found that entrepreneurs with experience have higher resilience scores than

those who did not have entrepreneurial experience. Thus, entrepreneurial learning and experience seem to be relevant to entrepreneurial resilience. This corresponds with studies that experience leads to business performance [4,29]. Ayala and Manzano [29] found that the entrepreneur's experience is the variable having the greatest impact on the explanation of venture growth. Smith [4] explored the relationship between psychological resilience and small business owner success and identified entrepreneurial experience as a contributor to business success, among other factors. Therefore, previous entrepreneurship experience is vital to business performance and success.

Internal locus of control is a contributor to business success

An entrepreneur desires to be independent and have control of the work environment and is comfortable taking responsibility for the outcome of the venture. This trait corresponds with internal locus of control, which means an entrepreneur believes they have control over their own destiny by the actions and decisions they make. Sun et al. [42] discussed the impact of locus of control in relation to entrepreneurial success as a secondary aim of their study and found a significant relationship between locus of control and resilience.

Bockorny [39] found that internal locus of control is a psychological antecedent of entrepreneurial success. Hadi and Abdullah [35] explored the relationship between entrepreneur traits and business performance and found that internal locus of control has a direct positive and significant influence on business performance. Owens et al. [38] found ten traits that correlated with business success, and Smith [4] identified three top contributors to business success, internal locus of control being one of the top personality predictors of success in both studies. Ayala and Manzano [29] also found that internal locus of control had a direct impact on venture growth.

Resilience and self-efficacy reinforce one another to affect behavior and decision-making

During adverse times, personal factors matter greatly for the pursuit of entrepreneurship. Bullough and Renko [9] and Bullough et al. [43] found that two specific personal factors enable entrepreneurs to persevere in the wake of adversity: self-efficacy and resilience. Self-efficacy, which is an entrepreneur's belief in his or her ability to effectively influence entrepreneurial processes and manage the effects of challenges and stressors, can impact his or her resilience to those very stressors. Paul V [40] explored PsyCap and its influence on entrepreneurial success and found that resilience is positively correlated with self-efficacy. In addition, Paul V [40] found that self-efficacy and resilience positively and significantly influence entrepreneurial success.

Findings show that self-efficacy helps in the creation of strategies and actions that lead to business success. Markman and Baron [33] found that high self-efficacy is an important determinant of successful entrepreneurial behaviors. de Lima et al. [26] confirmed that self-efficacy aids in developing strategies and pathways to success, and resilience drives entrepreneurs to overcome difficulties. Findings on entrepreneurship in adverse conditions indicate that entrepreneurs rely heavily on their perceived self-efficacy and their sense of resilience in the face of adversity [9,43]. Entrepreneurs who possess a high sense of self-efficacy and resilience are better able to adopt strategies and courses of action designed to overcome adverse situations.

Limitations and Future Research

The study had a few limitations that are worth noting. The articles reviewed contained data collected from entrepreneurs in different countries, which have their own cultural differences. According to Jorgensen and Seedat [43,44] the resilience of an entrepreneur (one dimension of entrepreneur skills) can be affected by cultural differences. Since the core of entrepreneurship is usually culturally sensitive, future investigations should examine the definitions and elements of career success deeper in different cultures.

Self-reporting measures can give different results as they are based on an individual's emotional state. Most of the knowledge used in this study is based on self-supported measures reported by entrepreneurs. Therefore, the researcher assumes that all self-supported information provided is truthful. Future studies could attempt to learn more about entrepreneurs' goals for growth. In the articles included, it may be that some entrepreneurs were satisfied by reaching a certain level of financial performance and may not have had a desire to expand the business further. Research in this area could look at measures of success that are aligned with entrepreneurs' personal goals. This study did not incorporate a comprehensive review of the psychometric properties of the tests, surveys, scales, and questionnaires used, which a limitation is regarding the critical appraisal of the studies included. The current study concentrated on the success of entrepreneurs, but the success of entrepreneurs is only one side of a coin. Future studies can explore the other side of the coin by relating resilience to negative entrepreneurial outcomes such as failure and exit.

Future studies should be directed towards exploring other factors that affect the relationship between resilience at an individual level and entrepreneurial success (i.e. education, experience, commitment, etc.), as well as other dimensions of entrepreneur skills (self-efficacy, control, motivation, etc.). Longitudinal research that examines who starts a business or succeeds as an entrepreneur in an adverse environment is an important direction for future research, especially given the importance of entrepreneurship for sustainable development. Further work is needed to understand how entrepreneurs' resilience can be enhanced and/or maintained over time, especially as they maneuver through resource-depleting business situations. These limitations notwithstanding, the findings will help entrepreneurs better understand why some are able to grow rather than retreat when faced with intense obstacles.

Conclusion

The researcher of this study explored the impact of individual resilience on entrepreneurial success, highlighted the business problem, and provided insights by way of themes and implications that emerged from the evidence of the systematic review. Social Cognitive Theory (SCT) was selected on the premise that people actively shape and are shaped by their environment. This learning theory was found to be instrumental in understanding business success from the involvement of the entrepreneur and the view that resilience is a skill that can be learned and developed. The findings support answering the research question, revealing that individual resilience positively impacts and predicts entrepreneurial success.

The evidence also supported that there is a positive relationship between individual resilience and entrepreneurial success. The themes that emerged shed light on the importance of entrepreneurial experience, and other skills such as internal locus of control and self-efficacy as it relates to individual resilience and entrepreneurial success. Entrepreneurs, as the driving force of the entrepreneurial process, ultimately make the decisions that impact their businesses. To be sustainably successful, entrepreneurs need a resilience capacity that enables them to overcome critical situations and emerge from failures and crises stronger than before. The outcome of this study sheds light on the importance of individual resilience to overcome hardships and adversities to achieve entrepreneurial success.

Risks of implementation

Even with hindsight, being prepared is incredibly challenging for entrepreneurs as they face multiple risks such as bankruptcy, financial risk, competitive risks, and environmental risks, political and economic risks. Many companies undertake some form of risk management, but mostly to understand and minimize exposure to specific, known risks. Entrepreneurs, on the other hand, must deal with unidentified risks, and continually keep up with changing contingencies by adjusting their goals and strategies since the information available to entrepreneurs is often ambiguous. Resilient entrepreneurs, who adapt quickly to change and show a high degree of tolerance for ambiguity, may be better prepared to succeed. Literature

shows that adversity and uncertainty are overcome by the development of resilience and allows the individual to stabilize their emotions and broaden their scope of attention. To stay psychologically healthy in the long term, entrepreneurs need to possess a resilience capacity that enables them to anticipate potential threats, cope effectively with critical situations, and adapt to changing environments to overcome failures.

Implications for practice

In the field of entrepreneurship where there is a predominantly high rate of failure and exit, a better understanding of the impact individual resilience has on entrepreneurial success has great implications for practice. Research shows that entrepreneurs can take actions to enhance their resilience since resilience is not an inherent characteristic trait, but rather an individual capability that can be developed. Business leaders and aspiring entrepreneurs should seek out activities targeted specifically toward boosting their resilience, such as seminars, short-term workshops, executive education courses, and business development training. Teaching resilience and challenge mindsets early on in such programs would be beneficial to help an increased number of entrepreneurs stay in business.

A way to build resilience and encourage business development training is through mentoring and swapping stories with other entrepreneurs who have succeeded in downtimes. Successful entrepreneurs and business leaders who have launched businesses and new initiatives despite negative realities are powerful motivators for potential entrepreneurs. Tying back into the theoretical framework and the concept of observational learning, aspiring entrepreneurs can learn by modeling others who have successfully navigated businesses through turbulent times.

This research can also be practically beneficial for the psychological well-being of entrepreneurs themselves. There is a possibility that the fear of failure in entrepreneurship could be minimized by highlighting the increased chance of success associated with having individual resilience. Entrepreneurs can take comfort in knowing that they have control to take action to increase their resilience, and they have alternative psychological resources they can utilize to cope with the challenges that come with entrepreneurship. This research makes a significant contribution to the literature by exploring a largely under explored individual skill that could help unlock the mysteries of successful entrepreneurship.

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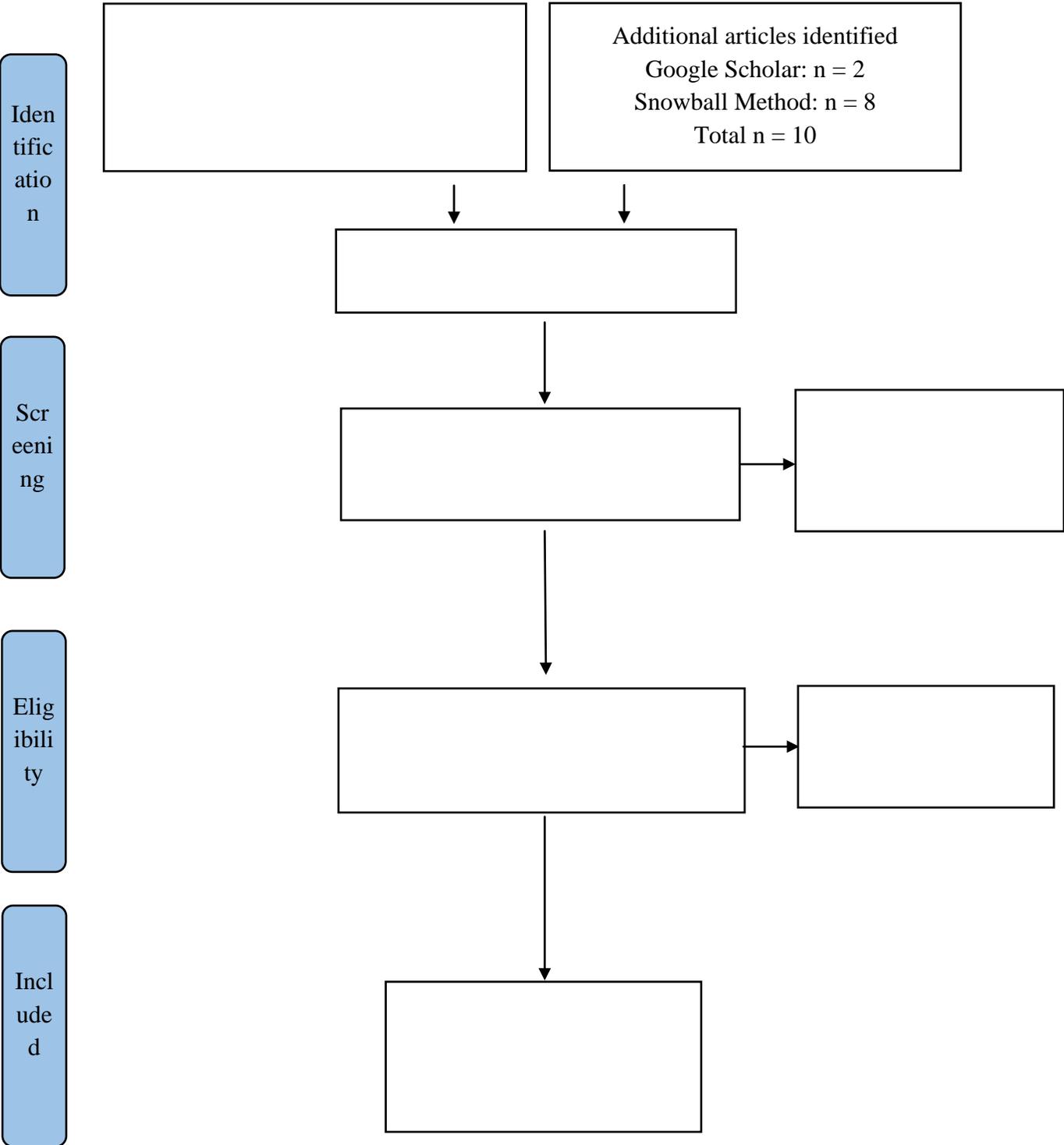
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Appendix A

Figure 1. PRISMA Flow Diagram.



Appendix B

Data Extraction Tables

Table 1

<p>Article: Entrepreneurial resilience, high impact challenges, and firm performance</p> <p>Author: Awotoye & Singh</p>	<p>Publication date:</p> <p>2017</p>	<p>Research design:</p> <p>Literature review</p>	<p>Sector population & Sample size:</p> <p>Firms; sample size N/A</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations: 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. The operationalization of the entrepreneurial resilience construct could take different forms.</p>	<p>Outcome Measures:</p> <p>N/A</p>	<p>Level of trustworthiness: E</p>
<p>Main findings: Developed theory-based propositions: Proposition 1a: High impact challenges are negatively related to firm survival. Proposition 1b: High impact challenges are negatively related to firm success. Proposition 2a: Entrepreneurial resilience is positively related to firm survival. Proposition 2b: Entrepreneurial resilience is positively related to firm success. 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.</p>			

Table 2

<p>Article: Established business owners' success: Influencing factors</p> <p>Author: Ayala & Manzano</p>	<p>Publication date:</p> <p>2010</p>	<p>Research design:</p> <p>Cross-sectional, questionnaire survey</p>	<p>Sector population & Sample size:</p> <p>Established business owners/founders in Spain; n = 596</p>
<p>Effect size: used statistical</p>	<p>Limitations:</p>	<p>Outcome</p>	<p>Level of</p>

method of partial least squares (PLS); path coefficients of the three variables of personality considered are 0.17, 0.12, and 0.25 respectively.	Growth rates may vary across industries; however, industry is not treated as a moderating variable. The sample of entrepreneurs has been taken from Spain, a country that has its own cultural characteristics.	Measures: Need for achievement, internal locus of control, and resilience	trustworthiness:D
Main findings: The three variables of personality considered (need for achievement, internal locus of control, and resilience) were posited to have a direct impact on venture growth. Resilience is a trait that has the greatest impact on venture performance.			

Table 3

Article: The resilience of the entrepreneur. Influence on the success of the business. A longitudinal analysis. Author: Ayala & Manzano	Publication date: 2014	Research design: Longitudinal study, questionnaire survey	Sector population & Sample size: Spanish tourism sector; n = 373
Effect size: N/A	Limitations: The relationship between resilience and entrepreneurial success in companies run by a single person was researched, who was also the founder and owner of the business. Many companies have more than one owner-founder and entrepreneurial success could depend on team resilience.	Outcome Measures: Three dimensions of resilience (hardiness, resourcefulness, and optimism)	Level of trustworthiness: A
Main findings: The results show that the three dimensions of resilience (hardiness, resourcefulness, and optimism) help to predict entrepreneurial success. The findings of this study provide supporting evidence			

that within the framework of small companies, there is a positive association between the resilience of entrepreneurs and the growth of their companies. On the other hand, the results provide supporting evidence that the factors of resilience affect, to varying degrees, the explanation of the growth of the company based on gender.

Table 4

<p>Article: Psychological capital, courage, and entrepreneurial success</p> <p>Author: Bockorny</p>	<p>Publication date:</p> <p>2015</p>	<p>Research design:</p> <p>Cross-sectional, quantitative study</p>	<p>Sector population & Sample size:</p> <p>South Dakotan entrepreneurs; n = 152</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>External validity is affected because only a small percentage of entrepreneurs in the world were asked to participate. Internal validity was also a concern because the majority of those who responded represented an entrepreneurial venture that was still operating. Low response rate (4.29%). Common source bias and selection bias.</p>	<p>Outcome Measures:</p> <p>PsyCap, courage, entrepreneurial success</p>	<p>Level of trustworthiness: C</p>

Main findings: The results of this cross-sectional study of South Dakotan entrepreneurs (N=152) support PsyCap as a predictor of employee growth and satisfaction with life. PsyCap was also a predictor of income growth when entrepreneurs who experienced income growth were compared with the entrepreneurs who did not experience income growth. Neither PsyCap nor courage predicted venture survival. Based on the findings, PsyCap and courage are important predictors of entrepreneurial success.

Table 5

<p>Article: Entrepreneurial resilience during challenging times</p> <p>Author: Bullough & Renko</p>	<p>Publication date:</p> <p>2013</p>	<p>Research design:</p> <p>Survey data</p>	<p>Sector population & Sample size:</p> <p>Entrepreneurs in the U.S. and abroad; n = 500+</p>
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Effect size: N/A	Limitations: Not provided	Outcome Measures: Two personal factors: self-efficacy and resilience	Level of trustworthiness: D
Main findings: The results reveal that specific personal factors matter greatly for the pursuit of entrepreneurship especially during periods of adversity. Two specific personal factors enable human beings to persevere in the wake of what some might consider to be adversity: self-efficacy and resilience.			

Table 6

Article: Danger zone entrepreneurs: The importance of resilience and self-efficacy for entrepreneurial intentions Author: Bullough, Renko, & Myatt	Publication date: 2014	Research design: Empirical study; primary survey research	Sector population & Sample size: Entrepreneurs in war-stricken Afghanistan; n = 272
Effect size: N/A	Limitations: Use of self-report data and a single data collection method (surveys), which raises concerns about common method variance. The use of a behavioral intention measure as the dependent variable may be considered a limitation.	Outcome Measures: perceived danger, entrepreneurial self-efficacy, and resilience, entrepreneurial intentions	Level of trustworthiness: C
Main findings: Findings suggest that perceived danger is negatively related to an individual's entrepreneurial intentions, but marginally less so among highly resilient individuals. The findings also suggest that even under conditions of war, individuals develop entrepreneurial intentions if they can grow from adversity (resilience) and believe in their entrepreneurial abilities (entrepreneurial self-efficacy).			

Table 7

<p>Article: Psychological resilience and its downstream effects for business survival in nascent entrepreneurship</p> <p>Author: Chadwick & Raver</p>	<p>Publication date:</p> <p>2018</p>	<p>Research design:</p> <p>Mixed methods</p>	<p>Sector population & Sample size:</p> <p>Nascent entrepreneurs in Canada; n - 104</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>An external validity limitation is that the sample may not be representative of the entrepreneurial population as a whole as the means of the variables for resilience, challenge appraisals, and proactivity are relatively high (with relatively low standard deviations).</p>	<p>Outcome Measures:</p> <p>Psychological resilience and business survival</p>	<p>Level of trustworthiness: A</p>
<p>Main findings: Results revealed full support for this theorized model based upon a unique sample of first-time entrepreneurs who we followed as they planned, launched, and operated their first new ventures over a 2-year period.</p>			

Table 8

<p>Article: Resilience and effectuation for a successful business takeover</p> <p>Author(s): d'Andria, Gabarret & Vedel</p>	<p>Publication date:</p> <p>2018</p>	<p>Research design:</p> <p>Qualitative analysis; blogs written</p>	<p>Sector population & Sample size:</p> <p>Entrepreneurs during the first 17 months of a company takeover; n = 78</p>
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<p>Effect size:</p> <p>N/A</p>	<p>Limitations: This research was exploratory, and evidence was collected from a single source: a French blog. Although this can ensure the reliability of the results, it potentially limits their generalizability. The blog may not adequately reflect the experiences of the entrepreneur because he decided on what he wrote about.</p>	<p>Outcome Measures:</p> <p>The analysis focused on two forms of resilience (cognitive and emotional) and two logics of actions (causal and effectual).</p>	<p>Level of trustworthiness:A</p>
<p>Main findings: The results highlight that in high uncertainty, strong entrepreneurial resilience, and shift of logics of action can contribute to the success of a business takeover. This study identified forms of resilience during the business takeover process that helped the entrepreneur overcome adversity and succeed.</p> <p>During the research process, the entrepreneur faced several problems including negative thoughts, frustration, and feelings of distress that could have been discouraging and make the entrepreneur return to the job market. However, instead of abandoning the project the entrepreneur developed a resilient behavior that, combined with effectual logic, allowed a refocus to continue the search until a satisfactory outcome was achieved.</p>			

Table 9

<p>Article: The power of psychological capital: The strength of beliefs in entrepreneurial behavior</p> <p>Author: de Lima, Nassif, & Garcon</p>	<p>Publication date:</p> <p>2020</p>	<p>Research design:</p> <p>Qualitative research with in-depth interviews</p>	<p>Sector population & Sample size:</p> <p>Entrepreneurs with different profiles; n = 21</p>
<p>Effect size: N/A</p>	<p>Limitations:</p> <p>For the results to be confirmed and generalized, there is a need for studies in different contexts and groups, and to investigate</p>	<p>Outcome Measures:</p> <p>self-efficacy, optimism, hope, resilience, intentionality, anticipation, self-</p>	<p>Level of trustworthiness:A</p>

	the attributes through other methods and types of research.	actualization, and self-reflection.	
<p>Main findings: the results show that the actions developed by the interviewees during the creation and development of businesses are aligned with the entrepreneurial characteristics, according to the literature, without distinction of gender, age, or length of experience. As for coping mechanisms for challenges and opportunities, these individuals express their beliefs in behaviors of self-efficacy, optimism, hope, resilience, intentionality, anticipation, self-actualization, and self-reflection.</p>			

Table 10

<p>Article: Entrepreneurial resilience: A biographical analysis of successful entrepreneurs</p> <p>Author: Duchek</p>	<p>Publication date:</p> <p>2017</p>	<p>Research design:</p> <p>Qualitative content analysis</p>	<p>Sector population & Sample size:</p> <p>Biographies of highly resilient entrepreneurs;n = 8</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>Rely on the memories of the entrepreneurs and trust that the entrepreneurs convey them truthfully.</p> <p>Solely analyzed the biographies of extremely successful entrepreneurs. However, most entrepreneurs are less successful, and a high portion of founders fail in the first few business years and do not try again.</p>	<p>Outcome Measures:</p> <p>N/A</p>	<p>Level of trustworthiness: A</p>
<p>Main findings: Points to two situational factors (parents' behavior and experience) and two process-related factors (entrepreneurial learning and experience and entrepreneur's work attitudes and behaviors) that seem to be relevant for entrepreneurial resilience</p>			

Table 11

Article: Beyond human and social capital: The importance of positive psychological capital for entrepreneurial success Author: Envick	Publication date: 2005	Research design: Literature review	Sector population & Sample size: Entrepreneurs; n = N/A
Effect size: N/A	Limitations: Not provided	Outcome Measures: N/A	Level of trustworthiness: E
Main findings: The important contribution of this paper was to introduce the concept of positive psychological capital and contend that it is as important to consider as all other forms of capital when examining short-term and long-term entrepreneurial success. entrepreneurs' resilience has a positive influence on the explanation of entrepreneurial growth.			

Table 12

Article: The impact of entrepreneurial resilience on the success of small and medium enterprises in South Africa Author: Fatoki	Publication date: 2018	Research design: Quantitative with a descriptive and causal research design; Survey method; self-administered questionnaire	Sector population & Sample size: Small business owners; n = 170
Effect size: Cronbach's alpha: Individual Entrepreneurial Success (.78); Organizational Entrepreneurial Success (0.74)	Limitations: Not provided	Outcome Measures: entrepreneurial resilience, individual and organizational success	Level of trustworthiness: C
Main findings: The main objective of this study was to examine the relationship between entrepreneurial resilience and personal and organizational success. The results indicated that entrepreneurial resilience has a significant positive relationship with success at both individual and organizational levels.			

Table 13

<p>Article: Does individual resilience influence entrepreneurial success?</p> <p>Author: Fisher, Lartiz, & Lobo</p>	<p>Publication date:</p> <p>2016</p>	<p>Research design:</p> <p>Quantitative; self-study; questionnaires</p>	<p>Sector population & Sample size:</p> <p>Founding Australian entrepreneurs; n = 215</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>Measures rely on self-report, participants drawn from one culture – results may not be generalizable.</p>	<p>Outcome Measures:</p> <p>individual resilience, individual entrepreneurial success, business entrepreneurial success</p>	<p>Level of trustworthiness:C</p>
<p>Main findings: Findings suggest that individual-level resilience in entrepreneurs can be conceptualized as hardiness and persistence, does predict entrepreneurial success when indicated by individual-level variables. Results show that individual resilience does predict entrepreneurial success.</p>			

Table 14

<p>Article: The leverage of entrepreneur skills and entrepreneur traits to business success: A case study of Pakistan's marble industry</p> <p>Author: Hadi & Abdullah</p>	<p>Publication date:</p> <p>2018</p>	<p>Research design:</p> <p>Questionnaires, survey-based research</p>	<p>Sector population & Sample size:</p> <p>Marble manufacturing sector; n = 82</p>
<p>Effect size:</p> <p>Chi-square – E-skills 761.753; E-traits 126.291. Composite reliability and Cronbach's alpha for each entrepreneur skill was evaluated. The Path coefficient from E skills to managerial skills, strategic skills, and resiliency skills were 0.735, 0.690, and 0.783.</p>	<p>Limitations:</p> <p>Entrepreneur trait was measured by four indicators which could be affected by other indicators not included in the study. The data was collected from Pakistan which has its own cultural differences.</p>	<p>Outcome Measures:</p> <p>Entrepreneur skills and entrepreneur traits</p>	<p>Level of trustworthiness:D</p>
<p>Main findings: The empirical results further support the relationship between entrepreneur skills,</p>			

entrepreneur traits, and successful marble manufacturing. we found that entrepreneurial skills have a significant positive effect on the success of marble manufacturing within the KPK Province. It was further found that the effect of entrepreneur traits on the success of marble manufacturing in the KPK Province was marginally significant.

Table 15

<p>Article: Beyond hubris: How highly confident entrepreneurs rebound to venture again</p> <p>Author: Hayward, Forster, Sarasvathy, & Fredrickson</p>	<p>Publication date:</p> <p>2010</p>	<p>Research design:</p> <p>Literature review</p>	<p>Sector population & Sample size:</p> <p>Serial entrepreneurs; n = N/A</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>Not listed</p>	<p>Outcome Measures:</p> <p>N/A</p>	<p>Level of trustworthiness:E</p>
<p>Main findings: Entrepreneurs' resilience has a positive influence on the explanation of entrepreneurial growth and entrepreneurial success.</p>			

Table 16

<p>Article: Entrepreneurial success and resilience of rural entrepreneurs in Kota Kinabalu, Sabah under the Malaysian 1Azam Programme</p> <p>Author: Jaafar, Adnan, Nasir, Mohtar, & Tambi</p>	<p>Publication date:</p> <p>2017</p>	<p>Research design:</p> <p>Questionnaires</p>	<p>Sector population & Sample size:</p> <p>Rural based small-scale Malaysian entrepreneurs; n = 168</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>Not provided</p>	<p>Outcome Measures:</p> <p>Entrepreneurial resilience and successfulness</p>	<p>Level of trustworthiness: D</p>
<p>Main findings: The findings from this small-scale study provide supporting evidence that small private</p>			

businesses belonging to the low-income earner societal bracket exhibit a positive relationship between entrepreneurial resilience and success.

Table 17

<p>Article: Entrepreneurial career success from a Chinese perspective: Conceptualization, operationalization, and validation</p> <p>Author: Lau, Shaffer, & Au</p>	<p>Publication date:</p> <p>2007</p>	<p>Research design:</p> <p>Mixed methods; cross-sectional</p>	<p>Sector population & Sample size:</p> <p>Chinese entrepreneurs in Hong Kong; n = 212</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>In terms of our sampling, caution must be exercised in generalizing the findings. The low response rates from both samples may have resulted in problems of non-response bias.</p>	<p>Outcome Measures:</p> <p>Resilience, career success</p>	<p>Level of trustworthiness: A</p>
<p>Main findings: Resilience predicted all three facets of career success.</p>			

Table 18

<p>Article: Bouncing back from failure: Entrepreneurial resilience and the internationalization of subsequent ventures created by serial entrepreneurs</p> <p>Author: Lafuente, Vaillant, Vendrell-Herrero, & Gomes</p>	<p>Publication date:</p> <p>2019</p>	<p>Research design:</p> <p>Mixed methods; cross-sectional</p>	<p>Sector population & Sample size:</p> <p>Serial and novice entrepreneurs (Catalan adult population); n = 1,984</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>Based on self-reported metrics and despite taking many steps to assure confidence in the validity of the analysis, common</p>	<p>Outcome Measures:</p> <p>Entrepreneurial resilience, entrepreneurial</p>	<p>Level of trustworthiness:A</p>

	method bias is a remote concern. The geographical specificity of the study and the cross-sectional nature of its dataset call for obvious caution when interpreting and generalizing its findings.	learning	
<p>Main findings: Results from the sequential deductive triangulation analysis reveal that practical experience is an essential prerequisite for entrepreneurial learning and that the resilience of those with negative entrepreneurial experience induces the generative entrepreneurial learning especially suitable for subsequent internationally oriented ventures.</p>			

Table 19

<p>Article: Person-entrepreneurship fit: Why some people are more successful as entrepreneurs than others</p> <p>Author: Markman & Baron</p>	<p>Publication date:</p> <p>2003</p>	<p>Research design:</p> <p>Literature review</p>	<p>Sector population & Sample size:</p> <p>Entrepreneurs; n = N/A</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>Not listed</p>	<p>Outcome Measures:</p> <p>N/A</p>	<p>Level of trustworthiness:E</p>
<p>Main findings: The author's suggested that to the extent that entrepreneurs are high on several distinct individual-difference dimensions relevant to the entrepreneurial role (e.g., self-efficacy, opportunities recognition, perseverance, human and social capitals, and social skills), the closer will be their person-entrepreneurship fit and, consequently, the greater their success.</p>			

Table 20

<p>Article: Personality correlates of self-employed small business owners'</p>	<p>Publication date:</p>	<p>Research design:</p> <p>Cross-sectional</p>	<p>Sector population & Sample size:</p>
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success Author: Owens, Kirwan, Lounsbury, Levy, & Gibson	2011	study, web-based questionnaires	Entrepreneurs and self-employed business owners; n = 147
Effect size: N/A	Limitations: Reliance on self-report data for business performance measures, which may be affected by social desirability bias. Also, since the findings were derived from a single method of measurement, the present results may be limited by common-method bias. Response bias is another potential validity threat in this study.	Outcome Measures: 14 related personality traits and business success (revenue growth, profit growth, income growth, individual satisfaction)	Level of trustworthiness: C
Main findings: Ten traits correlated with business success. The top four personality predictors of success – Goal-Setting, Social Networking, Resilience, and locus of control – together accounted for 16% of the variance.			

Table 21

Article: A study on psychological capital and its influence on entrepreneurial success with special reference to MSMEs in Coimbatore	Publication date: 2017	Research design: Descriptive in nature, questionnaire	Sector population & Sample size: Registered micro small and medium enterprises
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District Author: Paul V.			(MSMEs) in Coimbatore, India district; n = 367
Effect size: Cronbach alpha (.830).	Limitations: Respondent bias. The unregistered MSMEs in the Coimbatore district are not taken into consideration, the results cannot be generalized.	Outcome Measures: PsyCap (hope, resilience, optimism, efficacy) and entrepreneurial success (financial wealth, satisfaction, feeling of gratitude, preparedness)	Level of trustworthiness: A
<p>Main findings: The optimism factor is positively correlated with Self-efficacy (.335**). Hope is positively correlated with Self-efficacy (.357**). Resilience is positively correlated with Self-efficacy (.159**) and Hope (.663**). Financial wealth is positively correlated with Self-efficacy (.209**), Optimism (.236**), and Resilience (.252**). Entrepreneurial Satisfaction positively correlated with Self-efficacy (.109*), Optimism (.411**), Hope (.125**), Resilience (.143*) and Financial wealth (.303**). Feeling of gratitude is positively correlated with Self-efficacy (.166**), Hope (.208**), Resilience (.338**), Financial wealth (.301**) and Entrepreneurial Satisfaction (.214**). Entrepreneurial Satisfaction is positively correlated with Self-efficacy (.234**), Hope (.119*), Resilience (.209**), Financial wealth (.222**), Entrepreneurial Satisfaction (.480**) and Feeling of gratitude (.584**). In the model fit of the influence of Psychological Capital on Entrepreneurial Success, the R2 value is .204 which implies that 20% change in Entrepreneurial Success is due to Psychological Capital. R-value is .451 which shows a moderate and significant relationship (F=23.172) between Entrepreneurial Success and Psychological Capital. The multiple regression results of the relationship between Psychological Capital and Entrepreneurial Success show that psychological capital factors namely Self-Efficacy (.019*), Optimism (.000*), and Resilience (.000*) positively influence Entrepreneurial success and they are found to be significant. The psychological capital factor Hope does not influence entrepreneurial success and it is not found to be significant.</p>			

Table 22

Article: Entrepreneurial career resilience and entrepreneurial career success: Does entrepreneurial career commitment matter? Author: Salisu, Hasim, & Galadanchi	Publication date: 2018	Research design: Cross-sectional study, questionnaires	Sector population & Sample size: Entrepreneurs in Nigeria; n = 390
Effect size: N/A	Limitations: No causal conclusions can be drawn from the	Outcome Measures: Entrepreneurial career resilience, career	Level of trustworthiness: C

	current results. Participants rated themselves in the same measurement context. Demographic variables were not included.	satisfaction, career commitment, perceived career achievement, perceived financial attainment	
Main findings: The findings suggested that; entrepreneurial career resilience was a positive predictor of career satisfaction and perceived career achievement but it did not predict perceived financial attainment; that, entrepreneurial career resilience predicted entrepreneurial career commitment; that, entrepreneurial career commitment predicted career satisfaction, perceived career achievement and perceived financial attainment. Moreover, entrepreneurial career commitment significantly influenced the relationships of entrepreneurial career resilience and the two facets of entrepreneurial career success.			

Table23

Article: Perseverance of effort and consistency of interest for entrepreneurial career success: Does resilience matter? Author: Salisu, Hashim, Mashi, & Aliyu	Publication date: 2020	Research design: Cross-sectional study, questionnaires	Sector population & Sample size: Entrepreneurs in Nigeria, n = 111
Effect size: H1 - .193; H2 - .260; H3 - .029; H4 - .034; H5 - .005; H6 - .138; H7 - .166; H8 - .137; H9 - .234; H10 - .285; H11 - .073	Limitations: Causal conclusions cannot be drawn from the current results. The current study collected data from the developing economy of Nigeria and, because of contextual differences, the findings could not be generalized.	Outcome Measures: Entrepreneurial Grit (perseverance of effort and consistency of effort), entrepreneurial resilience, entrepreneurial career success (career satisfaction, perceived career achievement, perceived financial attainment).	Level of trustworthiness: C
Main findings: The perseverance of effort was related to all the aspects of career success as well as resilience. But the consistency of interest was positively related to only perceived financial attainment. It also predicted resilience. Resilience was also related to all the facets of career success. All three mediation hypotheses were supported.			

Table 24

<p>Article: Exploring the relationship between entrepreneurial resilience and success: The moderating role of stakeholders' engagement</p> <p>Author: Santoro, Bertoldi, Giachino, & Candelo</p>	<p>Publication date:</p> <p>2018</p>	<p>Research design:</p> <p>Quantitative; survey method</p>	<p>Sector population & Sample size:</p> <p>Entrepreneurs managing small businesses active in different industries; n = 117</p>
<p>Effect size:</p> <p>N/A</p>	<p>Limitations:</p> <p>The sample only represents the Italian target population, and thus the external validity of the results could represent an issue. All the measures are affected by the subjectivity of a single respondent (entrepreneur), findings must be considered carefully.</p>	<p>Outcome Measures:</p> <p>entrepreneurial resilience, entrepreneurial success, stakeholders' engagement</p>	<p>Level of trustworthiness:D</p>
<p>Main findings: The research findings indicate that perceived resilience of entrepreneurs is positively associated with their perception of success. Moreover, the relationship is stronger for entrepreneurs with a wide network of stakeholders.</p>			

Table 25

<p>Article: Exploring the relationship between psychological hardiness and small business owner success</p> <p>Author: Smith</p>	<p>Publication date:</p> <p>2015</p>	<p>Research design:</p> <p>Mixed methods</p>	<p>Sector population & Sample size:</p> <p>Small business owners (micro-businesses) in Texas; n = 128</p>
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Effect size: N/A	Limitations: The study took place over a 6-month period, which limited the amount of time that could be allotted to solicit participation. The use of a small sample size impacts the results, which may not be generalizable to the small business population	Outcome Measures: Psychological hardiness, commitment, control, and challenge	Level of trustworthiness: A
Main findings: Empirical research indicated psychological hardiness as an effective predictor of success in a variety of fields, including nursing, the military, academia, and expatriates. A correlation was not found between hardiness scores and small business success; however, qualitative analyses indicate owners attribute business success to hardiness traits. Owners identified commitment, control, and challenge as the top contributors to business success.			

Table 26

Article: Using the concept of resilience to explain entrepreneurial success in China Author: Sun, Buys, Wang, & McAuley	Publication date: 2011	Research design: Cross-sectional cohort study	Sector population & Sample size: Entrepreneurs across 31 provinces in China; n = 38,890
Effect size: N/A	Limitations: This study used a cross-sectional study design which may have produced a self-selection bias in the sample and so the respondents may not have been characteristic of the population as a whole.	Outcome Measures: Resilience, entrepreneurship, education, locus of control, and experience	Level of trustworthiness: D
Main findings: Results indicated that entrepreneurs who founded a resource-based business had higher resilience scores than those who founded risk or knowledge-based ventures. The resource-based and skill-based entrepreneurs were similar to each other in terms of creativity and innovation, need for achievement, flexibility, and knowledge seeking.			

Appendix C

Table 1. Analysis utilizing TAPUPAS framework.

	Transparen cy	Accura cy	Purposivi ty	Utility	Propriet y	Accessibilit y	Specificit y	Total
Awotoye & Singh (2017)	3	3	4	2	N/A	3	3	22
Ayala & Manzano (2010)	4	4	4	4	3	4	4	27
Ayala & Manzano (2014)	4	4	4	4	3	4	4	27

Bockorny (2015)	4	4	3	3	4	2	3	23
Bullough & Renko (2013)	4	4	3	3	3	4	4	25
Bullough et al. (2014)	4	4	3	3	4	4	4	26
Chadwick & Raver (2018)	4	4	4	4	4	4	4	28
d'Andria et al. (2018)	4	4	4	3	N/A	3	4	26
de lima et al. (2020)	4	4	3	3	4	3	4	25
Duchek (2018)	4	4	3	3	N/A	4	4	26
Envick (2005)	3	3	3	3	N/A	4	3	23
Fatoki (2018)	4	4	4	4	4	4	4	28
Fisher et al. (2016)	4	4	4	4	3	3	4	26
Hadi & Abdullah (2018)	4	3	4	4	3	3	4	25
Hayward et al. (2010)	4	4	4	4	N/A	3	3	26
Jaafar et al. (2017)	3	3	4	4	3	4	4	25
Lau et al. (2007)	4	4	4	4	3	3	4	26
Lafuente et al. (2019)	4	4	3	3	3	4	4	25
Markman & Baron (2003)	4	3	3	3	N/A	4	4	25
Owens et al. (2013)	4	4	4	4	4	4	4	28
Paul V. (2017)	4	4	4	4	4	4	4	28
Salisu et al.								

(2018)	4	4	4	4	3	3	4	26
Salisu et al. (2020)	4	4	4	4	3	3	4	26
Santoro et al. (2018)	4	4	4	4	4	4	4	28
Smith (2015)								
Sun et al. (2011)	4	4	4	4	3	4	4	27
	4	4	3	3	4	3	4	25
	4	4	3	3	3	3	4	24

Appendix D

Table 2: Dataset articles by theme.

Theme	Article
There is a positive relationship between individual resilience and entrepreneurial success	Fatoki (2018) Fisher et al. (2016) Hayward et al. (2010) Jafaar et al. (2017) Paul V (2017) Salisu et al. (2020) Santoro et al. (2018) Sun et al. (2011)
Entrepreneurial experience fosters the development of individual resilience	Ayala & Manzano (2010) Duchek (2017) Lafuente et al. (2019)

	<p>Smith (2015)</p> <p>Sun et al. (2011)</p>
<p>Internal locus of control is a contributor to business success</p>	<p>Ayala & Manzano (2010)</p> <p>Bockorny (2015)</p> <p>Hadi & Abdullah (2018)</p> <p>Owens et al. (2011)</p> <p>Smith (2015)</p> <p>Sun et al. (2011)</p>
<p>Resilience and self-efficacy reinforce one another to affect behavior and decision-making</p>	<p>Bockorny (2015)</p> <p>Bullough & Renko (2013)</p> <p>Bullough et al. (2014)</p> <p>de Lima et al. (2020)</p> <p>Markman & Baron (2003)</p> <p>Paul V (2017)</p>