

# Being an Entrepreneur Post-COVID-19- Resilience in Times of Crisis: a Systematic Literature Review

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## Abstract

**Purpose-** The COVID-19 pandemic has had an uncertain impact on the global economy, especially for entrepreneurs and small and medium-sized enterprises (SMEs) that have suffered significant consequences. However, *resilience* has emerged as an entrepreneurial skill that allows companies to adapt and grow stronger in the face of challenges. Therefore, we conducted a literature review to identify the factors that comprise resilience to strengthen training programs for entrepreneurial skills. We hope this study leads to future empirical studies that will provide more understanding and equip professionals with the skills to adapt to crises.

**Design/methodology/approach-** A systematic literature review was performed, analyzing studies related to entrepreneurship, resilience, and crises. Thirty empirical studies were analyzed to determine the facts of the crises, the methodologies used, and the actions taken to address them.

**Findings-** The review identified resilience factors such as attitudes adopted towards the crisis, the characteristics of the business and the entrepreneur, the relationships with institutions, human and social capital, and strategic management. These factors can be considered in training programs for resilient entrepreneurs and by the different actors in the entrepreneurial ecosystem, including the universities and public policymakers, who support them.

**Originality-** This study provides a literature review that focuses on identifying the resilience factors of entrepreneurs who confronted past crises to know how to apply them to overcome the current situation and contribute to post-COVID-19 entrepreneurship. We hope that the findings motivate others to conduct further empirical studies on entrepreneurship and resilience in times of crisis, especially in developing countries and emerging economies.

**Keywords:** Entrepreneurial skills, COVID-19, resilience, crisis, entrepreneurship, educational innovation, higher education

**Paper type:** Literature review

## 1. Introduction

On March 11, 2020, the World Health Organization (WHO) declared the coronavirus (COVID-19) to be a pandemic (WHO, 2020). The spread of COVID-19 led governments to take extreme measures, such as the closure of large social and economic sectors, creating global pressures in all sectors, and suddenly affecting economies (Kuckertz *et al.*, 2020). The duration of this crisis and the long-term effects on businesses and entrepreneurs are still uncertain. There are even greater implications for new start-ups and small and medium-sized enterprises (SMEs) (Brown and Rocha, 2020). This crisis heightens the need to find solution alternatives that can be used to mitigate damages, prepare, intervene, recover, and rebuild society (Pheng *et al.*, 2006; Alexander, 2019).

In entrepreneurship, the number of crisis-related studies has increased substantially over the past decade (Williams and Vorley 2015; Doern, 2016). Although there are different definitions, the concept of crisis is mainly related to an extreme, unexpected, and unpredictable event that requires a response from organizations (Doern *et al.*, 2019). For Kuhn (1970), the crisis begins when a paradigm does not function properly to explain a phenomenon. Therefore, other approaches emerge that generate a reconstruction of a given field, causing a scientific revolution. Hence, in the social sciences, paradigm shifts have been related to major crises and socioeconomic transformations (Chaves and Monsoon, 2018). Looking at the current panorama, we see the COVID-19 pandemic

emerging as a "great crisis" that affects many countries simultaneously, creating social, economic, and health-system disruptions that require urgent solutions that are still not clear (Bacq *et al.*, 2020).

### *1.1 Impact of the crisis*

The world has experienced several crises that have had major impacts on SMEs, such as the Great Depression of the 1930s, the financial crisis of the early 2000s, and, more recently, the global crisis of COVID-19 (Tsilika *et al.* 2020). The COVID-19 contingency experienced worldwide has affected economies and production chains, harming millions of business people and entrepreneurs (IDB, 2020a,b). The need for countries to stop contagion through social distancing and border closures has resulted in business failures and the consequent loss of jobs that particularly affect entrepreneurs' households and SMEs. The latter depends on daily sales; they do not have the liquidity that would enable them to meet their payroll and working capital needs (OECD, 2020). Unemployment is likely to increase. According to Economic Commission for Latin America and the Caribbean data (ECLAC, 2020), it is estimated that more than 2.7 million formal companies would close in the Latin American and Caribbean regions, with a loss of 8.5 million jobs. However, the problem is not only economic.

The impact on the mental health of the population caused by isolation and social estrangement, coupled with the financial detriment caused by the crisis, shows up in stress, anxiety, depression, increased suicide rates, and fracture of the family environment (UN, 2020). These effects will continue even after the pandemic because the treatments for diagnosed mental health problems require prolonged actions by health systems over time. According to Brooks *et al.* (2020), the financial losses caused by having to stop professional activities without planning, and the loss of social interaction become risk factors for symptoms of psychological disorders and anxiety. Therefore, actions are required to help mitigate these effects.

On the other hand, according to studies of recent years, the strengthening of business ventures has a positive effect on dealing with crises in countries. For Barba-Sánchez and Atienza-Sahuquillo (2018), promoting the entrepreneurial spirit results in more entrepreneurship, which positively impacts macroeconomic variables such as employment, development, and innovation. Entrepreneurial orientation and innovative ventures that add value to improve the economy through job creation, making this a priority for many governments (Kraus *et al.* 2018). Therefore, although they are the economic structures most affected by crises, they are also recognized as catalysts for recovery and economic growth thanks to their role as an engine of innovation and job creation (Vodá and Florea, 2019). So the study of how entrepreneurs and business persons in small and medium-sized enterprises overcome these adversities becomes relevant to understand better how to manage crises and reduce their impact.

How entrepreneurs behave during crises has made a difference in how events have been handled in recessions. The creative and innovative behaviors of entrepreneurs and companies lead to the development of products and services based on customer needs; this is supported by technology parks, incubators, collaborative groups of innovative companies, and policies that promote innovation (Nastase and Kajanus, 2010). This innovation leads entrepreneurs to change their business models, which involves modifying the activity of the company to create value, exploit new opportunities, and develop entrepreneurial strategies (George and Bock, 2011; Cucculelli and Bettinelli, 2015). Hence, education must be geared toward developing these skills in people. This training also requires adapting to the environments of the entrepreneurs, since the various environments have specific requirements that depend on the culture, values, and aspirations of the entrepreneurs who want to implement strategies that work in those environments (Dana, 2001; Dana and Dana, 2005). In this regard, the European Commission states that it is necessary to develop entrepreneurship competencies that prepare citizens to develop qualities such as resilience so that businesses have the workforce with the necessary skills to adapt to the new working environment (European Commission, 2020).

### *1.2 Entrepreneurial skills*

Entrepreneurship is characterized by generating new ideas that create value for companies and society (Shane and Venkatamaran, 2000; Fisher *et al.*, 2020). For Schumpeter (2000), the entrepreneur is an innovator who seeks to develop new products, processes, and organizations or

improve existing ones. The entrepreneur must act more dynamically and innovatively in crises (Santos *et al.*, 2020; Ratten, 2020). He or she achieves this through defined skills such as proactivity, identification of opportunities, innovation, risk management, and resilience (Branicki *et al.*, 2018; Portuguez Castro *et al.*, 2020).

Entrepreneurial skills give a person the ability to develop a new company and promote social development (Suparno and Santono, 2018). These skills are essential to increase competitiveness and take risks (Chew *et al.*, 2016), which is why entrepreneurship skills underlying business success have been analyzed. These competencies are expected to be developed through training programs that target them (Portuguez Castro and Gómez Zermeño, 2020). A consultation with experts in Mexico to determine the entrepreneurial skills considered the most important yielded the list shown in Table I (Portuguez Castro *et al.*, 2020).

**Table I.** Entrepreneurial skills (Portuguez Castro et al. 2020)

<b>Topic</b>	<b>Category</b>
Entrepreneurial skills	Innovation Taking risks Creativity Locus of internal control Confidence Finding opportunities Communicating ideas Entrepreneurial intent Leadership Persistence Efficacy Networking Responsibility Troubleshooting Initiative Resilience

Creativity results in taking an innovative approach to a challenge (Kusmintarti *et al.*, 2018). To solve these challenges, entrepreneurs use their initiative to take risks to apply innovative ideas (Abdullah *et al.*, 2018). Self-efficacy is the extent to which a person relies on his or her abilities to determine the challenges they can take, how much effort they must use to overcome them, and how much they must persevere in facing these obstacles (Mauer *et al.* .2017). It is thought that self-efficacy helps people strengthen their intention to develop ventures. This intention refers to the ability to develop a business or add value to an existing organization, now or in the future (Palazzechi *et al.* 2018). Also important is the internal control locus, which consists of the belief that success or failure depends on personal skills and efforts (Fernandes *et al.*, 2017).

Another skill is proactivity. The proactive person is the one who shows initiative, acts on opportunities that he detects, and perseveres until achieving the goal (Kozubíková *et al.*, 2018). This ability involves anticipating problems before they happen and taking action on things that can be changed to resolve a particular situation (Yan *et al.*, 2018). This trait is fundamental for entrepreneurs to be able to find business opportunities. As Koe (2016) mentions, when a person is capable of identifying and implementing a business idea, he has great potential to be an entrepreneur. The ability to be innovative results in generating new ideas to produce goods and services (Martens *et al.*, 2018). For entrepreneurs, this characteristic is crucial in the competitive environment where actions unfold. Finally, resilience is seen as a success factor for entrepreneurs to overcome adversity.

### 1.3 Resilience

Resilience is seen as the entrepreneur's ability to adapt to change (Salisu *et al.*, 2020). It becomes essential to address crises such as those caused by the global COVID-19 contingency. (Sawalha, 2020). For Liu *et al.* (2020), resilience is necessary for individuals, organizations, and society to meet

health challenges and combat the new economic and social effects that occur. However, it is not yet clear how business resilience is identified and what are the possible factors that support the development and improvement of this skill (Salisu *et al.* 2020).

Entrepreneurs are confronted with numerous situations that constantly affect their survival. These cause the entrepreneur to suffer from high levels of stress that can cause psychological damage such as burnout (De Mol *et al.* 2016). So, the entrepreneur must have the resilience to overcome these crises. In this sense, previous studies show that the resilience of entrepreneurs can be a factor of business success because resilient entrepreneurs demonstrate a high degree of tolerance to ambiguity, can adapt to change quickly, take advantage of those situations, and learn from their mistakes (Ayala and Manzano, 2014). According to Ducheck (2018), despite the importance that entrepreneurs have for economic development and innovation, the issue of resilience, and the factors that strengthen it in individuals, has been little studied. This author reviewed the biography of successful entrepreneurs to identify these factors and recognized the importance of previous experiences in entrepreneurship, both successful and failed, and the relevant attitudes and behaviors underlying the resilience of entrepreneurs. It came to attention that entrepreneurs must learn from their experiences to adapt to diverse circumstances.

According to Sawalha (2020), it is advisable to review lessons learned from past events and understand how to adapt them to new situations to benefit from them and mitigate future effects. Thus, entrepreneurship has been recognized as a key element for local and regional development (Apostolopoulos *et al.*, 2020). The characteristics of entrepreneurs, such as resilience, must be promoted through education and developed by people to understand better their environment (Nyadu-Addo and Mensah, 2018; Beltran *et al.* 2019). This provides universities worldwide the opportunity to create spaces to fulfill their mission of teaching entrepreneurship to stimulate resilience and create jobs (Maritz *et al.*, 2020).

Crises such as those suffered through COVID-19 have led entrepreneurs to confront challenges and threats. The magnitude of its impact requires research into the factors that cause it and whether it is possible to influence these causes. Resilience provides a useful framework for studying how a system recovers from the impact suffered (Kitsos and Bishop, 2018). For Doern *et al.* (2019), understanding the concept of resilience is essential, as it allows the organization to keep functioning reliably during the crisis period (Williams *et al.* 2017). Previous literature has analyzed the relationship between resilience and entrepreneurship to determine the impact of environmental crises and the conditions that favor them.

Two systematic literature reviews (SLRs) related to entrepreneurship and resilience were found. One of them is an SLR made by Korber and McNaughton (2018) to find the relationship between resilience and entrepreneurship. Among the studies analyzed by these authors, the largest quantity related to the period before the events caused the disruption. Only a few papers addressed how people responded to the event. In this sense, our study differs in that it aims to know how entrepreneurs transformed the reality confronting them through the skill of resilience. On the other hand, these authors recommended more research to determine what entrepreneurs do when responding to crises and how they improve resilience in their communities (Korber and McNaughton 2018). This is another aspect analyzed in this SLR, not only the entrepreneurial attitudes but also how their actions impact the community.

Another study similar to that of Doern *et al.* (2017) analyses the concepts of entrepreneurship and crisis through a literature review. These authors mention that entrepreneurs' responses to crises depend on several factors such as experience, the stage of development, and the stage of the crisis. They also see a lack of studies focusing on how entrepreneurs and small businesses learn from these events, how they handle crises, and how they incorporate change management. So they recommend increasing the ability of entrepreneurs and organizations to be more resilient and able to respond to these events. In our SLR, we include a review of studies that address crisis management to contribute to filling this gap in research.

As shown in this review, more research is needed on how entrepreneurs and business people have learned from these events and managed crises (Doern *et al.*, 2019; Weinhardt and Bartosch, 2020). For Cucculelli and Peruzzi (2020), organizations can learn from previous experiences of companies

that have survived crises. Developing this ability to adopt best practices from other companies can make them more capable of surviving and adapting to changes. So, analyzing these factors is an area of opportunity, especially for developing countries and emerging economies. The novelty of this study is to review how entrepreneurs have overcome crises, determining the various factors that have strengthened resilience, not only theirs but also that of the organizations and communities to which they belong. This will lead to building a theoretical framework that other researchers can use to continue researching the effects that the COVID-19 crisis has on companies, highlighting the elements that can strengthen training programs to develop skills for resiliency and face the challenges still ahead. This study also seeks to contribute to entrepreneurship research by presenting a theoretical framework that explains empirical phenomena like Shane and Venkataraman (2000); i. e., this research seeks to advance the identification of one of the primary factors underlying entrepreneurial spirit, namely, resilience.

Specifically, this research aims to identify the factors that comprise resilience in times of crisis, analyzing how entrepreneurs have confronted them and the methods used to measure resilience. The literature reviewed was summarized to help researchers better understand what exists in this field. The specific objectives of this study were: 1) to describe the events that caused the crisis confronting the entrepreneurs; 2) to identify the methods that have been used to study resilience in times of crisis, and 3) to recognize the actions that entrepreneurs have taken to manage crises. The summary of the literature found and their results can benefit researchers who conduct future empirical studies and the universities developing training programs in these skills.

## 2. Methodology

The approach followed in this study to achieve the established objectives was a systematic literature review (SLR), which allows identifying and extracting relevant information on subjects of interest from the existing literature (Kitchenham and Charters, 2007). Such literature reviews have been widely used in the study of entrepreneurship to know what has been studied empirically in the field to deepen scope (Dvoulet, al., 2020). However, few studies were found to follow this methodology on the issue of resilience. So this SLR seeks to find empirical experiences that have overcome crises, develop a theoretical framework for strengthening resilience in times of crisis, and provide information on the factors that comprise it and ones that can collaborate in its formation. To carry out this review, we set up three phases to obtain the results: 1) planning, 2) implementing, and 3) reporting (Ramírez-Montoya and García Peñalvo, 2018; Portuguez Castro *et al.*, 2019).

### 2.1 Phase 1. Planning.

In the planning stage, we reviewed recent literature related to entrepreneurship and resilience, especially in the current context of COVID-19, to learn about the gaps in research that exist and what requires further study. This initial review exposed that in crises, entrepreneurship and resilience are crucial to overcoming conditions of uncertainty and volatility (Apostolopoulos *et al.*, 2020; Sawalha, 2020; Liu *et al.*, 2020). Also, there must be more analysis of the learnings obtained through these events to know how to recover after adversity and identify the factors that comprise resilience (Doern *et al.* 2019; Branicki *et al.* 2018; Salisu *et al.* 2020). Therefore, the following research questions were raised:

- Q1. What are the events that caused crises for entrepreneurs?
- Q2. What methods have been used to study resilience in times of crisis?
- Q3. What actions did entrepreneurs take to manage the crises?

To carry out the search process for articles, we defined the keywords considered relevant to the study, namely, *entrepreneurship*, *resilience*, *crisis*, and *crisis management*. To include other terms and combinations, we added the asterisk as a truncation symbol to the search; for example, *entrepren\** and *resilien\** to identify all the publications containing the terms resiliency, resilient, entrepreneurial, entrepreneurship, entrepreneur, and crises, among others. The Boolean operators AND and OR were used to do more thorough searches, for example, "entrepreneurship" AND "crisis" AND "resilience" OR "management crisis" AND "entrepreneurship." This system was similar to that followed by other literature reviews that sought correlations between these terms, such as that carried out by Korber and Mcnaughton (2018), although ours also included crisis management. We

performed searches in the two best-known databases that contain multidisciplinary data, Scopus and Web of Science, following the process used by similar studies of entrepreneurship (Cantú *et al.* 2019; Dvoullet-*el al.*, 2020). This selection is considered appropriate since having at least two databases avoids the possible omission of relevant studies (Sánchez-Oliván *et al.*, 2018).

A database review of investigations and journals about entrepreneurship in WOS found that 40,487 records have been published since 1975. Eighty percent of the studies are from 2011 to 2020. The areas in which they have been published the most have been business, management, and economics, followed by educational research with 9.4% of the studies. The total number of articles is 27,584, and 23,573 were published from 2010 and 2020.

In the case of Scopus, to date, there have been 44,773 documents published since 1919. Eighty percent of the studies are from 2009 to 2021. The areas in which they have been published the most are business, management, accounting, economics, econometrics, finance, and social sciences. The total number of articles is 30,419, and 23,301 were published from 2010 and 2020. The most cited article is also that of Shane and Venkataraman (2000) with 5,427 citations. The data is shown in Figure 1.

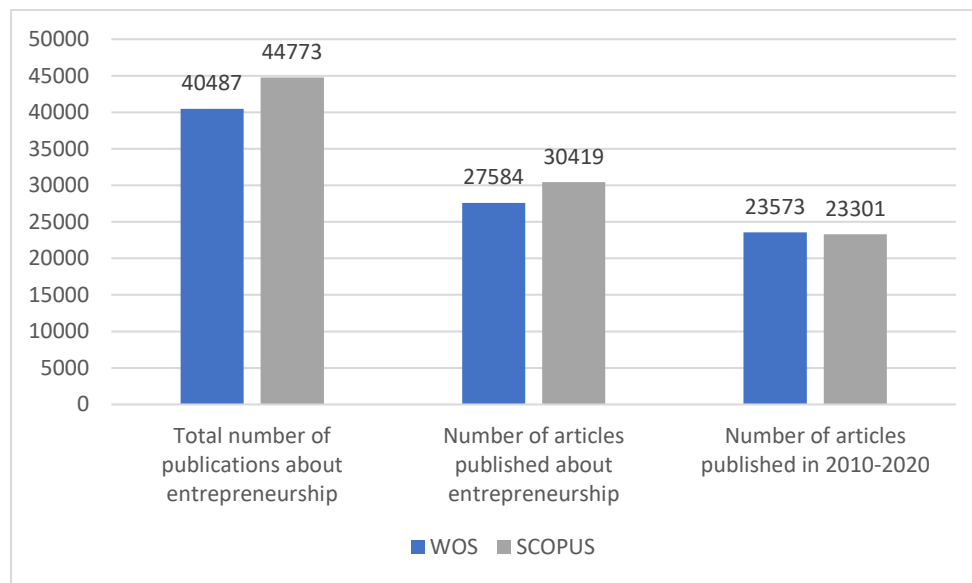


Figure 1. Comparison of entrepreneurship articles in the two databases

For this study, only empirical studies related to research questions were selected, the aim being to know the experiences of the entrepreneurs confronting a crisis. The inclusion criteria were articles in English and Spanish during 2010-2020 to include recent studies. The inclusion of both languages, although most are in English, was to find as many studies as possible, including publications from Spanish-speaking countries. The range of years obeyed the objective of finding studies from the past ten years. It was found that even several years after a crisis occurred, research reported results from the analyses of that data. Therefore, it may take some time to obtain more profound results related to the current crisis, so the methodologies and instruments found in this study may be useful for researching this context and similar ones in the future. Therefore, the exclusion criteria were: studies before 2010, those in languages other than English and Spanish, and those that were not empirical studies. This followed the objectives of the research that sought to know the experiences lived by entrepreneurs. The articles were downloaded from both databases on July 6, 2020.

## 2.2 Phase 2. Implementation

The first search produced 137 articles (68 articles on Scopus and 69 on Web of Science) that were listed on an electronic spreadsheet. The percentage of articles found with the keywords mentioned

previously for written articles on entrepreneurship during the selected period was 0.29% in WOS (69/23,573 studies on entrepreneurship from 2010 to 2020). For Scopus, it was 0.22% (68 /30,419 studies on entrepreneurship from 2010 to 2020). The list of documents was subsequently filtered to remove 32 duplicates.

We reviewed the article abstracts to determine whether the studies corresponded to the objectives of the research. The researchers validated the relevance of the articles in an extensive review and discarded 75 articles not related to the research questions and which were not empirical studies, leaving a total of 30 works to analyze. The database of the articles includes information such as author name, publication title, year, abstract, publication reference, magazine name, and database consulted. It is found in the [figshare](#) database (Portuguez Castro and Gómez Zermeño, 2020). The search process is shown in Figure 2.

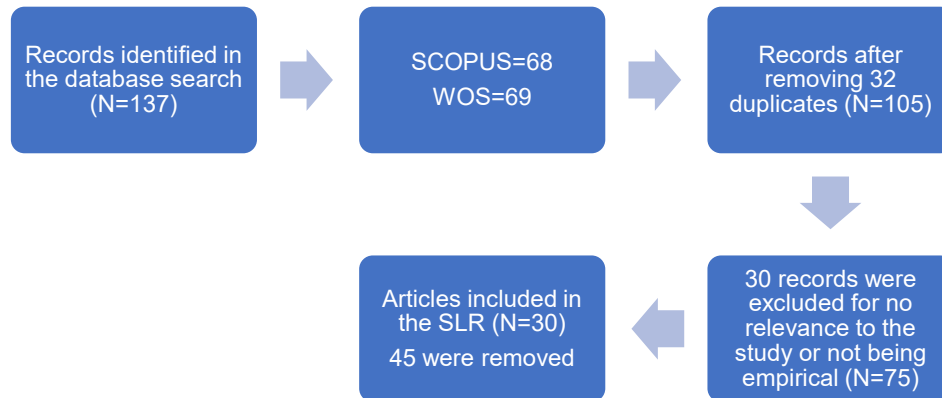


Figure 2. Article search process

### 2.3 Phase 3. Reporting

Once the studies were selected, a content analysis was carried out to investigate them in-depth, and the evidence provided by the articles was categorized to support the analysis (Apostolopoulos *et al.* 2020). Tables and graphs were developed to visualize trends on the different axes of analysis.

## 3. Results

The responses to the research questions based on the analysis of the 30 selected empirical studies are presented below.

### 3.1 What are the events that caused the crises for entrepreneurs?

To minimize the impact of crises, entrepreneurs must be aware of global risks to assess, monitor, and improve risk management and continue their businesses (Asgary *et al.*, 2020). It is interesting to relate the findings of this study to those of the World Economic Forum's Global Risk Report 2019 (WEF, 2019). It examined 30 significant global risks in five categories: economic, environmental, geopolitical, social, and technological. It classified them according to the type of risk being addressed. The events of the crises for the entrepreneurs in the empirical studies analyzed were organized as follows.

Of the total thirty studies, 16 articles reported crises related to economic risks, especially in the aftermath of the 2007-2008 global financial crisis (Pallars-Blanch, 2015; Williams & Vorley, 2014; Masik and Rzycki, 2014). It affected entrepreneurs in different ways, such as increasing costs, creating institutional barriers, and impacting customer consumption (Duarte Alonso and Bressan, 2015). Other factors included business interruptions (Herbane, 2019), company closures, financial and organizational difficulties, increasing unemployment, the reduction of financing opportunities (Andres and Round, 2015), and social and urban degradation (Sabatino, 2016). These events impacted different economic and social sectors such as women entrepreneurs (Abdul Rani *et al.*

2019), social enterprises (Apostolopoulos *et al.* 2019), newly created companies (Davidsson and Gordon, 2015), tourism (Brown, 2017), and retail (Cabras and Mount, 2016).

In terms of environmental risks, four studies reported effects due to climate change, as was the case of tourism companies that depend on the coral reefs, which have been destroyed by the loss of biodiversity, so the tourists have kept away (Biggs, 2011). There were studies of natural disasters such as earthquakes, volcanic eruptions, and landslides (Martinelli *et al.*, 2018; Muñoz *et al.*, 2019; Nelson and Lima, 2020). Four reported crises related to geopolitical risks, especially regional conflicts that caused economic crises and institutional changes. Among these regional conflicts were the one after German reunification (Gebhardt, 2012), the Ugandan war, which impacted the entrepreneurs (Langevang and Namatovu, 2019), the political revolution in Tunisia that affected family businesses (Mzid, 2019), and the failures of institutional policies that hurt entrepreneurship in Greece (Williams and Vorley, 2017).

In the case of social risks, one study examined the acts of vandalism and unrest suffered by entrepreneurs in London and the consequences that damaged the social stability of the community (Doern, 2016). Five other studies referred to various crises that combined several risk types such as economic, environmental, geopolitical, and social. These included the emergencies caused to the tourism sector in Indonesia due to climate change, natural disasters, terrorism, and economic recession (Dahles and Susilowati, 2015), competition at the local level, and low demand for products in Sweden's food sector (Larsson, 2016), and the harm to farmers in Greece and entrepreneurs in Italy by the economic crisis and the European immigration crisis (Anthopoulou *et al.* 2017; Lintner, 2019). The classification of studies by risk category is shown in Table II.

**Table II.** Classification of crises by global risk category of the World Economic Forum (WEF).

Authors	Category	Risk	Type of Crisis Reported	Country
Biggs, 2011	Environmental	Failure of climate-change mitigation and adaptation	The crisis experienced by reef tourism companies due to climate change and loss of biodiversity.	Australia
Gebhardt, 2012	Geopolitical	Interstate conflict with regional consequences	Post-reunification economic crisis	Germany
Williams et al., 2013	Economic	Failure of a major financial mechanism	The aftermath of the 2007 financial crisis	Greece
Masik and Rzycki, 2014	Economic	Failure of a major financial mechanism	The aftermath of the 2007 financial crisis	Poland
Williams and Vorley, 2014	Economic	Failure of a major financial mechanism	The aftermath of the 2007 financial crisis	England
Duarte Alonso y Bressan, 2015	Economic	Failure/shortfall of critical infrastructure	Rising costs, institutional barriers, and the effects of the economic crisis on consumers.	Italy
Andres and Round, 2015	Economic	Failure of a major financial mechanism	Reduction of funding opportunities for the creative industries	United Kingdom
Pallarès-Blanch, 2015	Economic	Failure/shortfall of critical infrastructure	The aftermath of the 2007 financial crisis	Spain
Dahles and Susilowati, 2015	Economic, environmental, geopolitical	Major natural disasters; Large-scale terrorist attacks. Fiscal crises in key economies	Various crises affecting Indonesia's tourism sector: climate change, natural disasters, terrorism, economic recession	Indonesia
Williams and Vorley, 2015	Geopolitical	Failure of regional or global governance	Institutional changes after the crisis that affected entrepreneurs	Grecia
Doern, 2016	Societal	Profound social instability	Riots and vandalism that impact small businesses	England
Larsson et al., 2016	Economic, societal	Food crises, Failure of a major financial mechanism	Various crises experienced by food companies during their life cycle: economic crises, competition at the local level, low demand for products	Sweden



Authors	Category	Risk	Type of Crisis Reported	Country
Sabatino, 2016	Economic	High structural unemployment or underemployment	Recession and economic crises in Europe: closure of businesses, financial and organizational difficulties, increased unemployment, and social and urban degradation.	Italy
Cabras and Mount, 2016	Economic	High structural unemployment or underemployment	Decreases in the pub businesses due to economic crisis	Ireland
Davidsson and Gordon, 2016	Economic	Failure of a major financial mechanism	How the global financial crisis affects nascent entrepreneurs	Australia
Anthopoulou et al. 2017	Economic, societal	Failure of urban planning, Large-scale involuntary migration	Macroeconomic financial crisis as it affects farmers and rural migration	Greece
Brown, 2017	Economic	Failure of a major financial mechanism	Global financial crisis of 2008 and its effects on Roatan's tourism	Honduras
Branicki et al., 2018	Economic	Failure/shortfall of critical infrastructure	Different types of crises affecting the entrepreneur	United Kingdom
Micu et al. 2018	Economic	Failure of a major financial mechanism	Response to the economic crisis by eco-labeled retailers	Romania
Martinelli et al. 2018	Environmental	Major natural disasters	Effects of the earthquake in Emilia in 2012 on entrepreneurs	Italy
Abdul Rani et al. 2019	Economic	Failure of a major financial mechanism	Analyses the factors that contribute to the resilience of women entrepreneurs in the food industry during and after economic crises.	Malaysia
Apostolopoulos et al. 2019	Economic	Failure/shortfall of critical infrastructure	Analyzes the role of social enterprises during the economic crisis.	Greece
Herbane, 2019	Economic	Failure/shortfall of critical infrastructure	Different crises experienced in the last five years that caused business disruptions	United Kingdom
Lintner, 2019	Economic, societal	Failure of urban planning, Large-scale involuntary migration	Economic crisis in Europe and the European refugee immigration crisis	Italy
	Economic	Failure/shortfall of critical infrastructure	Various crises affecting entrepreneurs and how they build resilience through reading	United Kingdom
Manning et al. 2019				
Muñoz et al. 2019	Environmental	Major natural disasters	Calbuco Volcano eruptions in 2015 and 2016 in Chile	Chile
Mzid et al. 2019	Geopolitical	Failure of regional or global governance	Effects of the 2011 to 2014 political revolution on family businesses	Tunisia
Langevang and Namatovu, 2019	Geopolitical	Interstate conflict with regional consequences	Post-war impact on entrepreneurs	Uganda
Asgary et al. 2020	Economic and Geopolitical	Fiscal crises in key economies and high structural unemployment or underemployment.	Effects of the economic crisis on manufacturing companies	Turkey
Nelson and Lima, 2020	Environmental	Major natural disasters	Landslides in a community in 2011 and their effect on entrepreneurship	Brazil

The studies analyzed reported various crises suffered by entrepreneurs in countries on five continents. From Europe: United Kingdom (6); Greece (4); Italy (4); Germany (1); Spain (1); Ireland (1); Poland (1); Romania (1) and Sweden (1). From America: Honduras (1); Brazil (1) and Chile (1). From Asia: Indonesia (1); Malaysia (1) and Turkey (1). In Oceania: Australia (2) and Africa: Tunisia (1) and Uganda (1). The countries in which the studies took place are shown in Figure 3.

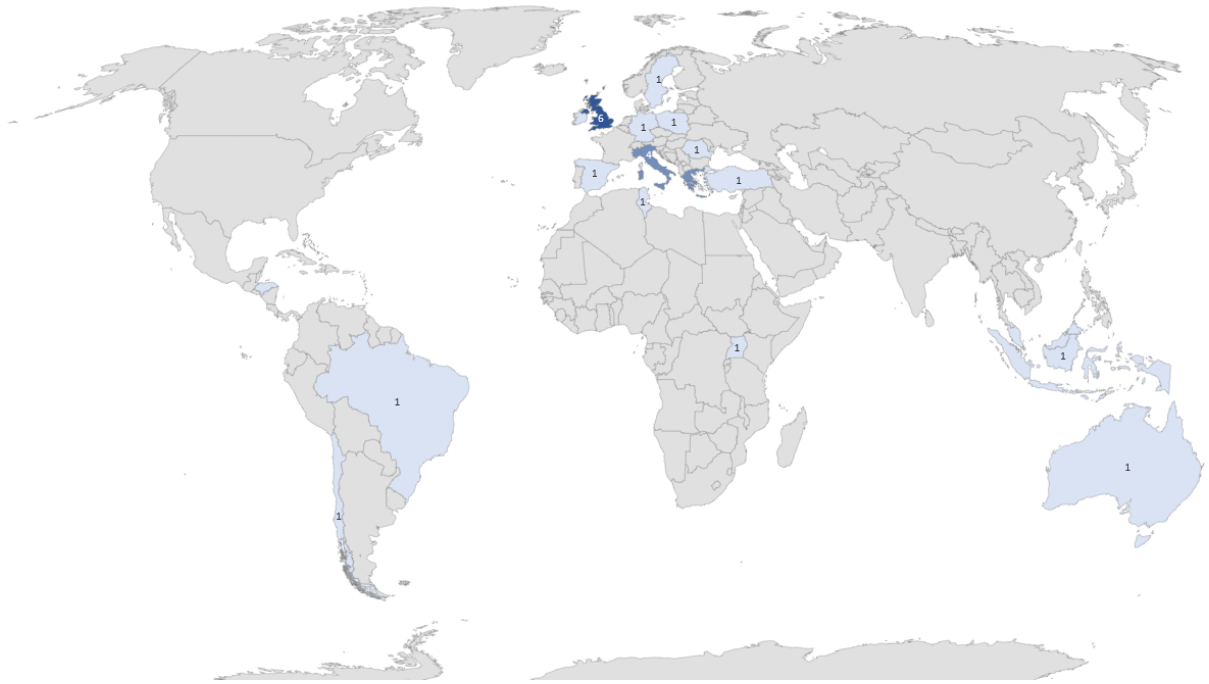


Figure 3. *Publications by country*

### 3.2 What methods have been used to study resilience in times of crisis?

Before determining the methods that have been used in the studies to measure resilience in the articles analyzed, it was necessary to define the concept of resilience that the authors have used. Resilience is an emerging concept that has been used when examining economic performance and responsiveness to exogenous shocks such as financial crises and recessions (Williams *et al.* 2013; Williams and Vorley, 2014). Studies show that in recent years, a conceptual framework has emerged that seeks to define entrepreneurship and how companies and entrepreneurs are resilient to crises, depending on the context being analyzed (Pallars-Blanch, 2015; Sabatino, 2016; Micu *et al.* 2018). Starting from these definitions, the authors established the method to determine the elements of resilience in entrepreneurs. After that, the different interpretations of resilience used by the authors could be analyzed.

#### 3.2.1 Concept of resilience

The concept of resilience comes from the Latin word *resiliere*, meaning to bounce (Sabatino, 2016). It originated from the domain of ecology, defining it as the ability of a system to return to balance after a disturbance (Holling, 1973). Our review found that the concept of resilience by the authors ranges from a macro vision involving different actors in a regional environment to a micro view of characteristics that the individual entrepreneur possesses (see Figure 4).



Figure 4. *Concepts of resilience in times of crisis*

This raises the concept of *regional resilience*, where links are established between scientific research, technological innovation, and SMEs to address and order problems, not only for survival but to enable prosperity (Gebhardt, 2012). Associated with this concept is *economic resilience*, which is the ability of a region to recover successfully from shocks to its economy and continue on its growth path (Masik and Rzyski, 2014). There is also the concept of *social resilience*, which is defined as the ability of groups or communities to deal with external tensions and disturbances as a result of social, political, and environmental changes (Pallars-Blanch, 2015) and return to the previous condition (Cabras and Mount, 2016).

For an organization or company, the authors define *business resilience* as the ability of a company to maintain its level of employment and income (Biggs, 2011), adapt, and survive during turbulent times (Duarte Alonso and Bressan, 2015). This demonstrates a company's ability to learn, innovate, and reorganize its business model, which involves not only adapting but also transforming (Dahles and Susilowati, 2015, Larsson *et al.*, 2016). Other authors relate the concept of resilience to entrepreneurship, considered as an important engine of economic growth and competitiveness. They find that entrepreneurship serves as the basis of economic resilience to promote faster recovery from crises (Williams *et al.*, 2013; Williams and Vorley, 2014, 2015; Asgary *et al.*, 2020). Finally, at the micro-level, the authors find characteristics of the entrepreneur, such as being proactive, innovative, able to identify opportunities and take risks. Their leadership allows small companies to be adaptable, flexible, and responsive to external crises, resulting in a positive impact on their resilience (Doern, 2016; Anthopoulos *et al.*, 2017; Branicki *et al.*, 2018; Lintner, 2019; Manning *et al.* 2019).

### 3.2.2 *Methods of study of resilience*

Of the 30 studies analyzed, 21 used qualitative methodologies, seven employed quantitative methodologies, and two had mixed studies. The research using qualitative methods presented the results of semi-structured, in-depth interviews and focus groups and used narrative approaches, case studies, and ethnographic and phenomenological studies. This methodology was considered by the authors to be the most appropriate in allowing further research delving deeper into the subject through the experiences lived by the actors (Williams, and Vorley, 2015; Mzid *et al.* 2019). The quantitative studies employed questionnaires with items of business resilience. They applied them to entrepreneurs in different sectors, i.e., women entrepreneurs, social entrepreneurs, and nascent entrepreneurs (Abdul Rani *et al.* 2019; Asgary *et al.* 2020). The mixed-methods studies included quantitative instruments accompanied by semi-structured and in-depth interviews (Biggs, 2011; Pallars-Blanch, 2015).

In five of the studies, the questions asked of the participants or the complete instruments used in the study could be replicated in other contexts. Among these studies was that of Biggs (2011), which presented the questionnaire to tourism entrepreneurs in Australia. It included the components of business resilience, as well as the interpretation of the results. Duarte Alonso and Bressan (2015) presented a questionnaire to 273 owners of small wineries in Italy, where their demographic characteristics were compiled, the challenges affecting them, and the impact of those. Pallars-Blanch (2015) conducted in-depth interviews with 30 social entrepreneurs in a rural community in Spain to learn about the elements of social resilience present in the interviewees. Williams and Vorley (2015) presented an instrument to 26 entrepreneurs in England, asking about policies that have strengthened their businesses. Another study was conducted by Brown (2017) to tourism entrepreneurs in Honduras to know the socioeconomic characteristics of the respondents.

Finally, each study sought to explore the different components of resilience defined from the conceptual framework they carried out in each of the research investigations. The main factors analyzed in the studies are shown in Figure 5.

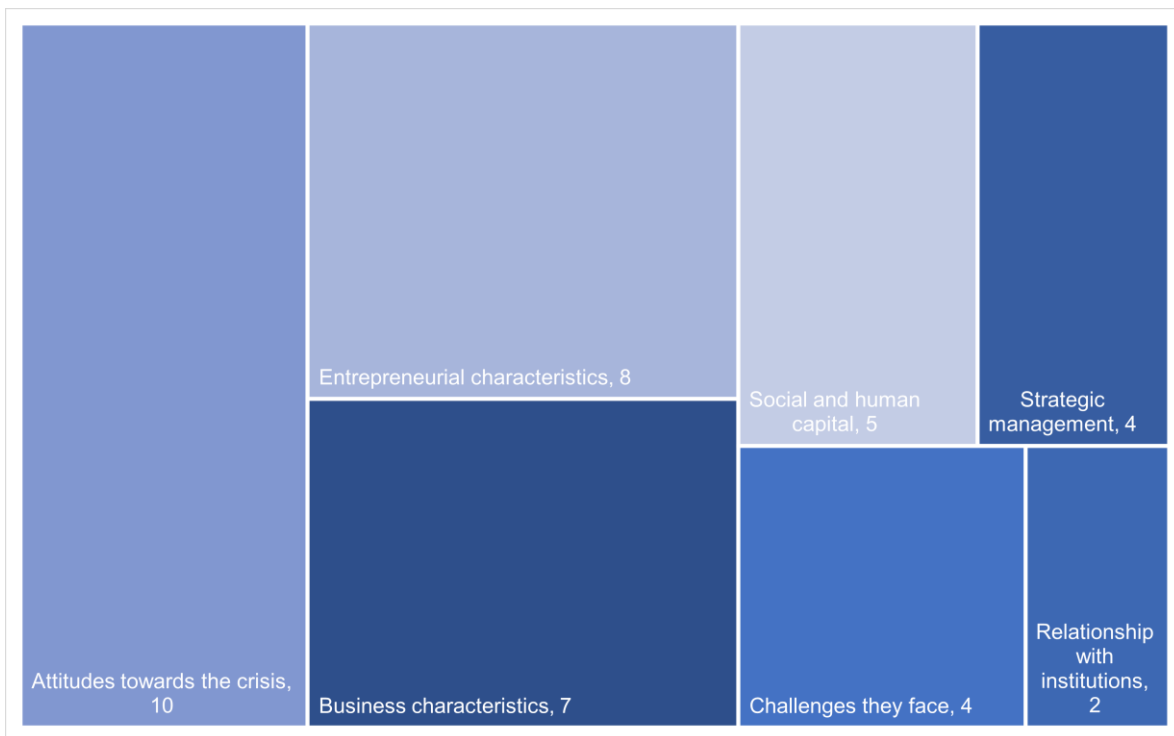


Figure 5. Factors used to determine the resilience of the participants

The authors considered the following as factors to measure resilience:

- Attitudes towards the crisis: differentiator, diversification, patterns and good practices, adaptability, alternatives to improve, strategies to deal with the crisis, ability to anticipate a crisis, innovative learning, post-crisis strategies, attitudes towards customers (Duarte Alonso and Bressan, 2015, Pallars-Blanch, 2015, Dahles and Susilowati, 2015, Doern, 2016, Davidsson and Gordon, 2016, Larsson *et al.*, 2016, Sabatino, 2016, Lintner, 2019).
- Entrepreneurial characteristics: number of years in the business, occupation, previous experiences with crises, lifestyle, gender, behaviors, optimism, ideological identity, resilience (Biggs, 2011, Williams *et al.*, 2013, Doern, 2016; Anthopoulou *et al.* 2017; Brown, 2017; Branicki *et al.*, 2018; Micu *et al.* 2018, Abdul Rani *et al.* 2019).

- Business characteristics: business age, business type, size, number of employees, turnover, sales, expenses, the technology available, adaptability (Biggs, 2011; Gebhardt, 2012; Larsson *et al.*, 2016; Nelson and Lima, 2020).
- Social and human capital: staff support, connectivity, strategic partners, suppliers, family (Biggs, 2011; Pallars-Blanch, 2015; Larsson *et al.*, 2016; Cabras and Mount, 2016).
- Strategic management: the ability of managers to identify potential problems, organization, the speed to act, and make decisions (Gebhardt, 2012; Williams *et al.*, 2013; Masik and Rzycki, 2014; Williams and Vorley, 2014).
- Challenges they face: the problems affecting their business, the impact of challenges, critical phases, damage sustained, barriers to growth (Duarte Alonso and Bressan, 2015; Dahles and Susilowati, 2015; Doern, 2016).
- Relationship with institutions: the effect of policies on innovation, relationship with governmental institutions, social institutions, and other actors of the entrepreneurial ecosystem (Williams, and Vorley, 2015, Martinelli *et al.* 2018).

### 3.3 What actions did the entrepreneurs take to manage the crisis?

To determine the actions taken by entrepreneurs to manage the crises, we analyzed the findings presented in the various studies and found that the responses to the disasters were related to the resilience factors presented in the previous research question. It follows that the responses to the crises are related to the risks that the entrepreneurs confront, the attitudes they take toward them, the characteristics of the business and the entrepreneur, the relationships with institutions, the social and human capital, and strategic management. The actions taken to manage the crises are represented in Figure 6.

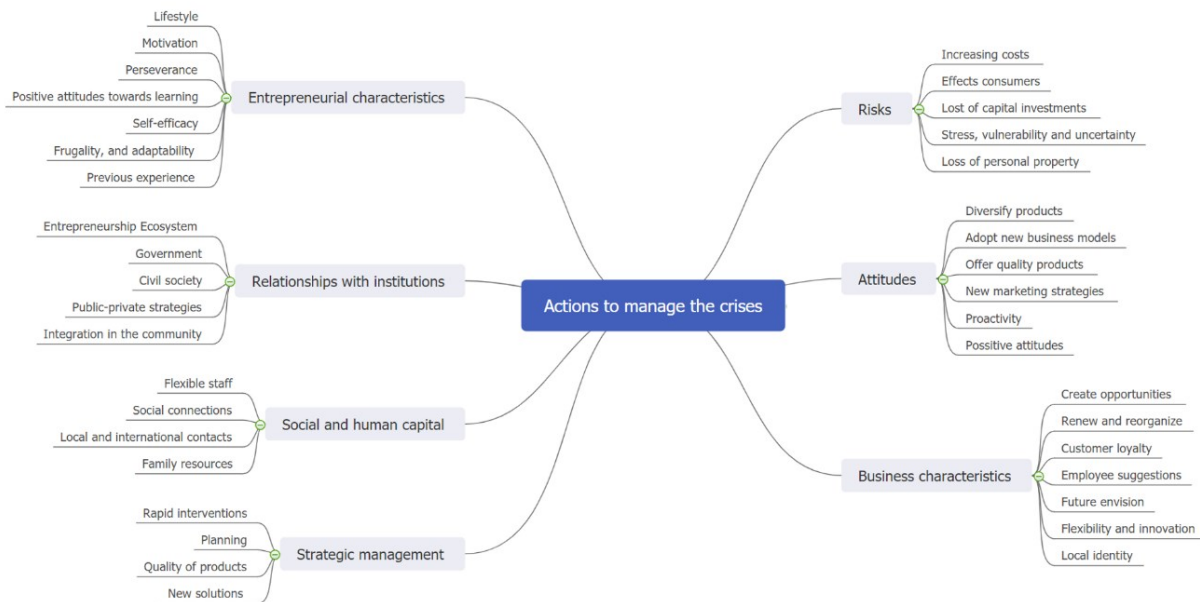


Figure 6. *Actions taken by entrepreneurs in time of crisis*

The risks occasioned by the crises were related to increasing costs, institutional barriers, and the effects of the damaged economies on consumers, the planned capital investments that could not go forward, the emotional losses that stress causes, feelings of vulnerability and uncertainty, and the loss of personal property. Entrepreneurs felt responsible for protecting their businesses; some suffered structural damages. There were losses of sales, political agitation, and interruptions of the economic sectors (Duarte Alonso and Bressan, 2015; Doern, 2016). These risks constituted critical times of transition or transformation from normal ways of acting and thinking. However, the crises were perceived as new opportunities to change behavior and initiate innovative strategies that would enable them to act even in critical personal and structural situations (Brown, 2017; Herbane, 2019; Asgary *et al.*, 2020).

Concerning attitudes, we found that the more resilient companies can adapt to external crises and innovate, create value, and be open to learning (Biggs, 2011; Larsson *et al.*, 2016; Anthopoulou *et al.*, 2017; Lintner, 2019). Also important is to diversify products, adopt new business models, and offer quality products that maintain the satisfaction of their customers (Andres and Round, 2015). This was the case of pubs in Ireland. The crisis favored their diversification and expansion and the increasing consumption of local products, which also provided economic relief to the region (Cabras and Mount, 2016). The entrepreneurs in the studies sought new marketing strategies in local markets, offered discounts, increased their advertising, reduced their staff, adjusted salaries, accepted lower income, and even sought other sources of income as the crises occurred. This happened with Indonesian tourism entrepreneurs and impresarios of small businesses in London (Doern, 2016; Dahles and Susilowati, 2015). Other attitudes adopted by entrepreneurs were proactivity to return to normal quickly, inventiveness, and optimism. They felt that positive attitudes were important because recovering from mental damage could be more difficult than material damage (Doern, 2016; Abdul Rani *et al.*, 2019). So, they valued autonomy and looked for the positive side of challenging events (Branicki *et al.*, 2018).

It was also suggested to redefine the business and learn to do things differently, create opportunities for entrepreneurs to talk about their experiences during the crises, and support those with fewer resources. The ability to renew and reorganize was considered essential because it was necessary not only to adapt but also to transform (Larsson *et al.*, 2016; Apostolopoulos *et al.*, 2019). The original customer market is important. Marketing actions and operations must be focused on identifying these customers and maintaining their loyalty (Sabatino, 2016; Micu *et al.* 2018). Loyal consumers played an important role in the continuity of sales activity. Many small retailers reported strong solidarity with their customers (Martinelli *et al.*, 2018), receiving feedback from them to know their expectations. Employees also made suggestions to improve business operations (Abdul Rani *et al.*, 2019). Entrepreneurs who could envision the future were able to link the crises with new possibilities. Through ingenuity, they were able to identify opportunities in disaster situations (Muñozet *et al.*, 2019).

The characteristics of the entrepreneurial business are crucial factors affecting resilience. Small businesses are more flexible and can respond better to external shocks than medium or large ones. They are also adaptable and can innovate during changing circumstances (Williams and Vorley, 2014; Anthopoulou *et al.*, 2017). Some features of these companies are that they have a flexible organizational culture, a high trust level, a strong local identity based on values, and an authentic brand (Larsson *et al.*, 2016). The most resilient companies were the ones that simplified their business strategies and focused on their main competencies, designing new strategies and policies to attract customers (Sabatino, 2016; Goats and Mount, 2016). The businesses that had low labor costs could be more competitive, as well as equity firms, which substituted in the institutional vacuums that, in normal circumstances, would be filled by the State (Apostolopoulos *et al.*, 2019). Knowledge-based companies increased the resilience in the regions where they operated (Williams *et al.* 2013; Masik and Rzycki, 2014). Family-owned enterprises used strategies to manage resources and leverage their experience to prepare themselves better for the future (Langevang and Namatovu, 2019).

The authors also mentioned that the attributes of the individual entrepreneurs, directly and indirectly, influence the resilience of SMEs. One of these is a lifestyle that causes an emotional attachment of the entrepreneur to his company and increases the personal impact of business failure (Biggs, 2011; Branicki *et al.*, 2018). Williams *et al.* (2013) also highlight the contributing personal characteristics of entrepreneurs such as flexibility, motivation, perseverance, and optimism. Others include positive attitudes towards learning, self-efficacy, and the authenticity and integrity that generate trust and loyalty (Duarte Alonso and Bressan, 2015; Larsson *et al.*, 2016), and intelligence, frugality, and adaptability (Davidsson and Gordon, 2016). There are studies aimed at analyzing the role of entrepreneurial women, which highlight their interest in contributing more to family income, combining their work lives and family lives, to support their partners when they become unemployed (Anthopoulou *et al.* 2017). Another element is the previous experience of the entrepreneur, which allows them to confront the new situations based on lessons learned in previous crises (Branicki *et*

*al.*, 2018; Muñoz *et al.*, 2019). There was the case of migrant entrepreneurs who had to develop new strategies due to new ways of living (Lintner, 2019).

Concerning other institutions, resilience is related to how the entrepreneurs interact with various actors in their ecosystem, government, and civil society. An understanding of business resilience helps companies and policymakers address the crises associated with global changes and unrest (Biggs, 2011; Williams and Vorley, 2014). Concerning government, there were positive cases like the intervention of the state with innovative programs to contribute to regional recovery in Germany. This initiative generated new companies derived from a consortium of universities, SMEs, and institutions. There were also cases where the government plays an important role in the induction, stimulus, and organization of knowledge-based economic development (Gebhardt, 2012). Another important element underlying innovation is the cooperation of research centers with small businesses to improve research and development (R&D) processes (Masik and Rzycki, 2014).

On the other hand, in regions where there was a lack of support and policies to strengthen entrepreneurship, there was no economic recovery. So, the authors recommended public-private strategies with a long-term vision, using entrepreneurship to advantage in regional development. They recommend that universities encourage students and society to exploit entrepreneurship opportunities (Williams *et al.*, 2013; Williams, and Vorley, 2015). For the authors, it is necessary to recover quickly from the crises to improve sales and prevent psychological damage. This can be achieved with a business integration that creates connections in the economic and social spheres at the local level (Doern, 2016; Goats and Mount, 2016). Community wellbeing can be increased if entrepreneurship is conceived as an activity not only to increase individual gains but also to benefit families and communities (Anthopoulou *et al.*, 2017). Thus, arises the concept of social DIY (do-it-yourself), which seeks to take advantage of available community resources to provide solutions to social problems and, in turn, create entrepreneurship initiatives that integrate the communities (Muñoz *et al.* 2019; Asgary *et al.* 2020).

Another element to consider in resilient enterprises was the human and social capital they have. The companies in the studies indicated that they had a highly qualified, specialized, flexible, and adaptable staff (Duarte Alonso and Bressan, 2015; Andres and Round, 2015; Pallars-Blanch, 2015), as well as an organizational environment that stimulates flexibility and innovation (Larsson *et al.*, 2016). In terms of social capital, the most resilient companies demonstrated the importance of social connections and generating informal support mechanisms. These counted on the strong network of relationships built over their years of experience and the social support provided by the employees (Branicki *et al.*, 2018; Martinelli *et al.*, 2018; Asgary *et al.*, 2020). This social capital may be comprised of both local and international contacts. In the case of family businesses, the capital consisted of the types of resources within the family that were available to the businesses, namely, human, social, and financial (Mzid *et al.*, 2019).

As for strategic management, the authors mentioned that rapid intervention is required in times of crisis to make both routine and long-term decisions (Sabatino, 2016; Abdul Rani *et al.*, 2019). Better planning was found to improve negative results, control resources well, and maintain the quality of products and services (Abdul Rani *et al.*, 2019; Herbane, 2019; Williams, and Vorley, 2015). Marketing and management strategies were adjusted (Dahles and Susilowati, 2015), and strategic renewals were accomplished. This refers to the company's ability to visualize the future and be innovative, considering new solutions and activities (Mzid *et al.* 2019).

#### **4. Discussion**

The review of empirical studies related to the topics of entrepreneurship and resilience in times of crisis allowed us to analyze the experiences of entrepreneurs and learn how they displayed resilience to these episodes. The objective of this article is to identify the factors that comprise resilience, starting from how entrepreneurs have dealt with crises and then determining the methods that have been used to measure their responsiveness. This study can be useful for future empirical studies. The results of this research highlighted the evolution of resilience in the field of entrepreneurship. We identified various factors that explain how organizations and people with these characteristics not only recover their initial state but also produce transformations that strengthen those involved and the environment in which they operate and boost local or regional development.

Recent literature related to entrepreneurship and the COVID-19 crisis includes these factors discussed in this article. Although the final consequences on the economy and health are still unknown (Bacq, 2020), the contribution of this SLR lies in identifying the factors that can be considered in training programs for resilient entrepreneurs, and the different actors of the entrepreneurial ecosystem, universities, and public policymakers who support them. These factors are shown in Figure 7.

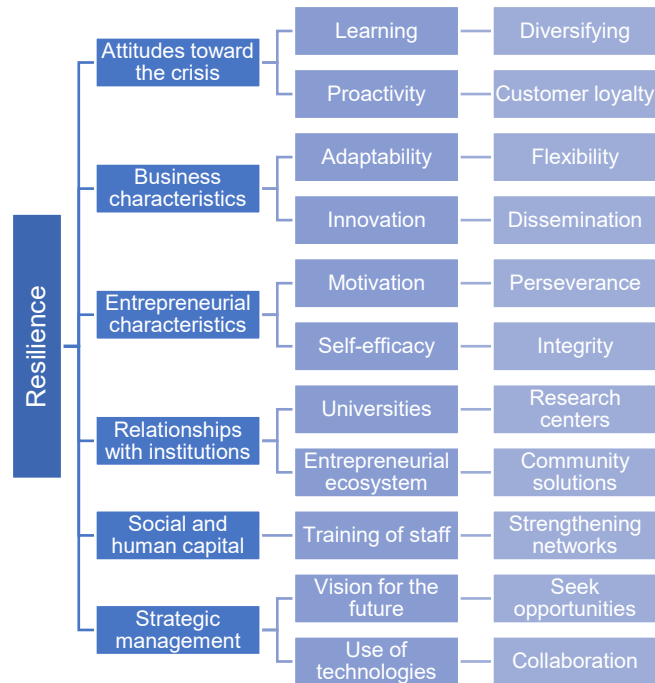


Figure 7. Factors in training programs for resilient entrepreneurs

Below are the resilience factors identified in this study that also are in other emerging studies related to the current crisis.

- **The attitudes toward the crisis:** In the studies analyzed, the attitudes leaned toward diversifying, learning, taking actions to maintain customer loyalty, and being proactive and optimistic. These attitudes are necessary so that companies can be responsive during the crises. Those who follow a model oriented toward entrepreneurship, learning, and resilience will be able to confront the uncertainty of the disasters (Sawalha, 2020).
- **Business characteristics:** In businesses, there must be an organizational environment that stimulates innovation. In the case of small businesses, their adaptability and flexibility become opportunities to confront the challenges, even in the uncertainty caused by COVID-19, where the entrepreneurs are expected to adapt their business models to the new reality (Kuckertz *et al.*, 2020), generating production chains, increasing learning, innovating, and disseminating the innovations (ECLAC, 2020).
- **Entrepreneurial characteristics:** Studies show that the resilient entrepreneur has an emotional attachment to his or her company and possesses personal characteristics such as flexibility, motivation, perseverance, self-efficacy, and integrity. Previous experiences also strengthen how they respond to new challenges, thanks to their prior learning. From there, the study authors are interested in continuing to research the entrepreneurs' perceptions of the COVID-19 crisis to learn about its impact and how the current situation could drive their business activities (Weinhardt and Bartosch, 2020). Despite the impact of companies closing and job losses, entrepreneurs have emerged who see opportunity in the chaos and can recover quickly by offering products and



services adapted to maintain their customers. It is necessary to continue developing these skills (Maritz *et al.*, 2020; Portuguez Castro *et al.*, 2020).

- *Relationships with institutions:* The studies indicate that the roles that different actors play in supporting entrepreneurship should be considered, so connecting entrepreneurs with other institutions such as universities, research centers, and other actors in the entrepreneurial ecosystem can help generate strategies for innovative solutions. These recommendations coincide with other studies that suggest that institutions such as universities should quickly mobilize resources to produce high-impact results and promote the search for community solutions (Bacq *et al.* 2020). This accompanies the concept of social DIY employed by the ventures, which contributes to the emergence and sustainability of companies amidst an environment of crisis and social problems (Tsilika *et al.*, 2020).
- *Social and human capital:* The training of innovative, flexible, and adaptable staff and having support networks to continue the company operations are resources that allow crises to be overcome. Strengthening the networks in which entrepreneurs develop leads to the acquisition of information that is important to the knowledge society (Ratten, 2020).
- *Strategic management:* Rapid intervention is required in which decisions are made that adjust strategies to incorporate a vision for the future, that consider new solutions and activities, include the community, and seek opportunities in unprovided services where entrepreneurship can enter. The development of new models that proactively deal with risk and uncertainty factors, employ new technologies, and adopt a global vision of collaboration between industries and the government to support production chains should be considered (Liu *et al.* 2020).

## 5. Conclusion

In the literature consulted, we observed that crises could generate opportunities to create more resilient companies, be more proactive, learn from their experiences, and collaborate in the social and regional spheres. Entrepreneurs have certain characteristics, such as being flexible in creating strategies and being adaptable and innovative, which allow them to face crises and strengthen their resilience. We found that the various types of crises demand different responses. We extracted from the literature thirty interesting studies and analyzed them in depth to know the different problems experienced by entrepreneurs and the actions they took to deal with them. We were able to identify the factors that comprise resilience in times of crisis, opening up new possibilities for the field of study.

The research to date has sought to know the reality that entrepreneurs have experienced and how they overcame crises. One can observe that the consequences of a crisis are measurable even after experiencing the event. Also, little empirical research was found that explores this phenomenon, especially in Latin American countries. So more research is needed to analyze the actions of resilient entrepreneurs in these contexts based on the criteria performed in this study.

Among the implications of this research is that this study can serve as the basis for developing training programs for entrepreneurs. It can also be used by those who carry out policies for entrepreneurship to define the strategic areas that entrepreneurs can strengthen in times of crisis. This study seeks to close the gap in research, at least partially, about what entrepreneurs do when they respond to crises and how they improve resilience in their communities (Korber and Mc.Naighthon 2018). It also contributes to the gap in defining how different types of resilience have been studied. The author seeks to motivate further research on the subject and suggests continuing to delve into the reviewed cases to explore the behaviors of resilient entrepreneurs.

The factors of resilient entrepreneurs identified in this research can be used as modules in training programs, taking as an example the cases analyzed to replicate them, considering the cultural behaviors and characteristics of the environment of the entrepreneurs, and understanding what is likely to lead successful implementations (Dana and Dana, 2005). Another possibility is to use the tools identified in the studies to conduct more research on entrepreneurs who are experiencing the COVID-19 crisis in different contexts to identify how they are acting and to generate risk mitigation plans. Therefore, this study can influence pedagogy in training programs and public policies by identifying actions that promote entrepreneurship. The tools identified can generate additional research, especially in developing countries and emerging economies that need it, such as those in Latin America.

For society, this study pays attention to how communities can be strengthened through support for the entrepreneur, and the importance of forming social enterprises to meet unaddressed needs. It is hoped that developing resilience can form people more resistant to adversity who can take advantage of the opportunities of this crisis to help the communities where they live. It also seeks to involve all actors in the entrepreneurial ecosystem to strengthen entrepreneurship in more innovative environments that improve the quality of life of the region's inhabitants.

The small number of empirical articles, especially in the Latin American region, is striking. So, for future studies, it is recommended to keep exploring how entrepreneurs continue dealing with the COVID-19 crisis, the scope of which is still unknown. While this study is limited by the number of articles found and the contexts in which they were developed, its analysis made it possible to establish some factors that comprise resilience in times of crisis. It is also recommended to delve into these studies to learn more about the entrepreneurial actions and research instruments because the scope of this study and the objectives set did not delve deeper into each one. For this reason, the database of the articles in this study has been placed in Open access at this link for consultation [https://figshare.com/articles/dataset/Data\\_base\\_Enterpreneurship\\_in\\_time\\_of\\_crisis/12660068](https://figshare.com/articles/dataset/Data_base_Enterpreneurship_in_time_of_crisis/12660068) (Portuguez Castro and Gómez Zermefio, 2020). These investigations can continue to be explored and incorporated into training programs that develop more resilient people and societies in the future. Studies showed that collaboration, innovation, social focus, and mutual support generated positive results among populations studied in crises; hence, these lessons can be applied proactively by businesses and entrepreneurs post-COVID19.

### **Acknowledgment**

The authors acknowledge the technical support of Writing Lab, TecLabs, Tecnológico de Monterrey, Mexico, in the production of this work.

**Conflicts of Interest:** The authors declare no conflict of interest

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