Global Pandemic and Entrepreneurial Intention: How Adversity Leads To Entrepreneurship

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Abstract

The COVID-19 global pandemic eruption has thrown schedules, preferences, and current networks into disarray, creating inherent uncertainty about what lies ahead. This adversity brought on by Covid-19 global pandemic created a displacement event in an individual life that can trigger sudden behavioral changes in an individual that would necessitate the search for several opportunities for making ends meet. However, individuals’ responses to the occurrence of any particular event are influenced by their judgments of whether the event is negative or positive, as well as whether the occurrence of that event can be used to generate income. Thus this study is intended to explore how adversity leads to entrepreneurship during the Covid-19 global pandemic. Specifically, what can inspire individuals to start a new venture in today’s world that has been severely impacted by the Covid-19 global pandemic? This study collects survey data from popular cities in China and analyzed the data using a structural equation model to empirically explore what determines entrepreneurial intention to start a new venture during a global pandemic. The findings show that possible feasibility and necessity have a strong influence on entrepreneurial intention in starting a new venture.

Keywords
entrepreneurial intention, global coronavirus pandemic, behavioral change, new startups, entrepreneurial event model

Introduction

The World Health Organization (WHO) officially declared the Covid-19 global pandemic recently, after considering its speed of transmission across the world. Subsequently, policymakers embraced a temporary economic lockdown as the only available option to slow the spread of the novel coronavirus. This has resulted in huge economic and social costs which by all means are notably unprecedented. The central idea in undertaking lockdowns is that without resorting to some form of the lockdown the rate of infections will be high, thereby overwhelming the health systems, and further increasing the disease burden and colossal economic loss. However, the economic damage caused by the lockdown has been substantial, despite the fact that public health systems have been less overwhelmed in some countries with fewer infections. Apart from job losses in the gig economy, this results in lost income for owners, resulting in the insolvency of a large number of businesses and households. Consequently, to some entrepreneurs, this historic disruption has triggered a clamorous call for turning the disaster into an opportunity during the crisis.

Moreover, the magnitude of this global pandemic crisis has surpassed previous crises yielding an extremely challenging context to operate the business due to its unprecedented nature (Ratten, 2020a). There is an increase in the demand for specific goods and services due to obligatory Health policies, while the supply chain system is hampered by international travel restrictions (Nicola et al., 2020). There are also difficulties in selling goods and services due to international travel restrictions and a decline in customer spending resulting from an increase in unemployment (Sigala, 2020). Furthermore, apart from difficulties obtaining certain goods and services and an increase in financial fragility, people have been forced to remain indoors and their movement has been restricted within a specific geographical area, ignoring the fact that their need for short-term liquidity needs is critical for their survival. Therefore, people must look for possible solutions to keep their activities alive while tackling diverse difficulties and challenges. This means that the current global pandemic crisis has caused a shift in people’s behavior, causing them to be willing to risk their assets and lives in search of survival ways, including business...
opportunities search to start a new venture that could provide income for their day-to-day activities (Cusack & Malmstrom, 2011). This study is determined to explore the motivational factors that drive an individual entrepreneurial decision to start a new venture under adverse situations. Specifically, the exploration of the antecedent of entrepreneurial intention under this unprecedented situation of the global covid 19 pandemic crisis.

Entrepreneurship is a personal decision based on planned action (Krueger et al., 2000). Unless an entrepreneurial intention is developed, an individual may not engage with an identified opportunity. It is important to note that the influence of new ventures on the economy and society at large is determined by the potential causes for starting new businesses (Estrin et al., 2013a; Williams, 2009). The opportunity-based entrepreneurial intention is associated with innovation activities, which have prospects of reducing unemployment and raising production efficiency in the economy (Stenholm et al., 2013), whereas necessity-based entrepreneurial intention is frequently associated with global downturn, unemployment, economic hardship, war, livelihood strategies and global calamities like the ongoing covid 19 global pandemic crisis (Acs & Amorós, 2008; Gries & Naudé, 2011). Thus this study proposes that adversity or economic hardship is a key to changing individual behavior to start a new venture. However, an individual’s decision to take action in the face of an adverse event is determined by his presumption in any given alternative, which combines desirability and feasibility perceptions, as well as their personal proclivity to act and make each alternative possible. As a result, this study considers the perceived future potential of entrepreneurship (FPT), perceived feasibility of entrepreneurship (PFSB), necessity (NEC), fear of failure (FOF), and resilience to be important factors that influence individual entrepreneurial actions in a difficult situation. Researchers have not yet discovered the motivating forces that shape individual decisions in difficult situations, even though research in this field is still in its early stages. Thus understanding what motivates people to start a new business in a bad economy is critical for developing policies that will boost entrepreneurial activity and offer solutions to the current situation. Consequently, understanding what drives individuals’ intention to start a new venture in an adverse situation is crucial for the development of policies that can enhance entrepreneurial activities and offer solutions to the present situation.

Previous studies show that fear of failure has a strong influence on individual intentions to start a new venture (Herath & Mahmood, 2014). People deter themselves from starting a new venture in a tough situation due to fear of failure. This study is extended to explore the impact of resilience on mitigating the effect of the fear of failure on entrepreneurial intentions to start a new venture in an adverse situation. Resilience means the psychological ability of an individual to bounce back at the time of difficulty or after (Tedeschi & Calhoun, 2004). It is considered critical for entrepreneurs in the adverse situation as in this covid 19 global pandemic crisis (Bullough et al., 2014). While resilience is crucial in comprehending how to cope during and before crises, the moderating effect of resilience on the relationship between fear of failure and entrepreneurial initiatives in the face of catastrophe remains unsearched.

Despite a growing understanding of how adversity causes displacement events that trigger a shift in individual thinking to seek business opportunities through technology and forward-thinking, there are a plethora of studies that investigate the drivers of entrepreneurial intentions in adversity. Shepherd and Williams (2014), argue that the potential of entrepreneurship to alleviate the current situation is the factor responsible for establishing a new venture following a catastrophic event. Sawada et al. (2011) and Skidmore and Toya (2002) discovered that the destruction of customs and networks are the factors that influence entrepreneurial intention to start a business in a tough situation. the existence of free tools. The existence of free tools to promote innovation under those conditions provides a solid foundation for launching a new venture business. According to Fukushima (2018), age and experience are important factors in establishing new businesses after disasters. However, unlike the present study, these studies focused on individual characteristics as well as institutional factors as predictive variables of entrepreneurial intent in adverse situations. These studies also conducted their research on entrepreneurial antecedents in adverse situations in the context of relatively continuous adverse situations rather than abrupt environmental changes that were global.

Furthermore, the focus of the existing literature on the covid 19 global pandemic crisis was mainly on the impact of government policy on covid 19 to support entrepreneurship (Donthu & Gustafsson, 2020; Ratten, 2021), entrepreneurial response to innovation, and creativity in the adverse situation (Ratten, 2020a), and impact of covid 19 on the specific type of entrepreneurship like small scale business impact (Thukral, 2021), social impact prerequisites (Bacq et al., 2020; Ratten, 2020b), impact on personal and joint-stock businesses (Kraus et al., 2020), or impact on gender (Ute et al., 2020). So far, there is a dearth of evidence exploring possible factors that could influence an individual’s decision to launch a new venture during or after the global coronavirus pandemic. Although it is important to understand how entrepreneurial undertakings can survive the global coronavirus pandemic, a new perspective on this global coronavirus pandemic should also be developed as a source of ground-breaking insights and initiatives.

To better understand the role of entrepreneurship in society and fill the identified literature gap, building on the theory of planned behavior and entrepreneurial event, this study explores the factors that influence entrepreneurial intention to start up a new venture during or after the covid 19 global pandemic crisis. First, the theoretical background and a brief
review of relevant literature on entrepreneurial intention and the global novel coronavirus are outlined in the process of developing propositions corresponding to the study’s model. The methodology is described next, followed by results and discussion. Finally, the theoretical and practical implications along with research limitations are presented.

**Theoretical Background and Literature Review**

*Prior Research on Entrepreneurial Intention*

The emergence of entrepreneurial behavior is inseparable from the unique characteristics of entrepreneurs themselves. “Intention” is an internal reflection of people’s potential behavior. It can be described as the ability to predict future behavior and then exploit this behavior. Entrepreneurial intention (EIN) has been described as the basis for individual action in the establishment of a new venture and the corresponding plan before action (Shook et al., 2003). Entrepreneurial intention has been one of the remarkable areas of entrepreneurship research (Jarvis, 2016). Existing literature postulates individual factors such as temperament, previous experience, social relations, and individual abilities, and contextual factors like environment and organization as the main factors associated with the determination of entrepreneurial intention (Bird, 1988). In the entrepreneurial intention research field, some of these factors have been explained in the context of widely used theories such as the Theory of Reasoned Action (TRA) (Fishburn & Ajzen, 1975), the Theory of Planned Behavior (TPB) (Ajzen, 1985), and Theory of an Entrepreneurial Event (TEE) (Shapero & Sokol, 1982).

The TRA assumes that behavioral intention is the direct factor that decides behavior, which in turn is influenced by behavioral attitude and subjective norms. Therefore, “individual attitude” defined as the predictor of behavior, and “subjective norms” defined as social pressure that an individual may encounter like other people’s opinions, are the constructs in TRA that help shape one’s convictions and behavior (Montano & Kasprzyk, 2015). This shows that individual behavior is controlled by the will, and this drawback of the theory seriously hinders its widespread application. To expand the scope of application of the TRA, Ajzen (1985) expanded the theory by increasing the determinant variables of perceptual behavior and formed the TPB. According to TPB, intention is the prerequisite for behavior. TPB holds that attitudes, subjective norms, and perceived control are the determinants of intention, while behavior is influenced by intention and perceived control. Ajzen considers “perceived behavioral control” as factors beyond an individual’s control that can influence intention and behavior (Maruping et al., 2017).

On the contrary, Shapero’s (1975) entrepreneurial event model argues that inertia guides human behavior until it is interrupted or replaced. It changes with the occurrence of a single or series of events that negatively disrupt individual momenta, such as job loss or lockdown (as in this time of the global pandemic), or positively, such as inheritance and rest. These events induce a behavioral shift in the sense that the subject must choose between several solutions (Katz, 2001). Therefore, there is a pre-existing ideal solution for an individual based on his belief in any given alternative, which is determined by adding the desirability and feasibility perceptions, as well as their proclivity to act and make each alternative possible (Parente & Feola, 2014). According to Shapero and Sokol (1982), the factors that determine entrepreneurial intention are the perception of personal desirability and personal feasibility, along with individual proclivity to act. Perceived desirability means personal interest (both intra-personal and extra-personal) in starting a business venture. Perceived feasibility means the degree of a personal feeling of being capable of starting a venture. The volitional aspects of intent are called propensity to act. Therefore, the existence of perceived desirability and feasibility of a given project can shape the relationship between entrepreneurial intention and external factors like the current global pandemic crisis.

While these theories have been employed to study entrepreneurial intention under other kinds of adverse conditions (e.g., Bullough et al., 2014; Michael & Jennifer, 2015; Monllor & Murphy, 2017; Nurdan & Nancy, 2016; Winn & Kirchgeorg, 2005), the focus of these theories was primarily on progressive business adaptation to relatively continuous tough situations like war and earthquake rather than abrupt environmental changes that were global. Despite the apparent need for entrepreneurial development as a result of changes associated with the covid 19 global pandemic crisis, there is a gap in the literature on entrepreneurship research that incorporates these constructs with the covid 19 global pandemic crisis. Given the importance of entrepreneurship in the context of the Covid 19 global pandemic crisis, this study expands on these theories to consider the perceived feasibility of entrepreneurship, perceived future potential of entrepreneurship, necessity, fear of failure, and resilience as factors that influence entrepreneurial intention during the crisis.

**Novel Coronavirus Pandemic (COVID-19)**

The novel coronavirus (nCov-2019 or Covid-19) is a new strain of coronavirus that has never been found in the human body before. It was named by WHO on January 12, 2020, after it was discovered in Wuhan, China at the end of the year 2019. The outbreak of the novel coronavirus, though a variant of the new virus, has many unknown factors. However, it is similar to cases of lung and respiratory tract infections, such as the plague of three provinces in Northeast China in 1910, the third Spanish influenza in 1914, and SARS in 2003. The novel coronavirus infection is thought to be transmitted from an animal, and the pathogen is identified as
SARS-CoV-2. According to the WHO, the first suspected patient reported to be infected with the virus through human-to-human transmission was in January 2020. Since then, the virus has swept China and other countries around the globe and became a global pandemic, leading to the mother of all crises in this century. As of July 29, 2020, there are more than 700,000 confirmed cases and more than 35,000 deaths in the world (Johns Hopkins University Report, 2020).

The global pandemic has led to social unrest. A mismatch between demand and supply in all markets has become increasingly acute, especially in markets for consumable goods and services because of the need for the social distance that led to the shutting down of business operations. It has also led to a change in people’s working styles and living habits while promoting their self-examination and social reflection. At the same time, this crisis has led to the emergence of new business opportunities and the reconstruction of management models, forcing enterprises to rethink the direction and road ahead in times of uncertainty. According to Jayaram et al. (2020), if governments, development agencies, and private sectors do not respond with exceptional speed and agility in the coming weeks, the effect of the global coronavirus pandemic could be devastating in Africa and other countries around the globe. As such, exploring the factors that determine entrepreneurial intention during a global pandemic is critical for the development of policies that can enhance economic growth and development.

Conceptual Framing

Since the business operation is based on exchange with its environment (Scott, 1998), the research context on business adaptation in adverse conditions is related to the environmental situation in which it operates. Entrepreneurship is critical in the adverse situation to alter people’s perception of the crisis by spinning the hostile event into a positive occurrence. Unless an entrepreneurial intention is developed, an individual may not engage with an identified opportunity. This implies that entrepreneurial intention is a vibrant indicator of future entrepreneurial activity (Krueger et al., 2000). Over the decades, various entrepreneurial intention models have emerged (see, Ajzen, 1985; Fishburn & Ajzen, 1975; Krueger et al., 2000; Shapero & Sokol, 1982). The extant literature shows that meta-analysis on intention explained nearly 40% of the variation in actual behavior (Sheeran, 2002). Thus the tendency of an individual to act depends on the results of the factor that provide a context for a certain initial condition that may be decided by the idea of starting a business. Advancing from these theories, this study presupposes an entrepreneurial intention to be subjected to a situation of a given factor as illustrated in Figure 1.

According to the theory of planned behavior (Ajzen & Fishbein, 1980), the development of entrepreneurial intention is grounded on the perceived feasibility and desirability of entrepreneurial action (Krueger et al., 2000). While desirability means how desirable and important a person finds that opportunity, feasibility refers to how much a person feels qualified to perform entrepreneurial roles under fundamental conditions of uncertainty (Fitzsimmons & Douglas, 2011; Parente & Feola, 2014). The disturbances caused by major events such as the present global pandemic crisis can be recognized by entrepreneurs as the foundation for business opportunities (Brück et al., 2011). Advancing from this theory, perceived feasibility and desirability plus other antecedents such as necessity, fear of failure, and resilience are considered to have a significant influence on the level of commitment of an entrepreneur.

The Covid-19 global pandemic’s occurrence and intensity have established stresses and restrictions on the business environment. This crisis has affected the most fundamental environmental sense of organization in ways that are visible and observable. It has also constrained the ability of an entrepreneur to operate freely while limiting resources. For instance, the decline in profits, lower resource availability, interruptions in supply chains, and new government policies among others. These constraints may have a direct influence on some entrepreneurs’ psychological variables that explain the variation in entrepreneurial intent and action (Monllor & Murphy, 2017). For example, perceived difficulties in selling goods and services due to lockdown and movement restrictions within a geographical area may negatively impact the feasibility of a new venture. Scholars argued that an individual with a proclivity to seize opportunities could perceive this case as a business opportunity and form an intention to launch a new venture (Krueger et al., 2000). This is because the perception of threat depends on the personal decision of the occurrence of events or situations as hypothetically destructive or means of exploring business opportunities (Parente & Feola, 2014). Entrepreneurial action or inaction in the face of the current global pandemic crisis creates business opportunities by causing economic and business unbalance (Cowling et al., 2015). The existence of over-demand for certain goods and services, such as toilet paper, masks, sanitizers, and so on, can transform the motivation for action to deliver new goods and services. The underlying assumption that the perceived desirability and feasibility of an entrepreneurial opportunity determined entrepreneurial intention is applied to this situation, in which the perception of opportunities presented by the Covid-19 global pandemic crisis is determined by their importance in reducing or alleviating adversity. Thus the first hypothesis of this study posits as:

H1: Opportunity arising from the Covid 19 global pandemic crisis can be perceived as feasible and will increase entrepreneurial intention if it has the potential of improving the existing situation.

H2: Opportunity with future potentials arising from covid 19 global pandemic crisis has a positive impact on entrepreneurial intention.
Furthermore, this covid-19 global pandemic crisis is unprecedented in a century marked by changes in government economic policy, income declines, shortages of goods and services due to supply chain disruptions, increases in the demand for a few products and services, and serious distortions in the demand and supply behaviors of other commodities. Personal reactions to the covid 19 global pandemic crisis include among other things, self-isolation, lockdown, increased emotional difficulties, restriction of movement, job, and school disengagement, and low resource availability (Foss, 2020; Ratten, 2021; Sigala, 2020). People’s activities are primarily focused on surviving and protecting their own and their families’ lives. They have no choice but to work inside their home or within a specific geographical area to make living for the sake of survival. This covid-19 global pandemic crisis has also compelled business organizations to lay off some of their employees and contend with the remaining employees who are confined to their homes and specific locations (Ratten, 2021). Thanks to digital technology for making everything feasible. It was evident that some entrepreneurial activities in adverse situations are just meant for survival. The study by Reynolds et al. (2005) and Shane (2009) found that low availability of employment can lead to a high rate of self-employment that doesn’t come from the supportive condition of entrepreneurship.

In addition, a lack of resources and capital hampered economic initiatives and living conditions even more amid this global pandemic crisis (Ute et al., 2020). This intense stress and pressure produce displacements that reflect a change in an individual’s actions to pursue an incentive for new behavior (Katz, 1992). Individual action means the allocation of resources and technology needed for entrepreneurial survival, whereas individual inaction means doing nothing that can lead to deteriorating situations. Thus in adversity, individuals must choose the type of action that must be taken and the resources needed (Milstein, 2015) to generate a stream of income and keep on their living activities. Consequently, the inherent uncertainties of the covid 19 global pandemic crisis force individuals to transform their motivations into action to produce goods and services. Necessity can be considered a significant factor that can determine entrepreneurial intention, especially in adverse situations (José et al., 2019). Thus, this study posits its third hypothesis as follows:

**H3:** Necessity has a positive relationship with entrepreneurial intention

Furthermore, in adversity, individuals need to create new ventures for the sake of survival. However, starting a new business in an adverse situation entails confronting additional elements of uncertainty and insecurity. There is no
consensus among scholars regarding entrepreneurial intention in abrupt environmental settings. While some scholars believe that certain people are willing to take risks or even pursue business opportunities for the sake of their lives in adversity (Bullough et al., 2014; Cusack & Malmstrom, 2011), others are apathetic in their general fear of failure when starting a new business in any given situation (Amanda et al., 2014). Therefore, since an adverse event like the current global pandemic crisis triggers a regime of uncertainty that may be highly harmful to entrepreneurial action, people must develop a fear of failure for starting a new venture. Holding necessity-based entrepreneurship constant in adversity, this study proposes that the perception of failure and the underlying uncertainty of the Covid 19 global pandemic crisis have a negative impact on entrepreneurial intentions. It was evident that due to the current global pandemic crisis, efficient, decent, and effective business practices may be jeopardized, leaving people with only a weak legal system (Ratten, 2021). Thus, the next hypothesis is as follows:

**H4: Fear of failure stemming from the inherent uncertainty of the global pandemic crisis reduces entrepreneurial intent.**

Resilience is important in adversity, both during and after the occurrence of negative events (Bullough et al., 2014). It is defined as the combination of numerous beneficial personal traits, tendencies, and behavioral patterns (Ayala & Manzano, 2014). Resilience helps people in tough times to move on, whilst others may be disheartened in their effort to cope with the difficulties and obstacles they face in business start-ups. Positive feelings during or after horrific events safeguard resilient individuals from depression and can even help them to succeed in a time of adversity (Fredrickson et al., 2003). Therefore, the fear of failure to start a new venture in a turbulent time will have less impact on highly resilient entrepreneurs (Hayward et al., 2010). It was clear that high-resilience entrepreneurs are more likely to pursue new opportunities on the ground to re-start a new business venture, even if they had previously failed to do so (Hayward et al., 2010).

To comprehend resilient outcomes in the face of adversity, a holistic approach to individual differences is required (Westphal & Bonanno, 2007). Positive responses contribute to resilience and entrepreneurial action for those who are capable of acting during this period of the current covid 19 global pandemic crisis (Kuckertz et al., 2020). Thus, resilient individuals can participate in initiatives that are explicitly designed to address issues such as unemployment, the formation of a new supply chain, the provision of financial support to their families and loved ones, and ways to accommodate daily routines to mitigate the unprecedented uncertainty caused by the Covid 19 global pandemic crisis. Consequently, this study proposes resilience to mitigate the relationship effect between fear of failure and entrepreneurial intentions stemming from the inherent uncertainty of the Covid 19 global pandemic crisis. The next hypothesis posits as:

**H5: Resilience moderates the relationship impact between fear of failure that stem from the covid 19 global pandemic crisis and entrepreneurial intention**

**Methodology**

**Research Design and Data Collection Techniques**

This study aims to address the question of what factors influence entrepreneurial intention to start a business venture during and after the covid 19 global pandemic crisis. A quantitative research design is employed here based on the adapted version of the theory of entrepreneurial events to evaluate the determinants. The study questionnaire consists of demographic information (including gender, age, and education) and six latent constructs in the proposed model measured based on a 7-point Likert scale. Table 1 describes the measurement items of the six latent variables.

We posted an online survey questionnaire within the major economic cities in China, and in May 2020 that lasted for 3 months on the popular Chinese online questionnaire platform, www.sojump.com. The cities include Beijing, Shenzhen, Shanghai, Shenyang, and Guangzhou. To make the scale conform to the entrepreneurial activities of the chosen study area, the study conducted a preliminary survey in China before producing the final set of this study survey questionnaire. The preliminary survey questions were on the antecedents of entrepreneurial intention during the current covid 19 global pandemic crisis. Based on the data collected from the initial survey, this study questionnaire was adjusted and modified to form the final survey questionnaire. The respondents cover every individual irrespective of their gender variations. The sample characteristics of this study are suitable for the present study because the influence of covid-19 global pandemic affects every living organism in the country.

Furthermore, as the study explores the behavior of individuals with self-reported survey items, there may be a consideration regarding common method variance (CMV). The study minimizes the common method bias in the following ways. First, the respondent’s privacy was secured. Second, a pilot study was conducted to reduce ambiguities. Third, certain questions concerning independent variables and dependent variables were divided (Podsakoff et al., 2003). A total of 332 valid datasets (90.21% valid response rate) are recovered from the 368 data sets collected.

This study employs the smart PLS 3.2v (Partial least square) to test the proposed research model. Partial least square (PLS) regression is a second-generation structural equation modeling (SEM) technique used with data that contain correlated predictor variables. In contrast to least square regression, PLS can fit multiple response variables
Measurement model validation. The first step in PLS analysis is the measurement model evaluation. This is used to evaluate the reliability and validity of each variable’s structure (Anderson & Gerbing, 1988). This is to show whether the elements developed in the questionnaire can be used to measure the entrepreneurial intention model at the time of the global coronavirus pandemic. Table 2 depicts the result of the measurement model, which includes the indicator items used in the model, outer loadings, average variance extracted (AVE), Cronbach’s alpha (CR), and composite reliability (CR). Table 2 shows that the outer loadings, Cronbach’s alpha, and CR values are above .7, and the AVE value of each construct is above .5, signifying a higher degree of reliability and validity. The indicator items below .5 are removed and displayed at the bottom of Table 2.

Table 3 displays the correlation analysis of six variables. The square root of each variable’s AVE is higher than its constructs (Chin, 1998; Fornell & Larcker, 1981), indicating the subjective independence of every indicator on its latent variable. The Heterotrait-monotrait ratio of correlation (HTMT) of the six constructs is displayed in Table 4. The value of each construct is less than .85, signifying the reliability of the data (Hair et al., 2019).

Result Analysis

Sample Characteristics

Table 5 indicates that 52.4% of respondents are males and 47.6% are females. The difference between male and female respondents is 4.8%. Youth generations aged 26 to 40 years account for 59.6% of respondents, followed by a higher age range of generations 41 to 55 years for 25.6%. The proportion of the young generation is 11.1% higher. Regarding education, those with a technical/secondary certificate and junior college degree have the highest rates of participation in this report, at 51.2% and 26.5% respectively. The proportion of those with a bachelor’s degree and above is just 3.6%.

Table 1. Measurable Items of seven constructs.

| Measurable items                                                                 | ENI1                                                                 | ENI2                                                                 | ENI3                                                                 | ENI4                                                                 | ENI5                                                                 | NEC1                                                                 | NEC2                                                                 | NEC3                                                                 | NEC4                                                                 | FPT1                                                                 | FPT2                                                                 | FPT3                                                                 | FOF1                                                                 | FOF2                                                                 | FOF3                                                                 | FOF4                                                                 | RSL1                                                                 | RSL2                                                                 | RSL3                                                                 | RSL4                                                                 |
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| Measurable items                                                                 | Understanding my feelings in my ex-organization help me choose business opportunities | My former organization concern about my joy or sorrow assisted in the selection of my business opportunities | Former organization sympathy with my emotional feelings have helped me choose my business opportunities |                                                                 |                                                                 | Having fair and equal treatment in my organization helped me choose business opportunities | Having proportional treatment without any kind of discrimination helped me choose my business opportunities | Having equal right in my former organization helped me choose business opportunities | Provisional opportunities to showcase my talent and conduct an experiments in ex-organization help me in choosing current business opportunities | The support and training received in ex-organization assist me choose my business opportunities | My colleagues and management staffs supports assist me choose my business opportunities | Existence of best working facilities in my organization help me choose business opportunities | Provision of enabling environment to develop skills and knowledge in my ex-organization helped me choose business opportunities | Provisional infrastructure in my ex-organization helped me choose my current opportunities | I can easily figure out effective solution to any hard situation | I have the ability to bounce back from difficulties such as discouragements, frustration, disappointments and rest | I always have the feelings that I can do everything perfect | I have feeling that I am not successful | Even in an Industry where I have no personal experience, I can recognize new business opportunities | By going on everyday routine activities, I found varieties of ideas concerning potential new venture surround me | My contacts or discussion with clients or distributors or potentials and their alike help me in recognizing business opportunities | I do not have any special “Alertness” or “sensitivity” toward new venture opportunities |
The results of the PLS-SEM analysis for the study model are shown in Figure 2. Bootstrapping is conducted using 332 responses to 5,000 samples to determine the significance of the path coefficients. Structural equation modeling is favorable in the analysis of moderating variables as the relevant paths are directly verified and issued, for instance, the measurement error and feedback which are included in the model (Edelman et al., 2005).

Table 6 depicts the result of the structural path analysis. The $R^2$ value of the study model stands at .711, higher than .50, indicating the large explanatory power of the variation in entrepreneurial intention (ENI) among the determinant factors necessity (NEC), possible feasibility (PFSB), fear of failure (FOF), and future potentials (FPT). The $p$-values of the path constructs are less than .05, indicating a significant influence of all the determinant variables on entrepreneurial intention.

As shown in Figure 2 and Table 6, all the hypotheses formulated in this study are supported. The structural model path coefficient shows that the NEC coefficient value with $t$-statistic is .305 (4.877), and is positive and significant (H1). It reveals an increase in entrepreneurial intention with a 30.5% rise in necessity. Subsequently, the adversity caused by the Covid-19 global pandemic such as lockdown, job losses, and others can trigger an individual behavior to search for a better solution, which may in turn result in an individual becoming entrepreneurial. The structural model path coefficient of PFSB is .411 (7.221) (H2), which is the highest path coefficient in the model. This implies that an increase in the perceived feasibility of a given opportunity will lead to a 41.1% increase in entrepreneurial intention to launch a new venture during the global coronavirus pandemic. Any perceived opportunity that can provide an improved solution to the pandemic elements being affected will lead to a 41.1% increase in individual intention to start a new venture.

In addition, The structural model path coefficient of FPT is .113 (2.642) (H3), indicating the impact of potential future growth and the development of a new venture business on the entrepreneurial intention to start a new venture during the global coronavirus pandemic. It results in an increase of
11.3% in the entrepreneurial intention to launch a new venture during the global coronavirus pandemic, with an increase in the potential for future growth and development of the perceived opportunities. The path coefficient of the structural model for the FOF is $-0.164$ ($3.126$), a negative coefficient and statistically significant (H4). This negative coefficient signifies a negative relationship between fear of failure and entrepreneurial intention to start a new venture at the time of the covid 19 global pandemic crisis. There is a fall in the entrepreneurial intention by $-16.4\%$ to start a new venture during the global coronavirus pandemic with an increase in fear of failure.

The result of this study further shows resilience (RSL) to moderate the effect of fear of failure on entrepreneurial intention in starting a new venture (H5) (see Figure 2). Just like in other normal situations, this study reveals that resilience mitigates the relationship between fear of failure and entrepreneurial intention at the time of the covid 19 global pandemic crisis. Therefore, by conceptualizing the global coronavirus pandemic as a new phenomenon that poses tough human life challenges, at the same time inducing individuals to be entrepreneurial in the process of a search for a solution, this study contributes to opening the black box on how tough human life challenges presented by the covid 19 global pandemic crisis can be perceived as an opportunity to start a new venture. Hence, the existing literature on entrepreneurial intention can be extended and enriched.

### Theoretical Contribution

This study is based on the entrepreneurial event model assumption, which states that in the context of entrepreneurial activities, the occurrence of a significant life event can cause major changes in entrepreneurial activities (Krueger et al., 2000). The efficacy of these events is the result of inertia (Shapero & Sokol, 1982), which induces a human behavioral shift as the subject must choose between several solutions (Katz, 2001). However, the extant literature has not yet been explicit on how the occurrence of a major environmental event, such as the present global coronavirus pandemic, triggers a shift in human behavior as an individual intends to start a new business venture. This calls for in-depth research into how adversity caused by the present global pandemic crisis induces entrepreneurial intention to start up a new venture. To the best of our knowledge, existing research does not consider the impact of the environmental threat issue, such as the global coronavirus pandemic, on entrepreneurial intent to start up a new venture business, thus failing to open the black box of this vital issue on entrepreneurial activity.

To address the gap mentioned above, the present study makes two theoretical contributions. First, the study contributes by effectively explaining how the present covid-19 global pandemic crisis, as the emergence of a new phenomenon precipitates major changes in human life that can lead to entrepreneurial activities. The efficacy of this global pandemic crisis induces a change in human behavior in the search for a way out. Therefore, by conceptualizing the global coronavirus pandemic as a new phenomenon that poses tough human life challenges, at the same time inducing individuals to be entrepreneurial in the process of a search for a solution, this study contributes to opening the black box on how tough human life challenges presented by the covid 19 global pandemic crisis can be perceived as an opportunity to start a new venture.
Secondly, advancing from the theory of the entrepreneurial event, this study contributes to the understanding of the factors that can determine entrepreneurial intention to start a new venture at the time of the global coronavirus pandemic. The new empirical findings of this study are not only limited to determining the factors responsible for the entrepreneurial intention or validating the entrepreneurial event theory in an entrepreneurial setting but also empirically explore the paradoxical effects of the determinant factors on the entrepreneurial intentions of the study model during the global coronavirus pandemic. All the constructs in the study model have been found to make a significant contribution to entrepreneurial intention. This indicates the plausibility of necessity, perceived feasibility of an opportunity, future potentiality of a given opportunity, fear of failure, and resilience in deciding one’s purpose to be entrepreneurial.

**Practical Implications**

Besides the theoretical contributions referred to above, this study also has some key practical implications, especially the insight into the nature of the opportunities presented by the global pandemic crisis for new venture start-ups. These can be useful to academics and the governing body of an economy, professionals, and development agencies who are interested in pre-start-up behavior as a source of new venture creation.

The present study also reveals several pathways that can encourage an individual to recognize the opportunity presented by the global coronavirus and pursue entrepreneurship as a new career. Based on this study’s findings, possible feasibility (PFSB) and necessity (NEC) are found to have more impact on entrepreneurial intention. This result

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### Figure 2. Covid-19 and entrepreneurial intention model.

### Table 6. The Result of Structural Analysis.

| Hypothesis | Relationships | Beta value | Std. dev. | T-statistics | Sig. |
|------------|---------------|------------|-----------|--------------|------|
| H1         | Fear of Failure -> Entrepreneurial Intention | -.164      | 0.052     | 3.126        | **   |
| H2         | Necessity -> Entrepreneurial Intention     | .305       | 0.063     | 4.877        | **   |
| H3         | Future Potentials -> Entrepreneurial Intention | .113      | 0.047     | 2.382        | **   |
| H4         | Possible Feasibility -> Entrepreneurial Intention | .411     | 0.057     | 7.221        | ***  |
| H5         | Fear of Failure × Resilience -> Entrepreneurial Intention | -.067    | 0.033     | 2.045        | ***  |

Note. **p < .05. ***p < .01.
provides essential insight and sheds more light on the potential avenue for developing an action plan on opportunities that offer improved solutions to the pandemic elements being affected to support the entrepreneurial agenda during the pandemic.

Given the economic situation of every single country in the world today, the findings of this study are expected to benefit the Chinese government and other emerging economies in developing policies to facilitate entrepreneurship during the global coronavirus pandemic. The findings also contribute to providing local development agencies with vast opportunities to encourage the creation of new ventures among those who choose to start up a business. This can lead to a potential increase in the involvement in entrepreneurial activities in China and other emerging economies, thereby leading to an increase in income and boosting the overall economy of these geographies.

Conclusion

This study empirically explores how the global coronavirus pandemic has become a source of new venture establishment. The focus of this study is on a new venture in the pre-start phase. Based on the entrepreneurial event model, this study proposes factors that can influence entrepreneurial intention in capturing the opportunities presented by the global coronavirus pandemic in the start-up phase of the entrepreneurial process. Based on the survey results, we find that possible feasibility and necessity have a strong influence on entrepreneurial intention, while fear of failure and future potential are also statistically significant. Resilience is found to moderate the interaction effect between fear of failure and entrepreneurial intention.

The influential strength of possible feasibility (PFSB) and necessity (NEC) are found to have more impact on entrepreneurial events. This is in line with the theory of entrepreneurial events and the economic market situation during the global coronavirus pandemic (José et al., 2019; Monllor & Murphy, 2017). The empirical results show a high tendency for an individual to establish a new venture if that new venture has the potential of improving the living condition at the time of the pandemic. Similarly, necessity is found to have the second-largest coefficient value in the model, indicating a strong influence of situational necessity imposed by the pandemic on entrepreneurial intention. Resilience is found to moderate the effect of fear of failure on entrepreneurial intention in perceiving the opportunities presented by the pandemic.

On the contrary, the study findings further indicate fear of failure has a negative relationship with entrepreneurial intention during the pandemic. This result is in line with the theoretical literature on fear of failure and entrepreneurship. Also, future potential (FPT) growth and development of opportunities posed by the pandemic are found to have a positive influence on entrepreneurial intention. Therefore, this study shows that the pandemic can be seen as a tough human life challenge that presents not only harm to the economy but also some potential opportunities which can induce an individual to start up a new venture. Based on the empirical results, fresh evidence prevails for academics, international and local development agencies, as well as individuals who are interested in establishing a new business venture at the time of the global coronavirus pandemic.

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References

Acs, Z. J., & Amorós, J. E. (2008). Entrepreneurship and competitiveness dynamics in Latin America. Small Business Economics, 31(3), 305–322.
Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Prentice-Hall.
Ajzen, I. (1985). From intention to actions: A theory of planned behavior. In J. Kuhi & J. Beckmann (Eds.), Action-control: From cognition to behavior (pp. 11–39). Springer.
Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103, 411–423.
Ayala, J.-C., & Manzano, G. (2014). The resilience of the entrepreneur. Influence on the success of the business. A longitudinal analysis. Journal of Economic Psychology, 42, 126–135.
Bacq, S., Geoghegan, W., Josefy, M., Stevenson, R., & Williams, T. A. (2020). The COVID-19 virtual idea blitz: Marshaling social entrepreneurship to rapidly respond to urgent grand challenges. Business Horizons, 63, 705–723.
Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. Academy of Management Review, 13(3), 442–453.
Brück, T., Llusà, F., & Tavares, J. A. (2011). Entrepreneurship: The role of extreme events. European Journal of Political Economy, 27, S78–S88.
Bullough, A., Renko, M., & Myatt, T. (2014). Danger zone entrepreneurs: The importance of resilience and self-efficacy for entrepreneurial intentions. Entrepreneurship Theory and Practice, 38, 473–499. https://doi.org/10.1111/etap.12006
Chin, W. W. (1998). The partial least squares approach for structural equation modelling. In G. A. Marcoulides (Ed.), Modern methods for business research (pp. 295–336). Lawrence Erlbaum Associates Publishers.
Cowling, M., Liu, W., Ledger, A., & Zhang, N. (2015). What really happens to small and medium-sized enterprises in a global...
economic recession? UK evidence on sales and job dynamics. *International Small Business Journal*, 33(3), 488–513.

Cusack, J., & Malmstrom, E. (2011). Bactrian gold: Challenges and hope for private-sector development in Afghanistan. *SSRN Electronic Journal*, http://ssrn.com/abstract=1772762

Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research*, 117, 284–289.

Edelman, L. F., Brush, C. G., & Manolova, T. (2005). Co-alignment in the resource–performance relationship: Strategy as mediator. *Journal of Business Venturing*, 20, 359–383.

Estrin, S., Korosteleva, J., & Mickiewicz, T. (2013a). Which institutions encourage entrepreneurial growth aspirations? *Journal of Business Venturing*, 28(4), 564–580.

Fishburn, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Addison-Wesley.

Fitzsimmons, J. R., & Douglas, E. J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, 26(4), 431–440.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *JMR, Journal of Marketing Research*, 18, 382–388.

Foss, N. J. (2020). Behavioral strategy and the COVID-19 disruption. *Journal of Management*, 46, 1322–1329.

Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84(2), 365–376.

Fukushima, M. (Ed.). (2018, December 10–13). *Entrepreneurship after a disaster* [Paper presentation]. The ISPIM Innovation Summit – Building the Innovation Century, Melbourne, Australia. Available at: www.ispim.org

Gries, T., & Naudé, W. (2011). Entrepreneurship and human development: A capability approach. *Journal of Public Economics*, 95(3/4), 216–224.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of pls-sem. *European Business Review*, 31(1), 2–24.

Hayward, M. L. A., Forster, W. R., Sarasvathy, S. D., & Fredrickson, B. L. (2010). Beyond hubris: How highly confident entrepreneurs rebound to venture again. *Journal of Business Venturing*, 25(6), 569–578.

Herath, M. A., & Mahmood, R. (2014). Dimensions of entrepreneurial self-efficacy and firm performance | global journal of management and business research. *Global Journal of Management and Business Research*, 14(4), 22–30.

Jarvis, L. C. (2016). Identification, intentions and entrepreneurial opportunities: An integrative process model. *International Journal of Entrepreneurial Behaviour & Research*, 22(2), 182–198. https://doi.org/10.1108/ijeb-02-2015-0041

Jayaram, K., Leke, A., Ooko-Ombaka, A., & Sun, Y. S. (2020). *Finding African path: Shaping bold solutions to save lives and livelihoods through the crisis*. McKinsey and Company. https://data2.unhcr.org/fr/documents/details/77563

Johns Hopkins University Report. (2020). *John Hopkins Coronavirus Report Centre*. https://coronavirus.jhu.edu/data

José, E. A., Luciano, C., Vesna, M., & Stenholm, P. (2019). Necessity or opportunity? The effects of state fragility and economic development on entrepreneurial efforts. *Entrepreneurship Theory and Practice*, 43(4), 725–750. https://doi.org/10.1177/1042258717736857

Katz, J. A. (1992). Modelling entrepreneurial career progressions: Concepts and considerations. *Entrepreneurship Theory and Practice*, 19(2), 23–39.

Katz, J. (2001). Analytical induction. In N. J. Smelser & P. B. Baltes (Eds.), *International Encyclopedia of the Social and Behavioral Science* (Vol. 1, pp. 480–484). Elsevier.

Kraus, S., Claus, T., Breier, M., Gast, J., Zardini, A., & Tiberius, V. (2020). The economics of COVID-19: Initial empirical evidence on how family firms in five European countries cope with the corona crisis. *International Journal of Entrepreneurial Behavior & Research*, 26, 1067–1092. In Press.

Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411–432.

Kuckertz, A., Brändle, L., Gaudig, A., Hinderer, S., Morales Reyes, C. A., Prochotta, A., Steinbrink, K. M., & Berger, E. S. C. (2020). Startups in times of crisis – A rapid response to the COVID-19 pandemic. *Journal of Business Venturing Insights*, 13, e00169.

Maruping, L. M., Bala, H., Venkatesh, V., & Brown, S. A. (2017). Going beyond intention: Integrating behavioral expectation into the unified theory of acceptance and use of technology. *Journal of the Association for Information Science and Technology*, 68(3), 623–637.

Michael, A. A., & Jennifer, W. L., (2015). Blessing in disguise? Coping strategies and entrepreneurial intentions following involuntary job loss. *Journal of Developmental Entrepreneurship*, 20(4), 1550021. https://doi.org/10.1142/S1084946715500211

Milstein, B. (2015). Thinking politically about crisis: A pragmatist perspective. *European Journal of Political Theory*, 14(2), 141–160.

Monllor, J., & Murphy, P. J. (2017). Natural disasters, entrepreneurship, and creation after destruction. *International Journal of Entrepreneurial Behaviour & Research*, 23(4), 618–637. https://doi.org/10.1108/ijeb-02-2016-0050

Montano, D. E., & Kasprzyk, D. (2015). Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. In G. Karen, R. Barbara, & K. Viswanath (Eds.), *Chapter 6 health behavior: Theory, research and practice book* (5th ed., pp. 95–124). Jossey-Bass.

Nicola, M., Alsaifi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., & Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Surgery Journal*, 78(1), 185–193.

Parente, R., & Feola, R. (2014). Opportunity Recognition, entrepreneurial intent and commitment of young researchers (Rent XXIV Brussels EIASM ed.). The European Institute for Advance Studies in Management. https://www.researchgate.net/publication/234079397
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903.

Ratten, V. (2020a). Coronavirus (covid-19) and entrepreneurship: Changing life and work landscape. *Journal of Small Business & Entrepreneurship, 32*(5), 503–516. https://doi.org/10.1080/08263331.2020.1790167

Ratten, V. (2020b). Coronavirus (COVID-19) and entrepreneurship: Cultural, lifestyle and societal changes. *Journal of Entrepreneurship in Emerging Economies, 13*, 747–761. https://doi.org/10.1108/JEEE-06-2020-0163

Ratten, V. (2021). COVID-19 and entrepreneurship: Future research directions. *Strategic Change, 30*, 91–98. https://doi.org/10.1002/jsc.2392

Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, P., & Chin, N. (2005). Global entrepreneurship monitor: Data collection design and implementation 1998?2003. *Small Business Economics, 24*, 205–231.

Sawada, Y., Bhattacharyay, R., & Kotera, T. (2011). Aggregate impacts of natural and manmade disasters: A quantitative comparison. Research Institute of Economy, Trade, and Industry. RIETI Discussion Paper Series 11-E-023.

Scott, W. R. (1998). *Organizations: Natural, rational and open systems*. Prentice-Hall International.

Shane, S. (2009). Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics, 33*(2), 141–149.

Shapero, A. (1975). The displaced, uncomfortable entrepreneur. *Psychology Today, 8*(1), 83–88.

Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *Encyclopedia of Entrepreneurship, 72–90.*

Sheeran, P. (2002). Intention—behavior relations: A conceptual and empirical review. *European Review of Social Psychology, 12*(1), 1–36.

Shepherd, D. A., & Williams, T. A. (2014). Local venturing as compassion organizing in the aftermath of a natural disaster: The role of localness and community in reducing suffering. *Journal of Management Studies, 51*(6), 952–994.

Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture creation and the entreprising individual: A review and synthesis. *Journal of Management, 29*(3), 379–399.

Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research, 117*, 312–321.

Skidmore, M., & Toya, H. (2002). Do natural disasters promote long-run growth? *Economic Inquiry, 40*(4), 664–687.

Stenholm, P., Acs, Z. J., & Wuebker, R. (2013). Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity. *Journal of Business Venturing, 28*(1), 176–193.

Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry, 15*(1), 1–18.

Thukral, E. (2021). COVID-19: Small and medium enterprises challenges and responses with creativity, innovation, and entrepreneurship. *Strategic Change, 30*, 153–158. https://doi.org/10.1002/jsc.2399

Ute, S., Przenyslaw, Z., & Pierre-Jean, H. (2020). Entrepreneurship and Covid 19: Challenges and Opportunities. KBS Covid-19 Research Impact Papers, 2. DOI: 10.13140/RG.2.2.27289.44640

Westphal, M., & Bonanno, G. A. (2007). Posttraumatic growth and resilience to trauma: Different sides of the same coin or different coins? *Applied Psychology: An International Review, 56*(3), 417–427.

Williams, C. C. (2009). The motives of off-the-books entrepreneurs: Necessity or opportunity-driven? *International Entrepreneurship and Management Journal, 5*(2), 203–217.

Winn, M., & Kirchgeorg, M. (2005). Management paradigms for massive discontinuous change [Paper presentation]. Annual Meetings of the Academy of Management, Hawaii.