#### Check for updates

#### **OPEN ACCESS**

EDITED BY Sikandar Ali Qalati, Jiangsu University, China

REVIEWED BY Muhammad Safdar Sial, COMSATS University, Pakistan Mohammad Masukujjaman, National University of Malaysia, Malaysia Luigi Aldieri, University of Salerno, Italy Mário Nuno Mata, Instituto Politécnico de Lisboa, Portugal

\*CORRESPONDENCE Ali Saleh Alshebami, ⊠ aalshebami@kfu.edu.sa

SPECIALTY SECTION This article was submitted to Environmental Economics and Management, a section of the journal Frontiers in Environmental Science

RECEIVED 07 December 2022 ACCEPTED 28 December 2022 PUBLISHED 17 January 2023

#### CITATION

Alshebami AS (2023), Redefining resilience: The case of small entrepreneurs in Saudi Arabia. *Front. Environ. Sci.* 10:1118016. doi: 10.3389/fenvs.2022.1118016

#### COPYRIGHT

© 2023 Alshebami. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

# Redefining resilience: The case of small entrepreneurs in Saudi Arabia

#### Ali Saleh Alshebami\*

Applied College in Abqaiq, King Faisal University, Al-Ahsa, Saudi Arabia

The survival of enterprises and the effective management of daily problems and obstacles, particularly those faced by small entrepreneurs, depend heavily on resilience. This study examines the critical elements that help small Saudi entrepreneurs strengthen their entrepreneurial resilience through internal locus of control and entrepreneurial self-efficacy, particularly during trying times. The partial least squares structural equation modeling (PLS–SEM) technique was used to analyse the responses of 207 small entrepreneurs operating in various regions of Saudi Arabia. The convenience sampling technique was used, and the data was collected using an online questionnaire. The study found a strong relationship between entrepreneurial resilience, internal locus of control, and entrepreneurial self-efficacy. These results demonstrated that entrepreneurial self-efficacy could mediate the relationship between the internal locus of control and entrepreneurial resilience. Finally, the study addressed limitations and provided recommendations for policymakers and potential authors.

#### KEYWORDS

sustainability, personal features, entrepreneurs, policymakers, SMEs

### Introduction

Entrepreneurship and the SME sector continue to be critical for economic development, job creation, poverty alleviation, individual empowerment, and unemployment reduction, particularly in developing countries (Aljarodi, 2020; Chew et al., 2021; Al-Mamary and Alshallaqi, 2022; Alam et al., 2022; Alshebami and Seraj, 2022; Elshaer and Sobaih, 2022). Despite the significant, positive role played by entrepreneurship and SMEs, they face significant challenges. This is particularly true during adverse times such as pandemics like COVID-19, wars, acts of terrorism, and other unwarranted events (Bullough et al., 2014; Alshebami, 2022), These severely impact economies' development and growth and lead to increased government spending on the country (Blomberga et al., 2004). Small entrepreneurs who manage small businesses, particularly those with low levels of entrepreneurial resilience, suffer the most when adverse situations confront their industries (Bullough et al., 2014; Nisula and Olander, 2020; Alshebami, 2022).

Resilience is people's abilities to effectively and successfully deal with negative setbacks that can arise during difficult times in an effective and successful manner (Sinclair & Wallston, 2004) and continue functioning during adverse situations (Britt et al., 2016). The topic of resilience has accordingly attracted the attention of many scholars (Roche et al., 2014; Fisher et al., 2016; Alshebami, 2022). As resilience deals with individuals' sustainability and coping behaviours in challenging times, it has been linked with additional factors such as people's psychological features, human cognition, and cognitive factors (Benight and Cieslak, 2011).

As a result, there is an ongoing call to investigate the relationship between psychological factors, such as self-efficacy, locus of control, resilience, risk taking, need for achievement, and

innovation, and their impact on entrepreneurial behaviour (Koh, 1996; Rauch and Frese, 2007; Drnovsõek et al., 2010; Rayawan and Efrata, 2017). It has been particularly emphasized that there is a need to focus on identifying the key psychological factors or traits influencing individuals' resilience levels, especially given the prevalence of studies that focus solely on large corporations while ignoring small businesses (Sullivan-Taylor and Wilson, 2009). Furthermore, little is known about the perseverance of entrepreneurs in difficult times (Bulmash, 2016), particularly the key factors behind developing entrepreneurial resilience, in difficult times. Previous studies have found that SMEs lack resilience and are thus greatly impacted by external shocks and other challenges (Branicki et al., 2018).

Because previous research has highlighted the importance of individuals' psychological factors in developing resilience (Sinclair and Wallston, 2004; Bullough et al., 2014), it has been assumed that it is important to investigate them (Britt et al., 2016; Nisula and Olander, 2020).

Consequently, we aim to focus on examining both entrepreneurial self-efficacy and the internal locus of control of individuals in the process of developing entrepreneurial resilience during adverse periods of time. These two personal characteristics are selected because they play a significant role in shaping individuals' behaviour, particularly perseverance and task implementation (Hsu et al., 2019; Newman et al., 2019). Internal locus of control is defined as one's thoughts or beliefs about key factors that cause or influence life events (Alshebami and Seraj, 2022). Self-efficacy, on the other hand, is an individual's belief in their ability to complete a specific activity or task (Hsu et al., 2019; Alshebami et al., 2022).

This study concentrates on Saudi Arabia, a developing country that relies heavily on oil revenue. As a result of constant fluctuations in oil prices, the country recently faced some financial deficits in its budget. Furthermore, as a result of COVID-19, the country was impacted in several sectors, including the economic sector. SMEs were thus severely harmed as a result of the pandemic. Most SME employees were laid off and many small businesses closed down. These negative consequences compelled the Saudi government to compensate approximately 60% of the salaries of employees working in SMEs. This supportive initiative from the government aimed to increase the resilience of the country's SMEs. COVID-19 has also resulted in the cancellation of 79% of SMEs' investment plans and a significant decrease in their revenue (Alhawal et al., 2020). This made it difficult for small entrepreneurs to globally manage their resources and overall operations (Islam et al., 2020), necessitating them to focus on developing a high level of entrepreneurial resilience (Branicki et al., 2018).

Despite the Saudi government's efforts to assist the affected SME sector and boost small entrepreneurs' resilience and sustainability, it is still believed that a successful recovery process and small entrepreneurs achieving their required resilience will heavily depend on them improving their internal knowledge and personal traits. Because of the importance in these personal traits in individuals' development, they may include self-efficacy and internal locus of control (Rotter, 1966; Koh, 1996; Lefcourt, 2014; Karabulut, 2016; Tsai et al., 2016; Zhao and Wibowo, 2021; Zheng et al., 2021; Alshebami, 2022). These traits further influence the degree of resilience and continuity demonstrated by entrepreneurs' businesses (Charles Benight, 2004; Zhao and Wibowo, 2021). This study thus continues to support the call for more research into the relationship between

concepts such as entrepreneurial resilience, self-efficacy, locus of control, need for achievement, and innovation (Rauch and Frese, 2007; Drnovsõek et al., 2010; Rayawan & Efrata, 2017). This is especially true given existing literature's persistent ignorance of the relationship between self-efficacy and resilience (Bullough et al., 2014).

The purpose of this research is to bridge the gap and identify the relationship between internal locus of control, entrepreneurial selfefficacy, and entrepreneurial resilience. Specifically, how can an individual's internal locus of control and entrepreneurial selfefficacy act as precursors of resilience? (Nisula and Olander, 2020). There have been very few studies in the context of Saudi Arabia that discuss the relationship between internal locus of control, entrepreneurial self-efficacy, and entrepreneurial resilience. The majority of prior research is concentrated on entrepreneurial education, institutions, entrepreneurial orientation, entrepreneurial intention, and similar concepts (Choukir et al., 2019; Aljarodi, 2020; Elnadi and Gheith, 2021; Abdelwahed, 2022; Alshebami and Marri, 2022). This study provides policymakers with the necessary strategies and policies to develop individuals' internal locus of control, entrepreneurial self-efficacy, and entrepreneurial resilience. Smallscale entrepreneurs will be able to better control their businesses and navigate setbacks and challenges as their entrepreneurial resilience grows.

This research is organized into six sections. Following the introduction, the second section discusses the theoretical foundation of the paper, and the third section contains the literature review and hypotheses development. The methodology and data analysis are then discussed in sections four and five, respectively. The sixth and seventh sections of the study detail its discussion and implications. The final section discusses the conclusion, limitations, and future research.

#### Theoretical foundation

This research is founded on a number of fundamental theories and ideas. It is primarily based on the positive self-concepts of internal locus of control and self-efficacy. Previous research has found that people's resilience can be explained by their positive self-concepts (Britt et al., 2016). The term positive self-concepts' refers to beliefs that people hold about their lives that help them deal with adverse life events and achieve positive outcomes. The study is also based on the self-efficacy theory (SET), which is a branch of Bandura's social cognitive theory developed in the 1986 (Bandura, 1986). According to SET, an individual's expectations and perceived self-efficacy are important predictors for other concepts and behaviours. Self-efficacy refers to a person's belief in their own power, capacity, and ability to carry out specific behaviours or achieve specific performance outcomes (Bandura, 1997).

The study also draws its foundation from Julian Rotter's internal locus of control theory (Rotter, 1966). The concept of internal locus of control originated in the social learning theory of personality. It refers to a person's perception of their surroundings. If they feel in control of their surroundings and the events that occur around them, they have a high internal locus of control. Otherwise, they have an external locus of control (low internal locus of control). In this article, we determine internal locus of control through the assumptions made by entrepreneurs about their ability to manage and master their surroundings. Additionally, we define self-efficacy as an individual's confidence in their capacity to successfully carry out their entrepreneurial tasks (Zhao and Wibowo, 2021). Both internal locus of control and entrepreneurial self-efficacy contribute to the development of entrepreneurial resilience because they increase people's capacities for control over their circumstances and responsibilities (Judge and Bono, 2001; Benight and Cieslak, 2011). As a result, people with high levels of both traits may gain more robust control over their entrepreneurial resilience, according to this study. People who have greater control over their small businesses and the capacity to manage them more effectively keep their businesses running and produce better results during difficult times.

# Literature review and hypotheses development

#### Entrepreneurial resilience

In general, resilience refers to an individual's ability to deal with setbacks during difficult times. It indicates how well an individual can adapt to and overcome setbacks in a difficult environment (Sinclair and Wallston, 2004). Individuals in general, and entrepreneurs in particular, need to be resilient. People who can develop entrepreneurial resilience easily develop positive emotions and outcomes that will assist them in minimizing anxiety and increasing their level of positivism, which further results in controlling and overcoming setbacks (Fredrickson et al., 2003; Westphal and Bonanno, 2007). As entrepreneurs develop greater entrepreneurial resilience, it becomes easier for them to minimize constraints and fear and make quick decisions (Folkman and Moskowitz, 2000; Tedeschi and Calhoun, 2004). Entrepreneurial resilience can be developed in a variety of ways, including by improving people's psychological characteristics such as internal locus of control and self-efficacy (Judge and Bono, 2001; Cazan and Dumitrescu, 2015; Gupta et al., 2018). As a result, the purpose of this study is to look into the impact of entrepreneurial self-efficacy and internal locus of control on the development of entrepreneurial resilience in Saudi Arabia during difficult times.

# Entrepreneurial self-efficacy and entrepreneurial resilience

Entrepreneurial self-efficacy is the degree to which an individual believes that they can carry out specific tasks and activities, specifically those related to entrepreneurship (Mcgee et al., 2009; Bullough et al., 2014). Individuals with higher self-efficacy have greater confidence in their capabilities, so when faced with difficulties or challenges, they easily overcome them and perform better than those with low selfefficacy (Chen et al., 2001; Nisula and Olander, 2020). Individuals with high self-efficacy have better behavioural and motivational mechanisms in stressful situations that they are likely to face during business operations. As a result, as individuals gain selfefficacy, their skills improve and they cope better with adversity. Individuals with higher self-efficacy are better at developing resilience and recovery process skills during unfavourable times and are better at creating coping strategies and applying them during times of uncertainty (Bandura, 1997; Bullough et al., 2014; Nisula and Olander, 2020). In other words, self-efficacy and resilience are interrelated, as has been demonstrated in several previous studies (Charles Benight, 2004; Linley and Joseph, 2004; Alshebami, 2022). People with a high sense of self-efficacy can complete their tasks and duties, control most situations, and minimize anxiety (Bullough et al., 2014; Zhao and Wibowo, 2021). Furthermore, those who believe in exerting control over their thoughts can defeat setbacks and challenges with ease (Hamill, 2003). Self-efficacy can consequently be regarded as an effective feature to help individuals overcome setbacks and challenges (Bhattarai et al., 2020). In summary, entrepreneurial self-efficacy can increase an individual's power and capability by allowing them to develop the necessary resilience skills needed to control undesirable events. We further assume:

H1: There is a positive relationship between entrepreneurial selfefficacy and entrepreneurial resilience among entrepreneurs.

# Internal locus of control and entrepreneurial resilience

The concept of internal locus of control has its root in Rotter's grounding research (Rotter, 1966), which focused on discussing personality traits. Internal locus of control is defined as the degree to which individuals believe that they have influence over what occurs (Rotter, 1966; Arkorful and Hilton, 2021). Accordingly, those who have high levels of internal locus of control have more positivity and strength to put efforts into achieving their desired goals even through challenging situations, uncertainties, and setbacks (Thompson et al., 2019; Alshebami, 2022). Possessing more internal locus of control allows individuals to effectively and successfully manage depression better than those who have a higher external locus of control and think that fate and luck control them (Kalantarkousheh et al., 2013). When the internal locus of control increases among people, it leads to increasing levels of hope that ultimately result in greater resilience and better wellbeing (Munoz et al., 2017). It can also contribute to solving problems and developing meaningful solutions (Kusumawijaya, 2019; Zhao and Wibowo, 2021).

Literature reveals that individuals' resilience can be affected by many factors, including internal locus of control, copying, hope, and self-efficacy (Gillespie et al., 2007). There was also evidence confirming the presence of an association between internal locus of control and resilience (Luthar, 1991; Cazan and Dumitrescu, 2015; Georgescu et al., 2019), which provides a foundation for this article to continue investigating the same. We conclude from the above that entrepreneurs' high internal locus of control and belief that whatever happens to them is the result of their actions and behaviour strengthen their resilience and motivate them to defeat challenges and difficulties in adverse times. Based on the above discussion, we assume the following hypothesis:

H2: There is a positive relationship between internal locus of control and entrepreneurial resilience among entrepreneurs.

# Internal locus of control and entrepreneurial self-efficacy

It has been explained earlier that the concept of internal locus of control can be traced back to Rotter (Rotter, 1966), who defined it as internal elements that are believed to control the life and surrounding environment of individuals. It is, in other words, the extent to which individuals feel and believe they control their daily activities and events (Arkorful and Hilton, 2021). Those who have more internal locus of control believe that their surroundings have no influence on their actions. They believe that their abilities deal effectively and efficiently with surrounding issues and that they can also develop the necessary strategies and remedies to deal with them (Zhao and Wibowo, 2021). It is further noted that when greater internal locus of control is achieved, more confidence and competence among individuals is developed. This confirms the existence of a positive relationship between high internal locus of control and self-efficacy (Kalantarkousheh et al., 2013).

They also feel more pleased in addition to developing skills and abilities (Lefcourt, 1996). In short, the internal locus of control influences the self-efficacy of people by showing how the expectations of people shape their objectives (Corrado et al., 2021). There exists a reported association between internal locus of control on one side and self-efficacy on the other side (Georgescu et al., 2019). This relationship had been examined by many studies such as (Roddenberry and Renk, 2010; Cascio et al., 2014; Thompson et al., 2019), and all of them have confirmed that both influence an individual's ability to adapt to a given situation. Despite a considerable number of studies confirming the presence of a relationship between self-efficacy and internal locus of control, there are still some studies with contradictory findings, such as (Condly, 2006). The study of (Condly, 2006). The study reported that the presence of a high internal locus of control does not really indicate having high selfefficacy, because people who think that their actions are the root of a particular outcome may not actually believe they can change it. Accordingly, we conclude that individual entrepreneurs who are able to develop higher internal locus of control and who believe that they control their surroundings can better obtain and develop skills and abilities used to take on adversities in challenging times. Based on this argument, we assume the following hypothesis:

H3: There is a positive connection between internal locus of control and self-efficacy among entrepreneurs.

#### Mediation effect of entrepreneurial selfefficacy on the relationship between internal locus of control and entrepreneurial resilience

While internal locus of control gives less importance to the effect of external actions and events to guide individuals' behaviour (Thompson et al., 2019; Alshebami, 2022) entrepreneurial selfefficacy focuses on the skills and abilities that individuals believe they have that can be used to execute certain activities (Hsu et al., 2019), particularly entrepreneurial tasks and duties (Mcgee et al., 2009; Bullough et al., 2014). The presence of a higher level of internal locus of control increases skill levels, abilities, and the belief that entrepreneurs have in themselves. Accordingly, it allows them to develop resilience to successfully deal with uncertainties, setbacks, and other challenges during adverse times (Judge and Bono, 2001; Kalantarkousheh et al., 2013; Nisula and Olander, 2020; Alshebami, 2022). Both entrepreneurial self-efficacy and internal locus of control work to develop individuals' resilience behaviour.

Individuals who perceive themselves to have low self-efficacy and internal locus of control tend to act poorly and lose control over events and their actions. They further blame their surroundings for their failures and always focus on the challenges rather than opportunities in the external world (Corrado et al., 2021). Self-efficacy, once it is developed, can act as a roadmap toward the encouragement of resilience behaviour (Prilleltensky et al., 2001; Djourova et al., 2020). Which is confirmed by previous studies that report the existence of a positive relationship between self-efficacy and resilience (Salisu et al., 2020). In conclusion, the availability of high internal locus of control and entrepreneurial self-efficacy help individuals become more entrepreneurially resilient. Becoming a resilient person enables the quick solving of problems as well as reduces fear. This is in comparison to people with lower resilience, who experience poor decision-making and inefficient solutions under tiring conditions (Folkman and Moskowitz, 2000; Tedeschi and Calhoun, 2004). Therefore, and based on the above discussion, we assume the following hypothesis:

H4: Entrepreneurial self-efficacy mediate the relationship between the internal locus of control and entrepreneurial resilience among entrepreneurs.

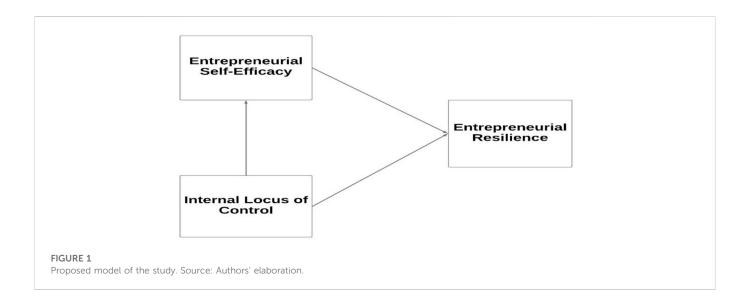
#### Hypothesized model

Figure 1 depicts the study's model, which is made up of three different constructs: independent, dependent, and mediator. The independent variables are the internal locus of control and entrepreneurial self-efficacy, while the dependent variable is entrepreneurial resilience. Entrepreneurial self-efficacy can also function as the mediator. The model is based on the various theories and concepts described above. It seeks to investigate the relationship and connection between internal locus of control and entrepreneurial self-efficacy on entrepreneurial resilience among Saudi small entrepreneurs. Additionally, it investigates whether entrepreneurial self-efficacy can act as a mediator in the relationship between internal locus of control and entrepreneurial resilience.

### Research methodology

#### Sample and data collection

This research is quantitative and deductive in nature. It is based on the results of a self-administered survey of Saudi small-business owners. The study relies on primary data and secondary information. For secondary information, it refers to various sources such as books, articles, and theses. Primary data was gathered from a sample of small-business owners in Saudi Arabia. There were 207 male and female participants in total. The respondents conducted business in various parts of Saudi Arabia during the COVID-19 pandemic. The study sample was selected with the help of non-probability sampling using the convenience sampling method. The study uses legitimate metrics from previous studies. The researcher created an online survey that had been previously validated. The validity of the questionnaire was then tested again in a pilot study with 15 participants, after which the link to the questionnaire was distributed to the study participants. It was determined that the questionnaire and measures were free of flaws and could be effectively used in the study. As a result, the survey questionnaire was distributed to respondents and made available online for approximately 1 month.



#### Measures of the study

The study used authentic measures to examine the constructs of the study. These measures have been used and validated by different authors. For example, the entrepreneurial resilience measures were adopted from (Sinclair and Wallston, 2004). While those used for internal locus of control and entrepreneurial self-efficacy were adopted from (Muller & Thomas, 2000) and (Mcgee et al., 2009), respectively. The sample of the measures included questions for entrepreneurial self-efficacy (e.g.: I can deal with and solve effectively day-to-day problems and crises), for internal locus of control (e.g.: My life is determined by my actions), and for entrepreneurial resilience (e.g.: I believe that I can grow in positive ways by dealing with difficult situations). The study employed the Likert scale to measure these items used in the questionnaire, with one indicating complete disagreement and five showing the full agreement of the questions.

### Data analysis

#### Results

PLS-SEM with SmartPLS was used to analyse the data in this study, following (Hulland, 1999). The SmartPLS is used because of its applicability to analyse the small sample and complex models (Hair et al., 2017; Alam et al., 2021). The findings of this analysis were demonstrated as per the directions provided by experts of PLS modelling (Hair et al., 2019).

# Description of the respondents' demographic information

The study respondents comprised 207 participants, both male and female. There were a total of 172 (83.1%) male participants and 35 (16.9%) female participants. 58% were between the ages of 18–27 years, followed by 20.4% between the ages of 28–37 years of age. 11.6% of people were between 38–47 years of age. Finally, the

respondents above 47 years of age totalled 10% of the total sample. Further, regarding the work experience of the study respondents, it is noted that those with less than 10 years of experience comprised 78.7% of the total sample. 6.8% of the respondents reported having between 10–20 years of experience and 14.5% reported having more than 20 years of experience. 30.4% of respondents work in the services sector, 22.2% work in the construction sector, 20.8% in the wholesale and retail sector, 14% in the finance and insurance sector, and 12.6% operate in small production activities.

#### Measurement model

#### Validity and reliability

The first step in the measurement model is to check the validity and reliability of the items and constructs of the study. Table 1 gives a brief outline of the indicators and constructs' reliability and validity.

According to Table 2 findings, the indicator loadings are between the values of 0.60–0.70, which is accepted and considered satisfactory (Kellow, 2005). Even though (Hair et al., 2019) has recommended 0.70 as a threshold for indicator factor loadings, they still recommended to remove the items with loadings less than 0.70 if their removal leads to better composite reliability; otherwise, they should be kept as is (Hair et al., 2019). (Hair et al., 2019). The table then discloses the values of both Cronbach's Alpha (CA) and Composite Reliability (CR), which measure internal consistency reliability. Both values of CA and CR were above 0.70, except for the internal locus of control. However, according to (Hair et al., 2017). A value of 0.60 is accepted in exploratory research. The CR is more precise than the CA in measuring internal consistency reliability, because indicators are unweighted. Concerning Average Variance Extracted (AVE) is recommended to be above 0.50 (Sarstedt et al., 2017). The table discloses a satisfactory result except for one item of less than 0.50. Finally, the Variance Inflation Factor (VIF) was examined to ensure there is no collinearity in the study and that it does not bias the regression. The table discloses a satisfactory result except for one item of less than 0.50. Finally, the Variance Inflation Factor (VIF) was examined to ensure that there is no collinearity in the study and that it does not bias the regression. The VIF in our study was

#### TABLE 1 Validity and reliability.

Construct	Loadings	Cronbach's alpha (CA)	Composite reliability (CR)	Average variance extracted (AVE)	VIF
Entrepreneurial Self-Efficacy		0.781	0.851	0.534	1.612
I am able and confident in brainstorming (coming up with new ideas for a product or service)	0.752				
I can make a plan and estimate customer demand for a new product or service	0.642				
I can clearly and concisely explain verbally or in writing my business idea in everyday terms	0.790				
I can deal with and solve effectively day-to-day problems and crises	0.753				
I can manage the financial assets of my business	0.707				
Internal Locus of Control		0.697	0.804	0.452	1.612
My life is determined by my actions	0.671				
When I get what I want, it is usually because I worked hard for it	0.740				
Whether or not I am successful in life depends mostly on my ability	0.687				
I feel in control of my life	0.633				
Diligence and hard work usually lead to success	0.626				
Entrepreneurial Resilience		0.730	0.832	0.553	-
I actively look for ways to replace the losses I encounter in life	0.782				
I believe that I can grow in positive ways by dealing with difficult situations	0.699				
I look for creative ways to alter difficult situations	0.797				
Regardless of what happens to me, I believe I can control my reaction to it	0.692				

Source: Primary data.

#### TABLE 2 Heterotrait-monotrait ratio (HTMT).

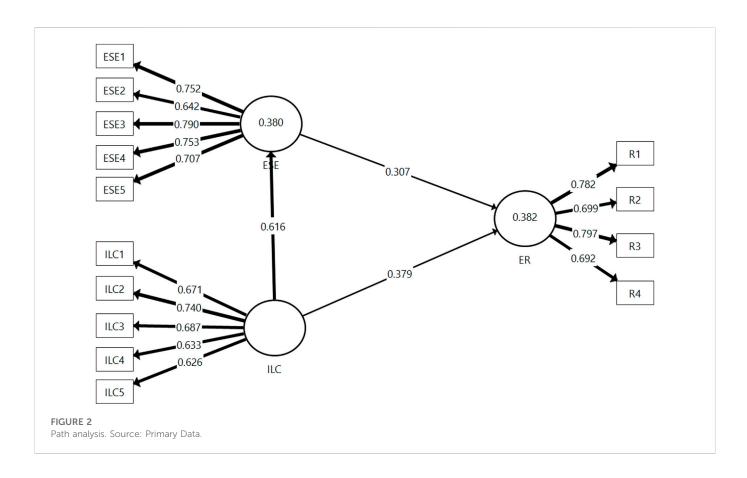
	Entrepreneurial resilience	Entrepreneurial Self-efficacy	Internal locus of control		
Entrepreneurial Resilience					
Entrepreneurial Self-efficacy	0.706				
Internal Locus of Control	0.785	0.834			

Source: Primary data.

lower than 3, recommending the absence of any collinearity (Hair et al., 2011; 2019; Becker et al., 2015).

To test the discriminate validity in the study, we used the Heterotrait-Monotrait Ratio (HTMT) test, as it provides the best result of the discriminate validity compared with other tests such

as (Fornell & Larcker, 1981). HTMT attempts to examine or estimate the accurate correlation between two constructs and examine whether they are perfectly measured. In other words, HTMT indicates how constructs are empirically distinct from each other in a structural model. Accordingly, as a threshold, the study lacks discriminate



#### TABLE 3 Path analysis.

Hypothesis	Association	Coefficient $\beta$ )	t-value	<i>p</i> -value	Decision	R <sup>2</sup>	F <sup>2</sup>	Q <sup>2</sup>	
H1	ESE—> ER	0.307	4.138	.000	Accepted	0.382	0.095	0.204	
H2	ILC—> ER	0.379	5.517	.000	Accepted		0.144		
Н3	ILC—> ESE	0.616	11.327	.000	Accepted	0.380	0.612	0.197	
Mediation Analysis									
H4	ILC—> ESE—> ER	0.189	3.728	.000	Mediation	-			

Source: Primary data.

Note: ILOC, internal locus of control; ER, entrepreneurial resilience; ESE, Entrepreneurial Self-Efficacy.

validity if the HTMT value is higher than 0.90 (Henseler et al., 2015). In our case, all values in Table 2 are less than 0.90. Hence, the study was assumed to have good discriminate validity. Finally, we examined the common method bias (CMB) using Harman's single-factor test. The result showed that the single-factor solution only accounted for 25.981% of the variance, which is below the recommended 50% threshold (Podsakoff et al., 2003). This indicates the absence of any bias in the study.

# Structural model

#### Path analysis

The path analysis is shown in the Figure 2.

#### Hypotheses testing

Table 3 demonstrates the different relationships examined in the study.

According to the results disclosed in Table 3, the coefficient value of entrepreneurial self-efficacy on entrepreneurial resilience (H1) was 0.30 with a *p*-value of (.000) (at 5% significance), which indicates that the entrepreneurial self-efficacy among small Saudi entrepreneurs has a positive and significant effect on entrepreneurial resilience. Concerning ( $R^2$ ), which is the predictive power, the table demonstrates that the entrepreneurial self-efficacy and internal locus of control can together explain 0.38 of the variance in entrepreneurial resilience, which is considered a substantial ability to predict the variance of an endogenous variable (Chin, 1998). Additionally, the result of ( $F^2$ ), which is the effect size, being

0.09 discloses a small effect according to (Cohen, 1988). Moreover, the t-value revealed that entrepreneurial self-efficacy could explain about 0.04 of the variance seen in entrepreneurial resilience. Finally, the result of ( $Q^2$ ), which indicates the predictive relevance, showed values above zero. All values are thus considered to be well and the model has suitable predictive relevance (Hair et al., 2019).

Furthermore, concerning the second hypothesis (H2), Table 2 also shows that the coefficient value of the internal locus of control on entrepreneurial resilience was 0.37, with a *p*-value of (.000) (at 5% significance) indicating that the internal locus of control among Saudi small entrepreneurs has a positive and significant effect on entrepreneurial resilience. Concerning ( $R^2$ ), the table shows that the entrepreneurial self-efficacy and internal locus of control can together explain 0.38 of the variance in entrepreneurial resilience, which is considered a large ability of prediction of the variance of endogenous variables. The result of the ( $F^2$ ), 0.14, reported a small effect according to Moreover, the t-value revealed that the internal locus of control can explain about 0.5 of the variance in entrepreneurial resilience. Finally, the result of ( $Q^2$ ) showed values above zero, indicating that all values are well and the model has predictive relevance (Hair et al., 2019).

Regarding the third hypothesis (H3), Table 2 also shows that the coefficient value of the internal locus of control on entrepreneurial self-efficacy was 0.61 with a p-value of (.000) (at 5% significance), which indicates that the internal locus of control among Saudi small entrepreneurs has a positive and significant effect on entrepreneurial self-efficacy. Concerning  $(R^2)$ , the table shows that the internal locus of control can explain 0.38 of the variance in entrepreneurial self-efficacy, which is considered a substantial ability of prediction of the variance of endogenous variables. The result of the (F<sup>2</sup>) also reported a substantial effect according to (Cohen, 1988). Moreover, the t-value revealed that the internal locus of control can explain about 0.11 of the variance in entrepreneurial self-efficacy. Finally, the result of (Q<sup>2</sup>) showed values above zero indicating that all values are well and the model has predictive relevance (Hair et al., 2019). Concerning the mediation effect and the indirect effect coefficient, Table 2 reports the ability of entrepreneurial self-efficacy to mediate the relationship between internal locus of control and entrepreneurial resilience among Saudi small entrepreneurs. As the p-value of the mediation effect was (.000), the assumed hypothesis was accepted accordingly.

### Discussion

As the study focused on investigating the interplay among entrepreneurial self-efficacy, internal locus of control, and entrepreneurial resilience, it was thus essential to develop different hypotheses based on specific theories, examine them, and then compare the results with the previous studies' findings. Accordingly, we developed H1, which examined the effect of entrepreneurial self-efficacy on entrepreneurial resilience among Saudi entrepreneurs during the adverse time of the COVID-19 pandemic. Accordingly, the result of the H1 examination reported the presence of a positive relationship between entrepreneurial self-efficacy and entrepreneurial resilience ( $\beta = 0.307$ , p < .05). This finding is logical as the more entrepreneurs have a strong belief in themselves, their abilities, and their skills, the more they will be able

to develop the confidence and strength to perform well during challenging periods (Nisula and Olander, 2020). Furthermore, individuals with high entrepreneurial self-efficacy can develop the necessary effective strategies to cope with and adapt to setbacks and uncertainties. Individuals with high self-efficacy develop more resilience that can help them quickly overcome challenges and difficulties, therefore allowing them to effectively manage their business activities (Chen et al., 2001; Bullough et al., 2014). This finding is in line with previous studies confirming the significant role of entrepreneurial self-efficacy on entrepreneurial resilience (Chen et al., 2001; Charles Benight, 2004; Sinclair and Wallston, 2004; Bullough et al., 2014; Nisula and Olander, 2020; Zhao and Wibowo, 2021; Alshebami, 2022).

The study also examined the second hypothesis (H2), stating a positive relationship between internal locus of control and entrepreneurial resilience, and reported exciting findings. It was found that there is a positive connection between internal locus of control and entrepreneurial resilience ( $\beta = 0.379$ , p < .05). This is a logical result as the more an individual possesses a belief that the source for their failure and success is internal, they will allow themselves to develop more control, confidence, and faith in themselves that will ultimately result in achieving their goals (Gupta et al., 2018). A higher level of internal locus of control means more hope, greater wellbeing, and more resilience (Munoz et al., 2017), particularly during adverse times. Once an individual is able to increase their level of internal locus of control, they develop more approaches necessary to provide meaningful solutions (Kusumawijaya, 2019; Zhao and Wibowo, 2021). Accordingly, our finding is in line with the previous studies of (Luthar, 1991; Cazan and Dumitrescu, 2015; Munoz et al., 2017; Georgescu et al., 2019; Kusumawijaya, 2019; Zhao and Wibowo, 2021).

The third hypothesis (H3) tested the relationship between the internal locus of control and entrepreneurial self-efficacy. The finding of this examination was also interesting. The result revealed that there is a positive connection between the internal locus of control and entrepreneurial self-efficacy ( $\beta$  = 0.616, *p* < .05). This is also a logical result, as it has been revealed in previous studies that individuals who have a high internal locus of control tend to place more emphasis on their ability when succeeding or failing rather than blaming external environments or luck. Accordingly, the more internal locus of control is developed, the more self-confidence individuals seem to possess. Those who have high internal locuses of control can develop more strength, skills, competency, and confidence, and they put in more effort to meet their goals even in challenging times (Kalantarkousheh et al., 2013; Gupta et al., 2018; Arkorful and Hilton, 2021). The finding of H2 is in line with the previous studies of (Saadat et al., 2012; Kalantarkousheh et al., 2013; Cazan and Dumitrescu, 2015; Georgescu et al., 2019; Corrado et al., 2021; Zhao and Wibowo, 2021).

The fourth hypothesis (H4), that examined the mediation effect of entrepreneurial self-efficacy on the relationship between the internal locus of control and entrepreneurial resilience, also disclosed an interesting finding. Entrepreneurial self-efficacy demonstrated the ability to mediate the relationship between the internal locus of control and entrepreneurial resilience ( $\beta = 0.189$ , p < .05). It is also logical to find such a result, as people with a high internal locus of control can develop their ability, confidence, and skills and accordingly develop necessary strategies to deal with setbacks and uncertainties (Kalantarkousheh et al., 2013; Cazan and Dumitrescu, 2015; Gupta et al., 2018; Farradinna et al., 2019; Zhao and Wibowo, 2021). In short, both the internal locus of control and self-efficacy are considered essential for the resilience of an individual (Judge and Bono, 2001). This finding is in line with many previous studies that confirm the essential role played by both entrepreneurial self-efficacy and the internal locus of control (Judge and Bono, 2001; Hamill, 2003; Linley and Joseph, 2004; Bullough et al., 2014; Nisula and Olander, 2020).

### Conclusion

People in general, and small-business owners in particular, face challenges in their daily lives that prevent them from living stably and sustainably. As a result, it is critical to understand the key factors that contribute to the development of so-called resilience in people in general, and entrepreneurs in particular, in order for them to develop the strategies necessary to deal with challenging times. This article developed a model to investigate the impact of both internal locus of control and entrepreneurial self-efficacy on the development of entrepreneurial resilience among smallbusiness owners in Saudi Arabia. The researchers also investigated whether or not entrepreneurs' self-efficacy can mediate the relationship between internal locus of control and entrepreneurial self-efficacy.

Because the study's target market is the small and medium-sized business sector, the study's sample of 207 was drawn from small entrepreneurs operating across Saudi Arabia. The study examined the relationships using various statistical tools and reported interesting findings. Both entrepreneurial self-efficacy and internal locus of control have a positive relationship with entrepreneurial resilience, which means that the more individuals develop confidence, skills, competency, and belief in themselves, the more they can sustain their lives and businesses.

It was also found that an increase in entrepreneurial self-efficacy can lead to an increase in resilience, emphasizing its role as a mediator in this relationship. This study confirms the applicability of the proposed model in Saudi Arabia and emphasizes the need for greater focus on developing individuals' knowledge assets or psychological features by the various stakeholders in Saudi Arabia. Policymakers, for example, must develop various technical and psychological programs that contribute to the development of entrepreneurs' perceptions and mentality about themselves, as well as the skills required for the sustainability of their SMEs. This study is considered necessary as it contributes to developing entrepreneurial resilience, entrepreneurial self-efficacy and internal locus of control among small entrepreneurs in Saudi Arabia, particularly during adverse times. SMEs in Saudi Arabia are considered vital as they contribute about 25% of the country's GDP; thus, enhancing resilience, self-efficacy and locus of control among entrepreneurs will ultimately lead to the sustainability of their businesses and better dealing with setbacks and business challenges. Finally, despite touching upon some of the most important issues recently discussed in literature, this study has some limitations that should be avoided in future research. For example, the study is based on a small sample size, which may cause problems with generalizing the results. Furthermore, the study focuses on a single country and does not compare the results to other studies from around the world. Because the researcher used convenience sampling, there may be some bias in the responses; therefore, future studies should employ different sampling methods. Future research may thus focus on increasing sample size, collecting samples from different regions, employing different analysis tools, employing control variables, and incorporating the concept of incubation as a moderator in the relationship between the study variables and resilience.

#### Managerial implications

As stated earlier, the small enterprises' sector in Saudi Arabia during COVID-19 has been badly affected, leading to many challenges for small entrepreneurs and the government of Saudi Arabia. Accordingly, the government took various steps to enhance the sector, including providing financial and technical support to sustain small market enterprises. In addition to the financial and technical support received, entrepreneurs may need psychological support such as increasing their entrepreneurial self-efficacy, internal locus of control and resilience to ensure the maximum benefit of the received support. Accordingly, this study attempted to examine the extent to which entrepreneurial self-efficacy, internal locus of control and entrepreneurial resilience interact with each other. As a result, the findings of this study provided empirical evidence and theoretical support for Saudi Arabia's policymakers on the importance of developing resilience and personal characteristics among entrepreneurs to effectively develop adaptation strategies during adverse times such as COVID-19. The study emphasizes that the Saudi government must prioritize providing necessary training and support, whether financial, technical, or psychological, to Saudi small-business owners in order for them to manage their daily activities with greater confidence and strength and to remain stable during crisis events. The emphasis should be on developing entrepreneurial self-efficacy and internal locus of control because they play a significant role in increasing entrepreneurs' control ability, reducing blame on external environments, and allowing them to focus on opportunities rather than obstacles (Djourova et al., 2020; Corrado et al., 2021).

Policymakers in Saudi Arabia can concentrate on developing entrepreneurs' psychological factors with more emphasis on the internal locus of control and entrepreneurial self-efficacy. They are considered the backbone for developing entrepreneurial resilience that ultimately leads to better business sustainability during adverse and challenging times. Policymakers can enhance these psychological features in small entrepreneurs by providing them with the necessary training that develops their confidence and allow them to acquire more entrepreneurial skills that can be used during difficult periods. Schools and universities can also contribute to increasing internal locus of control and entrepreneurial self-efficacy by introducing these topics into their syllabus and teaching them to the students or potential entrepreneurs.

#### Practical/social implications

This research provides significant implications for those desiring to develop This research provides significant

implications for those desiring to develop entrepreneurship and SMEs in Saudi Arabia during adverse times. This study is one of the few studies in Saudi Arabia investigating the impact of internal locus of control and entrepreneurial self-efficacy on entrepreneurial resilience among small Saudi entrepreneurs during adverse times, i.e., COVID-19. The study also looks at the role of entrepreneurial self-efficacy in mediating the relationship between entrepreneurial resilience and internal locus of control. The study confirms the applicability of the model developed for this study to the Saudi Arabian context. It also provides empirical evidence on the importance of developing an internal locus of control and entrepreneurial self-efficacy, considered personal characteristics and individual knowledge assets, particularly for small entrepreneurs. The development of these personal characteristics in entrepreneurs strengthens their belief in themselves, allows them to have more confidence, maximizes their ability and control, and ultimately develops the necessary strategies they need to deal with uncertainties and setbacks under challenging times (Bullough et al., 2014; Nisula and Olander, 2020; Arkorful and Hilton, 2021; Zhao and Wibowo, 2021). The study confirms that even when the business environment is risky, individuals with high self-efficacy and internal locus of control can develop resilience and survive with their businesses (Bullough et al., 2014). Furthermore, the study's findings open the door for other researchers to look into other aspects of an entrepreneur's characteristics and resilience. It also sheds light on one of the essential critical topics, resilience, that is being discussed in various literature reviews and has piqued the interest of governments and scholars, particularly during COVID-19.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the author, without undue reservation.

### References

Abdelwahed, N. (2022). Developing entrepreneurial sustainability among Saudi arabia's university students. *Sustain. Switz.* 14 (19), 11890–11922. doi:10.3390/su141911890

Al-Mamary, Y., and Alshallaqi, M. (2022). Impact of autonomy, innovativeness, risktaking, proactiveness, and competitive aggressiveness on students' intention to start a new venture. J. Innovation Knowl. 7, 100239–100311. doi:10.1016/j.jik.2022.100239

Alam, S. S., Md Salleh, M. F., Masukujjaman, M., Al-Shaikh, M. E., Makmor, N., and Makhbul, Z. K. M. (2022). Relationship between entrepreneurial orientation and business performance among Malay-owned SMEs in Malaysia: A PLS analysis. *Sustain. Switz.* 14 (10), 6308. doi:10.3390/su14106308

Alam, S. S., Susmit, S., Lin, C. Y., Masukujjaman, M., and Ho, Y. H. (2021). Factors affecting augmented reality adoption in the retail industry. *J. Open Innovation Technol. Mark. Complex.* 7 (2), 142. doi:10.3390/joitmc7020142

Alhawal, H., Nurunnabi, M., and Alyousef, N. (2020). The impact of covid-19 on SME in Saudi Arabia: A large- scale survey. Riyadh, Saudi Arabia: Monshaat.

Aljarodi, A. (2020). Female entrepreneurial activity in Saudi Arabia: An empirical study. *Res. Glob.* 5, 100102. doi:10.1016/j.resglo.2022.100102

Alshebami, A., and Marri, S. Al. (2022). The impact of financial literacy on entrepreneurial intention: The mediating role of saving behavior. *Front. Psychol.* 13, 911605–911610. doi:10.3389/fpsyg.2022.911605

Alshebami, A. (2022). Psychological features and entrepreneurial intention among Saudi small entrepreneurs during adverse times. *Sustainability* 14, 7604–7615. doi:10.3390/su14137604

### **Ethics statement**

This study was reviewed and approved by the King Faisal University, Deanship of Scientific Research, Ethics Committee. Informed consent was obtained from all individual participants in the study.

# Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

## Funding

This work was supported by the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia [Project No. 634].

## **Conflict of interest**

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Alshebami, A., Seraj, A., and Alzain, E. (2022). Lecturers 'creativity and students' entrepreneurial intention in Saudi Arabia. *Vis. J. Bus. Perspective*, 097226292210995–14. doi:10.1177/09722629221099596

Alshebami, A., and Seraj, A. (2022). Exploring the influence of potential entrepreneurs' personality traits on small venture creation: The case of Saudi Arabia. *Front. Psychol.* 13, 885980–9. doi:10.3389/fpsyg.2022.885980

Arkorful, H., and Hilton, S. K. (2021). Locus of control and entrepreneurial intention: A study in a developing economy. *J. Econ. Adm. Sci.* 38, 333–344. doi:10.1108/jeas-04-2020-0051

Bandura, A. (1997). Self-efficacy: The exercise of control. W H Freeman/Times Books/ Henry Holt & Co.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood.

Becker, J.-M., Ringle, C., Sarstedt, M., and Völckner, F. (2015). How collinearity affects mixture regression results. *Mark. Lett.* 26, 643–659. doi:10.1007/s11002-014-9299-9

Benight, C. C., and Cieslak, R. (2011). "Cognitive factors and resilience: How selfefficacy contributes to coping with adversities," in *Resilience and mental health: Challenges across the lifespan.* Editors S. Southwick, B. Litz, D. Charney, and M. Friedman (Cambridge: Cambridge Universi), 45.

Bhattarai, M., Jin, Y., Smedema, S., Cadel, K., and Baniya, M. (2020). The relationships among self-efficacy, social support, resilience, and subjective well-being in persons with spinal cord injuries. *J. Adv. Nurs.* 77 (1), 221–230. doi:10.1111/jan.14573 Blomberga, S. B., Hess, G. D., and Orphanides, A. (2004). The macroeconomic consequences of terrorism. *J. Monetary Econ.* 51, 1007–1032. doi:10.1016/j.jmoneco. 2004.04.001

Branicki, L. J., Sullivan-Taylor, B., and Livschitz, S. R. (2018). How entrepreneurial resilience generates resilient SMEs. *Int. J. Entrepreneurial Behav. Res.* 24 (7), 1244–1263. doi:10.1108/ijebr-11-2016-0396

Britt, T. W., Shen, W., Sinclair, R. R., Grossman, M. R., and Klieger, D. M. (2016). How much do we really know about employee resilience? *Industrial Organ. Psychol.* 9 (2), 378–404. doi:10.1017/iop.2015.107

Bullough, A., Renko, M., and Myatt, T. (2014). Danger zone entrepreneurs: The importance of resilience and self-efficacy for entrepreneurial intentions. *Entrepreneursh. Theory Pract.* 38 (3), 473–499. doi:10.1111/etap.12006

Bulmash, B. (2016). Entrepreneurial resilience: Locus of control and well-being of entrepreneurs journal of entrepreneurship & organization management. *J. Entrepreneursh. Organ. Manag.* 5. doi:10.4172/2169-026X.1000171

Cascio, M. I., Magnano, P., Elastico, S., Costantino, V., Zapparrata, V., and Battiato, A. (2014). The relationship among self-efficacy beliefs, external locus of control and work stress in public setting schoolteachers. *Open J. Soc. Sci.* 2 (149), 149–156. doi:10.4236/jss. 2014.211021

Cazan, A.-M., and Dumitrescu, S. A. (2015). "Exploring the relatioship between adolescent resilience, self-perception and locus of control," in International Conference "Psychology and the Realities of the Contemporary World, Bucharest, 23-25 October 2015.

Charles Benight, A. B., and Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behav. Res. Ther.* 42, 1129–1148. doi:10.1016/j.brat.2003.08.008

Chen, G., Gully, S., and Eden, D. (2001). Validation of a new general self-efficacy scale. *Organ. Res. Methods* 4 (1), 62–83. doi:10.1177/109442810141004

Chew, T. C., Tang, Y., and Buck, T. (2021). The interactive effect of cultural values and government regulations on firms' entrepreneurial orientation. *J. Small Bus. Enterp. Dev.* 29, 221–240. doi:10.1108/JSBED-06-2021-0228

Chin, W. (1998). The partial least squares approach to structural equation modeling Modern methods for business research, 295. London: Lawrence Eribaum Associates, Publisher Mahwah, New Jersery.

Choukir, J., Aloulou, W. J., Ayadi, F., and Mseddi, S. (2019). Influences of role models and gender on Saudi Arabian freshman students' entrepreneurial intention. *Int. J. Gend. Entrepreneursh.* 11 (2), 186–206. doi:10.1108/IJGE-08-2018-0083

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. 2nd ed. doi:10. 4324/9780203771587

Condly, S. (2006). Resilience in children:A review of literature with implications for education. *Urban Educ.* 41 (3), 211–236. doi:10.1177/0042085906287902

Corrado, D. Di, Coco, M., Guarnera, M., Maldonato, N. M., Quartiroli, A., and Magnano, P. (2021). The influence of self-efficacy and locus of control on body image: A path-analysis in aspiring fashion models, athletes and students. *Int. J. Environ. Res. Public Health* 18 (11), 6128–12. doi:10.3390/ijerph18116128

Djourova, N. P., Molina, I. R., Santamatilde, N. T., and Abate, G. (2020). Self-efficacy and resilience: Mediating mechanisms in the relationship between the transformational leadership dimensions and well-being. *J. Leadersh. Organ. Stud.* 27 (3), 256–270. doi:10. 1177/1548051819849002

Drnovsöek, M., Wincent, J., and Cardon, M. S. (2010). Entrepreneurial self-efficacy and business start-up: Developing a multi-dimensional definition. *Int. J. Entrepreneurial Behav. Res.* 16 (4), 329–348. doi:10.1108/13552551011054516

Elnadi, M., and Gheith, M. (2021). Entrepreneurial ecosystem, entrepreneurial selfefficacy, and entrepreneurial intention in higher education: Evidence from Saudi Arabia. *Int. J. Manag. Educ.* 19 (1), 100458–12. doi:10.1016/j.ijme.2021.100458

Elshaer, I. A., and Sobaih, A. E. E. (2022). I think I can, I think I can: Effects of entrepreneurship orientation on entrepreneurship intention of Saudi agriculture and food sciences graduates. *Agriculture* 12 (9), 1454. doi:10.3390/agriculture12091454

Farradinna, S., Fadhlia, T. N., and Azmansyah, D. (2019). Psychological resilience predicted by personality traits, locus of control and self-regulation of young entrepreneurs in pekanbaru. *Glob. J. Bus. Soc. Sci. Rev. J.* 1 (1), 1.

Fisher, R., Maritz, A., and Lobo, A. (2016). Does individual resilience influence entrepreneurial success. Acad. Entrepreneursh. J. 22 (2), 39.

Folkman, S., and Moskowitz, J. T. (2000). Positive affect and the other side of coping. Am. Psychol. 55 (6), 647–654. doi:10.1037/0003-066x.55.6.647

Fornell, C., and Larcker, D. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *J. Mark. Res.* XVIII, 382. doi:10. 2307/3150980

Fredrickson, B. L., Tugade, M. M., Waugh, C. E., and 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. *J. Personality Soc. Psychol.* 84 (2), 365–376. doi:10.1037/0022-3514.84.2.365

Georgescu, D., Duiu, A., Cheiban, T., Mazilu, T., Rotariu, A., Toma, D., et al. (2019). The relationship between locus of control, personal behavior, self-efficacy and resilience. *Romanian J. Cognitive Behav. Ther. Hypn.* 6 (1–2), 1.

Gillespie, B. M., Chaboyer, W., Wallis, M., and Grimbeek, P. (2007). Resilience in the operating room: Developing and testing of a resilience model. *J. Adv. Nurs.* 59 (4), 427–438. doi:10.1111/j.1365-2648.2007.04340.x

GuptaBhattacharya, S., Sheorey, P., and Coelho, P. (2018). Relationship between onboarding experience and turnover intention: Intervening role of locus of control and self-efficacy. *Industrial Commer. Train.* 50 (2), 61–80. doi:10.1108/ict-03-2017-0023

Hair, J., Hult, G., Ringle, C., and Sarstedt, M. (2017). A Primer on partial least squares structural equation modeling (PLS-SEM) (second). SAGE Publications Ltd.

Hair, J. F., Hult, G. T., Ringle, C. M., and Sarstedt, M. (2017). A primer on partial least squares structural equation modeling (PLS-SEM). SAGE.

Hair, J., Ringle, C., and Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. J. Mark. Theory Pract. 19 (2), 139–152. doi:10.2753/mtp1069-6679190202

Hair, J., Risher, J., Sarstedt, M., and Ringle, C. (2019). When to use and how to report the results of PLS-SEM. *Eur. Bus. Rev.* 31 (1), 2–24. doi:10.1108/EBR-11-2018-0203

Hamill, S. K. (2003). Resilience and self-efficacy: The importance of efficacy beliefs and coping mechanisms in resilient adolescents. *Colgate Univ. J. Sci.*, 115–143.

Henseler, J., Ringle, C. M., and Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. 115, doi:10.1007/s11747-014-0403-8

Hsu, D. K., Burmeister-Lamp, K., Simmons, S. A., Foo, M.-D., Hong, M. C., and Pipes, J. D. (2019). I know I can, but I don't fit": Perceived fit, self-efficacy, and entrepreneurial intention. J. Bus. Ventur. Xxx 34 (2), 311–326. doi:10.1016/j.jbusvent.2018.08.004

Hulland, J. (1999). Use of partial least squares (pls) in strategic management research: A review of four recent studies. *Strategic Manag. J. Strat* 20, 195–204. doi:10.1002/(sici)1097-0266(199902)20:2<195::aid-smj13>3.0.co;2-7

Islam, D., Khalid, N., and Elmira Rayeva, U. A. (2020). COVID-19 and financial performance of SMEs: Examining the nexus of entrepreneurial self-efficacy, entrepreneurial. *Rev. Argent. Clínica Psicológica* XXIX, 587–593. doi:10.24205/03276716.2020.761

Judge, T., and Bono, J. E. (2001). Relationship of core self-evaluations traits—selfesteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *J. Appl. Psychol.* 86 (1), 80–92. doi:10.1037/0021-9010.86.1.80

Kalantarkousheh, S., Alinezhadi, F., Nezhad, A. U., and Taherian, S. (2013). The role of locus of control in high School students' depression. *Eur. J. Soc. Sci.* 39 (4), 633.

Karabulut, A. T. (2016). Personality traits on entrepreneurial intention. Procedia - Soc. Behav. Sci. 229 (229), 12-21. doi:10.1016/j.sbspro.2016.07.109

Kellow, J. T. (2005). Exploratory factor analysis in two measurement journals: Hegemony by default. J. Mod. Appl. Stat. Methods 4 (1), 283–287. doi:10.22237/jmasm/1114907100

Koh, H. C. (1996). Testing hypotheses of entrepreneurial characteristics A study of Hong Kong mba students. J. Manag. Psychol. 11 (3), 12–25. doi:10.1108/02683949610113566

Kusumawijaya, I. (2019). The prediction of need for achievement to generate entrepreneurial intention: A locus of control mediation ida. *Int. Rev. Manag. Mark.* 9 (4), 141–149. doi:10.32479/irmm.8662

Lefcourt, H. (1996). Internal versus external control of reinforcement: A review. *Psychol. Bull.* 65 (4), 206–220. doi:10.1037/h0023116

Lefcourt, H. (2014). Locus of control current trends in theory and research. East Sussex, BN3 2FA Psychology: Psychology Press.

Linley, P. A., and Joseph, S. (2004). Positive change following trauma and adversity: A review. J. Trauma. Stress 17 (1), 11-21. doi:10.1023/B:JOTS.0000014671.27856.7e

Luthar, S. S. (1991). Vulnerability and resilience: A study of high-risk adolescents. *Child. Dev.* 62, 600–616. doi:10.2307/1131134

Mcgee, J. E., Mueller, S. L., and Sequeira, J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneursh. Theory Pract.* 33 (4), 965–988. doi:10.1111/j.1540-6520.2009.00304.x

Muller, S., and Thomas, A. (2000). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *J. Bus. Ventur.* 16 (1), 51–75. doi:10. 1016/S0883-9026(99)00039-7

Munoz, R. T., Brady, S., and Brown, V. (2017). The psychology of resilience: A model of the relationship of locus of control to hope among survivors of intimate partner violence. *Traumatology* 23 (1), 102–111. doi:10.1037/trm0000102

Newman, A., Obschonka, M., Schwarz, S., Cohen, M., and Nielsen, I. (2019). Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. J. Vocat. Behav. 110, 403–419. doi:10.1016/j.jvb.2018.05.012

Nisula, A.-M., and Olander, H. (2020). The role of motivations and self-concepts in University graduate entrepreneurs' creativity and resilience. *J. Small Bus. Manag.*, 1–30. doi:10.1080/00472778.2020.1760030

Podsakoff, P. M., Mackenzie, S. B., Lee, J., and Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* 88 (5), 879–903. doi:10.1037/0021-9010. 88.5.879

Prilleltensky, I., Nelson, G., and Peirson, L. (2001). The role of power and control in children's lives: An ecological analysis of pathways toward wellness, resilience and problems. *J. Community. Appl. Soc. Psychol. J* 11, 143–158. doi:10.1002/casp.616

Rauch, A., and Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *Eur. J. Work Organ. Psychol. ISSN* 16 (4), 353–385. doi:10.1080/13594320701595438

Rayawan, W., and Efrata, T. (2017). The effect locus of control and need for achievement towards entrepreneurial performance. *Rev. Manag. Entrepreneursh.* 1, 36–49.

Roche, M., Haar, J. M., and Luthans., Fred (2014). The role of mindfulness and psychological capital on the well-being of leaders. *J. Occup. Health Psychol.* 19 (4), 476–489. doi:10.1037/a0037183

Roddenberry, A., and Renk, K. (2010). Locus of control and self-efficacy: Potential mediators of stress, illness, and utilization of health services in college students. *Child. Psychiatry Hum. Dev.* 41, 353–370. doi:10.1007/s10578-010-0173-6

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychol. Monogr. General Appl.* 80 (1), 1–28. doi:10.1037/h0092976

Saadat, M., Ghasemzadeh, A., Karami, S., and Soleimani, M. (2012). Relationship between self-esteem and locus of control in Iranian University students. *Procedia* -*Soc. Behav. Sci.* 31, 530–535. doi:10.1016/j.sbspro.2011.12.099

Salisu, I., Hashim, N., Mashi, M. S., and Aliyu, H. G. (2020). Perseverance of effort and consistency of interest for entrepreneurial career success. *J. Entrepreneursh. Emerg. Econ.* 12 (2), 279–304. doi:10.1108/jeee-02-2019-0025

Sarstedt, M., Ringle, C. M., and Hair, J. F. (2017). "Partial least squares structural equation modeling," in *Handbook of market research*. Editors C. Homburg, M. Klarmann, and A. Vomberg. Cham: Springer. doi:10.1007/978-3-319-05542-8\_15-1

Sinclair, V. G., and Wallston, K. A. (2004). The development and psychometric evaluation of the brief resilient coping scale. *Assessment* 11 (1), 94–101. doi:10.1177/1073191103258144

Sullivan-Taylor, B., and Wilson, D. C. (2009). Managing the threat of terrorism in British travel and leisure organizations. *Organ. Stud.* 30, 251–276. doi:10.1177/0170840608101480

Tedeschi, R., and Calhoun, L. (2004). Target article: Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychol. Inq.* 15 (1), 1–18. doi:10.1207/s15327965pli1501\_01

Thompson, C. L., Kuah, A. T. H., Foong, R., and Ng, E. S. (2019). The development of emotional intelligence, self-efficacy, and locus of control in Master of Business Administration students. *Hum. Resour. Dev. Q.* 31 (1), 113–131. doi:10.1002/hrdq. 21375

Tsai, K. H., Chang, H. C., and Peng, C. Y. (2016). Refining the linkage between perceived capability and entrepreneurial intention: Roles of perceived opportunity, fear of failure, and gender. *Int. Entrepreneursh. Manag. J.* 12 (4), 1127–1145. doi:10.1007/s11365-016-0383-x

Westphal, M., and Bonanno, G. A. (2007). Posttraumatic growth and resilience to trauma: Different sides of the same coin or different coins? *Appl. Psychol. Int. Rev.* 56 (3), 417–427. doi:10.1111/j.1464-0597.2007.00298.x

Zhao, H., and Wibowo, A. (2021). Entrepreneurship resilience: Can psychological traits of entrepreneurial intention support overcoming entrepreneurial failure? *Front. Psychol.* 12, 707803–12. doi:10.3389/fpsyg.2021.707803

Zheng, G. W., Siddik, A. B., Masukujjaman, M., Alam, S. S., and Akter, A. (2021). Perceived environmental responsibilities and green buying behavior: The mediating effect of attitude. *Sustain. Switz.* 13 (1), 35–27. doi:10.3390/su13010035