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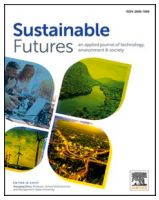

Empowering micro and small enterprises in times of crisis: How human resources management skills and owned funds drive self-efficacy and continuity intention

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ABSTRACT

Business continuity for micro and small enterprises has been a critical challenge, especially under adverse conditions, that needs to be addressed. This study aims to understand the key factors strengthening entrepreneurial self-efficacy and business continuity during unfavourable times. In particular, this study investigates the role of human resources management skills and entrepreneur-owned funds in developing entrepreneurial self-efficacy among micro and small entrepreneurs and how this self-efficacy strengthens their intention to continue their businesses during adverse times. Accordingly, a sample of 300 responses from micro- and small-scale entrepreneurs was collected using an online questionnaire and on-site visits. Data analysis was completed using partial least squares-structural equation modelling. Human resources management skills showed a positive and significant influence on the intention to continue business and entrepreneurial self-efficacy, and entrepreneurial self-efficacy partially mediated the relationship between the intention to continue business and human resources management skills. Furthermore, while entrepreneur-owned funds showed a non-significant relationship to the intention to continue the business, they showed a positive relationship with entrepreneurial self-efficacy. Finally, entrepreneurial self-efficacy could fully mediate the relationship between the intention to continue the business and the entrepreneur-owned funds and had a positive and significant direct relationship with the intention to continue the business. The paper confirms that policymakers need to focus on enhancing the human resources management skills among micro and small entrepreneurs as well as assist them in arranging and managing their owned funds, as this will contribute positively to strengthening their entrepreneurial self-efficacy during adverse times which in turn develop better intention to continue their businesses and better sustainability despite the challenges they face.

1. Introduction

Entrepreneurship and small and medium enterprises (SMEs), including the micro ones, continue to play an influential role in the growth and development of economies, particularly in developing countries, through the creation of new job opportunities, strengthening of individuals' independence and empowerment and mitigation of poverty [1–5]. However, micro and small entrepreneurs and their businesses face difficulties and challenges, particularly during adverse conditions [6–8]. These challenges can be exacerbated by the poor availability of finance and inadequate skills and confidence in managing the business during adverse times [8]. So far, various attempts have been made to identify the critical factors that influence individuals' entrepreneurial behaviour and decisions, including personal characteristics and intrinsic motivations Cai et al., [9], entrepreneurial eco-systems Ali et al., [10] institutions Aljarodi et al., [11]; Simarasl et al., [12] educational and financial support Dharmanegara et al., [13]; Rungani & Potgieter, [14] and incubator services [15]. Nevertheless, further research needs to be conducted on entrepreneurship and business continuation during challenging times, adverse conditions and hazardous environments Branzei & Abdelnour, [16]; Bullough et al., [8] particularly in developing countries and specifically among micro and small enterprises (MSEs) which is the focus of our research here.

Entrepreneurs might continue to operate their businesses and take risks with their assets, belongings and, sometimes, their lives if they find new business opportunities to help them obtain economic freedom and

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maximise their income [8,17]. Entrepreneurs need to strengthen their confidence and self-efficacy during challenging times and in complex environments to continue successful operations Bullough et al., [8], as pointed out in social cognitive theory (SCT), which links entrepreneurial self-efficacy (ESE) and entrepreneurship [18].

Developing entrepreneurship or the intention to continue business (ICB) and strengthen self-efficacy and confidence, especially during challenging and adverse times, might also need particular focus on understanding how ESE, human resources management skills (HRMS) and entrepreneur-owned funds (EOF) interact as they have not yet been empirically reported in the previous literature. Entrepreneurs attempt to engage in different entrepreneurial behaviours [19,20]. However, these behaviours have not been empirically examined, especially HRMS Karia et al. [19] and EOF [21]. HRM behavioural activities are essential as the businesses' growth and survival rely on the entrepreneur's skills and ability to utilise the available human resources [19].

HRMS helps in the success of micro and small enterprises (MSEs). Effective human resource management practices increase motivation, commitment and performance Cardon & Stevens, [22]. Entrepreneurs' HRMS may include conflict resolution, training, recruitment and performance management. Micro and small entrepreneurs with higher HRMS can quickly recruit employees and motivate and manage them more effectively; this ultimately increases their confidence in achieving business goals. As entrepreneurs, after starting the business, there will be a need to hire some qualified people to deal with sales growth and expand the business Cardon & Stevens, [22]; Karia et al., [19], confirming the need to understand the role of HRMS in business continuity and sustainability among MSEs, as their structure might be different from that of big firms [22].

In contrast, EOF provides the necessary financial resources for MSEs to invest in their growth, enhance their competitiveness and manage risks (Gavin [23]). Financial resources become difficult during challenging times and adverse conditions, such as war and economic crises. Enterprises, especially micro and small ones, depend on their own financial reserves or owned funds to sustain their operations. Accordingly, entrepreneurs capable of using their own financial funds can support their businesses and succeed Huang, [21]; Zhang et al., [24] during times of crisis, enabling them to cover expenses, invest in necessary resources and navigate through economic uncertainties. Therefore, while the importance of financial resources remains constant, they become particularly pronounced during war and economic crises.

More specifically, operating in an unstable country surrounded by economic collapse, internal conflict, and weak institutional support results in poor external institutional support, such as government support, a stable market, and access to finance. Accordingly, micro and small entrepreneurs may search for mechanisms, internal resources, and capabilities to help them survive and maintain their entrepreneurial continuity.

More precisely, an EOF here acts as a personal and flexible financial resource that many MSE owners depend on during the absence of formal funding. EOF, a reserve of cash set aside to cover unexpected expenses or to keep a business afloat during tough times, often determines whether the business can continue basic operations, restock goods, and pay employees during crises. Thus, EOF is an essential resource here for businesses to continue operations.

Furthermore, despite MSEs being tiny in size, micro and small entrepreneurs capable of guiding, leading, and hiring the right people can make better staffing decisions, selecting individuals who are capable, committed, loyal, and supportive during adversity. This internal capacity to build a trustworthy, dependable micro-team creates psychological confidence and practical resilience for the business owner and fosters a sense of community for the business owner. This unity and mutual support help entrepreneurs feel more confident and less isolated in the face of crisis, strengthening their intention to continue their business despite adverse external conditions.

While previous literature has found that authors use the term SMEs, this research focuses on Yemen's micro and small enterprises (MSEs) sector. It classifies businesses there as those having employees between 1 and 3 as "micro-enterprises" while those having employees between 4 and 9 as "small enterprises" [25] to fill the available research gap about targeting this business category specifically.

Yemen is a poor country surrounded by many political and economic crises. So far, minimal literature has discussed MSEs in Yemen and the factors affecting them. Most Previous literature in Yemen has focused on SMEs, ignoring, to some extent, MSEs despite having the most significant proportion of businesses in Yemen. Previous literature has also ignored the understanding of how HRMS and EOF can influence ESE and how this self-efficacy leads to developing business continuation intention, especially during challenging times.

In Yemen, most of the available literature has discussed the influence of market orientation on SMEs innovation Alhakimi & Mahmoud [26] and how SMEs can adopt e-business in their activities [25,27]. Another study conducted by Saleh & R [28] reviewed the status of SMEs in Yemen and discussed how they were affected by internal conflict and war. However, they did not offer specific findings on increasing SMEs' confidence and enhancing their intention to continue their business. Furthermore, the study by AlQershi et al. [29] discussed CRM's different dimensions, which is irrelevant to this research.

All these reviewed studies and other reports conclude that Yemen is one of the poorest Arab countries, with a population of about 29 million and a gross domestic product (GDP) of USD 774.3 per capita. In addition, the World Bank has confirmed that millions of people in Yemen have been suffering from continuous armed conflict and ongoing economic crises [30,31].

The country's current internal strife has negatively impacted almost every sector [32]. In particular, the MSEs sector has faced many problems, such as physical asset damage, loss of life, low product and service demands, limited access to finance and disruption of essential services. The SMEs, including the micro one sector, also suffer from challenges such as poor technology adoption, poor skilled labour lag and lack of financial support that limit its GDP contribution to 15 %, compared to the value of 19 % before the war crises [29].

Furthermore, the internal conflict has destroyed numerous SMEs, including the micro ones. in Yemen, with about 22 % sustaining severe damage. Additionally, human lives lost and economic damages, such as wage-earning and sales revenue decreases, have become a reality since 60 % of the SME sector, including the micro one workers, have been dismissed from their jobs. In addition, the supply chain has been disrupted, with all enterprises facing severe challenges in continuing business operations, especially in the absence of adequate planning and risk management. According to available statistics, on average, the economic damage for small enterprises costs about USD 36,844, and that for medium-sized businesses costs USD 98,534. However, few enterprises started cleaning the debris, getting new equipment, hiring workers, etc., despite the financial challenges that made them borrow to cover the required expenses [30,33].

Given the above scenarios, the researcher aims to answer the following question: To what extent can HRMS and EOF contribute to developing ESE and ICB among micro and small entrepreneurs? The proposed model can provide micro and small entrepreneurs with essential direction for rebuilding their confidence and continuing business operations despite these challenges. The researcher believes that having a high level of HRMS and using the available owned funds can develop a higher level of confidence and self-efficacy among the entrepreneurs, ultimately resulting in developing and enhancing the intention to continue their businesses after utilising the proposed resources effectively.

This study is organised as follows. After the introduction, the researcher discusses the theoretical background, the literature review and the development of the hypotheses. Then, the research methodology, findings, discussion, implications and conclusion are reported.

2. Hypotheses development & literature review

2.1. Theoretical background

This paper is based on the SCT developed by Bandura [34] and Bandura [35], which focuses on the relationships among personal traits, environment and behaviour. This SCT proposes that individuals learn from observing, watching and imitating and that self-efficacy is an essential factor influencing people's behaviour. In this study, the researcher argues that if micro and small entrepreneurs possess a high level of HRMS due to their continuous business operation and obtained through different sources such as training support and educational programmes and other sources, they will be better able to recruit, motivate and train, their employees. The ability to guide, lead, and hire the right people allows entrepreneurs to make better staffing decisions, selecting individuals who are capable, committed, loyal, and supportive during adversity. This allows entrepreneurs to build a trustworthy, dependable micro-team, which creates psychological confidence and makes entrepreneurs feel less isolated in the face of crisis, strengthening their intention to continue their business despite adverse external conditions.

Additionally, micro and small entrepreneurs can develop higher confidence by having more personal savings or owned funds, allowing them to expand their business operations and continue existing ones by meeting the necessary operational expenses. The more self-efficacy and confidence they have, the more capable they will be of dealing with challenges and difficult times, and the higher their resilience will develop. Accordingly, HRMS and personal savings collectively help micro and small entrepreneurs develop necessary strategies that can result in the prolonged survival of their businesses.

2.2. HRMS, ESE and ICB

HRMS is defined as entrepreneurs' competencies and abilities when managing human resources, such as conflict resolution, training, recruitment, performance management and other related tasks. The authors Silveyra et al. [36] defined HRM competencies as focusing on human resource motivation and leadership. These skills specifically concentrate on working with others and motivating them, providing them with adequate business culture, delegating power, leading people, developing positive relationships with employees and teams and managing development and performance.

In this study, the researcher operationalises HRMS as the ability of micro and small entrepreneurs to manage employees' performance, develop employees, maintain positive relationships with employees, hire employees effectively, and handle employee relations within business operations. The authors Luthans and Ibrayeva [20] proposed nine behavioural aspects entrepreneurs exhibited, one being human resource management. The study of Allen et al. [37] also emphasised that human resource management allows entrepreneurs to achieve a higher level of enterprise performance; in particular, it was revealed that human resource management practices in small businesses have a positive relationship with revenue and performance. The study of Karia et al. [19] explored how entrepreneurial information overload (EIO) impacts entrepreneurs' human resource management behaviour and ESE. Their empirical findings revealed no direct effect of EIO on entrepreneurs' human resource management behaviour; however, EIO was found to indirectly impact human resource management behaviour through the mediating role of ESE.

According to Boxall [38], entrepreneurs with better HRMS tend to develop more confidence in overcoming challenges and succeeding in their businesses. The author stated that such entrepreneurs can build motivated teams, streamline operations, and provide an adequate business environment, making them believe in their exceptional entrepreneurial skills and increasing potential success. Notably, Human resource management and self-efficacy have a two-way relationship; for example, efficient Human resource management depends on an entrepreneur's higher level of ability and involvement in different Human resource management activities [19,39]. The findings of Messersmith & Wales [39] specifically reported that the extent to which entrepreneurial orientation can contribute to improving business growth relies on how well these young businesses adopt and implement Human resource management practices and ideologies. Kuratko et al. [40] also highlight that the presence of human resource practices, team management, and leadership can enhance entrepreneurial actions, resulting in better business performance. The practical HRMS possessed by micro and small entrepreneurs reduces employee turnover, maximising the utilisation of available human resources and productivity despite resource constraints. Entrepreneurs with excellent HRMS can adapt quickly to changing circumstances and encourage innovation within their teams, which increases their ability to succeed in their business as they provide the best business practices.

Furthermore, when entrepreneurs are equipped with essential training and development opportunities and networking services with other entrepreneurs and HRM professionals, they have higher levels of self-efficacy and more confidence in managing business and achieving success. It has been emphasised that managers should undergo training to enhance their HRMS, fostering a deeper understanding of effective leadership strategies and techniques [41], as this training helps empower entrepreneurs to optimise the potential of their team members, thereby bolstering their confidence and ESE. According to Boxall [38] and Kaya [42], enterprises with solid human resource strategies have a competitive edge and provide innovative culture, creativity and proactive behaviour, as they can address quality issues efficiently, solve problems and achieve continuous improvement.

Consequently, the researcher argues that entrepreneurs with better HRMS tend to develop more confidence in overcoming challenges and succeeding in their ventures. They can build a capable and motivated team, enhance supportive working surroundings and simplify operations, all of which make them feel more positive about their skills and abilities and, accordingly, direct their intention and behaviour towards entrepreneurship and business continuation even during adverse times. Thus, the following hypotheses are developed:

H1: HRMS positively influence ESE.
H2: HRMS positively influence ICB.
H3: ESE mediates the relationship between HRMS and ICB.

2.3. EOF, ESE and ICB

Finance—despite being the most challenging resource to obtain, especially among small enterprises in developing countries [21,43]—remains a vital factor that positively influences individuals to start their business activities or continue the survival of existing ones [24]. More specifically, EOF is considered the best source for funding businesses due to its low risk and easy use and its ability to attract potential investors by showing them how confident entrepreneurs are about their business success [21]. In this paper, we define EOF as the initial amount entrepreneurs use from their funds or resources when starting or re-establishing a business, which is considered essential for business operations and sustainability, especially during challenging times.

Empirically, it has been reported that EOF positively influences a business's success, and this influence is more significant if supported by entrepreneurship. In other words, small entrepreneurs demonstrating a greater propensity for entrepreneurship can use their funds more effectively towards business success [21]. In the study of Robinson [44], it was revealed that informal sources, despite being sometimes expensive with high interest rates, play a vital role in establishing enterprises, especially in developing countries, as cited in [45]. The findings of Mamabolo et al. [46] also confirmed that business success requires different skills and support, including HRMS and financial management skills.

Furthermore, Muller et al. [47] stated that entrepreneurs must perform different actions in the initial stage of enterprises, including arranging personal funds, creating prototypes, searching for available business opportunities, and forming the HR team. In another empirical study by Staniewski [48], of the 294 entrepreneurs, about 79.9 % of the respondents used their own money to start their business, confirming the importance of EOF for business success and creating confidence among individuals.

Luc's [49] study also empirically confirmed that finance can indirectly enhance entrepreneurial intention through perceived control and attitude towards behaviour. Finally, Kristiansen and confirmed the existence of a positive relationship between access to capital and entrepreneurial intention. They also confirmed that the lack of access to capital in developing countries can hinder potential entrepreneurs and their business innovation and success.

In this study, the researcher argues that EOF represents an entrepreneur's direct financial contributions, which are believed to be easy and more accessible with low risks, resulting in greater confidence in the business idea and willingness to take personal financial risks. In addition, EOF positively influences potential entrepreneurs and attracts them to make decisions about investing in the business. Furthermore, as financial support becomes more difficult to obtain during challenging and unstable situations, such as internal conflicts, people resort to financial reserves or owned funds to continue and sustain their business operations. Sufficient funds for the business can help overcome the available crises, cover the required costs and expenses, purchase the necessary materials and goods and navigate through economic uncertainties, ultimately increasing entrepreneurs' confidence and self-efficacy in continuing their businesses. Accordingly, the following hypotheses are established:

H4: EOF positively influence ESE.
H5: EOF positively influence ICB.
H6: ESE mediates the relationship between EOF and ICB.

2.4. ESE and ICB

ESE is the level to which an entrepreneur holds or possesses self-assurance in their entrepreneurial skills and capabilities to successfully and effectively conduct different entrepreneurial tasks and projects [50]. Many studies have analysed the interaction between ESE and other concepts. For example, the study of Luthans & Ibrayeva, [20] investigated the relationships among entrepreneurs' personal characteristics, environment and self-efficacy and reported a direct and mediating positive influence of self-efficacy on performance. In addition, the study by Karia et al. [19] revealed that a critical factor leading to business success is having a higher level of self-efficacy, as it contributes to better performance of entrepreneurs [51,52]. In particular, note that the more entrepreneurs believe in their capabilities to succeed, the more their business can survive and the more they can deal with pressure, which leads to significantly better performance when seizing business opportunities [52]. Regarding ESE and entrepreneurial intention (EI), a few studies, such as Khurshid & Khan [53] and Pihie & Bagheri [54], indicated a positive connection between ESE and EI; ESE was found to be a good predictor of EI [18,55].

ESE has also been proven to act as a mediator in many cases; for example, the study by Alshebami [56] confirmed that ESE could mediate the relationship between internal locus of control and entrepreneurial resilience among micro and small entrepreneurs; this demonstrates the need for ESE to strengthen resilience among micro and small entrepreneurs. ESE is a significant predictor, as even during challenging times and conflicts, individuals develop and cultivate aspirations or intentions for entrepreneurship, particularly when they have a higher level of resilience and confidence in their entrepreneurial skills [8]. Furthermore, emotions and feelings highly influence the mechanism of recovery from failure among individuals [18].

Accordingly, the researcher argues that the micro and small entrepreneurs who can develop a higher level of ESE can achieve more strength and abilities to help them deal with complex situations and challenging times. They can also design appropriate solutions for their problems and show more resilience when faced with adversities. Furthermore, a higher level of ESE allows entrepreneurs to act more proactively, use necessary strategies to overcome obstacles and adjust their business practices to fluctuating environments, leading them to survive longer and continue their business successfully. Hence, the following hypothesis is formulated:

H7: ESE positively influences ICB.

2.5. Proposed model

The proposed model was developed following an extensive literature review. Accordingly, this model comprises the following constructs: HRMS and EOF, which are exogenous variables; ICB, which is an endogenous variable; and ESE, which is a mediating variable. As explained earlier, both HRMS and EOF are expected to positively, significantly influence, and strengthen the ESE of micro and small entrepreneurs, accordingly pushing them to continue their businesses under adverse conditions. Fig. 1 shows the conceptual model of the study.

3. Research methodology

3.1. Research design, data collection and participants

As indicated earlier, Yemen is among the poorest Arab countries, surrounded by various political and economic challenges. The MSEs sector constitutes >90 % of the total enterprises in the country and has been facing challenges for a long time. The country's ongoing internal conflict has exacerbated these challenges in the last 10 years. These challenges have affected almost all aspects of the Yemeni economy, including the MSEs sector, resulting in poor performance and the closure of many businesses. This study aims to enhance MSEs by identifying the key factors that can strengthen micro and small entrepreneurs' confidence and self-efficacy, ultimately enhancing their intention to continue operating in the market despite challenges. Accordingly, the researcher applied quantitative and deductive research focusing on MSEs. The enterprises hosting between 1 and 3 employees are classified as micro-enterprises, and those hosting between 4 and 9 employees are called small enterprises [25].

Responses were collected from micro and small entrepreneurs in various areas of Sanaa governorate, the capital of Yemen, which hosts the maximum number of these enterprises. The total sample included 300 responses from both males and females. The responses were from either business owners, managers or business representatives, depending on their availability at the time of the data collection. This sample is considered suitable according to the ten-time sample rule, which indicates that the sample size should exceed ten times the highest number of links directed towards any latent variable within the inner or outer model [57]. The sample was collected using convenience sampling, a fast and straightforward method for data collection that reaches those interested in contributing to the research [58,59]. The researcher also applied the snowball sampling method to help reach a higher coverage of respondents.

The continuous failure of MSEs makes it difficult to trace their locations or record their availability; thus, no specific database can reach them. Hence, convenience and snowball sampling suit such studies in unstable contexts. Finally, this sample type is appropriate because the authors have limited time and budget. The responses received were analysed using partial least squares–structural equation modelling (PLS-SEM) due to their applicability to dealing with small and complex data

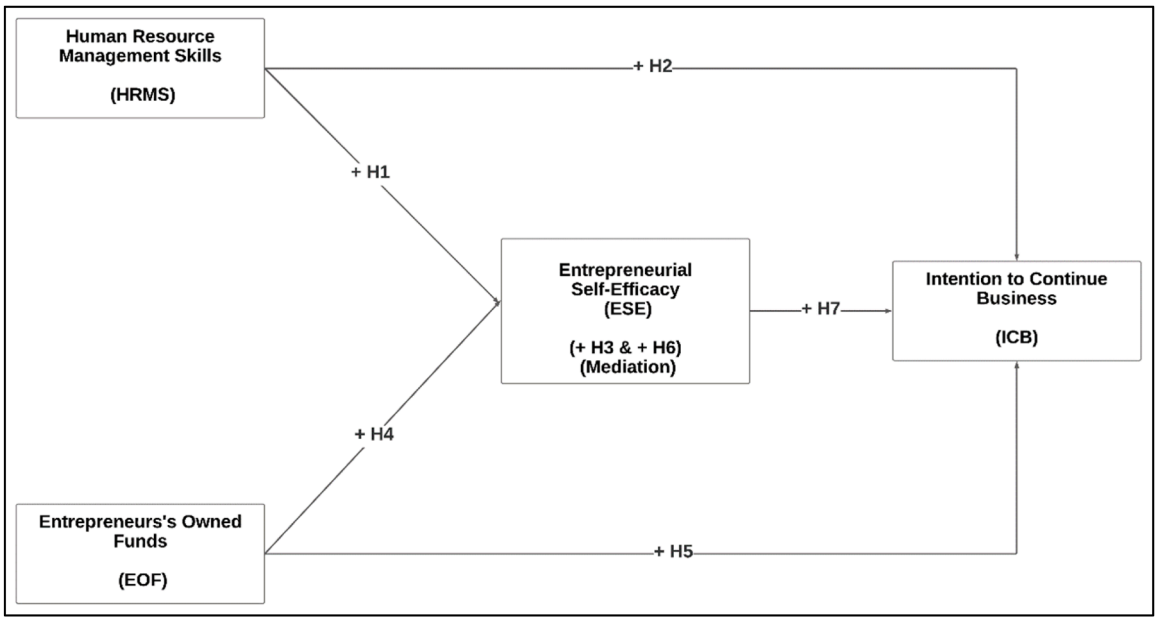

Fig. 1. Proposed model.
Source: Author elaboration

[60]. The data were collected by visiting those micro and small entrepreneurs at their locations, and some were targeted online. A questionnaire was developed from previous studies and measures suitable for this research. The questionnaire items were originally in English, translated by an authentic agency from English to Arabic to suit the context and respondents of the study and then sent to check their contents and understandability. Since the questionnaire content was acceptable, the questionnaire was prepared, sent, and kept online for about two months, June and July 2023.

3.2. Measures of the study

In this study, we utilised measures established by previous studies and adapted them to suit our study. As the proposed model comprises four concepts, their sources are as follows. The measures for both EOF and HRMS were derived from the studies conducted by Huang [21] and Silveyra et al. [36], respectively, while those for ESE and ICB were adapted from the research undertaken by [18].

A sample of the measures used for measuring the HRMS included 'I have the ability to develop employees', and the sample of the EOF included 'When developing a business venture, I can easily acquire the required capital'. For ICB and ESE, the sample for their measures included 'I am ready to do anything to restart/ continue my business' and 'I can deal with and solve effectively day-to-day problems and crises'. The questionnaire used in this study is attached in the Appendix for further clarification.

3.3. Demographic analysis

The study comprised 300 respondents (about 90 % male and 10 % female). About 51.7 % of the respondents were single, 45.7 % were married, and 2.7 % had another status. Concerning the age of the respondents, 64.7 % were between 18 and 28 years old, 29.7 % were between 29 and 39 years old, and about 5.7 % were between 40 and 50 years old. Regarding the educational background of the respondents, about 44 % of the respondents went to secondary school, 37 % had bachelor's degrees, 11.7 % had primary school certificates, 5.3 % had diploma certificates, and about 2 % had higher education. With the respondents' experience, 35 % had between 5 and 10 years of experience, 33.7 % had <5 years of experience, and 31.3 % had >10 years of experience. Regarding the type of business carried out by the respondents, 55.3 % worked in retail and wholesale, 31.7 % worked in small crafts and industries, 2.7 % had small agricultural businesses, and 10.3 % were in the service sector. Finally, concerning the size of the enterprises where the respondents operated, 92.7 % had employees between 1 and 3 (micro), and 7.3 % had employees between 4 and 9 (small enterprises). Table 1 presents the demographic information of the respondents.

4. Findings analysis

4.1. Measurement model analysis

The first step in PLS-SEM involves checking the reliability and validity of the constructs used in the study and their indicators to ensure

Table 1
Demographic information.

Description	Findings
Total No of respondents	Total 300 (90 % male and 10 % female)
Status	51.7 Single 45.7 % Married 2.7 % other
Age	64.7 % aged between 18 and 28 years 29.7 % aged between 29 and 39 years 5.7 % aged 40 and 50 years
Level of education	44 % had secondary school 37 % had bachelor's degrees 11.7 % had primary school 5.3 had diploma 2 % had higher education
Work experience	35 % have experience of 5 to 10 years 33.7 % have experience of <5 years 31.3 has experience of >10 years
Business types	55.3 % work in the Retail and wholesale 34.3 % Small and micro enterprises in agriculture, production, and industrial crafts, encompassing bakeries, small confectionery shops, and other similar small-scale projects. 10.3 % work in the service sector
Business Size	92.7 % had a micro business (one to three employees) 7.3 % operated small businesses (four to nine employees)

Source: Primary data.

that a suitable model is developed. Different tests were executed in the measurement model, such as Cronbach's Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE) and the Variance Inflation Factor (VIF). A threshold was set for each test; for example, 0.70, but <0.95 was selected for the loadings of the constructs' indicators. This threshold indicates the ability of their constructs to explain 50 % variance in these measures [61]. However, another classification for this criterion still accepts any value of indicator loadings above 0.70 [62,63]. The result of this study meets the suggested threshold reported in Table 2. The researcher then checked CR and CA, which should have a value of 0.70 to indicate good internal consistency and reliability [60]. The results of both CR and CA met the recommended threshold, as shown in Table 2. The result of AVE, examining the amount of variance captured by a construct to the amount of variance caused by the measurement error, had a value above the recommended threshold of 50 %.

After checking the reliability and validity of the study constructs and their indicators, the researcher evaluated their distinctiveness. To achieve this, the researcher used the Fornell-Larcker criterion, which involves comparing the AVE square root for each construct with its correlations with other constructs in the study. Accordingly, if the results of the AVE square root for any construct exceed its correlation with other constructs, there is enough discriminant validity in the tested construct [64]. The findings in Table 3 show that the study's constructs have good discriminant validity.

The study model's discriminate validity also was tested using the HTMT ratio, and a suitable result was reported, confirming that there was enough discriminate validity among the study variables, as shown in the findings in Table 4.

The researcher also tested the study's common method bias (CMB) using Harman's single-factor test. The findings revealed that no CMB existed in the study, as Harman's single-factor test reported a value of <50 %, i.e., (31.64 %), confirming the absence of any common bias [65]. The researcher also analysed multicollinearity using the VIF to examine if there was a correlation among the exogenous variables in the study. The results in Table 5 revealed that no multicollinearity existed, as all demonstrated values were below 5 [60].

4.2. Structural model analysis

After testing the measurement model, the researcher validated the structural model using different tests. He employed the bootstrapping method to examine the path values' results and significance [66]. For testing and examining the relationships between independent and dependent variables, the researcher used regression analysis with different tests, such as the coefficient of determination (R^2), P-value and T-value [57]. The regression results in Table 6 confirmed the acceptance of all hypotheses except H5; further analysis and elaboration on the hypothesis' findings are explained in the discussion section. Furthermore, the researcher also checked the values of both R^2 and F^2 as they reflect the goodness of fit of a regression model. The thresholds for these variables are recommended by Cohen [67] as follows: the R^2 level can be evaluated using three criteria: =0.26 (significant), =0.13 (moderate) and =0.02 (weak). According to the study results, HRMS, ESE and EOF could explain about 41.3 % of the variance in ICB. Furthermore, EOF and HRMS could explain about 29 % of the variance in ESE.

Regarding the effect size (F^2), and as per Cohen's guidelines, the study's findings revealed a considerable impact of ESE on ICB (33.8 %), while a weak effect was observed between ESE and EOF (9.3 %) and HRMS and ESE (9.4 %). The researcher finally tested Q^2, a test used to test predictive relevance. The Q^2 results revealed sufficient predictive relevance for the study model, as the values reported were above zero.

Table 6 reports the results of the assumed hypotheses in the study and Fig. 2 shows the path coefficients of the model of the study.

Table 2
Representation of the measurement model's reliability and validity.

Construct & Items	Loading	CA	CR	AVE
ESE		0.818	0.825	0.580
ESE1	0.763			
ESE2	0.820			
ESE3	0.649			
ESE4	0.789			
ESE5	0.775			
EOF		0.715	0.729	0.539
EOF1	0.770			
EOF2	0.806			
EOF3	0.659			
EOF4	0.692			
HRMS		0.845	0.851	0.617
HRMS1	0.767			
HRMS2	0.851			
HRMS3	0.771			
HRMS4	0.780			
HRMS5	0.754			
ICB		0.788	0.788	0.611
ICB2	0.773			
ICB3	0.801			
ICB4	0.797			
ICB5	0.756			

Source: Primary Data.

Table 3
Fornell-Larcker criterion.

	ESE	EOF	HRMS	ICB
ESE	0.762			
EOF	0.472	0.734		
HRMS	0.473	0.543	0.786	
ICB	0.619	0.349	0.445	0.782

Source: Primary data.

Table 4
Heterotrait-monotrait (HTMT) ratio matrix.

	ESE	EOF	HRMS	ICB
ESE				
EOF	0.613			
HRMS	0.564	0.689		
ICB	0.755	0.451	0.535	

Source: Primary data.

Table 5
Multicollinearity result.

ESE -> ICB	1.408
EOF -> ESE	1.418
EOF -> ICB	1.549
HRMS -> ESE	1.418
HRME -> ICB	1.551

Source: Primary data.

5. Discussion

5.1. Interpretation of the results

This study attempted to understand how HRMS and EOF among micro and small entrepreneurs in Yemen help strengthen their ESE and encourage them to continue operating under adverse conditions. Accordingly, a model based on seven hypotheses was developed to investigate the relationships mentioned earlier. The following findings were revealed. The first hypothesis (H1) examined the relationship between HRMS and ESE, and its findings reported a significant and positive relationship between HRMS and ESE ($\beta = 0.308$, $P > 0.05$). The finding

Table 6
Testing of hypotheses.

Hypothesis	Relationship	Type of Relationship	Path Coefficient	Mean	*t*- value	*P*- values	Decision
H1	HRMS -> ESE	Direct	0.308	0.309	5.122	0.000	Supported
H2	HRMS -> ICB	Direct	0.200	0.197	3.454	0.001	Supported
H3	HRMS->ESE->ICB	**Indirect**	0.163	0.166	4.240	0.000	Partial Mediation
H4	EOF->ESE	Direct	0.305	0.310	4.822	0.000	Supported
H5	EOF->ICB	Direct	−0.010	−0.011	0.153	0.878	**Rejected**
H6	EOF->ESE->ICB	**Indirect**	0.161	0.167	4.139	0.000	Full Mediation
H7	ESE->ICB	Direct	0.529	0.537	10.350	0.000	Supported

Notes: T-value >1.96, ($p < 0.05$).
Source: Primary analysis.

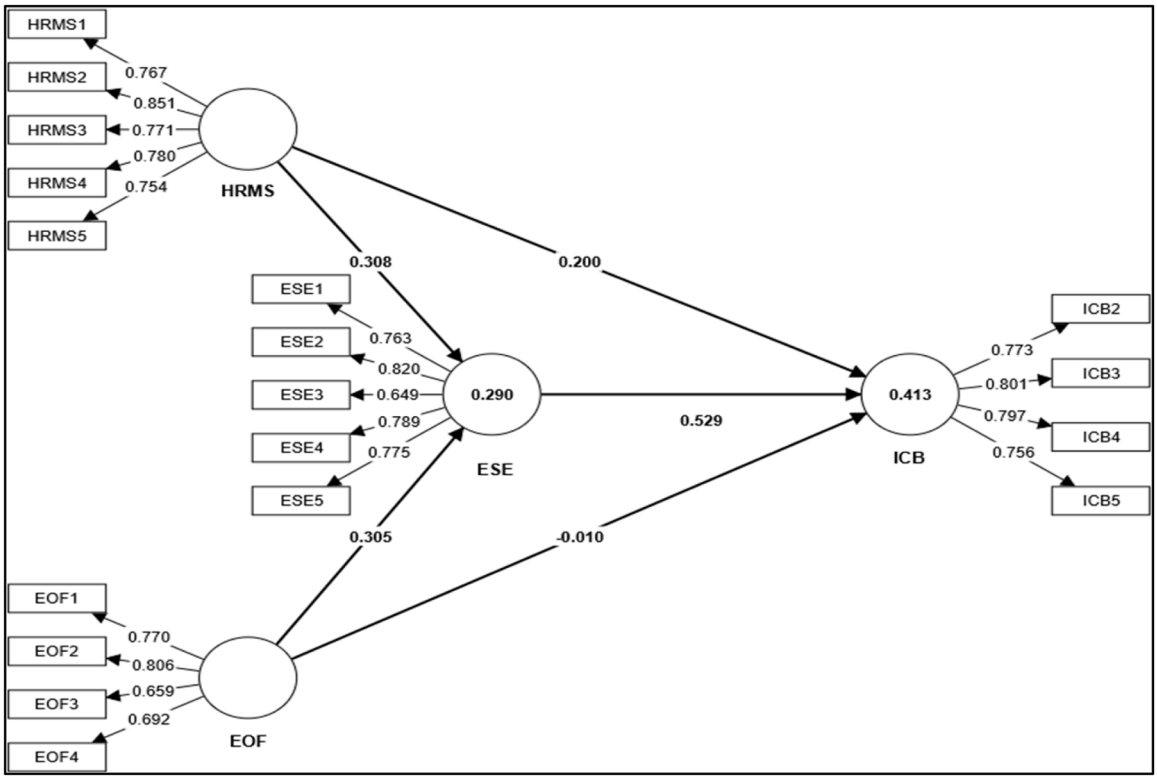

Fig. 2. Path coefficients.
Source: Author elaboration

of this hypothesis indicates that micro and small entrepreneurs with higher HRMS can quickly recruit employees and motivate and manage them more effectively, ultimately developing higher and better confidence in their ability to achieve business goals and improve entrepreneurial actions [40]. They can also perform better [37] and achieve greater success in their business [38]. In other words, entrepreneurs with better HRMS can lead to a better selection of loyal, committed, and supportive workforce during adversity. Accordingly, entrepreneurs will develop a feeling that they are not facing the crisis alone, and accordingly, their ESE will increase.

The second hypothesis (H2) assumed the existence of a positive connection between HRMS and ICB. When H2 was tested, it resulted in a positive and significant relationship between HRMS and ICB (β= 0.200, $P > 0.05$). This finding is expected, as extraordinary HRMS and practices allow entrepreneurs to achieve higher enterprise performance and better revenue. Furthermore, micro and small entrepreneurs with higher HRMS can quickly recruit employees and motivate and manage them more effectively, ultimately developing higher confidence in entrepreneurs' ability to achieve business goals and improve entrepreneurial actions, which aligns with the result obtained [37]. In other words, when micro and small entrepreneurs better manage their workforce, they become more confident, believe in their workforce, and build a trustworthy, dependable micro-team, enhancing a better intention to continue the business despite adverse external conditions.

The third (H3) hypothesis assumed that ESE mediates the relationship between HRMS and ICB and reported partial mediation (β= 0.163, $P > 0.05$). It is understandable that once individuals develop a higher level of HRMS, they will be better equipped to deal effectively with human capital, foster a supportive organisational culture, optimise employee performance, have more confidence in their abilities and skills and feel more capable of directing their subordinates. Accordingly, they will feel strong enough to continue their entrepreneurial businesses and navigate challenges. This is supported by [8,37,40].

The fourth hypothesis (H4) assumed a positive relationship between EOF and ESE (β = 0.305, $P > 0.05$), and this assumption was accepted. This finding is also interesting, as the more individuals can use their funds, the higher their belief in themselves will be. In other words, once micro and small entrepreneurs feel they can use their reserves and money to buy needed items and materials for their businesses and the higher their faith in themselves will be, and they will feel they can continue their operations despite the ongoing conflict accordingly; this will make them feel more encouraged, blessed, and confident and can.

Using their funds allows them first to increase their confidence, satisfaction, and self-efficacy and decide to continue managing their business operations. These findings find support from [21,46], which confirmed that business success requires different skills and support, including HRMS and financial management skills, and can enhance EI [21,45,49]. These findings and the statements mentioned earlier also confirm hypothesis (H6), which emphasises the ability of ESE to mediate the relationship between EOF and ICB with complete mediation ($\beta = 0.161$, $P > 0.05$). Having personal funds, as indicated earlier, increases the belief in the entrepreneurs themselves and accordingly motivates them to develop crisis management plans, manage the resources effectively, use their bricolage, select the right workforces, and remain adapted and resilient, all of which build their intention to continue operating despite challenges and instability.

While all previously discussed hypotheses were approved, the fifth hypothesis (H5), which assumed that a positive relationship exists between EOF and ICB, was rejected ($\beta = -0.010$, $P < 0.05$), which confirms that there is no need to depend only on own funds to support entrepreneurial continuity during crises and difficulties. This also confirms that ESE plays an effective role in increasing the intention of micro and small entrepreneurs to continue their businesses during crises. In other words, to achieve greater intention to continue operation during adversity, one may first rely on developing ESE and achieve confidence, guiding the individuals toward entrepreneurial continuity intention.

Finally, the seventh hypothesis (H7) proposed the presence of a positive relationship between ESE and ICB ($\beta = 0.529$, $P > 0.05$); this finding is in line with [50], which confirmed that entrepreneurs possessing self-assurance in their entrepreneurial skills and capabilities can successfully and effectively conduct different entrepreneurial tasks and projects. As indicated earlier, a higher level of ESE enhances the intention to continue operating during challenging times, strengthening the perceived ability to deal with challenges [35]. Individuals with greater ESE will be able to develop better adaptive behaviour, which is represented in developing key strategies necessary for cost reduction that enhance crisis resilience [8]. Importantly, micro-entrepreneurs with greater ESE view crises as temporary setbacks rather than insurmountable threats, fostering a sense of hope and optimism and sustaining their commitment to persist.

5.2. Theoretical implications

This research is one of the few studies that jointly focus on HRMS, EOF, ESE and ICB during adverse times in a poor developing country like Yemen. Therefore, many theoretical implications can be obtained from this research. In addition to being a novel study that discusses the concept of HRMS and EOF in entrepreneurship, it confirms meaningful assumed relationships, as follows. It first confirms the positive relationship between HRMS, ESE and ICB. It highlights the significance of HRMS and human capital in fostering self-efficacy and confidence among people, in general, and micro and small entrepreneurs, in particular, which aligns with the limited literature review about the role of HRMS in shaping people's attitudes and enterprise outcomes.

The second theoretical contribution is that the assumed relationship between EOF and ESE was confirmed, emphasising the role of EOF in affecting individuals' entrepreneurial behaviour and mindset. That is, the micro and small entrepreneurs possessing greater access to their funds can see themselves as more capable and resourceful, resulting in greater self-efficacy. In the study's findings, a rejected hypothesis (H5) investigated the direct relationship between EOF and ICB and assumed that EOF can positively influence ESE. This indicates that a direct relationship between EOF and ICB cannot be obtained unless supported by ESE. This suggests further investigations of the relationships among other psychological factors, environmental contexts and financial capital, emphasising the complex factors that impact entrepreneurial persistence. This study adds to the SCT by confirming that ESE is an essential, critical psychological mechanism through which specific tangible resources (e.g., EOF and HRMS) influence the intention to sustain and continue operating a business in a crisis context. It also highlights that in a fragile environment, perceived internal capabilities, fund acquisition, and ability to manage people reinforce belief in business continuity even amid external instability, especially in MSEs that have not been much in the literature, as the literature has primarily focused on large organisations. Finally, this study provides a road map for other researchers to continue investigating how EOF and HRMS can interact with other factors.

5.3. Practical implications

This is one of the most significant MSEs and entrepreneurship studies. It provides valuable insights and directions for entrepreneurs, policymakers, and business support organisations that are trying to navigate and thrive in challenging business environments. The study's findings confirm HRMS's role in enhancing entrepreneurs' ESE so that they can continue their business during adverse times. Accordingly, it is crucial to invest in human capital development initiatives. For this reason, policymakers and other official bodies need to concentrate on supporting individuals' human capital with necessary training and support programmes to strengthen entrepreneurs' HRM competencies and empower them to cope better with challenges and sustain their businesses. It is also recommended that the government and other governmental bodies encourage micro and small entrepreneurs to focus more on different sources for funding their businesses. In addition to using their funds, funding sources such as crowdfunding platforms and governmental financial support could help micro and small entrepreneurs during these difficult times. Providing the necessary education and training for entrepreneurs will help them manage their businesses more effectively and enhance their self-efficacy, pushing them towards business continuity.

Policymakers are also recommended to help entrepreneurs understand how to develop their continuity plan, which includes the necessary strategies for meeting and dealing with difficult times. Policymakers must encourage entrepreneurs to diversify their businesses and achieve resilience and suitability. More specifically, Policymakers are advised to provide microfinance programs in cooperation with non-governmental organisations or international organisations to allow micro and small entrepreneurs better access to capital for their businesses. Also, as HRMS has proven to play a key role in enhancing ESE among micro and small entrepreneurs, policymakers in Yemen are recommended to provide introductory HRM training workshops. These lectures focus on employee retention, hiring and performance management, and they can be delivered through digital platforms to reach remote and insecure areas. Moreover, developing solid mentorship networks is crucial as they can connect micro-entrepreneurs with experienced entrepreneurs, providing them with invaluable advisory support and helping to build their confidence. It is also advised that micro and small entrepreneurs be encouraged to use digital tools such as online wallets, WhatsApp-based learning groups or voice-based training apps to develop their skills despite infrastructure challenges.

Furthermore, the negative result (H5) on the relationship between EOF and ICB suggests that EOF for entrepreneurs should always be complemented with essential initiatives such as strengthening self-efficacy. These initiatives could include the provision of entrepreneurial mentorship, networking opportunities and psychological support to help entrepreneurs build confidence in their ability to overcome obstacles and stand firm in adverse times. Additionally, the insignificant link between EOF and ICB emphasises the need for care when relying entirely on EOF to support entrepreneurial continuity. Instead, policymakers and support organisations should take an inclusive approach to addressing economic and psychological barriers to long-term entrepreneurship, such as developing supportive business ecosystems, providing access to alternative funding sources and promoting resilience-building initiatives. Finally, policymakers in Yemen should replicate those

successful experiences implemented in neighbouring countries, such as Saudi Arabia, during COVID-19 and develop a long-term strategy, such as the 2030 vision, to support the growth and sustainability of MSEs in Yemen during crises and instabilities.

6. Conclusion, limitations and future studies

Entrepreneurship and MSEs have been continuously reported as crucial pillars for economic development, particularly in developing countries. Accordingly, different attempts and initiatives have been made to support them and enhance their operations to contribute positively to creating job opportunities, reducing unemployment, empowering youth and women and strengthening self-independence. Nevertheless, especially in developing countries, MSEs face challenges and difficulties during adverse times and unstable political environments. Therefore, understanding how entrepreneurs can deal with such challenges under adverse conditions and what key factors can help them overcome their effects and continue operating is essential to assisting policymakers and entrepreneurs in designing the necessary strategies and tools for dealing with these obstacles. Therefore, this paper proposes a theoretical model that emphasises the role of HRMS and EOF in strengthening ESE among micro and small entrepreneurs, ultimately resulting in their intention to continue their business and deal effectively with those uncertainties.

The researcher collected 300 samples of micro-and small-scale entrepreneurs in Yemen, one of the poorest Arab countries surrounded by many political and economic challenges, to understand how these entrepreneurs deal with difficult situations. The researcher used different data collection and analysis tools and reported exciting findings. All proposed hypotheses in this study were accepted, except H5, which assumed a direct and positive relationship between EOF and ICB. The study confirmed the applicability of the proposed model in the context of the survey, especially the mediation assumption.

Despite providing intriguing results, future research needs to address certain limitations. First, the author admits that the sample size used in this research, despite meeting the criteria of an adequate sample size according to the 10 times rule, is limited. Accordingly, the findings might not be adequately generalised. Furthermore, the sample size was only collected from the capital of Yemen, Sanaa, even though it is the capital. There is still a considerable number of MSEs, so it would have been much better if the sample had been collected from different provinces in Yemen to ensure better coverage for the sample and better generalisability.

Also, the convenience sampling and snowball method, which are non-probable sampling methods despite being suitable in this research due to the non-availability of valid records or databases to trace MSEs, might generate some bias as they do not apply the collection of random samples. It would also be better if the data were collected using a longitudinal design, not relying entirely on cross-sectional. Likewise, the author admits that the measures used in the research, despite providing good results, still might be refined to suit the contents and respondents more adequately. The author also acknowledges that the gender composition of the sample is a limitation as it is predominantly male (about 90 %). Even though this shows the present demographic reality of entrepreneurial participation in Yemen, especially in the context of conflict and restricted mobility for women, which the researcher believes may limit the generalizability of the findings to female entrepreneurs, with this disparity between male and female, it is recommended that future research aim for a more balanced sample or perform gender-specific analyses.

Potential researchers are advised to investigate the possibility of having gender as a moderating variable to examine whether the effects of HRMS and EOF on ESE and continuity intention differ between male and female entrepreneurs. This strategy may lead to a more comprehensive understanding of key obstacles or strengths among female micro-entrepreneurs, particularly in conflict-affected business environments, providing a promising future for research in this area. Also, it is advised that when conducting future studies, the study sample be enlarged to have multi-regional sampling, including rural areas and regions with varying degrees of conflict exposure. It is also advised that future samples should be random when collected to allow more opportunities to generalise findings.

Future studies may also investigate other factors that can strengthen micro and small entrepreneurs' skills to continue their business during adverse times, such as ethics skills, loyalty, commitment and cooperation. Potential researchers should incorporate objective financial metrics (e.g., savings, asset ownership) in their conceptual models to ensure better validity rather than relying only on micro and small entrepreneurs' self-reported data to obtain funds. Future studies may also employ two research methods, namely quantitive and qualitative, along with longitudinal research design; specifically, self-reported data collected through questionnaires may also be supported with the help of deep interviews with respondents to gain more knowledge about how micro and small entrepreneurs navigate conflict-related barriers, such as supply chain disruptions, security risks and other business issues. Finally, future studies are encouraged to include control variables such as type of business, type of respondents, experience and other factors in the analysis.

Ethics statement

The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Ethics Committee of King Faisal University (KFU-REC-2024).

Informed consent statement

Informed consent was obtained from all subjects involved in the study.

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CRediT authorship contribution statement

Ali Saleh Alshebami: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

I, Ali Alshebami, hereby express my interest in submitting the article titled "Empowering Micro and Small Enterprises in times of crisis: How human resources management skills and owned funds drive self-efficacy and continuity intention" for consideration in the Journal of Sustainable Futures.

My study explores the mechanisms that foster resilience within Yemen's micro and small business sector, emphasizing the critical roles of human resource management (HRM) skills and personal funds in sustaining entrepreneurial activities amid socio-economic challenges. The insights provided in this research contribute to the broader discourse on sustainable entrepreneurship and resilience, offering practical implications for policymakers and stakeholders supporting small businesses in conflict-affected regions.

I firmly believe that the article aligns with the journal's focus on advancing knowledge in sustainability and resilience-building. I am committed to meeting the journal's high standards of scholarship and peer review and look forward to the opportunity to contribute to your

esteemed publication.

Thank you for considering my work for potential inclusion in your journal.

Appendix

Questionnaire

Human Resources Management Skills (HRMS)		
HRMS1	I have the ability to develop employees	Silveyra et al. [36]
HRMS2	I can manage employee performance	
HRMS3	I have hiring skills	
HRMS4	I have human relations management skills	
HRMS5	I have employee relations	
Entrepreneurs' Owned Fund (EOF)		
EOF1	When developing business ventures, I will try to prepare sufficient entrepreneurial capital.	Huang [21]
EOF2	When developing a business venture, I will prepare the funds needed for investment.	
EOF3	When developing a business venture, I can easily acquire the required capital.	
EOF4	When developing a business venture, I can freely use the entrepreneurial capital.	
Intention to continue the business (ICB)		
ICB1	I am ready to do anything to re-start/ continue my business	Zhao [18]
ICB2	I will make every effort to re-start/ continue my business	
ICB3	I am determined to create/continue a firm in the future	
ICB4	I have very seriously thought of starting a firm	
ICB5	I have the firm intention to start a firm someday	
Entrepreneurial Self-Efficacy (ESE)		
ESE1	I am able and confident in brainstorming (coming up with new ideas for a product or service)	Zhao [18]
ESE2	I can make a plan and estimate customer demand for a new product or service	
ESE3	I can clearly and concisely explain verbally or in writing my business idea in everyday terms	
ESE4	I can deal with and solve effectively day-to-day problems and crises	
ESE5	I can manage the financial assets of my business	

Data availability

Data will be made available on request.

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