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The effect of entrepreneurial resilience on entrepreneurial success of SME: A study on SME in Zakho independent administration in Kurdistan Region of Iraq

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Abstract:

This study explores the impact of entrepreneurial resilience and entrepreneurial success. A researcher conducted a survey of entrepreneurs in small and medium-sized companies in Zakho city in the Kurdistan Region of Iraq to understand the extent to which flexibility affects company growth and success. They used the descriptive analytical approach to analyse the survey data. The questionnaire was the primary approach to data gathering. Data analysis was performed using both SPSS v26 and Smart PLS v 4.0.9. (82) questionnaires were collected from a total of 95 survey cases. The findings of this study show a substantial and statistically significant effect of entrepreneurial resilience on entrepreneurial success. Entrepreneurial resilience is critical to increasing a company's effectiveness and profitability by addressing immediate and continuous difficulties that force it to seek out possibilities, innovate, and face risks. While these results are convincing in the context of the study, it is necessary to be careful when generalizing them to other corporate settings. Further research is recommended to delve deeper into the nuances of entrepreneurial resilience across diverse contexts. This study contributes valuable insights for entrepreneurs seeking to improve performance through entrepreneurial resilience. Through understanding and leveraging forecasting and forcing conditions, organizations can promote better outcomes and achieve success.

Keywords: entrepreneurial resilience, entrepreneurial success, Kurdistan region.

Introduction:

Globally, organizations confront significant economic pressures to survive (Betakova et al., 2014). SMEs must move quickly to capitalize on chances and conditions for product improvements and new technologies as they arise. (Zastembowski and Przybylska (2016) clearly states that the growing effect of globalization, as well as rapid technological advancements, are significant contributors to global economic integration. This breakthrough has a wide-ranging impact on entrepreneurial life. It may be quite challenging since the entrepreneur must frequently take risks in order to make profitable and successful judgments in the face of difficult and unexplained circumstances. As a result, when the entrepreneur lacks flexibility in the decision-making process, the results are useless and priority company performance suffers, resulting in poor survival outcomes business (Singh and Pavlovich, 2011).

Local organizations can enhance local resilience and promote stability and continuity of place by utilizing and developing existing resources (Magis, 2010). Additionally, the company may serve as a vehicle for sustainable growth by educating its clientele (Potts et al., 2010). In a business climate that is becoming

more and more competitive, successful entrepreneurs create goals and operate with purpose. The information that entrepreneurs have access to is frequently insufficient, unclear, and constantly changing. Because of their degree of readiness, flexible and adaptable business owners thrive in these circumstances more frequently (Ayala and Manzano, 2014).

Small and medium-sized businesses are always striving to improve their operations and performance to gain success, particularly in key areas of commerce such as market, finance, managerial expertise, and innovation. This is because their long-term viability and existence are dependent on their expansion (Ogbumgbada, 2023).

Resilience is a dynamic adaptive process that allows entrepreneurs to continuously channel their future vision despite turbulent market conditions that they must constantly face in disruptive situations. Entrepreneurial resilience, which is frequently associated with challenging conditions, is used to overcome them. Overcoming environmental concerns often demands personal resources. (Windle, et al., 2011). Based on this, we can indicate that strategic outcomes and skill development for entrepreneurs necessitate adaptability in dealing with such situations with bravery and optimism. Individuals who can rapidly and readily overcome setbacks in their personal and professional lives are considered resilient. (Zawtra et al., 2010).

Theoretical and empirical studies on entrepreneurial resilience have traditionally focused on large firms and their environments, although the reality is that SMEs are often unprepared for crises and can suffer devastating repercussions when they arise (Sullivan Taylor & Branecki, 2011). Entrepreneurial resolve has become a significant issue in business and life since it is difficult to sustain owing to pressure and a lack of management strategies (Santos et al, 2013).

From a conceptual perspective, there is a need for a deeper comprehension of entrepreneurial resilience, as well as a more concrete theory of the mechanisms that foster SME resilience. This is considered necessary in part because the literature on entrepreneurial resilience has mainly emerged independently of larger resilience research and is separate from some multilevel theories of resilience (e.g., Lengnick-Hall et al., 2011; van der Vegt et al., 2015). To further our knowledge of entrepreneurial resilience, we must consider how entrepreneurial actions influence SME resilience at several levels. Empirically, "there is only a few studies on how affect entrepreneurship success" (Doern, 2016, p. 278). Focusing on SME preparedness, there is a dearth of information on how small businesses have been planed and deal with unexpected events (Herban, 2010).

These gaps lead researcher to provide quantitative approach looking at the relationship between entrepreneurial resilience led to the formation of success of SMEs. This study contributes major findings to the literature on entrepreneurship and resilience.

It builds on current research to provide a novel multilevel strategy for investigating the link between analysis at the organizational level (resilient SMEs). This technique sheds light on how and when entrepreneurial resilience might help SMEs' resilience and success, as well as identifying research boundary conditions. Furthermore, the research combines previously distinct sets of scholarship, giving a more thorough conceptual framework for understanding entrepreneurial resilience in practice that led SME to gain success in entrepreneurship.

The study of resilience in small business organizations remains limited, however, it has been identified as a promising focus for future resilience research. The study's goal was to determine how much entrepreneurial flexibility influences the entrepreneurial success of SMEs in Zakho, Kurdistan Region of Iraq.

Literature Review

2.1 Entrepreneurial Resilience

To date, the term and concept of resilience have been defined in several ways, including overcoming challenges and difficult situations. (Williams et al., 2017), or the skill and capability to anticipate, avoid, and respond creatively to environmental shocks (Ortiz-De-Mandojana &

Bansal, 2016). Until recently, research on organizational resilience concentrated on large organizations, leaving little knowledge of small firms and executives' contexts (Battisti and Deakins, 2017; Kunz et al., 2017; Sullivan-Taylor and Brann-Nicky, 2011; Wishart, 2018). The term resilience is frequently used in psychology to measure an individual's capacity to recover (Zautra et al., 2010). Being resilient is essential when managing an entrepreneurial venture, as it involves coping with diverse business situations, pressures, and uncertainties (Luthans & Youssef-Morgan, 2017).

Entrepreneurial resilience refers to the ability of the entrepreneur to recover from unexpected occurrences, overcome failures, and adapt to changing conditions. It is a key characteristic for company success. Resilience enables entrepreneurs to deal with stress, foresee challenges, and adjust successfully, ensuring psychological health and long-term economic viability (Duchek, 2018). The key to entrepreneurial resilience is the ability of an entrepreneur to adaptation and recover from setbacks in their company endeavors. When things go hard, it's simply their mental toughness and resolve that keep them going (Korber & McNaughton, 2018).

According to Bullough et al. (2014), "enterprise resilience" characterizes a company's ability to adapt to changes in its industry and recover from negative occurrences. Furthermore, it represents a dynamic adaption process that allows business owners the capacity to continually remain forward-thinking and goal-oriented despite the difficult market scenarios they may confront (Ibini et al., 2020). Moreover, Revivic et al. (2011) refer to entrepreneurial resilience as the ability of an entrepreneur to persevere through challenges and overcome misfortune.

Several factors, including individual experiences, learning procedures, work attitudes, and behaviors, influence this resilience (Tengeh, 2016).

Furthermore, research demonstrates that business owners may prosper in challenging environments, rising above challenges like xenophobia, violence, and unhealthy competition (Miles & Petridou, 2015). In addition, policy entrepreneurs are vital to the political understanding of crisis management and foster entrepreneurial resilience. Sustainable success in the context of entrepreneurship requires an understanding of and commitment to strengthening entrepreneurial resilience (Duchek, 2018). Overall, entrepreneurial resilience is the result of combining expressional and intrapersonal strategies that support overcoming obstacles and advancing business ventures.

Resilience is considered a broad, comprehensive term that includes a network of positive behaviors and attitudes. It can be defined as a group of personal and individual behaviors (Cooper, Estes, & Allen, 2004; Lamond et al., 2008). As a result, the idea of flexibility has always been difficult to define and diagnose (Lutharet al., 2000), as also found with measures of operational flexibility. Although many resilience assessment scales have been built and developed, they have not been chosen systematically and logically (Windle et al., 2011). One of the most famous examples of this is the Connor-Davidson Resilience Scale (CD-RISC) ; (Connor & Davidson, 2003), whose accuracy and validity have been verified in numerous and diverse studies (Burns & Anstey, 2010, Karairmak, 2010, Lamond et al., 2008).

Accordingly, most researchers have proven that this structure (the Cuno-Davidson Resilience Scale (CD-RISC) consists of several factors. (Burns and Anstey, 2010; Jørgensen and Siadat, 2008; Karaermak, 2010). Manzano and Ayala (2013) demonstrated that various components of entrepreneurs' resilience include hardiness, optimism, and resourcefulness. Cruelty is the lack of self-control; it is not the act of dictating to or condoning the behavior of others. According to Kobasa (1979), entrepreneurs are courageous and persistent in pursuing their objectives, indicating that they do not simply give up in the face of adversity. Resourcefulness refers to an entrepreneur's resources, talents, and skills in order to overcome the different adverse conditions that he must encounter. Entrepreneurs

that are resourceful feel they have the power to manage occurrences and impact the outcomes of circumstances (Powell and Baker, 2011). An additional aspect of resilience relates to optimism, which denotes the entrepreneur's ability to maintain positive behavior in difficult circumstances characterized by a high degree of unpredictability regarding the outcome. Entrepreneurs can draw lessons from their mistakes and view them as opportunities for growth rather than setbacks (Fredrickson and Schneider, 2001). On the bases of above explanation, it is possible to conclude that entrepreneurial resilience is a dynamic combination of human and impersonal forces. The description presented is comprehensive, addressing the major aspects that contribute to resilience and providing a framework for understanding how entrepreneurs may succeed in the face of adversity. However, it might benefit from a more in-depth examination of how these elements interact over time, as well as particular tactics for increasing resilience in diverse business situations. This would give a more practical direction for businesses and politicians alike.

2.2 Entrepreneurial Success

Entrepreneurial success can be identified simply as the continuance of business activities, as opposed to failure and withdrawal from the firm. They also revealed that the majority of the literature states that all entrepreneurs have their own perceptions of what success means to them, as they may consider themselves successful but have achieved different levels of success when measured using traditional financial metrics (Simpson et al., 2004).

According to McEwen (2008), the concept of entrepreneurial success is derived from the significance of outside knowledge and information. Environmental scanning and organizational learning play a key role in ensuring the success of an entrepreneurial endeavor because they form the foundation of organizational learning and broaden entrepreneurs' knowledge, which in turn improves their ability to make decisions.

Aguinis (2008) presented the concept of entrepreneurial success through the social power of entrepreneurs as a major factor linked to entrepreneurial success, and a set of theories that link social capital and social networks to entrepreneurial success and its expansion therein, and the difference between successful and unsuccessful entrepreneurs in terms of their gender, “male or female,” and their degree of social power, which, through both non-financial metrics like customer satisfaction, personal growth, and accomplishments, as well as tangible components like profitability, sustainability, personal wealth creation, revenue, organization growth, and continuity of existence, indirectly reflect the success of their business and their business. Achievement measured in terms of finances and the economy (Enuoh, and Inyang, 2009).

Olakitan and Ayobami, (2011) confirm that entrepreneurial success represents an organization's ability to use the various entrepreneurial capabilities it has the productivity and efficacy to meet corporate objectives in areas like social responsibility, work ethics, efficient time management, and effective leadership. decision-making skills, and marketing decisions. Financial management, effective training and development, etc.

It can attribute the success of entrepreneurs to many factors, but they themselves are among the most determining factors for the success of their businesses (Rani & Hashim, 2013). According to Oyeku et al, (2014), Successful entrepreneurs are vital to community development because they help create jobs and promote economic growth. However, many scholars have not yet reached a consensus on what constitutes success, especially in the context of new business initiatives, and thus there is no generally recognized definition. Entrepreneurial Success is usually measured based on economic or financial indicators like return on assets, sales, profits, workforce size, and longevity. Non-monetary factors encompass customer contentment, individual development, and accomplishments.

While Schneider, (2017) entrepreneurial success is a complex phenomenon determined by many factors, such as social, cultural and economic factors, and also through continuing education and training, and entrepreneurship training and education programs are an integral part of environmental and cultural interventions and changes. According to Prajawati et al, (2020), the concept of entrepreneurial success consists of two axes: First, success is when it is useful to others, in addition to social performance as a goal that entrepreneurs must achieve, and the ability to achieve their goals, as needs were the primary motivation behind Establishing a business, secondly, is defining success by continuing to grow in doing business in the future.

Moreover, Mohamad and Bakar, (2017) believe that successful entrepreneurs are those who always have a strong sense of self-confidence, a sound opinion about their skills and abilities, and a determined and strong personality. They are always focused and never overwork the issues at hand and this is what makes them different from the rest. Furthermore, Paul and Tresita, (2018) argue that entrepreneurial success is a set of positive outcomes resulting from benefiting from internal human strength guided by moral dimensions and its strength that lies deep in the psyche of the entrepreneurial individual. This is because entrepreneurial success is not only a financial success, but also a psychological success, as non-financial incentives may also bring satisfaction to the entrepreneur.

Entrepreneurial success is often categorized into two distinct groups: entrepreneurial success and entrepreneur's career success as mentioned by Zhang et al. (2019). According to Rahman et al. (2015) and Staniewski (2016), the essence of successful entrepreneurship lies in constantly enhancing the company's performance, rather than simply achieving a high level of performance in the industry. Lafuente et al. (2013) posit that the essence of entrepreneurial success depends mostly on factors such as marketing, internationalization, financing, and sustainable growth. Wickham (2006) divided business success into three main classifications: economic gains and psychological success, because they have diverse reasons for becoming entrepreneurs, different types of entrepreneurs focus on the three previously mentioned levels in different ways. According to some academics, the standards for evaluating the success of startups should be separated into two categories: organizational level and personal. These categories would be based on the research viewpoint of entrepreneurs.

2.3 Entrepreneurial Resilience and Entrepreneurial Success

Many researches have investigated the relationship between entrepreneurial resilience and entrepreneurial success, and they have found a significant correlation at both the individual and organizational levels (Santoro et al., 2020). Entrepreneurs who are adaptable are more likely to prosper and expand their enterprises than those who are less flexible. Boustani and Hajj (2023) demonstrated that entrepreneurial resilience favorably improves entrepreneurial intention, with a considerable impact on the success. Additionally, SME owners' resilient conduct amid crises contributes to their performance, with an emphasis on alternative activities, revenue management, and entrepreneurial marketing techniques that boost resilience and, ultimately, success (Mignenan, 2023). Santoro (2020) confirmed this by finding that perceived resilience is positively related with entrepreneurial success, particularly for individuals with a large network of stakeholders. Ayala et al. (2014) identified that resilience qualities including hardiness, resourcefulness, and optimism can forecast the success of established businesses in Spain's tourist industry. Walsh (2020) emphasized the significance of individual resilience in overcoming adversity and prospering in unpredictable circumstances, highlighting the impact of entrepreneurial experience, internal locus of control, and building resilience and self-efficacy. Similarly, Fatuki (2018) explored the relationship between entrepreneurial resilience and the performance of SMEs in South Africa, emphasizing the significance of resilience in

these enterprises. Zakiy et al. (2019) investigated the impact of entrepreneurial resilience on perceived success among entrepreneurs in Banda Aceh, using stakeholder involvement as a moderating variable. Additionally, Xiue and mengying (2020) emphasized the importance of entrepreneurial resilience in encouraging entrepreneurial success, as well as the necessity to strengthen the social support system for entrepreneurs. Furthermore, Margaça et al. (2022) examined how spirituality functions as a mediator between optimism, psychological resilience, and entrepreneurial success, highlighting the importance of incorporating spirituality and psychological resources into initiatives aimed at boosting positive reorientation and coping skills in business owners. All things considered, these studies highlight how crucial entrepreneurial resilience is to becoming successful as an entrepreneur and offer insightful information for further study in this field. Collectively, these studies illustrate the important influence of entrepreneurial resilience on success, with a focus on resourcefulness and the value of a strong network of stakeholders. Therefore, considering the aforementioned points, the following hypotheses is posited:

H1: Entrepreneurial resilience positively and significantly effects entrepreneurial success.

3. Research Methods

3.1 Methodology

A quantitative approach is used and data is collected using a questionnaire. The sample in this study was 82 SME owners of total 95 in the Zakho independent Administration. Data were analyzed by SEM PLS. The statement of entrepreneurial resilience was modified from the research of Manzano and Ayala (2013) which consists of three variables, and entrepreneurial success was adopted from Guhdi et al., (2015) with four sub variables. To determine validity, convergent validity analysis is used, which can be seen from the value of the mean-variance Extracted (AVE). Expected AVE value greater than 0.5 (Hussain, 2015). The stability test was carried out utilizing the composite stability value. This research instrument is stated to be trustworthy if the composite reliability value is larger than 0.7, and if the composite reliability value is closer to one, the internal consistency of the reliability is also increased. It also employs Cronbach's alpha, which should be better than 0.7. The next step is to examine the structural model, which describes the link between the variables based on the theoretical study and validates prior findings. This analysis can be seen through the coefficient or value of the selection results (R-square/R^2)

3.2 Proposed Model Conceptual Framework

A study model was developed based on previous literature and discussions, as well as the goals, inquiries, and hypotheses of the investigation. In this model, a subset of the variables under investigation was emphasized to offer an initial visual representation of the correlations and influences in the relationship between the study variables. The major purpose of current study is to investigate the influence of entrepreneurial resilience on the entrepreneurial success of small and medium-sized firms in the Zakho independent administration in Kurdistan region of Iraq. Partial structural equation square modeling, or PLS-SEM, was carried out by the researcher using Smart PLS (version 4.0.7) to test the model experimentally (Ringle et al, 2015). Figure 1 presents the study's proposed model.

3.3 Data Collection and Sample Section

Data are used to meet the aim of study; sample data were gathered via questionnaires. The researcher utilized both languages (Arabic and Kurdish) openly in front of the participants. A number of small and medium enterprise (SME) in Zakho city participated in this study. A total of (95) questionnaires were collected, with (82) of them valid for analysis. The data was collected and then described. Data were analyzed using SPSS (V.26) and SmartPLS (V 4.0.9), with some traceability detailed in the next section.

IV. Data analysis and Results

In order to evaluate the study model, partial least squares structural equation modeling (PLS-SEM) was used using SmartPLS software

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(version 4.0.9). The study was conducted in two stages: evaluating the measurement model to determine the validity and reliability of the research measures, and structural model analysis investigated possible relationships between variables. This two-step approach has benefits over one-step evaluations because it allows for precise measurement of each construct, yields more robust and consistent findings, and eventually fosters a deeper comprehension of the connections within the model.

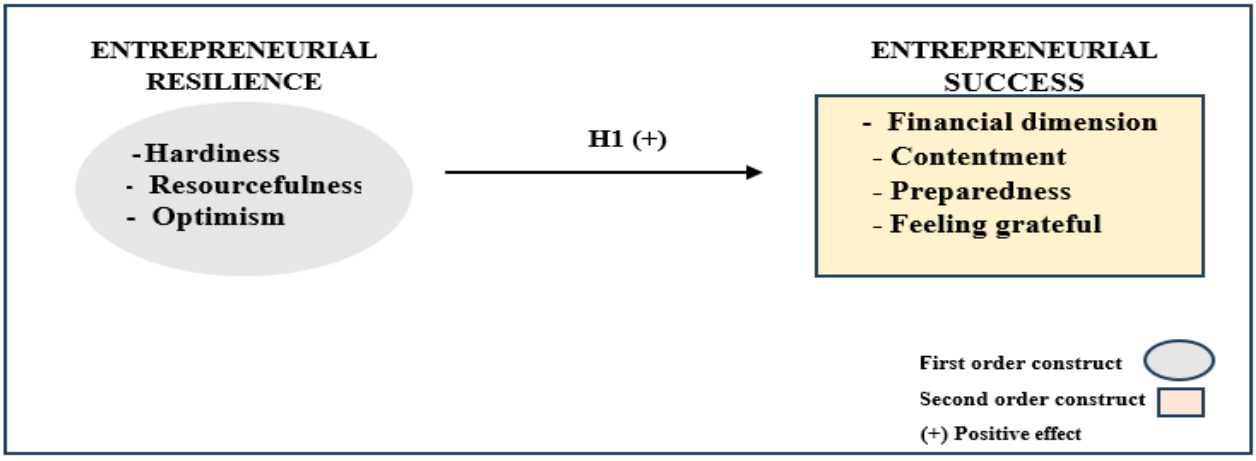

Figure 1. Proposed Model

4.1 Demographic of Respondent Profile

The data on respondent characteristics provided contains details concerning gender, age, Job experience years, educational attainment, and tenure in the present position shown in Table 1. The male respondents constituted the majority (87.80%) in contrast to the female respondents (12.20%). Concerning the distribution of age, the majority belonged to the 30-40 years bracket (36.58%), followed by 41-50 years (32.92%), 51-60 years (19.51%), and 61 years and above (10.97%). There was variability in the years of employment, notably with a substantial proportion having 6-10 years of work experience (30.48%). The range of qualifications exhibited diversity, with bachelor's degrees being the most prevalent (30.48%) This detailed analysis of respondent characteristics offers valuable insights into the demographic composition of the surveyed group, which is crucial for a comprehensive understanding and interpretation of the data.

Table 1 Respondents profiles

Respondent characteristics		Frequency (N = 82)	Percentage (%)
Gender			
	Male	72	87.80
	Female	10	12.20
Total		**82**	**%100**
Age			
	30-40	30	36.58
	41–50 years	27	32.92
	51–60 years	16	19.51
	61 and above	9	10.97
Total		**82**	**%100**

Job Experience			
	Five Years and less	20	24.39
	6-10 Years	25	30.48
	11-15 Years	22	26.82
	16 Years and over	15	18.29
Total		**82**	**%100**
Qualification			
	High school	20	24.39
	Diploma	22	26.82
	Bachelor	25	30.48
	Master	10	12.19
	Doctorate	5	6
Total		**82**	**%100**

4.2 The Descriptive Analysis

The data displayed in Table 2 unveils the statistical description of latent variables associated with entrepreneurial resilience and triumph. Concerning entrepreneurial resilience, the elements of toughness, ingenuity, and positivity were gauged, with averages spanning from 4.125 to 4.756 and deviations ranging from 3.856 to 8.943. Conversely, entrepreneurial success was assessed across financial aspects, satisfaction, readiness, and sentiments of appreciation, with averages fluctuating from 3.580 to 3.859 and deviations from 0.886 to 0.945. These figures offer valuable insights into the resilience and success levels among innovators, underscoring the significance of attributes like toughness, ingenuity, and satisfaction in attaining entrepreneurial objectives and effectively maneuvering through obstacles.

Table 2 Descriptive Statistics for Latent variables

Constructs	N	Mean	SD. Deviation
Entrepreneurial Resilience			
Hardiness	82	4.1253	.85645
Resourcefulness	82	4.7568	.94325
Optimism	82	4.5608	.70395
Total	82	4.4810.	.83455
Entrepreneurial Success			
Financial dimension	82	4.3580	.88654
Contentment	82	4.7829	.89425
Preparedness	82	3.0099	.94562
Feeling grateful	82	3.8597	.75640
Total	**82**	**4.0026**	**0.87070**

4.3 Assessment of Measurement Model

According to Hair et al. (2020), Hair et al. (2021), and Hensler et al. (2009), in addition to assessing the reliability of individual entries, when analyzing a measuring model, researchers should consider its internal consistency, validity of content, convergence validity, and discriminant validity. Here are how the results appear:

4.3.1 Internal Consistency Reliability

Factor loadings were used to perform an indicator reliability study. The internal consistency stability of the redesigned scale was investigated in this study using the composite reliability coefficient. For this reason, composite

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dependability was selected over Cronbach's alpha since it yields ratings that are less biased. Composite reliability analyzes the distinct contributions of each item, as opposed to Cronbach's alpha, which views all items as contributing equally to a particular variable (Gotz, Liehr-Gobbers, and Krafft, 2010; Hair et al., 2019).

The Cronbach's alpha coefficients in this study were distinct and went over the recommended cut-off point of 0.7, ranging from 0.607 to 0.922. However, it is important to recognize that, in comparison to Cronbach's alpha, the scale's dependability may be overestimated or underestimated. Applying the composite reliability approach—which considers various factor loadings for each indicator—produced comparable findings for the internal consistency reliability coefficient. More precisely, an internal consistency of 0.60 or below denotes inadequate reliability, whereas a Cronbach's alpha value of 0.70 or higher show's strong reliability. Based on Bagozzi and Yi (1988) and Hair et al. (2011), a composite reliability coefficient of 0.7 or above is deemed sufficient to comprehend the dependability of a particular concept. Table 3 describes the level of internal consistency reliability.

Table 3 Loading, Composite Reliability and Average Variance Extracted (AVE)

Construct (Item)	Code	Factor Loading	Alpha. C	rho. A	Composite Reliability	(AVE)
Hardiness	H1	0.807	**0.850**	**0.835**	**0.861**	**0.634**
	H2	0.852				
	H3	0.785				
	H4	0.764				
Resourcefulness	R1	0.814	**0.775**	**0.766**	**0.870**	**0.544**
	R2	0.734				
	R3	0.796				
	R4	0.771				
Optimism	O1	0.872	**0.831**	**0.819**	**0.879**	**0.670**
	O 2	0.788				
	O 3	0.809				
	O4	0.796				
Financial Dimension	FD1	0.794	**0.790**	**0.810**	**0.857**	**0.614**
	FD 2	0.813				
	FD 3	0.747				
	FD 4	0.847				
Contentment	C1	0.739	**0.805**	**0.874**	**0.822**	**0.598**
	C 2	0.729				
	C 3	0.825				
	C 4	0.922				
Preparedness	P1	0.835	**0.820**	**0.876**	**0.910**	**0.670**
	P 2	0.920				
	P 3	0.868				

	P 4	0.822				
Feeling Grateful	FG1	0.850	**0.795**	**0.840**	**0.865**	**0.690**
	FG 2	0.800				
	FG 3	0.780				
	FG 4	0.825				

All of the Average Variance Extracted (AVE) findings shown above are within a recommended cutoff range of 0.50, ranging from 0.523 to 0.694. Table 3 and Figure 2 illustrate the composite reliability coefficients for each of the study's distinguishing characteristics. Table 3 displays the composite reliability coefficients for the latent variables, which varied from 0.607 to0.922. Bagozzi and Yi (1988) and Hair et al. (2011) state that this range suggests positive internal consistency and excellent scale consistency.

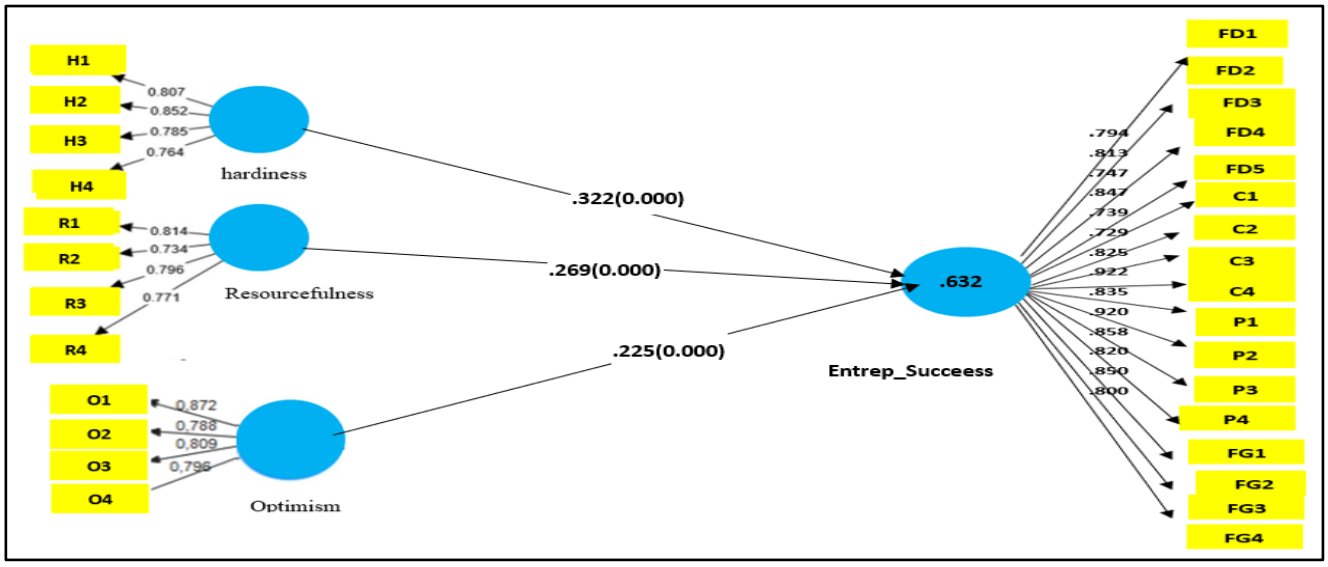

Figure2. Estimation valid model

4.3.2 Discriminant Validity

To verify discriminant validity, a test must be conducted to demonstrate that each idea within each latent variable is different from the concepts in the other latent variables. Afthanourhan et al. (2021) Good discriminant validity is demonstrated when the value of the average variance extracted (AVE) for each outlier construct (placed on the diagonal) exceeds the correlation between construct and the other (placed below the diagonal). Table 4 illustrates the Fornell-Larcker criteria, which establish discriminant validity by comparing the square root of the mean-variance extracted to the correlations between the latent variables, providing an AVE value.

Table 4 Discriminant validity (Fornell and Larcker Criterion).

Constant	LM	PE	PT	PC	PM	I	FP
H	**0.754**						
R	0.365	**0.768**					
O	0.380	0.612	**0.734**				
FD	0.479	0.547	0.386	**0.770**			
C	0.510	0.482	0.614	0.518	**0.710**		
P	0.443	0.577	0.376	0.556	0.620	**0.790**	

FG	0.475	0.582	0.250	0.467	0.658	0.565	**0.840**

Note. EM (Entrepreneurial Resilience, H (Hardiness), R (Resourcefulness), O (Optimism), EM (Entrepreneurial Success), FD (Financial Dimension), C (Contentment), P (Preparedness) and FG (Feeling Grateful).

4.4 Hypothesis Test

For this investigation, hypothesis testing of the structural model was done using bootstrapping using one-tailed rather than two-tailed tests to decrease type II error (Latane et al., 2018), 5000 samples, bias-corrected, and acceleration (Latane et al., Hair et al., 2017). (BCa) SmartPLS V4. Which is shown in Table (5). Bootstrapping is a resampling technique that employs random samples of data (with replacement) to forecast the travel pattern numerous times in slightly different data towers (Hair et al., 2017). Chen (1998) argued that PLS-SEM is a non-parametric approach, thus scientists must analyze bootstrapping to attain statistical significance.

In essence, implementing the Bootstrapping process in SmartPLS can yield exceptionally relevant results, including P value and t value, which play a crucial role in evaluating the significance of path coefficients. This value is equivalent to the likelihood of achieving the t value. If the hypothesis is accepted, it must be at least as extreme as the observed value. In other validate the initial main hypothesis affirming that Entrepreneurial Resilience significantly influences Entrepreneurial Success. Initially, H1 posited that Entrepreneurial Resilience had a word, the p-value represents the likelihood of incorrectly rejecting the genuine null hypothesis (i.e., presuming a route component is significant when it is not) (Hair et al., 2017, p. 206). The p-value (***P < 0.001, **P < 0.01, *P < 0.05) is the rule of thumb for empirical t-values greater than 1.96. The structural model's preliminary results could lead to the following hypotheses:

H1 Entrepreneurial Resilience significantly effects Entrepreneurial Success

According to Table 5, the R Square value of Entrepreneurial Resilience (ER) at 0.63 indicates that Entrepreneurial Success can be accounted for by the entrepreneurial resilience variable along with all its dimensions by 63%. Conversely, the remaining 37% is attributed to other variables not addressed in this study. Table 5 depicts the relationship among the discussed research variables, the T Statistics, and P-Values.

Table 5 delineates the assessment of the structural model and the outcomes of testing the hypotheses that notable effect on entrepreneurial success. The path coefficient, T-value, and P-value (β=0.465, t=8.632, P=0.000) provide evidence in favor of H1.

Table 5. Hypothesis Testing (Bootstrapping) H1

Hypotheses	Relationship	Beta	Standard D.	T-Statistics	P-Values	Decision	R2
H1	Entrepreneurial Resilience -> ES	0.465	0.086	8.632	0.000	**Supported**	0.63
H1A	Hardiness -> ES	0.322	0.078	8.350	0.000	**Supported**	
H1B	Resourcefulness -> ES	0.269	0.066	7.435	0.000	**Supported**	
H1C	Optimism -> ES	0.225	0.045	7.156	0.002	**Supported**	

At the partial level (see Table 5), the outcomes demonstrate positive and statistically significant impacts of hardiness on entrepreneurial success (β=0.322, t=8.350, p=0.000). Therefore, H1a is supported. Additionally, it was postulated in this research that resourcefulness plays a crucial role in entrepreneurial success. The findings revealed noteworthy effects (β=0.1269, t=7.435, p=0.004), affirming H1b. Ultimately, the current study proposed that optimism significantly influences entrepreneurial success (β=0.225,

t=7.345, p=0.000). As a result, H1C is supported.

4.5. Discussion

This study aims to explore the impact of entrepreneurial resilience (ES) on the success of entrepreneurial ventures. To test hypotheses and study variable relationships, a quantitative approach was chosen and used. The unique database used in this study contains information on 82 entrepreneurs running small and medium-sized enterprises in Zakho, Kurdistan Region, Iraq. The results showed that entrepreneurial resilience is positively related to entrepreneurial success, confirming previous research findings (Baron & Markman, 2003; Markman & Baron, 2003; Envick, 2005; Hayward, Foster, Sarasvathy, & Fredrickson, 2010; and Manzano, 2014; Imweji et al., 2020).

Additionally, these findings are consistent with previous research indicating that entrepreneurial resilience predicts organizational success. SME owners with a strong entrepreneurial spirit have better abilities to lead their businesses to success (Morris and Ingram, 2016). This suggests that successful entrepreneurs are able to manage SMEs thanks to their ability to deal with emotional demands, recover quickly from setbacks, and have a good sense of humor (Bullough and Renko, 2013).

At the micro level, the results showed that each of the dimensions (hardiness, resourcefulness, and optimism) has an influence on the performance of entrepreneurs in the firms studied. Hardness was the first factor discovered, represented by four questions in the questionnaire. Resilient entrepreneurs are observed to integrate goal planning, dedication, and decision-making behavior when faced with unexpected events, uncertainty, frustration, and disappointments. The second factor that was discovered was resourcefulness, for which the questionnaire included four items. This suggests that resilient entrepreneurs have the capabilities needed to manage adversity, achieve their goals, and retain a sense of control over their life. In other words, the entrepreneurs in the firms analyzed believe in their own skills to manage events and influence the outcome of situations. Most of the items in the third dimension which is optimism refer to the positive attitude of entrepreneurs towards adverse situations and risky events. Resilient entrepreneurs in SME in researched sample are optimistic, strive to improve situations beyond simply meeting expectations, and actively manage their negative emotions.

4.6 Implications, limitations and Future Directions

The results of this study have significant theoretical and practical implications for business owners, lawmakers, and supporting organizations in the Zakho Independent Administration in Kurdistan Region of Iraq. Policymakers should endeavor to create supportive environments by lowering bureaucratic barriers, granting access to financial resources and networking opportunities, and integrating training in resilience skills like problem-solving, stress management, and adaptability into entrepreneurial development programs. Furthermore, fostering networks of mentoring and community can help to further improve the resilience and success of entrepreneurs. Through demonstrating the multifaceted character of entrepreneurial resilience which includes hardness, resourcefulness, and optimism—and arguing that resilience is a strategic competitive advantage, the study also advances our theoretical knowledge of it. Nevertheless, the study has limitations, such as a small sample size that affects generalizability, possible bias from self-reported data, and the use of a cross-sectional design that restricts the capacity to draw conclusions about causality. In order to better understand contextual influences, future research should look into longitudinal studies that observe changes over time, comparative studies across different regions, objective measures to supplement self-reported data, and intervention studies to assess the efficacy of resilience-enhancing policies and programs. Through handling these constraints and exploring other avenues for investigation, we may offer practical guidance to bolster resilient entrepreneurship in difficult settings.

4.7 Conclusion

The exploratory research of SME entrepreneurs at the Zakho independent administration in the Kurdistan Region of Iraq indicates a positive and significant effect of entrepreneurial resilience on entrepreneurial success. This research is considered important because it is the first applied study that operationalizes the dimensions of Resilience in a representative sample of entrepreneurs in small and medium-sized companies in the Kurdistan region with this title. Resilience provides information about how entrepreneurs face uncertain and high-pressure situations, and how this can have an impact on their mental health and the success of their company. For this reason, it may be useful to have a valid and reliable measure of resilience in achieving the success of their entrepreneurial actions. In this regard, our findings provide supporting evidence that entrepreneurs have excellent characteristics and can be used as a reliable and valid tool to assess resilience among entrepreneurs in the region.

Data Availability:

The data used to support the results of this study has been included in the article.

Conflict of Interest:

The authors declare that they have no conflicts of interest.

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