

Article

Entrepreneurial Leadership and Entrepreneurial Success: The Mediating Role of Entrepreneurial Opportunity Recognition and Innovation Capability

Taleb S. T. Taleb *, Norashidah Hashim and Norria Zakaria

School of Business Management, College of Business, Universiti Utara Malaysia UUM, Kedah 06010, Malaysia; norashidah@uum.edu.my (N.H.); norria@uum.edu.my (N.Z.)

* Correspondence: taleb_s_t@oyagsb.uum.edu.my; Tel.: +6-011-619-56770

Abstract: Micro-, small, and medium enterprises (MSMEs) play a crucial role in the economic growth of emerging markets. This study examines the effect of entrepreneurial leadership (EL) on the entrepreneurial success (ES) of MSMEs in Malaysia through the mediating effect of entrepreneurial opportunity recognition (EOR) and innovation capability (IC). To examine the proposed mediation model, we utilized a structured questionnaire to collect data for this quantitative research. Partial least square-structural equation modeling (SEM) was used to test the hypothesis on a sample of 401 micro-business owners/managers in Malaysia. The findings reveal that an EL has a significant positive effect on ES but is conditional on the mediating role of EOR and IC. However, the results show that EOR and IC partially mediate the link between EL and ES. Additionally, EOR and IC serially mediated the relationship between EL and ES. This research has valuable contributions to MSMEs by explaining EL, EOR, and IC's critical role in gaining competitive advantage and achieving success. This research develops a theory-based mediation model to demonstrate how the EL and ES of MSMEs are related. Further, the model in this study adds to the body of knowledge by examining whether or not serial mediation occurs through EOR and IC. Hence, this research sheds new light on the relationship between EL and ES.

Keywords: entrepreneurial leadership; entrepreneurial opportunity recognition; innovation capability; entrepreneurial success; micro-enterprises



Citation: Taleb, T.S.T.; Hashim, N.; Zakaria, N. Entrepreneurial Leadership and Entrepreneurial Success: The Mediating Role of Entrepreneurial Opportunity Recognition and Innovation Capability. *Sustainability* **2023**, *15*, 5776. <https://doi.org/10.3390/su15075776>

Academic Editor: Fernando Almeida

Received: 1 February 2023

Revised: 19 March 2023

Accepted: 21 March 2023

Published: 26 March 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

The Millennium Development Goals (MDGs) organized and focused the efforts of many nations in the world's most effective anti-poverty drive to date [1]. Sustainability integration into business practices is a relatively new endeavor in startups, MSMEs, and even large and multi-national businesses [2,3]. There is ample opportunity for growth in the Asia-Pacific region, especially concerning MSMEs, which seem to have a significant economic impact on many nations [3–5]. Both policymakers and academics have emphasized the crucial role of MSMEs in eradicating poverty, generating employment opportunities, economic growth, and sustainability, particularly in emerging economies [3,6–8]. In Malaysia, a country with an emerging economy, micro-businesses employ roughly 1.3 million people nationwide and make up 75% of all MSMEs, demonstrating their crucial role in the country's development [4,9]. However, the success rate of MSMEs is not encouraging; the survival and sustainable rate is still low, and Malaysia's failure rate is alarmingly high at 60% [10,11]. Several authors have noted that adopting and putting into practice particular innovative practices in tandem with an aptitude for entrepreneurship can help many MSMEs, especially micro-businesses, achieve success and sustainability [4,8,12].

Entrepreneurs are more focused on helping their families and communities and adding value than offering products and gaining money. Although gaining profit is important, business owners often avoid thoughts of expanding the business because of profit and

economic growth [13]. Hence, entrepreneurial success (ES) including personal satisfaction gains more attention and leads to business sustainability [4]. Entrepreneurial success from a micro-business perspective requires entrepreneurs with unique abilities and personality characteristics [4], such as leadership capabilities, knowledge skills, entrepreneurial opportunity recognition (EOR), innovation capability (IC), and technological abilities [8,14–16]. The increased understanding has inspired business owners to design solutions to their stakeholder problems, changing them into sustainable leaders and establishing a sustainable business setting for their business [13,17]. Leadership is a critical entrepreneurial skill for micro-business owners/managers, and it is considered vital in various ES-related factors, such as promoting innovation and adapting to environmental changes [4,18]. Entrepreneurial leadership (EL) focuses more on personal traits like vision, problem-solving, and decision-making [19]. According to [20], EL developed through literature on entrepreneurship and leadership to include scenario enactment and cast enactment. Five roles are highlighted by EL; namely, framing the challenge, absorbing uncertainty, underwriting, building commitment, and defining gravity [20–22]. The key traits of an entrepreneurial leader include the capacity for identifying and seizing business opportunities, active coordination and planning, and a focus on adaptable and creative solutions [23]. When faced with challenges, EL calls for flexibility, prompt responses, swift and adaptable problem-solving, and decisive action. It necessitates having a strong entrepreneurial and strategic mindset and unavoidably involves taking risks [19,23]. Further, a successful entrepreneurial leader can provide key resources and information to gain the trust of crucial stakeholders, enabling sustainable business [17,23,24]. EL is still crucial because micro-entrepreneurs might not be able to grow their businesses without exhibiting strong leadership traits [4]. Although EL has a significant effect on ES, business performance, growth, and business sustainability [4,14,15,23], further investigation on the link between EL and ES is still needed [14].

Additionally, a growing body of research has identified EL as the leadership behavior that significantly encourages innovation and EOR in extremely difficult, turbulent, and competitive environments [25,26]. Entrepreneurial leaders can effectively spot and seize business opportunities, foster followers' creativity, and boost the IC of new ventures, all of which lead to superior performance [21]. Regarding MSME leadership, IC and EL are typically mutually helpful in achieving business objectives. It is also clear that good leadership can result in increased innovation, productivity, and long-term competitive advantage [5]. The literature on EL has asserted the positive effect of EL on EOR [15,25,27], and researchers have also confirmed the significant role of EL in enhancing IC [24,28,29]. However, to the best of our knowledge, the literature has not addressed how EL in MSME settings affects ES through EOR and IC, especially in an emerging economy like Malaysia.

We address the abovementioned gap by examining the proposed serial mediation model by drawing on the resource-based view (RBV), as EL, EOR, and IC are sources of competitive advantage and sustainable performance. RBV asserts that several businesses have consistently taken advantage of resources and capabilities to achieve competitive advantages [30]. Therefore, this work aims to test the effect of EL, EOR, and IC on the ES of micro-businesses in Malaysia, additionally investigating the mediating role of EOR and IC on the linkage between EL and ES. This study has significant and numerous contributions. This research applies the RBV theory to EL practices, EOR, IC, and ES in one serial mediation model presenting a critical contribution to knowledge for researchers and academicians.

Additionally, managers and business owners in the MSME sector can use our study's findings and concentrate on EL, EOR, and IC to achieve ES. Further, this study assists agencies and policy makers in decision-making and how to enhance the abilities of MSMEs to promote economic growth. The essay has five main sections; the introduction appears in Section 1. Section 2 develops the theoretical background for creating the research hypotheses. The paper describes the methodology in detail in Section 3. The findings of this research are produced in Section 4. The conclusion, with the discussion of the research

findings, is in Section 5, which provides details on the theoretical and practical implications, as well as potential future research avenues.

2. Theoretical Background and Hypotheses Formation

2.1. Theoretical Ground

Resource-based views (RBV), which assert that entrepreneurship resources are essential for improved business performance, long-term competitive advantage, sustainable business, and ES by maximizing their resources and capabilities, including skills and assets, provide support for this research [4,30,31]. According to [32], abilities can be thought of as the capacity of a group of resources required to complete a set of tasks or activities. These resources are built into functional and sub-functional clusters by combining human, physical, and technical resources. Since leadership abilities seem to be a valuable resource [33], researchers such as those in [4,31] suggested that MSMEs could use EL practices as sources of competitive advantage, leading to higher sustainable performance and success. By applying the RBV perspective to the current situation, ES may be impacted by EL since it is person-specific, unusual, valuable, non-replaceable, and imperfectly imitable [4,8,33]. Hence, businesses need to realize and promote their EL to achieve ES [14].

In the current situation, businesses also should exercise greater entrepreneurialism to gain a competitive edge in any given circumstance, such as identifying entrepreneurial opportunities [34], adopting new strategies, and innovating new products and services [35]. More specifically, ref. [34] discussed EOR as a source that helps businesses to enhance their performance depending on RBV considering entrepreneurial ability. Here, there is a need for EL to achieve ES through EOR. EOR is the advantage of satisfying a market need, interest, or desire using resource combination in a novel way to provide superior value [36]. EOR is a vital decision-making stage that is expected to increase entrepreneurs' capacity to capitalize on opportunities by promoting a flow of resources and social capital [37]. Therefore, the inclusion of EOR in the link between the EL and ES of micro-businesses is critical to developing the current model and capturing a holistic view.

Moreover, IC is a critical internal resource and an important ability every MSME needs to acquire [38]. IC, as a key resource of firms, encourages systematic innovation and produces a high-innovation outcome, contributing to a competitive edge and promoting business success [39]. Without developing IC, it is challenging to anticipate constant, organization-wide innovation and effective firm performance. MSMEs must boost IC to effectively use their innovation assets and expand external collaboration to introduce innovative products [40]. In addition, the entrepreneurial leader in an MSME needs to promote their IC to solve old problems with new methods [8]. IC plays a critical role in promoting resources and capabilities to achieve superior performance and success [39]. Consequently, this argument claims that IC will increase the influence of EL over the ES of micro-businesses.

2.2. Hypothesis Development

2.2.1. Entrepreneurial Leadership and Entrepreneurial Success

Entrepreneurs consistently carry out their businesses with a strong commitment to leadership, which aids them in maintaining a successful business for the future [14]. EL is a distinctive form of leadership, -primarily focused on utilizing diverse skills to work creatively and resourcefully in a competitive environment [22]. Entrepreneurial leaders can foresee and resolve potential opposition based on successful negotiation with internal and external environments. They can also win over important players, gain crucial resources and information, and remove roadblocks to achieving desired goals. These steps will open the door to using opportunities and creating value [4,21]. In addition, EL has a great deal of potential to bring about innovative change in the marketplace. It improves employee performance toward ES and is essential for any development ventures [14,21]. EL is specifically significant for ES, focusing on empowering employees in increasing their self-efficacy and entrepreneurial abilities. Hence, EL will inspire employees to take greater

initiative in pursuing organizational objectives, enhancing ES and value creation [14,23]. Researchers confirmed that EL plays a significant role in improving sustainable business performance, success, and growth in a variety of settings [14,22]. Particularly, EL has a positive effect on ES [14], entrepreneurial performance [23], business performance [21,22], the business performance of SMEs [4,6,8,29,41], and firm growth [15]. However, further analysis is needed in the context of micro-business in emerging markets. Therefore, this study posits the following:

H1. *There is a positive effect of entrepreneurial leadership on entrepreneurial success.*

2.2.2. Entrepreneurial Leadership and Entrepreneurial Opportunity Recognition

Entrepreneurship research has demonstrated the beneficial impact of leadership on the identification and exploitation of chances for new businesses. [37]. Academics have consistently recommended EL as the most effective leadership style for dealing with challenging and complex environments as well as promoting and enhancing EOR in all businesses, including MSMEs [21,24–26]. Hence, EL provides a competitive advantage to discovering new opportunities and innovating new ideas [41]. In addition, entrepreneurial leaders embrace opportunity recognition as the core goal to spur innovation within businesses, they envision the future potential of businesses, develop fresh ideas, and work to improve business performance [42]. Entrepreneurial leaders are also skilled at seizing opportunities and minimizing risks to achieve their targets by directing the behavior of their followers [23]. An empirical study by the author of [43] stated that EL affects EOR significantly in high-tech SMEs. Furthermore, ref. [37] argued that leadership enables new businesses by gathering useful data, which serve as the foundation for identifying particular business opportunities. Based on the above argument, we proposed the following:

H2. *There is a positive effect of entrepreneurial leadership on entrepreneurial opportunity recognition.*

2.2.3. Entrepreneurial Leadership and Innovation Capability

EL is essential in a highly dynamic and competitive business environment for the business's survival, success, and growth by directing IC [35]. IC, in the context of an organization, refers to the blending of various new activities that help businesses gain and maintain a competitive edge [44]. It includes new products or a new quality in an existing product, production processes, markets, sources of supply, and a new business model [22]. According to [45], "IC refers to an ability or action that can generate and implement the success of innovation activities". The majority of the time, entrepreneurial leaders take the initiative to manage resources strategically by putting special emphasis on both opportunity- and advantage-seeking behaviors, which have been found to be important predictors of exploratory and exploitative innovations inside new businesses [46]. The direct effects of entrepreneurship and leadership on innovation have been the focus of a large part of entrepreneurship research [24,25,27,35]. For instance, ref. [24] argued that EL is crucial for creating and practicing innovative business throughout the innovation process, "Idea generation, idea selection, idea development, and idea diffusion". Additionally, entrepreneurial leaders reevaluate the aspirations of their participants and staff by presenting them with novel and creative ideas and inspiring them to put these new ideas into practice [35,47]. Although several empirical studies confirmed the positive influence of EL on IC (e.g., [27,28,44]), more research is needed in the context of an emerging economy like Malaysia, especially for micro-businesses. Hence, the following hypothesis is proposed:

H3. *There is a positive effect of entrepreneurial leadership on innovation capability.*

2.2.4. Entrepreneurial Opportunity Recognition and Innovation Capability

It is clarified that EOR provides the opportunity to encourage new business development leading to innovative goods or services [36]. EOR is usually accepted as "situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their cost of production" [36,48]. Opportunity recognition tends

to include three different processes: (1) sensing or recognizing market needs; (2) recognizing or defining a ‘match’ between specific market needs and resources; (3) creating new “compatibility” between separate needs and resources [36]. The action of EOR should lead to innovation, whether it is radical or not [49]. Previous empirical research shows a significant relationship between EOR and IC in emerging economies [7,34,49,50]. Innovation appears to be connected to the two methods of identifying and discovering opportunities [50]. Therefore, to maximize profits in the future, businesses must identify growth opportunities and adopt more innovative strategies [7]. EOR can also be seen as a person’s entrepreneurial search for resources to produce innovative outcomes [7,49]. Therefore, the following hypothesis is suggested by this study:

H4. *There is a positive effect of entrepreneurial opportunity recognition and innovation capability.*

2.2.5. Entrepreneurial Opportunity Recognition and Entrepreneurial Success

EOR in emerging economies significantly predicts MSMEs’ performance, success, and growth [34,51]. Due to resource constraints and insufficient support, most MSMEs in emerging economies look for advantageous opportunities with low risks and expenses [34]. Businesses increasingly rely on special opportunities to survive as a result of the swift changes in market demands, client preferences, and fierce market competition [52]. Hence, businesses with high EOR can recognize and seize new opportunities, gain a competitive edge, and perform better [34,51,53]. This is even evident in MSMEs because owners and managers create a great impact since personal traits influence EOR, affecting ES [54]. For instance, ref. [55] claimed that one of the most important skills for successful entrepreneurs is identifying new business opportunities [36]. Further, ref. [56] provided an EOR model to pinpoint the factors influencing ES during the EOR and exploitation processes. Similarly, ref. [36] proposed a conceptual model to examine the effect of EOR and exploitation on ES. Therefore, this study proposed the following:

H5. *There is a positive effect of entrepreneurial opportunity recognition and entrepreneurial success.*

2.2.6. Innovation Capability and Entrepreneurial Success

IC is crucial to business survival and success; it significantly influences the economy’s performance, growth, and firm profits [38]. According to the RBV, IC can be essential for generating and sustaining competitive advantage [57]. According to Kim et al. (2018), IC is defined in this study as the continuous development of resources and skills that enables a business to explore and take advantage of new opportunities for introducing new products and satisfying customer demands. Hence, several studies analyzed IC and its influence on business performance, business success, and ES [8,22,45,58]. For instance, ref. [39] claimed that IC is a crucial determinant of business performance. Likewise, ref. [59] stated that IC positively affects micro-enterprise performance. Further, ref. [45] explained the role of IC in driving ES. Therefore, this study proposed the following hypothesis:

H6. *There is a positive effect of innovation capability and entrepreneurial success.*

2.2.7. Mediating Effect of Entrepreneurial Opportunity Recognition and Innovation Capability

As entrepreneurship becomes more widely recognized as the path to performance and market renewal, opportunity recognition may be needed to develop the connection between EL and ES [14]. Earlier empirical investigations were carried out to clarify the underlying mechanisms linking EL to ES or performance, and as such, many variables were used as mediators; for instance, tacit knowledge sharing and job embeddedness [23], knowledge management processes [14], job insecurity [60], entrepreneurial bricolage [37], and entrepreneurial orientation [8]. Ref. [37] explored how opportunity recognition and entrepreneurial bricolage could improve the strategic effectiveness of a new venture’s top management team. However, limited studies examine the mediating role of EOR between EL and ES in the MSMEs context. In other words, the most likely way for EL to have an

impact on ES is through the mediation of EOR. Thereby, this study proposed the following hypothesis:

H7. *Entrepreneurial opportunity recognition mediates the relationship between entrepreneurial leadership and entrepreneurial success.*

Entrepreneurial leaders work in competitive and complex environments to promote innovative behavior to enhance businesses' performance, success, and development [28]. In MSMEs, innovation and leadership typically work in tandem to achieve business goals, such as sustainable growth and success [22]. According to earlier research, effective leadership promotes innovation, innovation encourages change, and change promotes an improvement in business performance [5,22]. Likewise, effective leadership can result in increased innovation, productivity, and long-lasting competitive advantage for ES [5,14,44] as creativity mediates the connection between performance and leadership. Moreover, ref. [22] argued that organizational innovation mediates the relationship between EL and business performance in a dynamic environment. Similarly, ref. [44] examined the mediating role of IC between EL, social capital, and SME performance. In sum, IC is considered a channel through which EL will influence ES. Therefore, we proposed the following:

H8. *Innovation capability mediates the relationship between entrepreneurial leadership and entrepreneurial success.*

As discussed above, prior literature has separately examined the mediating effects of EOR and IC in the connection between EL and ES [22,37,44]. The results propose that EOR and IC are possible mediators in the link between EL and ES. Moreover, empirical studies have indicated a positive relationship between EOR and IC [7,34,36,49,50], indicating that they could act as ongoing serial mediators between EL and ES. This indicates that entrepreneurs with high EOR would significantly enhance their IC to take entrepreneurial actions. Hence, it is acceptable to propose that EOR and IC, when combined, might serially mediate the link between EL and ES. This work argues that EL increases entrepreneurs' EOR, and that business owners/managers with high EOR would possess greater levels of IC which then directly boost their ES. Considering the discussion above, it is proposed that:

H9. *Entrepreneurial opportunity recognition and innovation capability will serially mediate the link between entrepreneurial leadership and entrepreneurial success.*

The current study proposed the research framework shown in Figure 1, based on the theoretical ground and hypothesis development discussed previously.

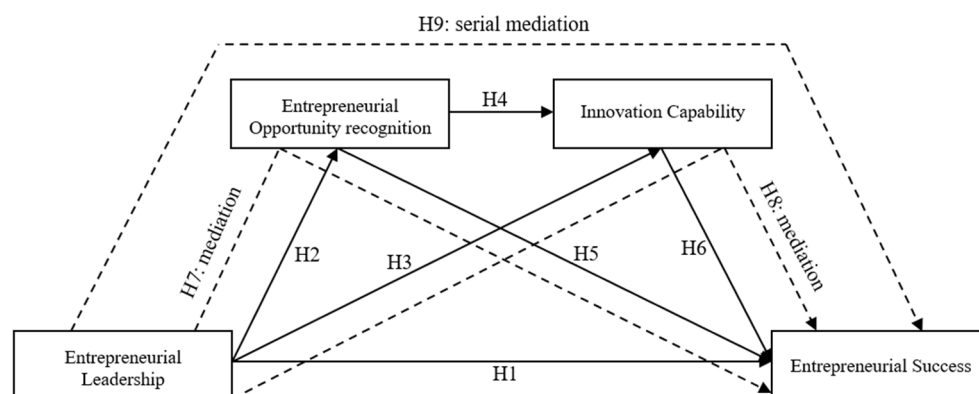


Figure 1. Research framework.

3. Methodology

A cross-sectional design and a quantitative survey with closed-ended questions were used to generate empirical findings and validate the study's hypotheses. The cross-sectional design has been confirmed to be the most effective approach for analyzing the relationship

between variables measured as constructs in the social and business sciences [61,62]. This study investigated the conceptual framework and underlying assumptions using partial least squares structural equation modeling (PLS-SEM). A PLS-SEM method is appropriate to determine the strength of this link because the study examines the mediation hypothesis. PLS-SEM also examines several concurrent dependent relations to understand the relationships between multiple variables at once [63].

3.1. Sample and Procedure

Owner/managers of micro-enterprises in Malaysia were used as the research's unit of analysis. Due to micro-enterprises making up the majority of Malaysian MSMEs, at 76.47 percent, micro-enterprises were selected. In total, 401,262 micro-enterprises from all Malaysian states make up the study's population [9]. However, a convenience sample was chosen for the survey since there are so many MSMEs in Malaysia that it was difficult to choose a probability sample and difficult to compile a reliable list of contact information for micro-businesses there. There is proof that this technique is reliable for such investigations and widely accepted in business research [64]. To calculate the sample size for this study, we used the formula $n = N / (1 + N(e)^2)$ [65], and the sample size (n) had been calculated from the population size (N) of 401,262, which resulted in 400 at 0.05 (e), according to [66]. However, to reduce the likelihood of a high non-response rate, and avoid non-response issues and a sample size error, researchers increased the sample by 40% to 50%. In addition, the sample size required for structural equation modeling should range from 30 to 460 people. Hence, to collect data for this study, 600 questionnaires were distributed to micro-entrepreneurs.

3.2. Measures and Instrument Development

A structured questionnaire with closed-ended questions was utilized to collect data from micro-entrepreneurs. A five-point scale with the anchors "strongly disagree (1) to strongly agree (5)" was used for the study's measurements. Compared to an open-ended question, the five-point scale was used because it was simple for respondents to respond to and required less thought in terms of time [67]. The measurement items used in this study were all modified from earlier studies that focused on MSMEs and tested in emerging economies (the survey instruments are in Appendix A). The questionnaire comprises the following constructs: (1) demographic features, (2) the dependent variable, ES (3), independent variables, EL, and the mediators: (4) EOR and (5) IC. To measure ES in this study, nine items were adapted from [68]. ES was assessed using the entrepreneurs' subjective opinions. Subjective metrics can be used to evaluate a business's success in a way that would otherwise be difficult to do, and they may also prove to be the best way to gather information [69]. In measuring EL, we adopted twelve measurement items from [20]. Recent research using this measurement has revealed that it is highly valid and reliable, measuring EL in terms of five roles, namely framing the challenge, absorbing uncertainty, underwriting, building commitment, and defining gravity [21,22]. In addition, to assess EOR in this study, we adapted five items from [49]. Lastly, this study measured IC using four items adapted from [70]. The questions were back-to-back translated from English to Malay. To validate the questionnaire, face and content validity should be evaluated [71]. Hence, three academic specialists with more than ten years of experience in entrepreneurship participated to ensure face and content validity. Due to the involvement of human beings in the data collection, respondents were informed about the objectives of the study and informed consent was included in the cover letter. Further, before starting the research, permission and declarations of the researchers' commitment were submitted to the research ethics committee through the research and innovation management center—Universiti Utara Malaysia.

3.3. Data Collection Techniques

Data from Malaysian micro-businesses were collected using the structured questionnaire developed for this study. Due to the COVID-19 situation in Malaysia, the government implemented a movement control order (MCO) to stop the virus from spreading. Because of this, the researchers used online resources to collect the data by sending a Google Form to the micro-business owners via email addresses and WhatsApp groups that were listed in the directory. Only 63 responses were received online, which indicates a very low response rate. The researchers gave the questionnaire to the respondents face-to-face. Therefore, eight research assistants/enumerators were trained and assisted in the data collection process. In this study, 600 questionnaires were distributed in all states of Malaysia. From 23 October 2021 through 4 December 2021, data was collected online. Following that, data was collected from 2 February 2022 to 26 June 2022. Cleaning methods were applied to ensure that the responses from the pertinent participants were consistent before performing additional data analyses. Only 401 responses at a response rate of 66.8% were found to be valid and fulfilled the criteria. Therefore, the questionnaires were filled out, and then data was imported for additional analysis.

3.4. Common Method Bias (CMB)

Harman's single-factor test was carried out to ensure that CMB was not included in the data collected [72]. The results demonstrated that no single factor stood out. The four-factor solution was found to have a total variance of 63.5 percent, with the first factor accounting for 47.8% of that variance. Hence, the outcomes of this research demonstrated that there was no CMB problem.

3.5. Data Analysis Technique

SPSS was utilized for the descriptive statistics in this investigation. Meanwhile, we used the PLS-SEM approach through SmartPLS 3 to analyze the framework assumptions. PLS-SEM examines several concurrent dependent relations to shed light on the relationships between several variables simultaneously [63]. Thus, this method increases analytical rigor and yields more reliable results [73]. First, we used a PLS-SEM algorithm to evaluate the measurement model's validity and reliability, and then we used bootstrapping to run the structural model and evaluate the path coefficient of direct and indirect linkages. Last but not least, in accordance with [63], the model's effectiveness was assessed using PLS-SEM. The results and the details of the analysis are shown in the next section.

4. Results

4.1. Demographic Features of Respondents

The results of the study reveal the demographic features of micro-business entrepreneurs who answered the questionnaire. As shown in Table 1, most respondents were female; out of 401 entrepreneurs, 65.30 percent were female, and 34.70 percent were male. Most of the respondents' ages were between 21 and 40 years old (90.1%). Most of the respondents in this study had secondary school education (44.1%), followed by 26.7% who had a diploma and 23.7% who had a bachelor's degree, meaning that the majority of micro-business entrepreneurs in developing economies are educated. The results show that 59.1% of micro-business entrepreneurs have a shop to run their businesses, while 40.9% work from home.

Table 1. Demographic features.

Demographics	Categories	Frequency	Percentage %
Gender	Male	139	34.7
	Female	262	65.3
Age	20 and below	18	4.5
	21–30	215	53.6
	31–40	104	26
	41–50	42	10.5
	Above 50	22	5.5
Marital Status	Married	190	47.4
	Single	205	51.1
	Divorce	4	1.0
	Widow	2	0.5
Qualifications	PhD	3	0.7
	Master	9	2.2
	First degree	95	23.7
	Diploma	107	26.7
	Secondary	177	44.1
Business premise	Primary School	10	2.5
	With premise	237	59.1
	Home-based	164	40.9

4.2. Measurement Model

The study's constructs were designed to be reflective. Internal consistency, convergent validity, and discriminant validity should all be evaluated when analyzing reflective measurement [63]. Composite reliability, which represents internal consistency, is the shared variance of a set of observed variables measuring an underlying notion [74]. Table 2 shows composite reliability for all constructs that are greater than the suggested cutoff value of 0.70 (Hair et al., 2019) [63]. Table 2 shows composite reliability for all constructs between 0.704 to 0.840, which are above the suggested threshold value (0.70) (Hair et al., 2019) [63], demonstrating the reliability of all the measures. All indicator loadings were greater than the suggested threshold value of 0.60 [75]. Seven items were removed because of poor loadings on ES (ES4, ES6, and ES7) and EL (EL9, EL10, EL11, and EL12). AVE was established for each to test convergent validity in accordance with [74]. The AVE values range from 0.503 to 0.790 because all constructs' AVEs were higher than 0.50. Thus, the results suggest convergent validity.

Furthermore, the Fornell and Larcker (1981) criteria were used to evaluate discriminant validity [74]. A concept's discriminant validity is how much it experimentally differs from other constructs in the path model in terms of how tightly it connects to those other constructs and how the indications solely lead to this specific construct [76]. Table 3 depicts that discriminant validity existed because the square root of the AVE in the diagonal of the matrix was greater than the associated correlation (off-diagonal) in the corresponding rows and columns. Further, HTMT was used to confirm the discriminant validity of the constructs under investigation (Henseler et al., 2015) [75]. None of the values in the matrix exceeded these thresholds when the criteria of 0.90 [77] and 0.85 [77] were considered, as shown in Table 3. As a result, discriminant validity was attained. As mentioned above, all requirements and conditions for reliability and validity were met. Consequently, this research assesses the inner model [73].

Table 2. Descriptive statistics and reliability of constructs (N = 401).

Construct	Items	Loading	CA	CR	AVE	Deleted Item
ES	ES 1	0.704	0.853	0.891	0.577	ES 4
	ES 2	0.760				ES 6
	ES 3	0.734				ES 7
	ES 5	0.795				
	ES 8	0.801				
	ES 9	0.760				
EL	EL 1	0.732	0.912	0.928	0.618	EL 9
	EL 2	0.774				EL 10
	EL 3	0.812				EL11
	EL 4	0.789				EL 12
	EL 5	0.824				
	EL 6	0.792				
	EL 7	0.795				
	EL 8	0.769				
EOR	EOR 1	0.773	0.852	0.894	0.629	
	EOR 2	0.808				
	EOR 3	0.802				
	EOR 4	0.806				
	EOR 5	0.775				
IC	IC 1	0.829	0.845	0.896	0.683	
	IC 2	0.799				
	IC 3	0.840				
	IC 4	0.837				

Table 1. All indicators loaded on their own construct are higher than on any other, supporting that the constructs are distinct. Notes: CA = Cronbach's alpha; CR = composite reliability, and AVE = average variance extracted.

Table 3. Discriminant validity.

	1	2	3	4
Fornell and Lacker				
Entrepreneurial Leadership	0.786			
Entrepreneurial Opportunity Recognition	0.701	0.793		
Entrepreneurial Success	0.662	0.725	0.760	
Innovation Capability	0.726	0.663	0.643	0.826
The Heterotrait–Monotrait (HTMT)				
Entrepreneurial Leadership				
Entrepreneurial Opportunity Recognition	0.793			
Entrepreneurial Success	0.750	0.845		
Innovation Capability	0.822	0.781	0.753	

Bold diagonal elements are the square root of AVE (average variance extracted), which should exceed the off-diagonal inter-construct correlations for adequate discriminant validity.

4.3. Structural Model

A bootstrapping procedure was used to evaluate the structural model (Hair Jr et al., 2021) [78]. Figure 2 displays the results of the structural model test on 5000 subsamples. The direct and indirect hypotheses of the study's findings are displayed in Table 4. First, all direct effect analyses showed that the six hypotheses were significant. EL positively affects ES (H1: $\beta = 0.201$, $t = 3.345$, $p = 0.000$, and $CI = 0.102, 0.295$), EOR (H2: $\beta = 0.701$, $t = 18.034$, $p = 0.000$, and $CI = 0.629, 0.758$), and IC (H3: $\beta = 0.513$, $t = 7.209$, $p = 0.000$, and $CI = 0.398, 0.635$). Furthermore, EOR positively affects IC (H4: $\beta = 0.303$, $t = 4.102$, $p = 0.000$, and $CI = 0.180, 0.427$) and ES (H5: $\beta = 0.454$, $t = 7.973$, $p = 0.000$, and $CI = 0.361, 0.550$). Additionally, IC affects ES positively (H6: $\beta = 0.195$, $t = 3.362$, $p = 0.000$, and $CI = 0.103, 0.288$). Second, all indirect hypothesis results were positive and significant. EOR positively mediates the relationship between EL and ES (H7: $\beta = 0.319$, $t = 6.873$, $p = 0.000$), and IC positively mediates the link between EL and ES (H8: $\beta = 0.100$, $t = 2.807$, $p = 0.003$). The

serial mediation of EOR and IC between the linkage between EL and ES was significant (H9: $\beta = 0.042$, $t = 2.702$, $p = 0.004$).

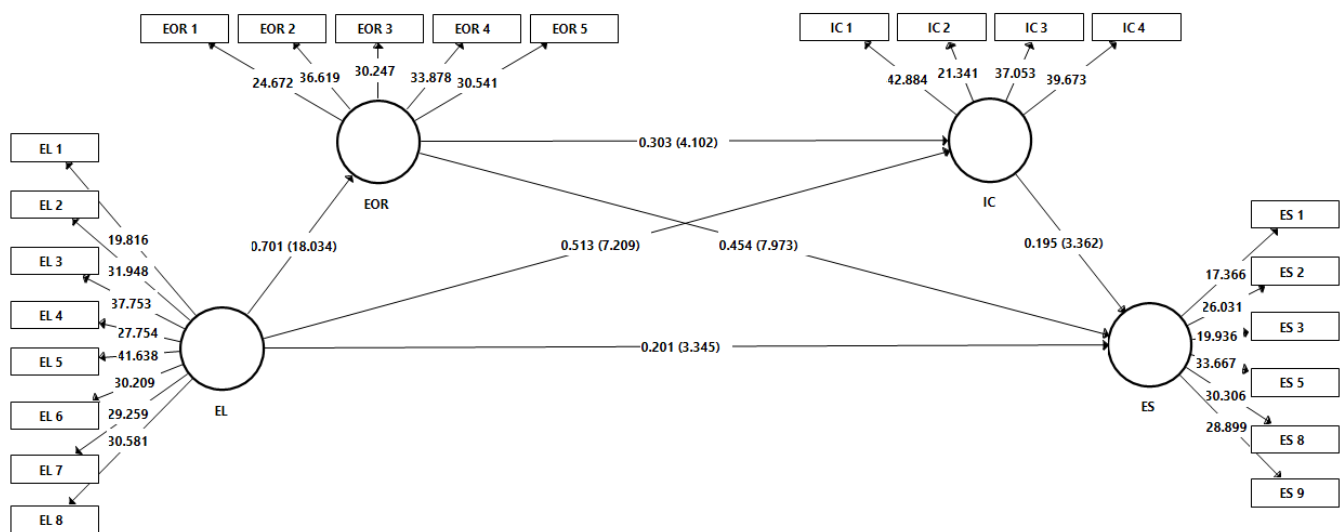


Figure 2. Structural model.

Table 4. Hypotheses results of the structural model.

Relationships	Beta	STDEV	T Statistics	p Values	LLCI	ULCI	VIF	f2	Decisions
Direct relationships									
H1 EL -> ES	0.201	0.060	3.345	0.000	0.102	0.295	2.586	0.038	Accepted
H2 EL -> EOR	0.701	0.039	18.034	0.000	0.629	0.758	1.000	0.968	Accepted
H3 EL -> IC	0.513	0.071	7.209	0.000	0.398	0.635	1.968	0.313	Accepted
H4 EOR -> IC	0.303	0.074	4.102	0.000	0.180	0.427	1.968	0.110	Accepted
H5 EOR -> ES	0.454	0.057	7.973	0.000	0.361	0.550	2.184	0.229	Accepted
H6 IC -> ES	0.195	0.058	3.362	0.000	0.103	0.288	2.345	0.039	Accepted
Indirect relationships									
H7 EL -> EOR -> ES	0.319	0.046	6.873	0.000	NA	NA	NA	NA	Accepted
H8 EL -> IC -> ES	0.100	0.036	2.807	0.003	NA	NA	NA	NA	Accepted
H9 EL -> EOR -> IC -> ES	0.042	0.015	2.702	0.004	NA	NA	NA	NA	Accepted

Notes: STDEV = standard deviation, LLCI = lower-level confidence interval, ULCI = upper-level confidence interval, and VIF = variance inflation factor.

4.4. Structural Model Efficiency Test

The effectiveness of the structural model in the most recent studies was evaluated in various steps [78]. First, lateral collinearity was evaluated using VIF. Table 4 shows that the inner VIF ranges from 1.000 to 2.568 and that these values are satisfactory as they fall below 5 [63]. Second, the model's values should be weak, moderate, or substantial, i.e., 0.25, 0.50, and 0.75, respectively, in terms of predictive accuracy (R²) [63,78]. According to the findings, R² is acceptable because ES, EOR, and IC account for 59, 49, and 57 percent of the variance, respectively, as shown in Table 5. Third, the blindfolding method was used to compute Q² to evaluate the predictive relevance. As shown in Table 5, the structural model's predictive accuracy was achieved. The Q² values for the endogenous variables ES, EOR, and IC were, respectively, 0.329, 0.305, and 0.385. Fourth, to determine the statistical significance of the measures, the effect size (f²) was calculated [79]. The results demonstrate differences in the measures at the big, moderate, and weak effect sizes (f²). The effect size of EL to EOR and EL to IC is big, being 0.968 and 0.313, respectively, and there is a moderate effect size of EOR to IC and EOR to ES, being 0.110 and 0.229, respectively, while EL to ES and IC to ES has a weak effect size, being 0.038 and 0.039, respectively,

Table 5. Quality of the structural model (Q^2 and R^2).

Construct	R^2	Q^2
Entrepreneurial success	0.588	0.329
Entrepreneurial opportunity recognition	0.492	0.305
Innovation capability	0.574	0.385

Moreover, the research assessed the accuracy of the model's prediction by concentrating on "a novel approach for assessing a model's out-of-sample prediction", PLS [80]. Table 6's PLS-predict assessment result demonstrates that the majority of Q^2 values generated by the PLS model are higher than those produced by the linear regression model (LM) model. The majority of EOR, IC, and ES items in the PLS model produced smaller prediction errors when the procedures carried out by [80] were applied. This contrasts with the result of the LM model, explaining the model's moderate predictive power.

Table 6. Result for PLS-predict.

PLS			LM			PLS-LM			
	RMSE	MAE	Q^2_{predict}	RMSE	MAE	Q^2_{predict}	RMSE	MAE	Q^2_{predict}
EOR 4	0.746	0.55	0.238	0.752	0.554	0.225	−0.006	−0.004	0.013
EOR 3	0.74	0.548	0.31	0.756	0.554	0.28	−0.016	−0.006	0.03
EOR 2	0.619	0.457	0.375	0.631	0.451	0.351	−0.012	0.006	0.024
EOR 5	0.696	0.532	0.297	0.71	0.531	0.269	−0.014	0.001	0.028
EOR 1	0.777	0.569	0.294	0.803	0.584	0.247	−0.026	−0.015	0.047
ES 9	0.766	0.562	0.262	0.786	0.572	0.223	−0.02	−0.010	0.039
ES 2	0.764	0.57	0.211	0.769	0.577	0.2	−0.005	−0.007	0.011
ES 3	0.73	0.565	0.27	0.728	0.558	0.273	0.002	0.007	−0.003
ES 1	0.687	0.533	0.22	0.696	0.538	0.2	−0.009	−0.005	0.02
ES 5	0.796	0.616	0.273	0.804	0.622	0.259	−0.008	−0.006	0.014
ES 8	0.778	0.586	0.249	0.784	0.59	0.237	−0.006	−0.004	0.012
IC 4	0.656	0.523	0.404	0.66	0.519	0.398	−0.004	0.004	0.006
IC 2	0.717	0.506	0.278	0.737	0.519	0.237	−0.02	−0.013	0.041
IC 3	0.683	0.52	0.405	0.666	0.499	0.434	0.017	0.021	−0.029
IC 1	0.693	0.495	0.325	0.714	0.51	0.284	−0.021	−0.015	0.041

5. Discussion and Conclusions

This analysis used a longitudinal approach to investigate the effects of EL on IC, EOR, and ES, depending on the commonly held beliefs about the positive impacts of EL [14,15,29]. The results reveal a marked improvement in the micro-business owners' ability to recognize opportunities, increase IC, and promote their ES after they improved their EL. The findings confirm the efficacy of EL in helping MSMEs to seize and recognize opportunities and increase their ability to create new ideas and innovate new products and services, which significantly influence ES.

The empirical outcomes of the serial mediation analyses reveal a favorable relationship between EL and ES. This indicates that EL assists MSMEs to survive and achieve success. This result is consistent with the results of earlier studies that confirmed the significant effect of EL on ES, business performance, and business sustainability [6,14,21,22]. The findings also demonstrate a positive linkage between EL and EOR. This means that micro-entrepreneurs can learn from interdependent teamwork by using EL to facilitate the sharing of information, knowledge, and professional experience with others, making it possible for new opportunities to be identified and evaluated more thoroughly [37]. The results are consistent with those of earlier research [21,25]. Additionally, the findings demonstrate that EL has a positive impact on IC. The results imply that MSMEs will be more innovative and creative when they adopt EL, leading to new ideas, solutions, and innovative products and services. The findings are consistent with those of earlier research [24,25,44]. Overall, this study supports previous research by showing that EL, EOR, and IC are all predictors of ES.

The outcomes of the serial mediation model also support the independent and serial mediation effects of EOR and IC on the link between EL and ES. More precisely, the findings demonstrate that EOR significantly improves ES and mediates EL and ES's link. This suggests that the ability of a MSMEs' manager/owner to recognize opportunity increases the beneficial effect of EL on ES [37]. Likewise, the decisions show that IC has a significant positive influence on ES when acting as a mediating factor and significantly mediates the linkage between EL and ES. This means that IC strengthens the connection between EL and ES [44]. It also means that the impact of IC on ES will be greater when entrepreneurs become more innovative. Importantly, this study has shown how EOR and IC sequentially mediate the relationship between EL and ES. The findings indicate that EL is serially related to EOR and is further positively correlated with IC, which directly enhances the ES of MSMEs. This means that EL boosts EOR, and high EOR enhances the IC of micro-entrepreneurs, which, in turn, enhances ES. Based on the findings discussed above, this study concludes that enriched EL focusing on helping MSMEs' owners and managers to develop their capacity to identify and recognize opportunities and promote their IC will have a stronger effect on ES. The research also suggests that EL sequentially influences ES through EOR and IC.

5.1. Theoretical Implications

This study makes a significant theoretical contribution to the RBV from the viewpoint of micro-businesses. To do this, it argues that, and is supported by empirical evidence that shows that, creating, employing, and leveraging EL, including firm-specific internal capabilities, not only improves EOR and IC but also enables and realizes ES. Thus, the study satisfies the theory's primary objective of achieving ES, competitive advantage and ES. By analyzing both the direct and indirect effects of EL on micro-enterprise ES through the independent and serial mediating role of EOR and ES, this study distinguishes itself from previous research in terms of originality. The serial mediation effect of EOR and IC in this model has also been determined with the help of a thorough and rigorous analysis. Overall, the study makes a substantial contribution to the body of knowledge. These findings broaden the application of the theory and improve the body of literature by helping one understand entrepreneurial leadership traits and how they affect EOR, IC, and ES.

5.2. Managerial Implications

The findings of this research shed light on the areas that should be prioritized to increase micro-enterprise success, which is thought to be crucial for encouraging entrepreneurial activities and improving the socioeconomic circumstances of extremely vulnerable low-income households in developing nations like Malaysia. The findings of this study can generally be applied to other emerging or developed countries where the majority of businesses are MSMEs and where EL, EOR, and IC may also have a significant bearing on the ES of firms. Policymakers can use these findings, in particular, to address the economic vulnerability of low-income households, particularly those in Malaysia, in a sustainable manner. In terms of micro-enterprise owners, this study provides valuable insights into the self-potential that is inherent among entrepreneurs. These insights could be improved and translated into the better ES of micro-enterprises, reducing micro-entrepreneurs' reliance on outside institutions, such as the government. These findings suggest that the government and socioeconomic development agencies should concentrate more on developing the leadership skills of low-income entrepreneurs. Furthermore, more EOR and IC promotion is required to provide innovative goods and services and gain a competitive advantage. Such programs might raise the ES of micro-businesses, encouraging low-income household heads to take on more entrepreneurial ventures.

5.3. Limitations and Future Research

Even though this study makes a significant contribution to the body of knowledge, many issues still need to be resolved. First, the findings might not be broadly applicable

outside of Malaysia due to the study's single-country focus and the drawbacks of cross-sectional surveys. Further research is needed to determine whether country or cultural specificity affects how EOR and IC affect the relationship between EL–ES. Therefore, further studies on this subject should examine whether the same findings hold for other South Asian nations or emerging economies in general. Third, this study used non-probability sampling techniques and subjective measurements for all the major components due to the difficulties in data collection. Even though numerous tests indicate that the metrics used in this study are reliable and valid, the article suggests that future research should use random sample techniques and objective performance indicators. It would be a very interesting topic for further research if it were possible to apply the study's findings to other economies.

Author Contributions: T.S.T.T. conceptualized, developed, and designed the questionnaire, and collected, and analyzed the data. N.H. and N.Z. reviewed and edited this paper; N.H. conducted the project administration, funding acquisition, and supervision; T.S.T.T., N.H. and N.Z. contributed to developing the research model, the literature review, sample selection, and preparing the manuscript. All authors have read and agreed to the published version of the manuscript.

Funding: The research has been carried out under the Long-Term Research Grant Scheme project (LRGS/1/2020/UKM/01/5-UUM/01/5/3) provided by the Ministry of Higher Education (MoHE) of Malaysia.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Acknowledgments: We would like to thank Ministry of Higher Education (MoHE) of Malaysia for funding this project under the Long-Term Research Grant Scheme code no: LRGS/1/2020/UKM/01/5-UUM/01/5/3.

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

Appendix A. Survey Instrument

Code	Questions	Source
ES: Item 1	I feel like I run a successful business.	Walker and Brown [68]
ES: Item 2	I can control my business	
ES: Item 3	I am able to balance work and family interface	
ES: Item 4	Having pride in my job is more important than making lots of money.	
ES: Item 5	My own satisfaction is more important than making money	
ES: Item 6	I am just as optimistic now as when I started the business	
ES: Item 7	Given the job to people gives me great satisfaction	
ES: Item 8	It is more important to have a flexible lifestyle than make lots of money	
ES: Item 9	Being my own boss gives me more personal satisfaction	
EL: Item 1	I can set high standards of performance.	Gupta et al. [20]
EL: Item 2	I have a vision of the future and imagination.	
EL: Item 3	I predict potential future events.	
EL: Item 4	I can display and express powerful positive emotions for the work.	
EL: Item 5	I'm able to make transactions with others as I can negotiate effectively.	
EL: Item 6	Usually, I'm looking for continuous improvement in my performance.	
EL: Item 7	I may inspire other people's feelings, convictions, values, and behaviors.	
EL: Item 8	I can make decisions firmly and quickly	
EL: Item 9	I instill trust in others by putting faith in them.	
EL: Item 10	I always offer courage, confidence, or hope through reassuring and advising.	
EL: Item 11	I may encourage group members to cooperate.	
EL: Item 12	I may combine people or items into a cohesive way of working.	

Code	Questions	Source
EOR: Item 1	I am always alert to new business opportunities.	Kuckertz et al. [49]
EOR: Item 2	I always research potential markets to recognize opportunities	
EOR: Item 3	I often think of new business opportunities when I am quiet.	
EOR: Item 4	I am always looking for information about new potential products.	
EOR: Item 5	I am aware of the environment to find business opportunities.	
IC: Item 1	I frequently seek out new ideas.	Calantone et al. [70]
IC: Item 2	I still search for new ways to make things happen.	
IC: Item 3	I am creative in my business	
IC: Item 4	I am often among the first to launch new products and services.	

References

- Mart, J.; Marco-lajara, B.; Eduardo, S.; Millan-tudela, L.A. Sustainable Development Goals in the Business Sphere: A Bibliometric Review. *Sustainability* **2023**, *15*, 5075.
- Kurek, J.; Brandli, L.L.; Leite Frandoloso, M.A.; Lange Salvia, A.; Mazutti, J. Sustainable Business Models Innovation and Design Thinking: A Bibliometric Analysis and Systematic Review of Literature. *Sustainability* **2023**, *15*, 988. [\[CrossRef\]](#)
- Melo, I.C.; Nocera, P.; Junior, A.; Queiroz, G.A.; Yushimito, W.; Pereira, J. Do We Consider Sustainability When We Measure Small and Medium Enterprises' (SMEs') Performance Passing through Digital Transformation? *Sustainability* **2023**, *15*, 4917. [\[CrossRef\]](#)
- Al Mamun, A.; Ibrahim, M.; Yusoff, M.; Fazal, S. Entrepreneurial Leadership, Performance, and Sustainability of Micro-Enterprises in Malaysia. *Sustainability* **2018**, *10*, 1591. [\[CrossRef\]](#)
- Muenjohn, N.; Ishikawa, J.; Kongsamutr, N.; Muenjohn, P.; Montague, A.; Suzumura, Y. Comparing Perceptions of Leadership, Innovation and Performance in Asian SMEs. *Asia Pac. Bus. Rev.* **2020**, *27*, 513–527. [\[CrossRef\]](#)
- Nor-Aishah, H.; Ahmad, N.H.; Thurasamy, R. Entrepreneurial Leadership and Sustainable Performance of Manufacturing SMEs in Malaysia: The Contingent Role of Entrepreneurial Bricolage. *Sustainability* **2020**, *12*, 3100. [\[CrossRef\]](#)
- Aghazadeh, H.; Zandi, F. International Growth of SMEs: Exploring the Effects of Adaptive Selling, Institutional Knowledge, Innovativeness and Opportunity Recognition. *J. Entrep. Emerg. Econ.* **2021**, *14*, 1265–1298. [\[CrossRef\]](#)
- Nguyen, P.V.; Huynh, H.T.N.; Lam, L.N.H.; Le, T.B.; Nguyen, N.H.X. The Impact of Entrepreneurial Leadership on SMEs' Performance: The Mediating Effects of Organizational Factors. *Heliyon* **2021**, *7*, e07326. [\[CrossRef\]](#)
- SMECorps Malaysia. *SMEs Annual Report 2018–2019*; SME Corp Malaysia: Kuala Lumpur, Malaysia, 2019.
- Kee, D.M.H.; Yusoff, Y.M.; Khin, S. The Role of Support on Start-up Success: A Pls-Sem Approach. *Asian Acad. Manag. J.* **2019**, *24*, 43–59. [\[CrossRef\]](#)
- Al Koliby, I.S.; Mohd Suki, N.; Abdullah, H.H. Linking Knowledge Acquisition, Knowledge Dissemination, and Manufacturing SMEs' Sustainable Performance: The Mediating Role of Knowledge Application. *Bottom Line* **2022**, *35*, 185–202. [\[CrossRef\]](#)
- Blanchard, K. Innovation and Strategy: Does It Make a Difference! A Linear Study of Micro & SMEs. *Int. J. Innov. Stud.* **2020**, *4*, 105–115. [\[CrossRef\]](#)
- Antunes, M.; Dias, Á.; Gonçalves, F.; Sousa, B.; Pereira, L. Measuring Sustainable Tourism Lifestyle Entrepreneurship Orientation to Improve Tourist Experience. *Sustainability* **2023**, *15*, 1201. [\[CrossRef\]](#)
- Hussain, N.; Li, B. Entrepreneurial Leadership and Entrepreneurial Success: The Role of Knowledge Management Processes and Knowledge Entrepreneurship. *Front. Psychol.* **2022**, *13*, 782. [\[CrossRef\]](#) [\[PubMed\]](#)
- Koryak, O.; Mole, K.F.; Lockett, A.; Hayton, J.C.; Ucbasaran, D.; Hodgkinson, G.P. Entrepreneurial Leadership, Capabilities and Firm Growth. *Int. Small Bus. J.* **2015**, *33*, 89–105. [\[CrossRef\]](#)
- Hidayat, D.; Abdurachman, E. The Roles of Gamification, Knowledge Creation, and Entrepreneurial Orientation towards Firm Performance. *Int. J. Innov. Stud.* **2022**, *6*, 229–237. [\[CrossRef\]](#)
- Haider, M.; Shannon, R.; Moschis, G.P.; Autio, E. How Has the COVID-19 Crisis Transformed Entrepreneurs into Sustainable Leaders? *Sustainability* **2023**, *15*, 5358. [\[CrossRef\]](#)
- Renko, M.; El Tarabishy, A.; Carsrud, A.L.; Brännback, M. Understanding and Measuring Entrepreneurial Leadership Style. *J. Small Bus. Manag.* **2015**, *53*, 54–74. [\[CrossRef\]](#)
- Guberina, T.; Min Wang, A. Entrepreneurial Leadership Impact on Job Security and Psychological Well-Being during the COVID-19 Pandemic: A Conceptual Review. *Int. J. Innov. Econ. Dev.* **2021**, *6*, 7–18. [\[CrossRef\]](#)
- Gupta, V.; MacMillan, I.C.; Surie, G. Entrepreneurial Leadership: Developing and Measuring a Cross-Cultural Construct. *J. Bus. Ventur.* **2004**, *19*, 241–260. [\[CrossRef\]](#)
- Huang, S.; Ding, D.; Chen, Z. Entrepreneurial Leadership and Performance in Chinese New Ventures: A Moderated Mediation Model of Exploratory Innovation, Exploitative Innovation and Environmental Dynamism. *Creat. Innov. Manag.* **2014**, *23*, 453–471. [\[CrossRef\]](#)
- Paudel, S. Entrepreneurial Leadership and Business Performance: Effect of Organizational Innovation and Environmental Dynamism. *South Asian J. Bus. Stud.* **2019**, *8*, 348–369. [\[CrossRef\]](#)
- Pu, B.; Ji, S.; Sang, W.; Tang, Z. Entrepreneurial Leadership and Entrepreneurial Performance in Start-Ups: A Moderated Serial Mediation Model. *Front. Psychol.* **2022**, *13*, 831555. [\[CrossRef\]](#) [\[PubMed\]](#)

24. Fontana, A.; Musa, S. The Impact of Entrepreneurial Leadership on Innovation Management and Its Measurement Validation. *Int. J. Innov. Sci.* **2017**, *9*, 2–19. [\[CrossRef\]](#)
25. Bagheri, A. The Impact of Entrepreneurial Leadership on Innovation Work Behavior and Opportunity Recognition in High-Technology SMEs. *J. High Technol. Manag. Res.* **2017**, *28*, 159–166. [\[CrossRef\]](#)
26. Latif, K.F.; Nazeer, A.; Shahzad, F.; Ullah, M.; Imranullah, M.; Sahibzada, U.F. Impact of Entrepreneurial Leadership on Project Success: Mediating Role of Knowledge Management Processes. *Leadersh. Organ. Dev. J.* **2020**, *41*, 237–256. [\[CrossRef\]](#)
27. Chen, M. Entrepreneurial Leadership and New Ventures: Creativity in Entrepreneurial Teams. *Creat. Innov. Manag.* **2007**, *16*, 239–249. [\[CrossRef\]](#)
28. Bagheri, A.; Newman, A.; Eva, N. Entrepreneurial Leadership of CEOs and Employees' Innovative Behavior in High-Technology New Ventures. *J. Small Bus. Manag.* **2022**, *60*, 805–827. [\[CrossRef\]](#)
29. Purwatia, P.A.; Budiyanatob, S.; Hamzahcati, M.L. The Effect of Innovation Capability on Business Performance: The Role of Social Capital and Entrepreneurial Leadership on SMEs in Indonesia. *Accounting* **2020**, *7*, 323–330. [\[CrossRef\]](#)
30. Barney, J. Firm Resources and Sustained Competitive Advantage. *J. Manag.* **1991**, *17*, 99–120. [\[CrossRef\]](#)
31. Sawaeen, F.A.A.; Ali, K.A.M.; Alenezi, A.A.A.S. Entrepreneurial Leadership and Organisational Performance of Smes in Kuwait: The Intermediate Mechanisms of Innovation Management and Learning Orientation. *Interdiscip. J. Inf. Knowl. Manag.* **2021**, *16*, 459–489. [\[CrossRef\]](#)
32. Grant, R.M. The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *Knowl. Strateg.* **1991**, *33*, 3–24. [\[CrossRef\]](#)
33. Ng, H.S.; Kee, D.M.H.; Ramayah, T. The Role of Transformational Leadership, Entrepreneurial Competence and Technical Competence on Enterprise Success of Owner-Managed SMEs. *J. Gen. Manag.* **2016**, *42*, 23–43. [\[CrossRef\]](#)
34. Anwar, M.; Clauss, T.; Basit, W. Entrepreneurial Orientation and New Venture Performance in Emerging Markets: The Mediating Role of Opportunity Recognition. *Rev. Manag. Sci.* **2022**, *16*, 769–796. [\[CrossRef\]](#)
35. Li, C.; Makhdoom, H.U.R.; Asim, S. Impact of Entrepreneurial Leadership on Innovative Work Behavior: Examining Mediation and Moderation Mechanisms. *Psychol. Res. Behav. Manag.* **2020**, *13*, 105–118. [\[CrossRef\]](#) [\[PubMed\]](#)
36. Khin, S.; Lim, T.H. Entrepreneurial Opportunity Recognition, Exploitation and New Venture Success: Moderating Role of Prior Market and Technology Knowledge. *Int. J. Entrep.* **2018**, *22*, 1–6.
37. Yu, J.; Ma, Z.; Song, W. New Venture Top Management Team's Shared Leadership and Its Indirect Effect on Strategic Performance: Findings from SEM and FsQCA. *Leadersh. Organ. Dev. J.* **2022**, *43*, 435–456. [\[CrossRef\]](#)
38. Awolaye, O.M.; Ilori, O.M.; Oyeibisi, T.O. Sources of Innovation Capability and Performance of ICT Agglomerated MSMEs in Nigeria. *Int. J. Innov. Manag.* **2020**, *24*, 2050032. [\[CrossRef\]](#)
39. Kim, M.-K.; Park, J.-H.; Paik, J.-H. Factors Influencing Innovation Capability of Small and Medium-Sized Enterprises in Korean Manufacturing Sector: Facilitators, Barriers and Moderators. *Int. J. Technol. Manag.* **2018**, *76*, 214–235. [\[CrossRef\]](#)
40. Utoyo, I.; Fontana, A.; Satrya, A. The Role of Entrepreneurial Leadership and Configuring Core Innovation Capabilities to Enhance Innovation Performance in a Disruptive Environment. *Int. J. Innov. Manag.* **2020**, *24*, 2050060. [\[CrossRef\]](#)
41. Phangestu, J.; Kountur, R.; Prameswari, D.A. The Moderating Effect of Entrepreneurial Leadership and Competitive Advantage on the Relationship Between Business Model Innovation and Startup Performance. *J. Bus. Retail Manag. Res.* **2020**, *14*, 53–62. [\[CrossRef\]](#)
42. Mehmood, M.S.; Jian, Z.; Akram, U.; Tariq, A. Entrepreneurial Leadership: The Key to Develop Creativity in Organizations. *Leadersh. Organ. Dev. J.* **2020**, *42*, 434–452. [\[CrossRef\]](#)
43. Akbari, M.; Bagheri, A.; Imani, S.; Asadnezhad, M. Does Entrepreneurial Leadership Encourage Innovation Work Behavior? The Mediating Role of Creative Self-Efficacy and Support for Innovation. *Eur. J. Innov. Manag.* **2021**, *24*, 1–22. [\[CrossRef\]](#)
44. Purwati, A.A.; Budiyanatob; Suhermin. Innovation Capability as a Mediation in the Relationship of Social Capital and Entrepreneurial Leadership Behavior on the Performance of Culinary and Hospitality Sectors' SMEs in Pekanbaru, Indonesia. *Econ. Ann.* **2021**, *193*, 92–998. [\[CrossRef\]](#)
45. Yodchai, N.; Ly, P.T.M.; Tran, L.T.T. How the Creative Mindset Affects Entrepreneurial Success in the Tourism Sector: The Mediating Role of Innovation Capability. *Int. J. Contemp. Hosp. Manag.* **2022**, *34*, 279–298. [\[CrossRef\]](#)
46. Yu, Y.; Zhang, X.; Huang, S.; Chen, Z.; Chen, Z. Entrepreneurial Leadership and Innovation Performance in New Ventures: Examining the Roles of Strategic Flexibility and Environmental Turbulence. *Entrep. Res. J.* **2022**, *12*, 629–652. [\[CrossRef\]](#)
47. Sayyam, M.N.; Hanan, F.; Hussain, A.; Jehan, Y. Entrepreneurial Leadership and Creativity in Projects: A Moderated-Mediated Mechanism. *Int. J. Innov. Creat. Chang.* **2021**, *15*, 568–586. [\[CrossRef\]](#)
48. Shane, S.; Venkataraman, S. The Promise of Entrepreneurship as a Field of Research. *Acad. Manag. Rev.* **2000**, *25*, 217–226. [\[CrossRef\]](#)
49. Kuckertz, A.; Kollmann, T.; Krell, P.; Stöckmann, C. Understanding, Differentiating, and Measuring Opportunity Recognition and Opportunity Exploitation. *Int. J. Entrep. Behav. Res.* **2017**, *23*, 78–97. [\[CrossRef\]](#)
50. Niammuad, D.; Napompech, K.; Suwanmaneepong, S. The Mediating Effect of Opportunity Recognition on Incubated—Entrepreneurial Innovation. *Int. J. Innov. Manag.* **2014**, *18*, 1440005. [\[CrossRef\]](#)
51. Guo, H.; Tang, J.; Su, Z.; Katz, J.A. Opportunity Recognition and SME Performance: The Mediating Effect of Business Model Innovation. *R&D Manag.* **2017**, *47*, 431–442. [\[CrossRef\]](#)
52. Guo, H.; Su, Z.; Ahlstrom, D. Business Model Innovation: The Effects of Exploratory Orientation, Opportunity Recognition, and Entrepreneurial Bricolage in an Emerging Economy. *Asia Pac. J. Manag.* **2016**, *33*, 533–549. [\[CrossRef\]](#)

53. Gielnik, M.M.; Zacher, H.; Frese, M. Focus on Opportunities as a Mediator of the Relationship between Business Owners' Age and Venture Growth. *J. Bus. Ventur.* **2012**, *27*, 127–142. [\[CrossRef\]](#)
54. Alim, M.A.; Tan, K.L.; Jee, T.W.; Voon, B.H.; Hossain, M.J.; Mia, M.U. To Explain and to Predict: Analysis of Opportunity Recognition on the Relationship between Personal Factors, Environmental Factors and Entrepreneurs' Performance. *Asia-Pac. J. Bus. Adm.* **2022**, *ahead-of-print*. [\[CrossRef\]](#)
55. Stevenson, H.H.; Roberts, M.J.; Grousbeck, H.I.; Liles, P.R. *New Business Ventures and the Entrepreneur*, 3rd ed.; Irwin Professional Publishing: Burr Ridge, IL, USA, 1989; ISBN 025607576X.
56. Shamsudeen, K.; Keat, O.Y.; Hassan, H. Entrepreneurial Success within the Process of Opportunity Recognition and Exploitation: An Expansion of Entrepreneurial Opportunity Recognition Model. *Int. Rev. Manag. Mark.* **2017**, *7*, 107–111.
57. Ray, G.; Barney, J.B.; Muhanna, W.A. Capabilities, Business Processes, and Competitive Advantage: Choosing the Dependent Variable in Empirical Tests of the Resource-based View. *Strateg. Manag. J.* **2004**, *25*, 23–37. [\[CrossRef\]](#)
58. Deng, Q.; Noorliza, K. Integration, Resilience, and Innovation Capability Enhance LSPs' Operational Performance. *Sustainability* **2023**, *15*, 1019. [\[CrossRef\]](#)
59. Al Mamun, A.; Muhammad, N.M.N.; Ismail, M. Bin Absorptive Capacity, Innovativeness and the Performance of Micro-Enterprises in Malaysia. *Vision* **2017**, *21*, 243–249. [\[CrossRef\]](#)
60. Alsharif, H.Z.H.; Shu, T.; Obrenovic, B.; Godinic, D.; Alhujailli, A.; Abdullaev, A.M. Impact of Entrepreneurial Leadership and Bricolage on Job Security and Sustainable Economic Performance: An Empirical Study of Croatian Companies during COVID-19 Pandemic. *Sustainability* **2021**, *13*, 11958. [\[CrossRef\]](#)
61. Allwood, C.M. The Distinction between Qualitative and Quantitative Research Methods Is Problematic. *Qual. Quant.* **2012**, *46*, 1417–1429. [\[CrossRef\]](#)
62. Williams, C. Research Methods. *J. Bus. Econ. Res.* **2007**, *5*, 81–82. [\[CrossRef\]](#)
63. Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. When to Use and How to Report the Results of PLS-SEM. *Eur. Bus. Rev.* **2019**, *31*, 2–24. [\[CrossRef\]](#)
64. Speak, A.; Escobedo, F.J.; Russo, A.; Zerbe, S. Comparing Convenience and Probability Sampling for Urban Ecology Applications. *J. Appl. Ecol.* **2018**, *55*, 2332–2342. [\[CrossRef\]](#)
65. Chatterjee, N.; Das, N.; Srivastava, N.K. A Structural Model Assessing Key Factors Affecting Women's Entrepreneurial Success: Evidence from India. *J. Entrep. Emerg. Econ.* **2019**, *11*, 122–151. [\[CrossRef\]](#)
66. Wolf, E.J.; Harrington, K.M.; Clark, S.L.; Miller, M.W. Sample Size Requirements for Structural Equation Models: An Evaluation of Power, Bias, and Solution Propriety. *Educ. Psychol. Meas.* **2013**, *73*, 913–934. [\[CrossRef\]](#) [\[PubMed\]](#)
67. Churchill, G.A. A Paradigm for Developing Better Measures of Marketing Constructs. *J. Mark. Res.* **1979**, *16*, 64. [\[CrossRef\]](#)
68. Walker, E.; Brown, A. What Success Factors Are Important to Small Business Owners? *Int. Small Bus. J.* **2004**, *22*, 577–594. [\[CrossRef\]](#)
69. Staniewski, M.W.; Awruk, K. Entrepreneurial Success and Achievement Motivation—A Preliminary Report on a Validation Study of the Questionnaire of Entrepreneurial Success. *J. Bus. Res.* **2019**, *101*, 433–440. [\[CrossRef\]](#)
70. Calantone, R.J.; Cavusgil, S.T.; Zhao, Y. Learning Orientation, Firm Innovation Capability, and Firm Performance. *Ind. Mark. Manag.* **2002**, *31*, 515–524. [\[CrossRef\]](#)
71. Moraes, G.H.S.M.D.; Pelegrini, G.C.; de Marchi, L.P.; Pinheiro, G.T.; Cappelozza, A. Antecedents of Big Data Analytics Adoption: An Analysis with Future Managers in a Developing Country. *Bottom Line* **2022**, *35*, 73–89. [\[CrossRef\]](#)
72. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.Y.; Podsakoff, N.P. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903. [\[CrossRef\]](#)
73. Henseler, J.; Schuberth, F. Using Confirmatory Composite Analysis to Assess Emergent Variables in Business Research. *J. Bus. Res.* **2020**, *120*, 147–156. [\[CrossRef\]](#)
74. Fornell, C.; Larcker, D.F. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *J. Mark. Res.* **1981**, *18*, 39–50. [\[CrossRef\]](#)
75. Henseler, J.; Ringle, C.M.; Sarstedt, M. A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *J. Acad. Mark. Sci.* **2015**, *43*, 115–135. [\[CrossRef\]](#)
76. Hair, J.F.; Hult, G.T.M.; Ringle, C.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*; Knight, V., Kosciolak, K., Barret, L., Dickens, G., Eds.; Sage Publications: London, UK, 2014; ISBN 1483377431.
77. Kline, R.B. *Principles and Practice of Structural Equation Modeling*; Guilford Publications: New York, NY, USA, 2015; Volume 45, ISBN 9781462523344.
78. Hair, J.F., Jr.; Hult, G.T.M.; Ringle, C.M.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 3rd ed.; Sage publications: Thousand Oaks, CA, USA, 2021; ISBN 1544396333.
79. Henseler, J.; Ringle, C.M.; Sinkovics, R.R. The Use of Partial Least Squares Path Modeling in International Marketing. *Adv. Int. Mark.* **2009**, *20*, 277–319. [\[CrossRef\]](#)
80. Shmueli, G.; Sarstedt, M.; Hair, J.F.; Cheah, J.H.; Ting, H.; Vaithilingam, S.; Ringle, C.M. Predictive Model Assessment in PLS-SEM: Guidelines for Using PLSpredict. *Eur. J. Mark.* **2019**, *53*, 2322–2347. [\[CrossRef\]](#)

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.