Reinforcing Business Resilience Through Entrepreneurial Competencies During Pandemic COVID-19: A Case of Indonesian MSMEs

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Abstract

Although research on entrepreneurial competencies has been widely carried out in the last decades, this topic is still preliminary. Indonesian MSMEs have been severely impacted by COVID-19, with losses of up to millions. Entrepreneurial competencies are believed to be the main driver in handling this issue. Underlined by the disaster and crisis management theory, entrepreneurial competencies are expected to give a company both long-term adaptability and innovation abilities that may result in significant improvements in their business as well as the short-term coping capacity to recover from violent shocks. Thus, this study builds a novel conceptual framework that determines the influence of entrepreneurial competencies on business resilience in the Indonesian MSMEs context. Several mediator variables were also included in the conceptual model: dynamic capability and innovation ambidexterity. Through purposive sampling, a sample of 220 Indonesian MSME actors get involved in this study. PLS-SEM procedure through a two-stage approach was used to test the proposed model. The results show that entrepreneurial competencies significantly impact business resilience in Indonesian MSMEs. It was also found that dynamic capabilities and innovation ambidexterity partially mediated those relationships. From these results, this study suggests that business practitioners should become more aware of their competencies to survive in this uncertain world. In addition, the government must re-educate and ensure that all middle and lower entrepreneurs have appropriate competencies to continue to compete.

Keywords: *Entrepreneurial Competencies; Business Resilience; Dynamic Capability; Innovation Ambidexterity; Indonesian MSMEs*

INTRODUCTION

In recent years, Entrepreneurial Competencies (EC) have become a topic that is being studied extensively. Based on a search using the Scopus database on 6 December 2022, there were 416 journal articles obtained when the keyword "entrepreneurial competencies" was inputted. Half of the entire documents are from the last five years. As a rising topic, EC is getting much attention from academics worldwide. Nonetheless, EC research is still in its preliminary stages (Gustomo et al., 2019).

Entrepreneurial competencies are "a constellation of skills, abilities, and knowledge that an aspiring entrepreneur should possess to succeed in a competitive, unstable, and unpredictable setting" (Gustomo et al., 2019). Research on EC raises many issues about the importance of a set of competencies to improve company performance and lead to business success (Ahmad et al., 2010; Rahman et al., 2016). EC research is also widely used to improve the entrepreneur education

curriculum (Bolzani & Luppi, 2021; Gustomo et al., 2019; Morris et al., 2013; Okolie et al., 2021). However, there is still no research that looks at the relationship between EC and business resilience.

Business Resilience (BR) is defined as the capacity for companies to survive, adapt and grow in the face of turbulent change. In organizational management, BR is closely related to organizational resilience (OR). Alternatively, it is the capacity of the firm to foresee possible unfavorable occurrences and resist adaptation (Akpan et al., 2021).

Compared to large companies, the resilience of MSMEs is more interesting to study because of its flexible and adaptable nature (Williams & Vorley, 2014). According to KEMENKOPUKM (Ministry of cooperatives and MSMEs in Indonesia), MSMEs are the backbone of the Indonesian economy. There are 64 million MSMEs that contribute to 96.9% of the total workforce, 60.5% of the national GDP, and 60% of the total investment of national MSMEs. However, since COVID-19, MSMEs have experienced several obstacles, so many have failed to continue business operations.

The COVID-19 pandemic in Indonesia brought significant changes not only to the health sector but also to socio-economic conditions. One of these changes was influenced by the implementation of the Large-Scale Social Restriction policy or PSBB (*Pembatasan Sosial Berskala Besar*). The implementation of this policy causes limited space for movement and community activities. This condition ultimately creates an unfavorable situation for the business world and impacts business actors (Utami, 2021).

Micro Small and Medium-Sized Enterprises (MSMEs) are one of the business groups that have been affected by the COVID-19 pandemic. In 2020, as many as 2.78 million MSMEs stated that their businesses were affected by the pandemic. The impact of the pandemic on MSMEs is quite varied. The most common impact was decreased demand or sales of goods/services (54.09%). This was caused by changes in people's behavior which became more selective in sorting out expenditures. In addition, another impact was an increase in raw material prices (15.76%), delays in buyer payments (14.32%), scarcity of raw materials (9.79%), and reduced worker attendance (3.61%) (BPS Indonesia, 2022).

In these circumstances, the competence of a manager will play a vital role in treating the damage and finding long-term solutions for business resilience and performance. The concept of 'competence' that is very well-suited to this phenomenon is entrepreneurial competencies. Moreover, disaster and crisis management theory also emphasizes managerial competencies that are one of the main ingredients to achieving resilient organizational nature (Schulberg, 1974). Thus, entrepreneurial competencies are expected to help MSMEs in Indonesia reinforce their business resilience.

Thus, this study tries to fill that gap by proposing a novel conceptual framework that explains the connection between entrepreneurial competencies and business resilience by expanding the disaster and crisis management theory. In the model, we also positioned dynamic capability and innovation ambidexterity as mediating variables to determine how these two variables can affect entrepreneurial competencies and business resilience relationships. This research has positive implications that can help the Indonesian MSMEs ecosystem deal with many resilience issues, especially during this COVID-19 pandemic era.

LITERATURE REVIEW
Underlying Theory: Disaster and Crisis Management Theory

Disaster and Crisis Management theory, or DCM theory, is a theory that explains organizational processes in overcoming disruptive and unanticipated occurrences that pose a risk to the business (Schulberg, 1974). A crisis is described as a self-inflicted disaster brought on by management mistakes and human error. The problem can be reduced to some extent because it is relatively painless. Disaster, on the other hand, is a sudden, unexpected catastrophic shift brought on by the outside environment. The grandiosity of disasters makes them frequently impossible to manage (Li et al., 2021).

Ideally, an organization will be more resilient if the organization applies the DCM planning strategies. The firm must possess both the long-term adaptive and innovative skills that may result in significant changes in their business models following crises and disasters, as well as the short-term coping capacity to recover from violent disruptions (Li et al., 2021). DCM Theory implies that managers' competency is crucial in handling disasters and crises to intensify business resilience. Therefore, investigating the relationship between competence and business resilience will provide good prospects.

Entrepreneurial Competencies Dimensions

Entrepreneurial competencies, or EC, are defined as "underlying characteristics such as generic specific knowledge, motives, traits, self-images, social roles, and skills that result in venture birth, survival, and/or growth" (Bird, 1995). Competencies are also characterized by the ability to use a bundle of information, abilities, and mindsets in a specific professional setting (Rahman et al., 2016; Smith et al., 2001). EC is the most valuable intangible resource associated with company success, among the firm's other most critical resources (Hashim et al., 2018).

The concept of entrepreneurial competencies is not unitary in social sciences research (OECD, 2012). EC can be developed by the construction of ideas and opportunities, resources, and actions (Bacigalupo et al., 2016). There is also a study on the influence of EC on sustainability with technical capability, strategic thinking capability, and organizational capability as a construct. (Lee & Park, 2020). EC can also be identified by 13 core sets; opportunity recognition and assessment, risk management/ mitigation, conveying a compelling vision, tenacity/ perseverance, creative problem-solving, resource leveraging/ bootstrapping, guerilla skills, value creation through innovation, ability to maintain focus yet adapt, resilience, building and using networks, and self-efficacy (Morris et al., 2013). However, in this study, we will utilize Man's EC framework.

Man EC framework, as depicted in Figure 1, is one of the most common frameworks used in EC research (Ahmad et al., 2010; Man et al., 2008; Rahman et al., 2016). This framework consists of strategic, commitment, conceptual, opportunity, organizing, relationship, learning, and personal competencies. Strategic is a competency related to developing, analyzing, and delivering the firm's strategies. Commitment is a competency that motivates entrepreneurs to pursue their goals. Conceptual competency is related to different conceptual abilities like decision-making skills, absorbing and processing complicated information, risk-taking, and innovativeness. Opportunity is a skill that allows one to detect market possibilities in various ways. Organizing is the ability to coordinate human, physical, financial, and technical resources, both internally and externally.

Relationship is a competency related to communication and interpersonal skills. Learning is the capacity to learn from a variety of sources, study in a proactive manner, and use newly acquired skills and information in real-world situations. Personal competency is the ability to keep a happy attitude, prioritize duties to manage time, and recognize and improve one's own flaws. Man used this framework to assess the entrepreneurial level of SME owners in Hong Kong (Man, 2001).
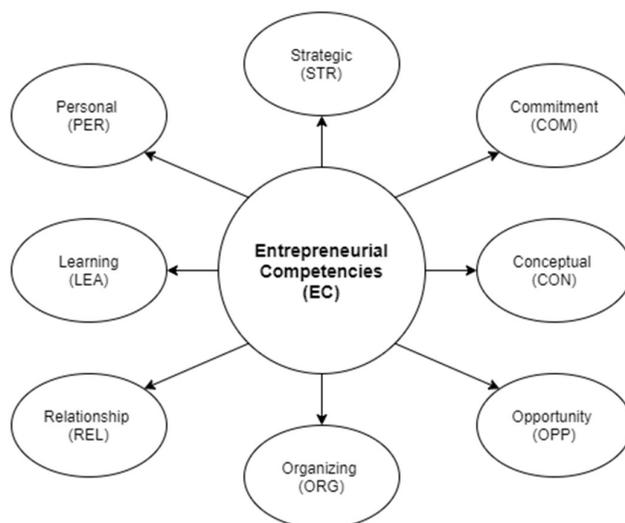

Figure 1. Man's EC Framework (Man, 2001)

Entrepreneurial Competencies and Business Resilience

Business resilience, or BR, is described as a company's ability to adapt, endure, and expand in the face of adversity. Businesses that are resilient can respond quickly to disruptions while maintaining long-term operations and protecting people, assets, and brand equity (Aldianto et al., 2021). Entrepreneurial success will have more value if it has a resilient nature than other factors, such as motivation, income, and satisfaction. In managerial implication, a company with an average income but resilient for years will be more valuable than a successful business that immediately collapses as soon as it is affected by a crisis or disaster (Hayward et al., 2010).

Organizational awareness, adaptability, and agility may all be used as a construct to quantify BR. Organizational awareness refers to a company's capacity to examine its surroundings and comprehend developments in the present and future. Organizational awareness focuses on a company's capacity to be proactive and effectively handle potential disruptions. On the other hand, organizational adaptability is an organization's ability to adjust its structure, method, culture, etc., to recover from a disruptive event (Rahi, 2019). Meanwhile, organizational agility emphasizes accelerating the organization's ability to adapt to an uncertain environment. Agility is a powerful reaction to change and vulnerabilities (Akpan et al., 2021).

Organizational disruptions might have disastrous repercussions, ranging from financial to operational losses. In severe circumstances, some businesses collapse and depart the market as a result of their incapacity to recover from such stressful situations (Asamoah et al., 2020). By integrating resources and adjusting the DCM strategy, the company must have the short-term

coping capacity to recover from violent disruptions, as well as the long-term adaptive and inventive abilities to make positive changes in their business models following crises and catastrophes (Li et al., 2021). DCM theory implies that EC is crucial in handling disasters and crises to intensify business resilience. Therefore, the following hypothesis is proposed:

H1. Entrepreneurial competencies have a significant influence on business resilience.

Dynamic Capability Mediation Effect

Dynamic Capability, or DC, is the ability of businesses to build, enlarge, or adjust their resources consciously. Dynamic Capability is a phrase made up of two words: dynamic and capabilities. The former emphasizes the need for renewal. The latter highlights that such renewal is the result of a purposeful decision taken in response to a changing circumstance rather than being spontaneous (Helfat & Peteraf, 2009). An organization has dynamic capabilities when its internal and external capabilities can be integrated, created, and reconfigured in response to its changing environment (Hashim et al., 2018).

Akpan et al. (2021) construct DC by combining sensing and reconfiguration capabilities. The former is the capacity to quickly perceive opportunities in the environment as they arise, as well as the ability to monitor environmental dangers. At the same time, the latter is a company's capacity to create new capabilities while integrating existing ones. In a procedural view of dynamic capabilities, reconfiguration of resources is the penultimate chain and is often used as a core part of dynamic.

EC are dynamic elements that may help businesses break through and achieve huge success by raising the bar of advancement and allowing them to break out of a slump. Small businesses, such as MSMEs, have little influence or control over the market, so they must be dynamic to respond to economic shocks (Hashim et al., 2018). Entrepreneurial management functions must also be equipped with dynamic skills. The features of firms with significant dynamic capacities are profoundly entrepreneurial (Teece, 2007). Thus, DC becomes a vital ingredient to overcome resilience issues. Akpan et al. (2021) also indicate that a high level of sensing and reconfiguration capabilities significantly and positively influences organizational adaptability and agility. Thus, the following hypotheses are proposed:

H2a. Entrepreneurial competencies have a significant influence on dynamic capability
H2b. Dynamic capability has a significant influence on business resilience

Innovation Ambidexterity Mediation Effect

Innovation Ambidexterity, or IA, is the ability to pursue innovation without being interrupted by change simultaneously (Hönninger et al., 2009). Ambidextrous firms have the benefit of leveraging current skills to generate radical innovation while also exploring new prospects (Aldianto et al., 2021). Therefore, IA may also be described as organizational actions and tactics that leverage existing knowledge in the business process to meet current needs while simultaneously researching uncharted regions to adapt to external changes, resulting in the ability to both survive and prosper in the long run (Zang & Li, 2017).

The basic principles for innovation ambidexterity are exploratory and exploitative innovation. Exploratory innovation strives to seek out new information, create novel ideas, and spot promising opportunities. Concepts of radical and exploratory innovation can be used interchangeably. Contrarily, exploitative innovation refers to activities that try to improve present designs, increase the effectiveness of current distribution methods, and concentrate on current customers and markets. This is a similar notion to incremental innovation (Zang & Li, 2017).

EC and innovations have always had a unique relationship. Entrepreneurial-driven technical and innovation change has been recognized as a competitive advantage in commercial enterprises. A person who has developed his/her EC will eventually get involved in a unique process of anything new in the management, service, or product fields (Mohsin et al., 2017). Pranowo et al. (2021) have also proven a positive relationship between EC and organizational innovation capability. On the other side, Taipale-Erävala et al. (2019) also state that successful innovative SMEs must have several EC, like conceptual, personal, and relationship competencies. Some researchers also consider innovation to be one of the most critical competencies for an entrepreneur (Man et al., 2008; Morris et al., 2013).

Reinstating DCM theory, innovation is significant power to overcome disasters and crises. By the process of using both exploratory and exploitative innovation to pursue new ideas, a business will have a short-term coping capacity and also a long-term adaptive nature (Li et al., 2021). According to Colbert (2004), exploration and exploitation have a complementary effect on organizational success. As a result, enhancing organizational innovation ambidexterity will boost any company's overall performance, including business resilience. Therefore, the following hypotheses are proposed:

H3a. Entrepreneurial competencies have a significant influence on innovation ambidexterity
H3b. Innovation ambidexterity has a significant influence on business resilience

RESEARCH METHOD

This study is explanatory research that adopts a quantitative mono-methodology. The explanatory study emphasizes studying a situation or a problem to explain the relationships between variables (Saunders et al., 2009). To collect the data, we adopt a survey strategy research design to reach larger samples faster, easier, and cost-effectively (Neuman, 2014).

This study takes MSMEs in the province of West Java, Indonesia, as its research object. West Java is one of the most developed provinces with the highest number of MSMEs in Indonesia (BPS Indonesia, 2020). In Indonesia, MSMEs can be defined through the Law of the Republic of Indonesia No. 20 of 2008 concerning MSMEs. The criteria for selecting the sample in this study are as follows:
a. Owners or managers of MSMEs located in the province of West Java
b. MSMEs with total assets and revenues of not more than IDR 10 billion and 50 billion, respectively
c. MSMEs with no more than 100 employees
d. MSMEs that stand alone and are not franchises of a larger company

This study deploys a purposive sampling method by using both internet-mediated questionnaires and paper-based questionnaires. Purposive sampling has the advantage of enabling authors to select cases or respondents that will best allow them to answer the research question

(Saunders et al., 2009). The questionnaire consists of questions regarding company profiles, respondent profiles, and the measurement of all four variables included in this study. The four variables are EC as the independent variable, DC, and IA as mediating variables, and BR as the dependent variables. The proposed novel conceptual framework can be seen in Figure 2.

Internet-mediated questionnaires were created using the Google Form platform and distributed consistently from April to November 2022 to MSME actor e-mails in West Java. The e-mails are collected from personal acquaintances, SBM ITB incubators, and the MSMEs database from Bank Indonesia. Meanwhile, paper-based questionnaires were distributed directly in May 2022 to MSMEs retail shops in Depok City and Bandung City, West Java. Of the 50 paper-based questionnaires distributed, only 24 were appropriate for use. Finally, with the addition of 196 respondents from the internet-mediated questionnaire, there was a total of 220 final respondents from this study.
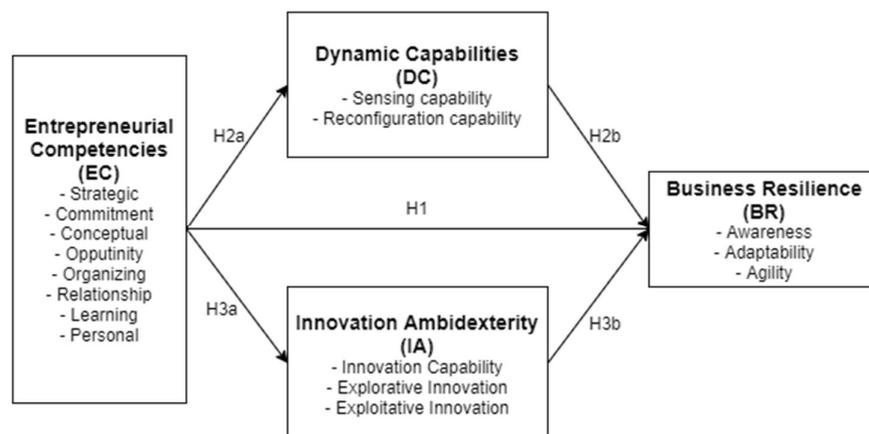

Figure 2. Proposed conceptual model

Measurement

We employ the EC measurement indicator developed by Man (2001) to measure EC. This measurement consists of self-assessment from respondents regarding their competence when carrying out daily business activities. These competencies refer to the eight competencies that have been described previously (refer to Figure 1).

For DC, we measure organizational sensing capability and reconfiguration capability. The measurements are adopted from Akpan et al. (2021). As for IA, exploratory and exploitative innovations are taken to index the quality of ambidexterity. The indicators are adopted from Zang & Li (2017). In addition, we also took innovation capability measurement from Pranowo et al. (2020) to measure IA. Regarding BR, we adopt the measurement of organizational awareness by Rahi (2019) and organizational adaptability and agility by Akpan et al. (2021).

All the measurements use a five-point Likert scale allowing ratings from 1 (strongly disagree) to 5 (strongly agree). The Likert scale has the advantage of not expecting a simple yes or no answer from the respondent. Instead, it allows for degrees of opinion and even no opinion at all. There are a total of 64 indicators that can be seen in Table 3.

Data Analysis Method

This study utilized PLS (Partial Least Square) as the data analysis method. PLS is a causal modeling approach that explains the variance of the latent variables. Definition of a latent variable is a variable that is not directly observable. EC, BR, DC, and IA are included as latent variables. PLS has the advantage of estimating a complex model that comprises a large number of item indicators (Hair et al., 2014).

In this study, we used a two-stage approach in PLS because the proposed model has Lower-Order Constructs (LOC) and Higher-Order Constructs (HOC). The latter are composite variables whose indicators are integrated from the LOC indicator. In comparison, LOC is a sub-variable that is part of the HOC. For example, strategic competencies, organizational adaptability, sensing capability, and exploitative innovation are LOC, while EC, BR, DC, and IA are HOC. All processes are carried out with Microsoft Excel and SmartPLS 3.0 programs.

According to Wong (2013), a sample size of 100 to 200 respondents is usually a good starting point in carrying out PLS analysis. While if we follow the ten-times rules by Hair et al. (2014), the minimum sample size in PLS should be ten times the largest number of formative indicators used to measure one construct. Since the largest construct is EC which has eight indicators, the minimum sample size in this study should be larger than 80. Either way, this study already has an adequate number of respondents.

FINDINGS AND DISCUSSION
Respondents Profile

The company and the respondent profiles are presented in Table 1 and Table 2, respectively. The majority of MSME profiles involved in this study are 1-3 years old (47.27%), the number of workers is less than five people (57.27%), working in the food and beverages sector (50%), have total assets between 50 to 500 million IDR (51.36%), and have total revenue between 300 million to 2.5 billion IDR (39.55%). These profiles are consistent with the previously described MSMEs definition in Indonesia.

Table 1. Company profile

Company Profile	Category	Respondents	Percentage (%)
Company Age	1-3 years	104	47.27
	3-5 years	65	29.55
	> 5 years	51	23.18
Number of Employees	1 - 5 people	126	57.27
	6 - 19 people	85	38.64
	20 - 99 people	9	4.09
Field	Food and Beverages	110	50
	Fashion	32	14.55
	Service	31	14.09
	Marketplace	18	8.18
	Craft	18	8.18
	Other	11	5
Asset (in IDR)	< 50 million	78	35.45
	50 - 500 million	113	51.36

Company Profile	Category	Respondents	Percentage (%)
	501 million - 10 billion	24	10.91
	Choose not to answer	5	2.27
Revenue (in IDR)	< 300 million	83	37.73
	300 million - 2,5 billion	87	39.55
	2,5 billion - 50 billion	37	16.82
	> 50 billion	4	1.82
	Choose not to answer	9	4.09

While the majority of respondents in this study are company owners (80.91%), female (54.55%), aged 19-30 years (57.73%), and have a high school education or less (37.27%). This data shows that most MSMEs owners in Indonesia are young women without higher education. In addition, according to the data, there are not many MSMEs actors in West Java that aged more than 41 years and have high education.

Table 2. Respondent profile

Respondent Profile	Category	Respondents	Percentage (%)
Position	Owner	178	80.91
	Manager	42	19.09
Gender	Male	100	45.45
	Female	120	54.55
Age	19-30 years	127	57.73
	31 - 40 years	75	34.09
	> 41 years	18	8.18
Education	High school or less	82	37.27
	Diploma	41	18.64
	Bachelor	68	30.91
	Master/ Doctor	29	13.18

Measurement of LOC Model

The first step of analyzing the data from this study is to test the reliability of the LOC's measurement indicators, including analysis of indicator loadings, mean, standard deviation, and VIF (Variance Inflation Factors) value. After that, each LOC's reliability and validity test are conducted, including analysis of CR (Composite Reliability) and AVE (Average Variance Extracted) values. The results of each test can be seen in Tables 3 and 4, respectively.

LOC's measurement indicator reliability was tested in 2 iterations. The first iteration is intended to evaluate the value of the indicator loadings, which is smaller than the 0.6 threshold. An indicator loading of less than 0.6 can interfere with the reliability and validity of the overall measurement (Hair et al., 2014).

From the first iteration, several LOC indicators were found with loadings smaller than 0.6: EC.STR4 (0.313), EC.COM4 (0.411), EC.LEA4 (0.558), and IA.XRI1 (0.527). These four indicators were excluded to increase the reliability and validity of each construct. In addition, the EC.PER3 indicator was also eliminated because this indicator interferes with the validity of the EC.PER construct.

All indicator loading is improved after excluding the five indicators above in the second iteration. In this iteration, there is no longer any indicator with loadings less than 0.6. After that, we reviewed each indicator's mean, standard deviation, and VIF values .

All indicators have a mean greater than 0.4, so it can be concluded that some samples have a positive perspective on measurement indicators. On the other hand, only the DC.RC1 indicator has a standard deviation greater than 1, which is 1.06. This indicates a slight variation from the sample answers regarding the overall measurement indicator. Finally, no indicator has a VIF value greater than 5, meaning there is no multicollinearity problem with the measurement indicators.

Table 3. LOC's measurement indicator loadings, means, standard deviation, and VIF value

Variable	Construct	LOC Indicators	1st Iteration	2nd Iteration			
			Loadings	Loadings	Mean	Std. Dev	VIF
Entrepreneurial Competencies (EC)	Strategic (EC.STR)	EC.STR1	0.803	0.833	4.72	0.57	1.213
		EC.STR2	0.628	0.639	4.42	0.68	1.129
		EC.STR3	0.714	0.704	4.48	0.67	1.175
		EC.STR4	0.313				
	Commitment (EC.COM)	EC.COM1	0.749	0.765	4.54	0.70	1.116
		EC.COM2	0.659	0.675	4.51	0.75	1.175
		EC.COM3	0.677	0.683	4.55	0.61	1.105
		EC.COM4	0.411				
	Conceptual (EC.CON)	EC.CON1	0.684	0.681	4.61	0.64	1.206
		EC.CON2	0.734	0.735	4.53	0.63	1.315
		EC.CON3	0.764	0.766	4.56	0.68	1.33
		EC.CON4	0.665	0.666	4.50	0.70	1.251
	Opportunity (EC.OPP)	EC.OPP1	0.779	0.779	4.42	0.71	1.401
		EC.OPP2	0.719	0.718	4.61	0.64	1.377
		EC.OPP3	0.712	0.713	4.45	0.68	1.322
		EC.OPP4	0.681	0.682	4.47	0.72	1.276
	Organizing (EC.ORG)	EC.ORG1	0.731	0.731	4.51	0.70	1.421
		EC.ORG2	0.788	0.788	4.41	0.80	1.61
		EC.ORG3	0.779	0.778	4.47	0.78	1.557
		EC.ORG4	0.711	0.71	4.50	0.67	1.377
	Relationship (EC.REL)	EC.REL1	0.684	0.684	4.46	0.72	1.219
		EC.REL2	0.781	0.78	4.53	0.69	1.569
		EC.REL3	0.738	0.737	4.45	0.76	1.448
		EC.REL4	0.675	0.676	4.51	0.74	1.222
	Learning (EC.LEA)	EC.LEA1	0.794	0.82	4.53	0.66	1.197
		EC.LEA2	0.646	0.686	4.60	0.60	1.193
		EC.LEA3	0.725	0.72	4.65	0.61	1.246
		EC.LEA4	0.558				
	Personal (EC.PER)	EC.PER1	0.732	0.769	4.51	0.71	1.283
		EC.PER2	0.72	0.761	4.51	0.65	1.254
		EC.PER3	0.682				
		EC.PER4	0.688	0.689	4.62	0.62	1.111
		BR.AWA1	0.824	0.825	4.73	0.58	1.775

Variable	Construct	LOC Indicators	1st Iteration Loadings	2nd Iteration Loadings	Mean	Std. Dev	VIF
Business Resilience (BR)	Organizational Awareness (BR.AWA)	BR.AWA2	0.694	0.691	4.54	0.67	1.345
		BR.AWA3	0.753	0.754	4.43	0.82	1.38
		BR.AWA4	0.76	0.761	4.45	0.74	1.564
	Organizational Adaptability (BR.ADA)	BR.ADA1	0.729	0.728	4.51	0.68	1.384
		BR.ADA2	0.791	0.79	4.50	0.70	1.579
		BR.ADA3	0.726	0.727	4.43	0.73	1.369
		BR.ADA4	0.774	0.775	4.42	0.84	1.42
	Organizational Agility (BR.AGI)	BR.AGI1	0.735	0.736	4.43	0.73	1.345
		BR.AGI2	0.747	0.747	4.48	0.70	1.382
		BR.AGI3	0.738	0.738	4.56	0.66	1.37
		BR.AGI4	0.73	0.729	4.53	0.66	1.313
Dynamic Capability (DC)	Sensing Capability (DC.SC)	DC.SC1	0.827	0.827	4.59	0.69	1.725
		DC.SC2	0.768	0.768	4.48	0.68	1.551
		DC.SC3	0.741	0.742	4.38	0.75	1.449
		DC.SC4	0.812	0.812	4.40	0.77	1.712
	Reconfiguration Capability (DC.RC)	DC.RC1	0.733	0.733	4.03	1.06	1.449
		DC.RC2	0.818	0.818	4.25	0.90	1.831
		DC.RC3	0.727	0.727	4.43	0.70	1.465
		DC.RC4	0.813	0.813	4.53	0.72	1.704
Innovation Ambidexterity (IA)	Innovation Capability (IA.IC)	IA.IC1	0.775	0.774	4.67	0.62	1.468
		IA.IC2	0.825	0.825	4.36	0.88	1.735
		IA.IC3	0.778	0.779	4.31	0.82	1.614
		IA.IC4	0.741	0.741	4.30	0.90	1.448
	Exploratory Innovation (IA.XRI)	IA.XRI1	0.527				
		IA.XRI2	0.832	0.839	4.45	0.74	1.591
		IA.XRI3	0.808	0.835	4.57	0.68	1.598
		IA.XRI4	0.754	0.769	4.49	0.71	1.369
	Exploitative Innovation (IA.XTI)	IA.XTI1	0.653	0.652	4.56	0.59	1.27
		IA.XTI2	0.751	0.752	4.47	0.74	1.408
		IA.XTI3	0.793	0.793	4.48	0.75	1.531
		IA.XTI4	0.749	0.749	4.55	0.72	1.322

From the construct reliability and validity test, we found that no construct has a reliability and validity problem in the second iteration. The reliability problem is indicated by a CR value lower than 0.7, while the validity problem is characterized by an AVE value lower than 0.5 (Hair et al., 2014). From this test, the exclusion of the five indicators in the first iteration is proven to improve each construct's CR and AVE values, as seen in Table 4 below.

Table 4. LOC's reliability and validity analysis

Construct	1st Iteration		2nd Iteration	
	CR	AVE	CR	AVE
BR.ADA	0.842	0.571	0.842	0.571
BR.AGI	0.827	0.544	0.827	0.544

Construct	1st Iteration		2nd Iteration	
	CR	AVE	CR	AVE
BR.AWA	0.844	0.576	0.844	0.576
DC.RC	0.856	0.599	0.856	0.599
DC.SC	0.867	0.621	0.867	0.621
EC.COM	0.724	0.406	0.751	0.502
EC.CON	0.805	0.508	0.805	0.508
EC.LEA	0.778	0.471	0.787	0.554
EC.OPP	0.815	0.524	0.815	0.524
EC.ORG	0.839	0.567	0.839	0.567
EC.PER	0.799	0.498	0.784	0.548
EC.REL	0.811	0.519	0.811	0.519
EC.STR	0.72	0.412	0.771	0.532
IA.IC	0.861	0.609	0.861	0.609
IA.XRI	0.825	0.547	0.856	0.664
IA.XTI	0.827	0.545	0.827	0.545

Measurement of HOC Model

In this step, HOCs are constructed by extracting the Latent Variable Score (LVS) from LOC's indicator so that LOC can act as an indicator for HOC (see Figure 3). LVS is the dataset's true score value from all variables for each observation/respondent. Afterward, we conducted a construct-indicator cross-loadings analysis to evaluate which indicators interfere with discriminant validity. In the first estimation, we found that DC.SC has greater loadings than BR.AWA at BR construct and EC.COM at EC construct. This issue can cause the AVE value of the EC and BR constructs to weaken, so we eliminate the BR.AWA and EC.COM constructs. After that, we measure indicator loadings and weight in the second estimation to ensure that there are no issues like this again and that there are no indicators with loadings values less than 0.6.
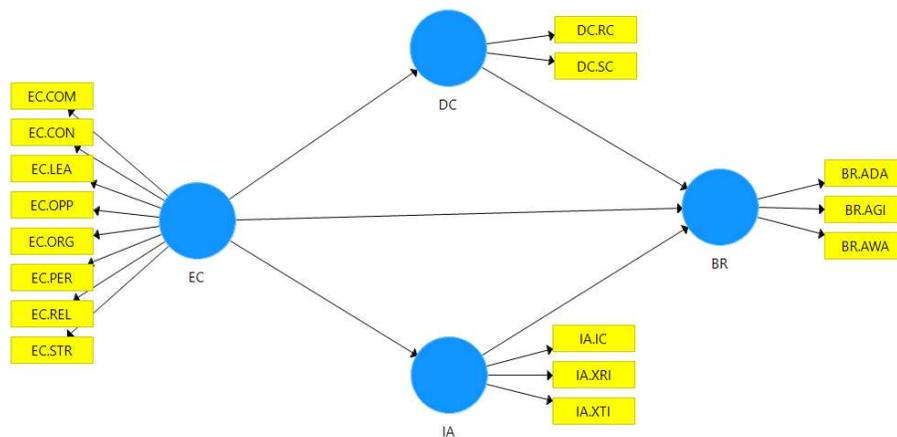

Figure 3. HOC structural model

Subsequently, the construct reliability and validity test were carried out. From this test, no CR and AVE values were below the threshold. So, it can be concluded that all constructs are reliable and valid. In addition, from the Fornell-Larcker Criterion analysis, it was also not found that the

correlation value between constructs was higher than the correlation between constructs. This analysis proves the achievement of discriminant validity (Fornell & Larcker, 1981).

Table 5. HOC indicator loading measurement

HOC Indicator	Construct-Indicator Cross-Loading (1st Estimation)				Indicator Assessment (2nd Estimation)	
	BR	**DC**	**EC**	**IA**	**Loadings**	**Weight**
BR.ADA	0.891	0.757	0.734	0.764	0.924	0.554
BR.AGI	0.881	0.752	0.679	0.724	0.917	0.532
BR.AWA	0.815	0.664	0.599	0.633		
DC.RC	0.677	0.881	0.629	0.738	0.877	0.501
DC.SC	0.824	0.916	0.712	0.777	0.919	0.61
EC.COM	0.477	0.478	0.667	0.428		
EC.CON	0.539	0.523	0.757	0.513	0.758	0.167
EC.LEA	0.533	0.542	0.748	0.555	0.752	0.168
EC.OPP	0.615	0.583	0.75	0.634	0.762	0.194
EC.ORG	0.665	0.66	0.787	0.686	0.795	0.203
EC.PER	0.612	0.572	0.787	0.601	0.786	0.188
EC.REL	0.622	0.612	0.782	0.604	0.794	0.189
EC.STR	0.645	0.554	0.794	0.57	0.786	0.178
IA.IC	0.756	0.796	0.685	0.887	0.885	0.376
IA.XRI	0.697	0.742	0.661	0.897	0.899	0.366
IA.XTI	0.745	0.72	0.694	0.893	0.893	0.379

Finally, a structural model test is carried out to determine how well the proposed model is. This test is carried out by evaluating two values: the determinant coefficient R^2 and the Stone-Geisser test Q^2. From the proposed model, the R^2 value of BR is 74.6%, DC is 55.9%, and IA is 59.2%. These three values show that the model can explain DC, IA, and BR quite well. On the other hand, the Q^2 value obtained from all variables more than zero indicates that the EC has predictive relevance for DC, IA, and BR. At the same time, DC and IA have predictive relevance for BR. The structural model assessment is illustrated in Figure 4.

Table 6. HOC construct reliability and validity, Fornell-Larcker criterion, and structural model

HOC	Construct Reliability and Validity		Fornell-Larcker Criterion				Structural Model	
	CR	**AVE**	**BR**	**DC**	**EC**	**IA**	**R^2**	**Q^2**
BR	0.917	0.847	0.921				0.746	0.615
DC	0.893	0.807	0.821	0.898			0.559	0.442
EC	0.914	0.603	0.767	0.748	0.777			
IA	0.922	0.797	0.808	0.843	0.77	0.893	0.592	0.461

Hypothesis Testing

After ensuring all the measurement items are reliable and valid, we conduct the hypothesis testing through bootstrapping algorithm. There are five hypotheses in this study that describe the relationship between the four variables. The results of this hypothesis test are shown in table 7 below.

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Table 7. Hypothesis test result

Hypothesis	Path	Coef.	T Statistics	P Values	Result
H1	EC -> BR	0.261	2.486	0.007	*Accepted*
H2a	EC -> DC	0.748	14.976	0	*Accepted*
H2b	DC -> BR	0.393	4.477	0	*Accepted*
H3a	EC -> IA	0.770	14.688	0	*Accepted*
H3b	IA -> BR	0.276	2.772	0.003	*Accepted*
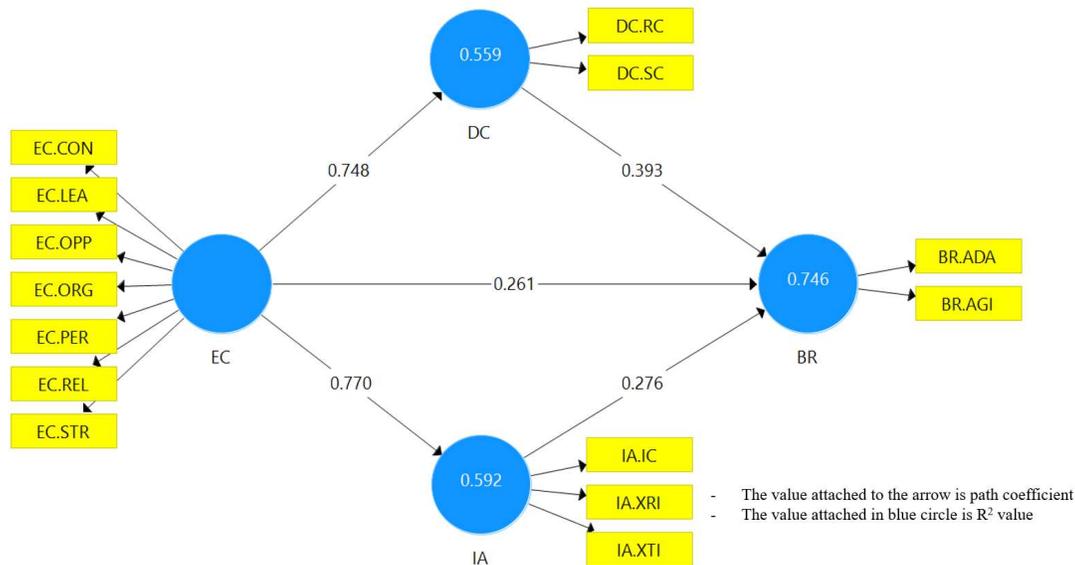
Figure 4. Structural model assessment result

From the results of hypothesis testing, we found that out of the five hypotheses, none of the hypotheses had a T statistic value of less than 1.96 and a p-value of more than 0.05. So, we can conclude that all hypotheses can be accepted with a 95% confidence level. In addition, the coefficient value of each path that has a positive value is also obtained. This shows that each variable of the proposed model has a constructive relationship. However, if we compare the coefficient values of the path leading to BR, we can see that DC has the most significant effect on BR since it has the largest coefficient value (0.393) compared to EC and IA (0.261 and 0.276, respectively).

The results of the accepted H1 hypothesis test indicate that there is a significant relationship between EC and BR. This implies that entrepreneurs must develop their competencies in order to survive in an uncertain business environment. In line with Li et al. (2021), the ability of managers to overcome disasters and crises is the key to providing an organization with long-term adaptability and innovation abilities that may result in significant improvements in their business as well as the short-term coping capacity to recover from violent shocks.

On the other hand, hypothesis testing H2a and H2b, which are also accepted, indicate that DC can partially mediate causality between EC and BR. Likewise, since H3a and H3b also proved significant, IA can also mediate the causality between EC and BR. From this, we can conclude that entrepreneurial competencies can increase organizational sensing and reconfiguration capabilities

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as well as exploitative, explorative, and innovative capabilities and are bound to boost any company's organizational adaptability and agility. This is in line with previous research, which explains the relationship between competence and the organization's ability to be dynamic and innovate to strengthen the resilience of the business itself (Aldianto et al., 2021; Colbert, 2004; Hashim et al., 2018; Taipale-Erävala et al., 2019)

On a second note, the outer weight of HOCs allows us to understand the contribution of EC, DC, and IA to BR (see Table 5). This study revealed that all EC domains have adjacent outer weight values. This indicates that all EC domains have the same relative importance in general. Specifically, the most important EC domain is organizing competencies with an outer weight value of 0.203, followed by opportunity and relationship competencies (0.198 and 0.189, respectively). Meanwhile, conceptual competencies have the lowest outer weight value (0.167). An entrepreneur's ability to organize their resources, see and take business-related opportunities, and form good relationships with the people around them are the three most important things to strengthen business resilience. Meanwhile, the conceptual ability of entrepreneurs in Indonesia has proven to be relatively less important in extending the business's life.

Evaluating the outer weight contribution of DC and IA to BR, we see that sensing capability has higher relative importance than reconfiguration capability (0.61 and 0.501, respectively). This means that the organization's ability to sense danger in the business environment is more important than its ability to reconfigure the business itself. On the other hand, exploitative innovation, innovation capability, and explorative innovation have outer weight values of 0.379, 0.376, and 0.366, respectively. These three values do not differ too much, indicating that the organization's ability to pursue explorative and exploitative innovation has a relatively equal value. Based on these findings, we can conclude that the proposed novel conceptual framework has been proven. This finding supports the DCM literature that suggests entrepreneurial competencies for diesel engines for solving disasters and crises in business environments (Li et al., 2021). Not only that, in line with previous studies, this study proves that entrepreneurial competencies also affect MSMEs' ability to respond to turbulent changes by exploiting and exploring innovation (Hashim et al., 2018; Pranowo et al., 2020). With these diesel motors, MSMEs actors in Indonesia can better strengthen their business resilience during the COVID-19 pandemic, especially in strengthening their organizing, opportunity, and related competencies.

CONCLUSION

This study contributes to entrepreneurial competencies literature by proposing a novel conceptual framework that shows a relationship between entrepreneurial competencies and business resilience. All hypotheses from this study were accepted with a statistical t-value above 1.96 and a p-value lower than 0.05. Based on the acceptance of these hypotheses, we can conclude that entrepreneurial competencies significantly affect Indonesian MSMEs' resilience during the COVID-19 pandemic, likewise with organizational dynamic capability and innovation ambidexterity, which have also been proven to affect business resilience substantially.

On the other hand, entrepreneurial competencies are also proven to affect organizational dynamic capability and innovation ambidexterity significantly. So that the two variables are proven to mediate the relationship between entrepreneurial competencies and business resilience; this

means that entrepreneurial competencies also contribute to the organization's ability to be dynamic and innovative, which are critical for building a resilient business climate.

From all the EC dimensions included in this study, organizational, opportunity, and relationship competencies have the highest relative importance among the other five EC dimensions. This means that Indonesian MSME actors must focus primarily on these three competencies to survive in a harsh and uncertain business environment. The Indonesian government must also evaluate and ensure that business practitioners in Indonesia already have sufficient competencies so that they can continue to compete.

LIMITATION & FURTHER RESEARCH

This research is still not perfect because some weaknesses limit the potential of this research. First, we only conducted this research within the province of West Java, Indonesia. Although we chose West Java because this province has the highest number of MSMEs in Indonesia, it would be better if further research is carried out on an enormous scope. With a larger sample, data interpretation can be made better.

Second, this study still has some unreliable constructs; commitment competencies in the EC variable and organizational agility in the BR variable. The unreliability of these two constructs causes limitations when interpreting the analysis results. On the other hand, these two variables have an important influence on the parent variable in previous studies (Akpan et al., 2021; Man, 2001). So, further studies are needed to validate these two constructs, especially in the context of Indonesian MSMEs

Third, this study does not have a moderating or control variable. Given the significance of the results of this study, we feel that the addition of other variables can provide more meaningful insight. By taking the age, education, and gender of MSMEs owners as control or moderating variables, we will not only get information about what EC is important to them but how the quality of their EC can affect the performance and resilience of the business.

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