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# The Influence of Entrepreneurial Ecosystem on Entrepreneurial Perceptions and Entrepreneurial Success

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## Abstract

**Research aims:** This research aims to determine the impact of entrepreneurial ecosystems on entrepreneurial perceptions and entrepreneurial success.

**Design/Methodology/Approach:** The sample in this research was 118 bamboo handicraft MSMEs (Micro, Small Medium Enterprise) in Sleman Regency Yogyakarta, selected using the cluster random sampling method with data data analysis using SEM-PLS.

**Research findings:** The results of this study showed that entrepreneurial ecosystem variables such as market access, human resources, government regulations, and infrastructure had a significant positive impact on entrepreneurial success and entrepreneurial perceptions. However, education and training, as well as culture, do not significantly influence.

**Theoretical Contribution/Originality:** MSME performance is an important way to measure the success of MSMEs. A strong entrepreneurial ecosystem and positive perceptions of entrepreneurs are expected to improve MSME performance.

**Practitioners/Policy Implications:** This research is expected to be a reference and consideration for SMEs and the government to strengthen entrepreneurial ecosystem factors so that it will have an impact on entrepreneurial perceptions and improve SME performance.

**Research Limitations/Implications:** There are several limitations to this study that need to be considered for future research. First, the focus is only on certain industries, so caution is needed in generalizing the results to these industries. Second there were challenges in data collection due to unclear addresses and the closure of some MSMEs.

**Keywords:** Human Resources; Accessible Markets; Business Support; Government Regulations and Infrastructure; Education and Training; Culture



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## Introduction

Micro, Small, and Medium Enterprises (MSMEs) are a forum that can be an alternative as a provider of employment and business opportunities for the community. MSMEs play an important role as the backbone of the Indonesian economy. In the era of globalization, Indonesia is facing economic and trade challenges due to Asean Free Trade Area (AFTA), which is a regional free trade issue. Many studies and national data show that the performance of MSMEs in Indonesia is still far below that of large enterprises and MSMEs in developed countries. This can be seen in terms of productivity, export contribution, participation in global and regional production, and contribution to value added. According to the Ministry of Cooperatives and MSMEs, the

export contribution of Indonesian MSMEs is only 15.7 percent, while the total export contribution of Thailand is 29 percent, Singapore 41 percent, and China 60 percent. This shows the low capacity of Indonesian MSMEs to compete in the export market, or at least to survive the increasingly fierce competition from imported goods in the domestic market.

Data from Badan Pusat Statistik (BPS) in 2020 recorded 4.2 million MSMEs in Indonesia, with further growth leading to 8.71 million MSMEs by 2022. The growth of MSMEs will continue to increase until 2022, when the number of MSMEs will reach 8.71 million, according to data released by the BPS. Meanwhile, according to BPS in 2021, the Special Region of Yogyakarta has the most MSMEs, namely around 309,161 MSMEs that support the DIY economy. Sleman Regency has the largest number, which is around 109,609 MSMEs. Based on this data, the MSMEs in Sleman Regency have great potential to be developed. The figures suggest significant potential for MSME development within Sleman Regency, particularly in the bamboo handicraft sector, which could emerge as a promising commodity for penetrating global markets. Bamboo handicrafts are spread over several sub-districts, namely Moyudan, Mlati, Seyegan, and Minggir.

Entrepreneurial success, as measured by financial prospects, customer relationships, internal processes, learning, and growth, is critical for MSMEs. The entrepreneurial ecosystem is influenced by human resources, accessible markets, business support, government regulations, infrastructure, education, training, and culture. A good entrepreneurial ecosystem can help entrepreneurs enter the market more easily. This includes access to customers, efficient distribution and help in understanding market needs and preferences. Increasing the market reach of a business can improve the performance of MSMEs.

Previous research has explored different aspects of entrepreneurial ecosystems. Shakiba et al. (2023) examined the effect of entrepreneurial ecosystem on firm performance with the mediating variable of organizational ambidexterity. Roundy and Fayard (2018) examined the mediating effect of entrepreneurial dynamic capabilities in the context of regional entrepreneurial ecosystems. Mai and Nguyen's (2022) study examined the mediating effect of entrepreneurial perceptions on firm performance. This study combines the three previous studies with different cultural and economic contexts, such as Indonesia. This gap indicates the need for research focusing on the Indonesian context to specifically evaluate the influence of these variables.

The results of this study will have significant academic and practical implications. Academically, this research can provide empirical evidence on how entrepreneurial ecosystems influence entrepreneurial perceptions and success in MSMEs, particularly in bamboo handicraft enterprises in Sleman, Yogyakarta Special Region. The research focuses on management science, especially in the field of strategic management. Practically, the results of this study can provide guidance for MSMEs on how entrepreneurial ecosystem factors and entrepreneurial perceptions can influence business success. In addition, the findings can inform the development of new policies

and regulations that better support local businesses and enable MSME owners to grow their businesses more effectively.

## **Literature Review and Hypotheses Development**

### **Entrepreneurship Ecosystem**

Entrepreneurial ecosystems are a means of creating and sustaining dynamic local entrepreneurial processes (Malecki, 2018). Entrepreneurial ecosystems have a significant impact on economic growth, and through this concept, a picture is formed of an ecosystem with a network system that can function independently and beneficially in supporting competition (Isenberg, 2010). The entrepreneurial ecosystem approach involves a group of actors and elements that are linked and coordinated, both formally and informally. These elements interconnect, organize, and facilitate different aspects of entrepreneurial performance, from the formation of new entrepreneurs to the development of enterprises aimed at improving capabilities and competitiveness (Purbasari & Wijaya, 2019). World Economic Forum (2013) has identified eight important aspects of an entrepreneurial ecosystem, namely human capital, accessible markets, business support, government regulations and infrastructure, research and development, culture, policy, and finance.

Among these, accessible markets play a critical role in a successful entrepreneurial ecosystem. A vibrant entrepreneurial ecosystem craves markets with responsive networks and consumers. This is reflected in a market that is receptive to new products and consumers who embrace innovation. In addition, the sustainability of a business is strongly influenced by the existence of an integrated and extensive production and marketing network. Indonesia's Presidential Decree No. 2 of 2022 on the development of national entrepreneurship states that human resources are one of the variables in the entrepreneurial ecosystem. Human resources refer to individuals who have the entrepreneurial spirit and trained work skills required in the world of entrepreneurship. Drucker (1985) argued that human resources are the most important asset of any business. Support in the entrepreneurial ecosystem includes capital, market access, mentoring, access to technology, access to quality human resources, and an entrepreneur-friendly environment (Isenberg, 2010). Entrepreneurs can interact with investors, mentors, and potential business partners. This network can help entrepreneurs to grow their businesses (Granovetter, 1985).

### **Entrepreneur Perception and Success Business**

A positive perception of entrepreneurship can motivate more people to become entrepreneurs. This in turn can create a favorable environment for the growth of small and medium-sized enterprises. Positive perceptions of entrepreneurship can motivate more individuals to undertake entrepreneurial activities and create a favorable environment for the growth of small and medium-sized enterprises (Audretsch & Belitski, 2017).

Entrepreneurial success is combination of individual entrepreneurial implementation, such as entrepreneurial perceptions and personal aspirations for the business, combined with sustainable business growth that exceeds individual business goals (Fisher et al., 2014). Entrepreneurial success can be achieved when the owner effectively manages the organization, generates new ideas and identifies existing opportunities. An indicator of entrepreneurial success is business growth, in terms of increased sales, increased profitability, increased profit margin and sustainable business growth (Davidsson et al., 2006). Kaplan and Norton's (2005) introduced the Balanced Scorecard as a comprehensive tool for measuring and monitoring organizational performance that complements financial measures. It takes into account non-financial measures such as customer satisfaction, internal processes and the organization's ability to learn and improve its activities that drive future financial performance.

The effect of the accessible market (ACMA) on entrepreneurial perceptions (ENPER)

World Economic Forum (2013) identifies accessible markets as including all sizes of firms as well as governments as potential customers in both domestic and foreign markets. The accessible market is a development of the efficient market hypothesis (EMH) or market efficiency theory. In an efficient market, trading prices reflect all available information (Tandelilin, 2010). According to Shane and Venkataraman's (2000) according to the theory of "opportunity recognition", access to market information is an important factor in how individuals perceive entrepreneurial opportunities. Autio et al (2000) suggests that good access to business networks can have a positive impact on an individual entrepreneur's perception, as it can facilitate the business development process. Mai and Nguyen (2022) suggest how entrepreneurs inaccessible markets can easily identify opportunities. Entrepreneurs are better connected to potential local buyers and can quickly test new products. In a study of start-ups in Vietnam, Mai and Nguyen (2022) found that accessible markets have a positive impact on entrepreneurs' perceptions. Based on the above description, the following hypothesis is formulated:

*H<sub>1</sub>: Market accessibility (ACMA) has a positive effect on entrepreneurial perception (ENPER).*

The effect of human capital (HUCA) on entrepreneurial perceptions (ENPER)

People play an important role in how entrepreneurs perceive potential risks, as human capital factors influence the initial capital structure (Psaltopoulos et al., 2005). According to human capital theory, entrepreneurs may choose a more efficient approach if they have sufficient knowledge and experience in the relevant domain (Caliendo & Kritikos, 2008). In effectuation theory, Shane and Venkataraman's (2000) state that an individual's knowledge, skills and experience, which make up human capital, play an important role in shaping entrepreneurial perceptions. Prior experience, skills and knowledge can help individuals to identify opportunities and develop innovative solutions. Mai and Nguyen (2022) conducted research on start-ups in Vietnam and found that human capital has a

positive impact on entrepreneurial perceptions. Based on the above description, the following hypothesis is formulated:

*H<sub>2</sub>: Human Capital (HUCA) has a positive effect on entrepreneurial perception (ENPER).*

The effect of support system (SUSY) on entrepreneurial perceptions (ENPER)

Davidsson et al. (2006) noted that business support, including access to capital, knowledge and networks, can improve entrepreneurial perceptions. Business environment support can influence entrepreneurs' perceptions of risk and uncertainty. Strong support can reduce entrepreneurs' fear of business risk and increase their confidence in taking entrepreneurial steps (Hmieleski & Baron, 2008). Business support can encourage individuals to identify business opportunities and feel more confident about starting new ventures. Mai and Nguyen (2022) conducted research on start-ups in Vietnam and found that business support have a positive impact on entrepreneurial perceptions. Based on the above description, the following hypothesis is formulated:

*H<sub>3</sub>: Support system (SUSY) has a positive effect on entrepreneurial perception (ENPER).*

The effect of the regulatory framework (REFRA) on entrepreneurial perceptions (ENPER)

The business environment theory (2008) argued that government regulation is an important element of the business environment. Clear and supportive regulations can create positive conditions for entrepreneurs by increasing their perception of opportunities and reducing uncertainty. An efficient regulatory framework, prioritization of resource allocation and government support for job creation and financing contributes to the creation of a favorable entrepreneurial ecosystem and can change entrepreneurs' perspectives on starting a business (Stenholm et al., 2013). In a study of start-ups in Vietnam by Mai and Nguyen (2022), government regulations and infrastructure were found to have a positive impact on entrepreneurial perceptions. Based on the above description, the following hypothesis is formulated:

*H<sub>4</sub>: Regulatory framework (REFRA) has a positive effect on entrepreneurial perception (ENPER).*

The effect of education & training (EDUTRA) on entrepreneurial perceptions (ENPER)

Factors that assess the maturity of the ecosystem are known to include the presence of technological talent generated by high quality educational institutions or access to educational services (Barger & Labrecque, 2013). Based on the opportunity recognition theory proposed by Shane and Venkataraman (2000), individual perceptions of business opportunities are strongly influenced by education and prior experience. A high level of education can help individuals recognize entrepreneurial opportunities. In a study by Mai

and Nguyen (2022) on business start-ups in Vietnam, government regulations and infrastructure were found to have a positive impact on entrepreneurial perceptions. Based on the above description, the following hypothesis is formulated:

*H<sub>5</sub>: Education and training (EDUTRA) has a positive effect on entrepreneurial perceptions (ENPER).*

The effect of cultural support (CUSUP) on entrepreneurial perceptions (ENPER)

Culture can influence attitudes towards risk, views on entrepreneurial opportunities, social support for entrepreneurship, and norms that influence an individual's decision to become an entrepreneur. Tavassoli et al. (2021) suggested that regional culture has an impact on the level of entrepreneurship and innovation. Regional culture may be an important factor influencing creativity and entrepreneurial motivation. Based on Hofstede's (1980) theory, a cultural theory consisting of several dimensions, one of which is individualism-collectivism, can influence perceptions of entrepreneurship. Individualistic cultures are more supportive of entrepreneurial initiatives because they emphasize independence and personal achievement. Based on the above description, the following hypothesis is formulated:

*H<sub>6</sub>: Cultural support (CUSUP) has a positive effect on entrepreneurial perceptions (ENPER).*

The effect of accessible market (ACMA) on entrepreneurial success (ENSU)

Porter (1980) introduced the concept of "market power" within the Five Forces analysis, where market access is a critical factor that can affect a company's competitiveness. According to Porter (1980), good market access can increase a firm's profitability and competitiveness. If there are many alternative products or services available to replace a firm's products or services, the firm will face high competitive pressure. Market access refers to the ability of entrepreneurs to reach potential customers and enter the market effectively. It includes factors such as market size, customer demand, distribution channels, and access to suppliers. Improved market access provides opportunities for entrepreneurs to grow and prosper (Drever, 2006). A study of start-up firms in Vietnam by Mai and Nguyen (2022) found that accessible markets have a positive impact on entrepreneurial success. Based on the above description, the following hypothesis is formulated:

*H<sub>7</sub>: Accessible market (ACMA) has a positive effect on entrepreneurial success (ENSU).*

The effect of Human Capital (HUCA) on entrepreneurial success (ENSU)

The relationship between human capital and business success is supported by human capital theory. Becker (1993) argued that people are not only resources but also capital that can generate profits, and any expenditure made to improve the quality and quantity

of this capital can be considered an investment. Herzberg et al. (1959) theory, known as hygiene motivation theory, emphasizes the importance of human resource factors such as recognition, achievement, responsibility, and growth in contributing to business success. Human capital theory implies that having adequate knowledge and experience in the relevant domain enables entrepreneurs to adopt a more efficient approach (Caliendo & Kritikos, 2008). Susilo and Agustino's (2022) found that human capital has a significant and positive impact on business success. In a study conducted by Mai and Nguyen (2022) on start-up firms in Vietnam, human resources were found to have a positive impact on entrepreneurial success. Based on the above description, the following hypothesis is formulated:

*H<sub>8</sub>: Human Capital (HUCA) has a positive effect on Entrepreneurial Success (ENSU).*

The effect of support system (SUSY) on entrepreneurial success (ENSU)

The role of support within the firm can vary greatly depending on the business context, type of industry, and geographical location. Government support, such as finance and training, can help small businesses grow and succeed (Hofstede, 1980). A study by Mai and Nguyen (2022) on start-up firms in Vietnam found that business support has a positive impact on entrepreneurial success. Based on the above description, the following hypothesis is formulated:

*H<sub>9</sub>: Support system (SUSY) has a positive effect on entrepreneurial success (ENSU).*

The effect of regulatory framework (REFRA) on entrepreneurial success (ENSU)

An ecosystem conducive to entrepreneurial entry is positively correlated with efficient governance (Audretsch & Belitski, 2017). Stam (2015) stated that the entrepreneurial ecosystem is specifically focused on key players in the economy, especially founders and policy makers. The current regulatory system (labor regulations, tax incentives, intellectual property rights, patents and related bureaucracy) determines costs and shapes business models (Cukier et al., 2015). Porter (1980) highlighted the importance of government regulation in managing competition in an industry. Effective regulation can create a healthy business environment that supports the growth and success of firms. In a study conducted by Mai and Nguyen's (2022) on start-ups in Vietnam, government regulations and infrastructure were found to have a positive impact on entrepreneurial success. Based on the above description, the following hypothesis is formulated:

*H<sub>10</sub>: Regulatory framework (REFRA) has a positive effect on entrepreneurial success (ENSU).*

#### The effect of education and training (EDUTRA) on entrepreneurial success (ENSU)

Educational factors such as level of education and work experience, combined with personal characteristics, contribute to an individual's entrepreneurial spirit (Boschma & Frenken, 2010). Drucker (1985) argued that education and training are key elements in achieving entrepreneurial efficiency and success. In an ecosystem, education plays an important role in generating quality resources, including talent and technology, that help firms survive and thrive. Mai and Nguyen (2022) study on start-ups in Vietnam found that education and training have a positive impact on entrepreneurial success. Based on the above description, the following hypothesis is formulated:

*H<sub>11</sub>: Education and training (EDUTRA) has a positive effect on entrepreneurial success (ENSU).*

#### The effect of Culture (CUSUP) on entrepreneurial success (ENSU)

Hofstede's (1980) cultural theory, known as Hofstede's cultural dimensions, identifies cultural dimensions that influence human behavior, including in a business context. Cultural or social norms reflect the characteristics of each nation. Entrepreneurial knowledge and success experiences are gained through new entrepreneurs' interactions with more successful start-up founders or mentors who advise other entrepreneurs, and through extensive absorption into the entrepreneurial culture of the society (Aldrich & Yang, 2013). Campbell's (2019) theory of organizational culture suggests that organizational culture has a strong influence on entrepreneurial success. Based on the above description, the following hypothesis is formulated:

*H<sub>12</sub>: Culture (CUSUP) has a positive effect on Entrepreneurial Success (ENSU).*

#### The effect of Entrepreneurial Perception (ENPER) on entrepreneurial success (ENSU)

The relationship between entrepreneurial perceptions and entrepreneurial success is based on the theory of entrepreneurial self-efficacy. Entrepreneurial self-efficacy is an individual's belief in his or her ability to act in an entrepreneurial context De Noble et al., 1999). McGee et al. (2009) defined entrepreneurial self-efficacy as an individual's belief in his or her ability to succeed in starting a business. According to Stajkovic and Luthans (2003), entrepreneurial self-efficacy plays an important role in starting and growing a business. Drnovšek et al. (2010) identified three dimensions of entrepreneurial self-efficacy related to the start-up phase, namely starting or developing a business, confidence in performing tasks and achieving goals, and positive or negative control over these beliefs. The process of developing a new business by an individual is closely related to the goals and control of these beliefs (Drnovšek et al., 2010). Furthermore, Drnovšek et al. (2010) found two types of beliefs in entrepreneurial self-efficacy, namely beliefs in goals and control over beliefs. In a study of start-ups conducted by Mai and Nguyen (2022), entrepreneurial beliefs were found to have a positive effect on entrepreneurial success.



Based on the above description, the following hypothesis is formulated:

*H<sub>13</sub>: Entrepreneurial Perception (ENPER) has a positive effect on Entrepreneurial Success (ENSU).*

## **Research Methods**

The population of this study was all bamboo handicraft MSMEs in Sleman Regency, totaling 280 MSMEs. The sampling technique used in this study was cluster random sampling with area sampling. In this study, 130 questionnaires were distributed, of which only 118 were returned and processed (90.76%), while 12 were not returned (9.23%). Entrepreneurial success was measured using a questionnaire adapted from Davidsson et al. (2006), which included our indicators: increase in sales, increase in profitability, increase in profit margin, and increase in business sustainability. Perceptions of entrepreneurship were measured using a questionnaire adapted from Douglas (2013), which included three indicators: great opportunity to have higher income, influence on increasing knowledge, and efforts to bring the owner closer to success. Market accessibility was measured using a questionnaire adapted from Douglas (2013), which included two indicators: domestic market and foreign market. Human resources were measured using a questionnaire adapted from Douglas (2013), which included four indicators: managerial skills, technical skills, entrepreneurial experience, and outsourcing availability. Business support was measured using a questionnaire adapted from Douglas (2013), which included four indicators: mentors/advisors, professional services, incubators, and networks of entrepreneurial peers. Government regulation and infrastructure were measured using a questionnaire adapted from Douglas (2013), which included ease of starting a business, tax incentives, and business-friendly regulations/policies. Education and training were measured using a questionnaire adapted from Douglas (2013), which include three indicators, namely workers' educational background, specialised entrepreneurship training, and the role of universities/schools in providing graduates for SMEs. Culture was measured using a questionnaire adapted from Douglas (2013), covering three indicators, namely preference for entrepreneurship, success stories/role models, and positive image of entrepreneurship. SEM-PLS analysis was used to test the hypotheses.

## **Results and Discussion**

Mlati sub-district has 29 MSMEs (24.6%), Sayegan sub-district has 26 MSMEs (22.0%), Moyudan sub-district has 18 MSMEs (15.3%), Minggir sub-district has 28 MSMEs (23.7%), and Godean sub-district has 17 MSMEs (14.4%). The majority of bamboo handicraft MSMEs in Sleman district have been established for more than 15 years, namely 90 MSMEs (76.3%), and 17 MSMEs (14.4%) have been established for 11-15 years, 9 MSMEs (7.6%) have been established for 6-10 years, and 2 MSMEs (1.7%) have been established for 1-5 years. The majority of bamboo handicraft MSMEs in Sleman Regency have an annual turnover of 1-20 million, namely 51 MSMEs (43.2%), 28 MSMEs (23.7%) have an annual turnover of >40 million, 25 MSMEs (21.2%) have an annual turnover of 21-40

million, and 14 MSMEs (11.9%) have an annual turnover of less than 1 million. The number of employees of bamboo handicraft MSMEs in Sleman Regency with 1-5 employees is 102 MSMEs (86.44%), while MSMEs with 6-10 employees are 13 MSMEs (11.01%), and MSMEs with more than 10 employees are 3 MSMEs (2.54%).

### Outer Model Testing

The results of testing the outer model of reflective constructs, consisting of convergent validity and reliability, are presented in Table 1.

**Table 1** Convergent Validity Test

Variable	Indicator	AVE	Outer Loading	Cronbach's Alpha	Composite Reliability	VIF
Entrepreneurial Success	ENSU1	0.633	0.76	0.8046	0.8727	1.595
	ENSU2		0.808			1.925
	ENSU3		0.883			2.245
	ENSU4		0.722			1.421
Entrepreneurial Perception	ENPER1	0.682	0.899	0.7625	0.8648	2.422
	ENPER2		0.735			1.255
	ENPER3		0.845			2.223
Human Capital	HUCA1	0.639	0.819	0.8122	0.876	1.788
	HUCA2		0.774			1.565
	HUCA3		0.824			1.664
	HUCA4		0.778			1.662
Support System	SUSY1	0.611	0.733	0.7878	0.8623	1.732
	SUSY2		0.824			1.985
	SUSY3		0.812			1.621
	SUSY4		0.753			1.520
Education & Training	EDUTRA1	0.718	0.847	0.8105	0.8851	1.610
	EDUTRA2		0.852			1.846
	EDUTRA3		0.846			2.205
Culture	CUSUP1	0.628	0.74	0.7214	0.8353	1.575
	CUSUP2		0.815			1.436
	CUSUP3		0.821			1.334

The convergent validity test results in Table 1 show that the outer loading value ranges from 0.722 - 0.899, and the outer loading value is > 0.7. According to Hair et al. (2019), if the outer loading value is > 0.7, then the indicator is considered valid. The AVE value ranges from 0.611 - 0.718, AVE value > 0.50. According to Hair et al. (2019), if the AVE value is > 0.50 then the indicators used in this study are valid.

According to Ghozali (2014), the Cronbach's alpha value must be > 0.70 and the composite reliability value must be > 0.70. The reliability test results based on Table 1 Cronbach's alpha value ranges from 0.7214 - 0.8122, Cronbach's alpha value > 0.70 so it can be declared reliable. While the composite reliability value ranges from 0.835 - 0.8851, the composite reliability value is > 0.70 so it can be declared reliable.

### Outer Loading and Outer Weight Test Results for Formative Constructs

The factor loading must be  $>0.7$  and the outer weight is seen from the t-statistic value, if the t-statistic value  $>1.96$  then the formative construct is considered valid (Ghozali, 2014). The outer loading value ranges from 0.7815-0.9098, and the outer weight value is  $>0.70$  so that the indicator can be declared valid, while the outer weight value is seen from the t-statistic, each indicator has a t-statistic of more than 1.96, so the indicator can be declared valid.

### Discriminant Validity Test

According to Ghozali (2014), the cross-loading of each variable must be  $> 0.70$ , which is assessed by a table with rows for indicators and columns for latent constructs/variables. The cross-loading of each reflective variable is  $> 0.70$  and correlates more strongly with the main variable it measures than with other variables, which means that the reflective variable has good discriminant measures than with other variables, which means that the reflective variable has good discriminant.

### Inner Model Testing

Inner model testing is carried out to test the structural model through the results of R-squared, F-squared, Q-squared and goodness of fit. The R-squared test results are presented in Table 2.

**Table 2** R-squared and Q-squared Test Results

Endogen Variable	R Square	R Square Adjusted	Q <sup>2</sup>
Entrepreneurial Perception	0.555	0.5309	0.3568
Entrepreneurial Success	0.6862	0.6662	0.4012

The R-squared test results in Table 2 show that the endogenous variables have R-squared  $> 0.50$ , which means that R-squared shows a moderate model. Q-Squared measures the predictive power of the model, the Q-Squared of endogenous variables  $> 0.35$  means that these variables have strong model predictions.

Goodness of Fit test results are presented in Table 3.

**Table 3** Goodness of Fit Test Results

Variable	Average Variance Extracted (AVE)	Q <sup>2</sup>
CUSUP	0.629	
REFRA	0.72	
ENPER	0.682	0.555
ENSU	0.633	0.6862
HUCA	0.639	
SUSY	0.611	
Mean	<b>0.652</b>	<b>0.621</b>
Goodness of Fit = 0.636		

The Goodness of fit is conceptually used for reflective indicator measurement models. Based on the calculation results, the goodness of fit value of 0.636 indicates a high goodness of fit. The Goodness of fit is said to be high when the value is  $> 0.36$ , i.e. the model has a good fit.

### Hypothesis Testing

The results of hypothesis testing using SEM-PLS can be seen in Figure 1.

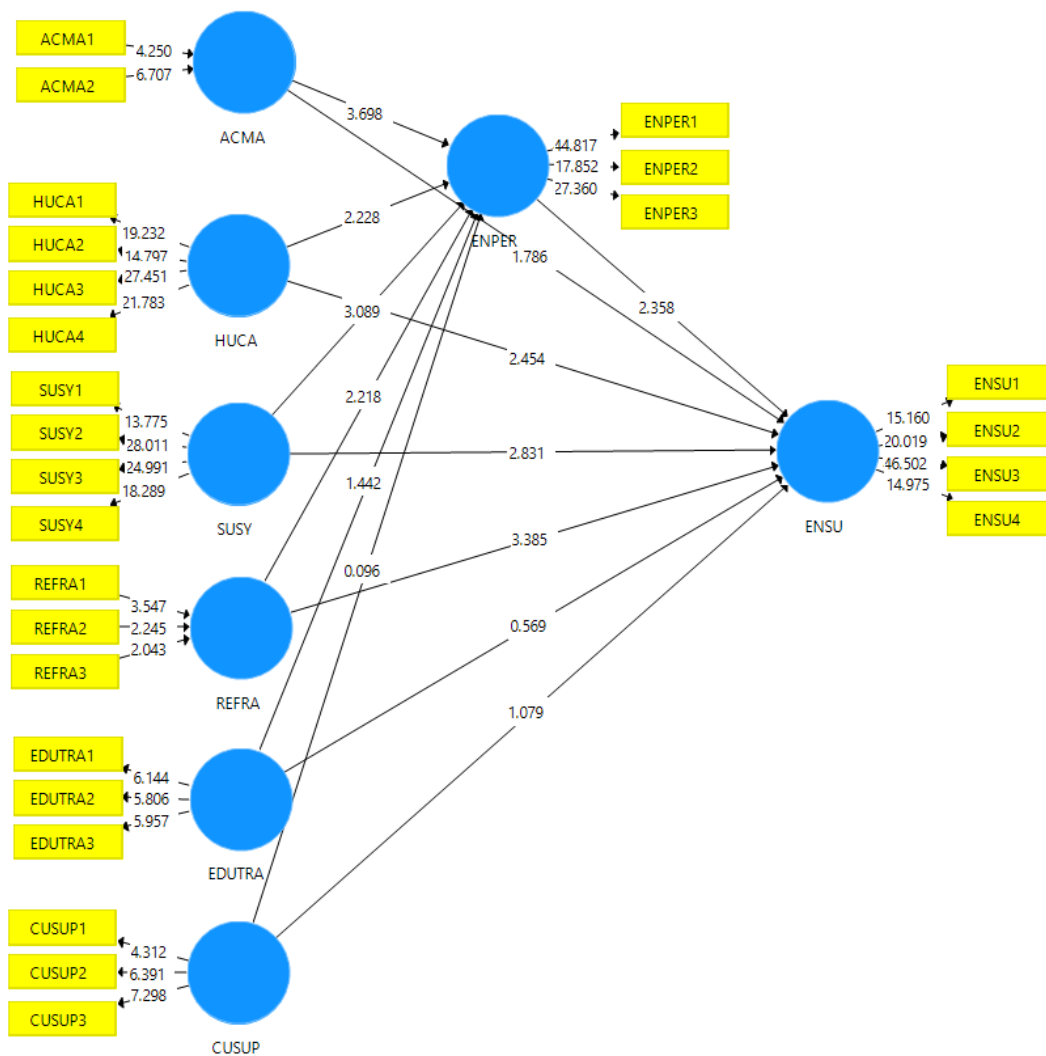


Figure 1 SEM-PLS Model Results

Hypothesis testing is done by looking at the level of significance and path parameters between latent variables. The hypothesis proposed is to determine the relationship of each hypothesis variable. The results of hypothesis testing are supported if the p-value is  $< 0.05$  (Hair et al., 2019). The results of the hypothesis testing are presented in Table 7 as follows:

**Table 4** Hypothesis Test Results

	Original Sample (O)	P-Values	Decision
ACMA -> ENPER	0.35	0.000	Supported
HUCA -> ENPER	0.161	0.013	Supported
SUSY-> ENPER	0.273	0.001	Supported
REFRA -> ENPER	0.186	0.015	Supported
EDUTRA -> ENPER	0.1	0.086	Rejected
CUSUP -> ENPER	0.008	0.458	Rejected
ACMA -> ENSU	0.156	0.034	Supported
HUCA-> ENSU	0.216	0.007	Supported
SUSY -> ENSU	0.253	0.002	Supported
REFRA -> ENSU	0.261	0.001	Supported
EDUTRA -> ENSU	0.034	0.289	Rejected
CUSUP -> ENSU	0.076	0.143	Rejected
ENPER -> ENSU	0.206	0.011	Supported

The results of hypothesis testing in Table 4 show that the variables that affect the perception of entrepreneurship (ENPER) are ACMA ( $0.000 < 0.05$ ); HUCA ( $0.013 < 0.05$ ); SUSY ( $0.001 < 0.05$ ) and REFRA ( $0.015 < 0.05$ ). Meanwhile the variables that do not affect ENPER are EDUTRA ( $0.086 > 0.05$ ) and CUSUP ( $0.458 > 0.05$ ). The data also show that the variables influencing entrepreneurial success (ENSU) are ACMA ( $0.034 < 0.05$ ); HUCA ( $0.007 < 0.05$ ); SUSY ( $0.002 < 0.05$ ) and REFRA ( $0.001 < 0.05$ ). On the other hand, the variables that do not affect ENSU are EDUTRA ( $0.289 > 0.05$ ) and CUSUP ( $0.143 > 0.05$ ). Entrepreneurial perception (ENPER) affects entrepreneurial success (ENSU) with a p-value of  $0.011 < 0.05$ .

### Discussion

The market access variable (ACMA) has a significant and positive effect on entrepreneurial perception (ENPER) in bamboo handicraft MSMEs in Sleman. This indicates that the greater the market accessibility, the more positive the entrepreneurial perceptions. The findings are in line with the research conducted by Mai and Nguyen's (2022), stating that in an accessible market, entrepreneurs can easily find opportunities. Another theory that supports this research is the theory known as 'opportunity recognition', confirming that access to market information is one of the important elements that influences how individuals understand entrepreneurial opportunities (Shane & Venkataraman, 2000). In addition, research by Levie et al. (2013) suggested that good access to business networks can have a positive impact on individual perceptions of an entrepreneur, as it can facilitate the business development process.

The results also points out that human resource variables (HUCA) have a significant and positive effect on entrepreneurial perceptions (ENPER) in bamboo craft MSMEs in Sleman. This suggests that the availability or quality of good human resources can increase positive perceptions of the opportunities and challenges associated with entrepreneurship. The findings of this study are consistent with the research conducted by Mai and Nguyen's (2022) pointing out human resources have a positive effect on entrepreneurial perceptions. Another theory that einforces this research is the theory known as 'effectuation', emphasizing that human resources, consisting of individual knowledge,

skills and experience, play an important role in shaping entrepreneurial perceptions (Shane & Venkataraman, 2000).

The Business support variable (SUSY) has a significant and positive effect on entrepreneurial perceptions (ENPER) in bamboo craft MSMEs in Sleman. It indicates that suggests that support, whether in the form of policy, resources or other assistance, can increase positive perceptions of entrepreneurial opportunities. The findings of this study are in line with Mai and Nguyen's (2022) research highlighting that business support has a positive effect on entrepreneurial perceptions. In addition, Davidsson et al (2006) research confirmed that business support such as access to capital, knowledge and networks can increase entrepreneurial perceptions.

Government regulations and infrastructure (REFRA) variables have a significant and positive effect on entrepreneurial perceptions (ENPER) in bamboo craft MSMEs in Sleman. This shows that supportive government regulations and adequate infrastructure can increase entrepreneurs' positive perceptions of entrepreneurial opportunities. The findings of this study are consistent with the research conducted by Mai and Nguyen's (2022) underlining that government regulations and infrastructure have a positive effect on entrepreneurial perceptions. The theory that proposed by Baron (2006), namely this research is the theory proposed by Baron (2006), namely the business environment theory. It underlines that government regulation is one of the important elements in the business environment. Clear and supportive regulations can create positive conditions for entrepreneurs, increase entrepreneurial perceptions of opportunity, and reduce uncertainty. In addition, research by Stenholm et al. (2013) also asserted that an efficient regulatory framework, prioritization of resource allocation, and government support for job creation and financing result in a favorable entrepreneurial ecosystem and can change entrepreneurs' perspectives on starting a business.

The education and training variable (EDUTRA) has no significant effect on entrepreneurial perceptions (ENPER) in bamboo craft MSMEs in Sleman. The findings of this study contradict the research conducted by Mai and Nguyen (2022) describing that education and training have a positive effect on entrepreneurial perceptions. It also contradicts the opportunity recognition theory proposed by Shane and Venkataraman (2000) suggesting that individual perceptions of business opportunities are strongly influenced by education and previous experience. A high level of education may help individuals to recognize entrepreneurial opportunities. This is because the owners and employees of the bamboo handicraft MSMEs in Sleman are already highly educated, with an average of high school education, and have received training from the local government. However, there is still a gap between the education and training received and the knowledge and skills required to run a bamboo handicraft enterprise. This gap may result in a lack of significant impact on entrepreneurial perceptions.

However, cultural variables (CUSUP) do not significantly affect entrepreneurial perceptions (ENPER) in bamboo handicraft MSMEs in Sleman. This is because MSMEs with a strong culture tend to maintain a culture that is believed to have been passed down from generation to generation and are reluctant to accept new cultures. Therefore, it has

less significant impact on entrepreneurial perceptions. The results of this study are not consistent with Hofstede's (1980) theory of culture, which consists of several dimensions. One of which is the individualism-collectivism dimension that can affect entrepreneurial perceptions. An individualistic culture is more supportive of entrepreneurial initiatives because it emphasizes independence and personal achievement. However, this research is consistent with Mai and Nguyen's (2022) research on start-ups in Vietnam, which finding that culture had no effect on entrepreneurial perceptions.

The market access variable (ACMA) has a significant and positive effect on entrepreneurial success (ENSU) in bamboo craft MSMEs in Sleman. These results indicate that the larger the accessible market, the higher the likelihood of entrepreneurial success. The findings of this study are in line with the research conducted by Mai and Nguyen (2022), suggesting that accessible markets have a positive effect on entrepreneurial success. In addition, Drever (2006) argues in his research that better market access provides opportunities for entrepreneurs to grow and develop. This research is also supported by the theory put forward by Porter (1998), that good access to markets can increase profits and competitiveness of companies.

Human resource variables (HUCA) have a significant and positive effect on entrepreneurial success (ENSU) in bamboo craft MSMEs in Sleman. This finding suggests that the higher the quality of human resources, the higher the likelihood of entrepreneurial success. The findings of this study are in line with the research conducted by Mai and Nguyen (2022) who found that human resources have a positive impact on entrepreneurial success. Research conducted by Susilo and Agustino (2022) also finding that human resources have a significant and positive effect on entrepreneurial success. This is further supported by Herzberg et al. (1959) stating that hygiene motivation theory, which emphasizes the importance of human resource factors such as recognition, achievement, responsibility, and growth in contributing to entrepreneurial success.

The business support variable (SUSY) has a significant and positive effect on entrepreneurial success (ENSU) in bamboo craft MSMEs in Sleman. These results indicate that good support from various business aspects such as finance, training, mentoring and business networks have a positive impact on entrepreneurial success. The findings of this study are in line with the research conducted by Mai and Nguyen's (2022) which stating that business support has a positive impact on entrepreneurial success. This is also supported by Hofstede's (1980) theory that government support, such as financing and training, can help small businesses grow and achieve entrepreneurial success.

The government regulation and infrastructure variables (REFRA) have a significant and positive effect on entrepreneurial success (ENSU) in bamboo craft MSMEs in Sleman. This finding suggests that clear and supportive regulations and adequate infrastructure can create a conducive business environment for entrepreneurial growth and success. The findings of this study are consistent with the research conducted by Mai and Nguyen (2022), who finding that government regulations and infrastructure have a positive impact on entrepreneurial success. This research is also supported by Porter's (1980) theory, which emphasizes the importance of government regulations in regulating

competition in an industry. Effective regulation can create a healthy and conducive business environment for the growth and success of the firm.

The education and training variable (EDUTRA) has no significant effect on entrepreneurial success (ENSU) in bamboo craft MSMEs in Sleman. The findings of this study contradict the research conducted by Mai and Nguyen (2022) stating that education and training have a positive effect on entrepreneurial success. This research also contradicts Drucker's (1985) that education and training is one of the key elements in achieving entrepreneurial efficiency and success. Educational institutions create cutting-edge technological advances that spill over to neighboring firms. Educational institutions in an ecosystem play an important role in creating quality resources, including talent and technology, that help firms survive and thrive. Based on the results of the descriptive statistics of the respondents, the lack of cooperation between bamboo handicraft MSMEs in Sleman and schools and universities results in a lack of attention from the educational world, especially universities, to the development of production and marketing in bamboo handicraft MSMEs. In addition, the universities or schools that cooperates are sometimes not aligned with the objectives desired by the MSMEs, resulting in a less significant impact on business success.

Cultural variables (CUSUP) do not significantly affect entrepreneurial success (ENSU) in bamboo handicraft MSMEs in Sleman. It is because MSMEs with a strong culture tend to maintain a culture that is believed to be inherited and are reluctant to accept new cultures, so it has less significant impact on entrepreneurial perceptions. The findings of this study are not consistent with the theory of organizational culture proposed by Campbell (2019) stating that organizational culture has a strong influence on entrepreneurial success. However, this study is consistent with Mai and Nguyen's (2022) research on start-ups in Vietnam that culture has no effect on entrepreneurial success.

The Entrepreneurial Perception variable (ENPER) has a significant and positive effect on Entrepreneurial Success (ENSU) in Bamboo Craft MSMEs in Sleman. These results indicate that when someone has a positive perception of business opportunities, the success rate is also high. The findings of this study are in line with the research conducted by Mai and Nguyen (2022) who found that entrepreneurial perceptions have a positive effect on entrepreneurial success. This research is supported by McGee et al.'s (2009) theory of entrepreneurial self-efficacy as an individual's belief in his or her ability to succeed in starting a business.

## **Conclusion**

The results showed that there are several variables that influence entrepreneurial perceptions and there are variables that do not influence entrepreneurial perceptions. Variables that have a positive effect on entrepreneurial perceptions include the variables of market accessibility, human resources, business support and government regulations and infrastructure. Variables that have no effect on entrepreneurial perceptions include education and training variables and culture.



Variables that have a positive effect on business success include market access, human resources, business support, government regulations and infrastructure. Variables that have no effect on business success include education and training variables and culture. The results of the last hypothesis test showed that entrepreneurial perceptions have a significant and positive effect on business success.

The results of this study contributed empirical evidence to support many previous studies by providing a better understanding of the impact of the entrepreneurial ecosystem on entrepreneurial perceptions and entrepreneurial success. However, there are still many limitations in this study that can be used as an evaluation for future research. For the future research is recommended to conduct research on different industries in order to compare and generalize the findings. The results of this study can be used as evaluation material for bamboo craft MSMEs, especially in Sleman area, to analyze the impact and contribution of the entrepreneurial ecosystem on entrepreneurial perceptions and entrepreneurial success. For the government, they can be used as a reference for making regulations on policies related to the success of MSMEs.

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