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Model of entrepreneurial competence and business performance of small medium enterprises (SMEs) in Indonesia

ABDUR ROXAQ FAHMI, ERNANI HADIYATI, SUGENG MULYONO & GENDUT BUDI WAHYONO
Gajayana University of Malang, Indonesia

Abstract

Aim/Purpose: The purpose of this study was to determine the effect of entrepreneurial knowledge and entrepreneurial skills in influencing entrepreneurial competence and business performance in SMEs in the city of Malang in Indonesia.

Design/Methodology: The location of the research was the industrial area of SMEs in the city of Malang, in the East Java Province in Indonesia, a potential hub for poultry products in the city where SMEs have contributed significantly to the economic growth of the city of Malang. The research used stratified sampling technique with 101 SME entrepreneurs in the sample. The research used primary data collection – including field observations and in-depth interviews. SMARTPLS was used as data analysis tool/model.

Findings: Entrepreneurial knowledge and entrepreneurial skills have an influence on entrepreneurial competence; the research model shows entrepreneurial competence as a partial mediating variable.

Conclusion: The paper concludes that entrepreneurial competence as a partial mediating variable in entrepreneurial knowledge and entrepreneurial skills is critical to SMEs business performance.

Limitation: This study limits its scope to only one SMEs processing industrial sector compared to population, which may limit the applicability of the research in the wider SMEs sector of the Indonesian economy.

Implication: The Indonesian government's empowerment programmes for SMEs should consider developing entrepreneurial competencies through training, coaching, and mentoring.

Originality: The novelty of this research lies in combining indicators of key variables of entrepreneurial knowledge, entrepreneurial skills, entrepreneurial competence and business performance with previous empirical studies to produce a valid and reliable research model.

Keywords: Entrepreneurial knowledge, entrepreneurial skills, entrepreneurial competence, business performance, SMEs

Introduction

Human resources are a deciding factor for SMEs when taking advantage of business opportunities (Nabiswa & Mukwa, 2017). Workforce and entrepreneurial skills competence and development are central to human resource management. Entrepreneurial competence influences company performance and predicts business success (Gerli, et al., 2011; Andrews et al., 2011). Research by Mitchelmore & Rowley (2010) has also shown that entrepreneurial competence supports business success of SMEs as well as contributes significantly to a country's economic growth and development.

Al-Mamun et al. (2016) conceptualised entrepreneurial competence as the ability to use human resources to improve the performance of SMEs. According to Mitchelmore & Rowley (2010), entrepreneurship competence in SMEs is a specific competency for the operationalisation of entrepreneurship in new companies; and that growing competency in start-up companies is a key ingredient for business sustainability (Bird, 1995).

Literature Review

Entrepreneurial Knowledge

Ritonga & Lusiana (2016) defined entrepreneurial knowledge as all information or phenomena known to humans through their five senses and minds, involving an effort to build a value with ability, courage, determination, creativity, bravery to take risks in opportunities to succeed. Entrepreneurial knowledge also offers opportunities set-up, grow and sustain businesses.

Hadiyati, (2011) argued that creativity and innovation positively affect business performance.

Functional knowledge or knowledge related to entrepreneurial tasks are such knowledge of environmental adaptation, selection of identified opportunities, formulation of strategy, organization, management, and leadership (Shane et al., 2000; Unger et al., 2011).

Relevant hypotheses for entrepreneurial knowledge are:

Hypothesis 1: Entrepreneurial knowledge influences entrepreneurial competence.

Hypothesis 3: Entrepreneurial knowledge influences business performance.

Entrepreneurial Skills

Skills are acquired and developed through training (Zehra, 2016). Abdul (2018) identified entrepreneurial skills as communication, creative thinking, problem solving, leadership and work groups. Cooney (2012) examined entrepreneurial development, identified four main dimensions of entrepreneurial skills as: technical skills, which relates to the production of products or services; managerial skills, which relates managing a company and administration; entrepreneurial skills, which are needed to identify opportunities; and personal performance skills, which include self-awareness, accountability, emotional skills, and creative skills. Al Mamun, Abdullah et al. (2019) argued that entrepreneurial skills determine the use of resources in achieving competitive advantage that contributes to company performance, growth, and profitability.

Relevant hypotheses for entrepreneurial skills are:

Hypothesis 2: Entrepreneurial skills influence entrepreneurial competence.

Hypothesis 4: Entrepreneurial skills affect business performance.

Entrepreneurial Competence

Entrepreneurial competence is an expertise or a 'personality' possessed by an individual in carrying out business activities (Zali et al., 2013). The dimensions of entrepreneurial competence include the concept of opportunity strategies, organizational rela-

tionships, and personal support as entrepreneurs (Vijay, 2011). Tehseen & Ramayah (2015) identified, among others, key components of entrepreneurial competence as building, evaluating and implementing strategies for the company (strategy); conceptual ability, coordination of business activities and business ability to find opportunities in the market (opportunities); workforce ability to motivate itself in achieving business performance (personnel); learning new ways of advancing business (learning); honesty and transparency in business affairs (ethics); and social norms in family business (family).

Gerli et al. (2011) explained that an entrepreneur is important in increasing entrepreneurial competence to achieve business performance; while Mitchelmore & Rowley (2013) argued that entrepreneurial competence can improve company performance and encourage economic growth and development. Hadiyati (2014) posited that character and entrepreneurial competence affect micro and small business performance.

Entrepreneurial competence is related to the knowledge, skills and abilities of managers who can contribute to the company's sustainability of competitive advantage (Tehseen & Ramayah, 2015).

Business Performance

A study by Martikainen et al (2012) identified indicators of business growth to include profit growth and market growth—both of which relate to a company's competitiveness in the market. Results from Ismail (2012) study reported similar indicators of business performance in SMEs to include growth operating profits, customers, and business capital. Evidence from Hadiyati (2018) study showed that performance of SMEs is also measured by growth in employment, profits and sales.

Entrepreneurship competency leads to improvement in business performance (Faggian & McCann, 2009; Mitchelmore & Rowley, 2010), supports success planning (Hayton & Kelley, 2006).

A successful business requires leadership as well as owners who have entrepreneurial competencies (Chandler & Jansen, 1992).

Relevant hypotheses for business performance are:

Hypothesis 5: Entrepreneurial competence affects business performance
Hypothesis 6: Entrepreneurial knowledge influences business performance by mediating entrepreneurial competence.
Hypothesis7: Entrepreneurial skills affect business performance mediating entrepreneurial competence

Methodology

The location of the research was the industrial area of SMEs in the city of Malang, in the East Java Province in Indonesia. The location of the study was determined by considering Malang as a potential hub for poultry products in the city where SMEs have contributed significantly to the economic growth of Malang. The research used stratified random sampling technique with 101 SME entrepreneurs in the sample. The research used primary data collection—including field observations and in-depth interviews.

The aim of the research was to analyse the competence of entrepreneurial knowledge and skills on business performance by mediating entrepreneurial competence. Indicators of entrepreneurial knowledge include business environment, business opportunities, business strategies, organisation, governance, leadership. Indicators entrepreneurial skills include technical operational activities, products, services, managerial, creativity, innovation; and identification of business opportunities. Indicators entrepreneurial competence include management, marketing, finance, human relations,

business development, and social norms. Indicators of business performance and growth include sales, profits and assets.

Research variable indicators were measured using a Likert scale – rating from 5 to 1. The smaller the rating (number), the lower the respondent's perception of the indicator.

In accordance with the research objectives, the Structural Equation Model (SEM) analysis method was used based on Partial Least Squares (PLS) regression; the software used was SMARTPLS version 2.0 M3. The SMARTPLS was used to test Model Fit of SEM with the outer model and the inner model.

The second stage tests the Structural Model with the Inner Testing with the inner model method using measurements of the path coefficient R2 (path coefficient), the value of the stone Geisser (Q2). In PLS statistical testing every hypothesised relationship is performed using Bootstrap testing.

Results

Outer model assessment is an analysis to measure a model. In detail the results of the analysis can be seen in table 1.

Table 1 Assessment Criteria and Standard Values on the Outer Model Testing

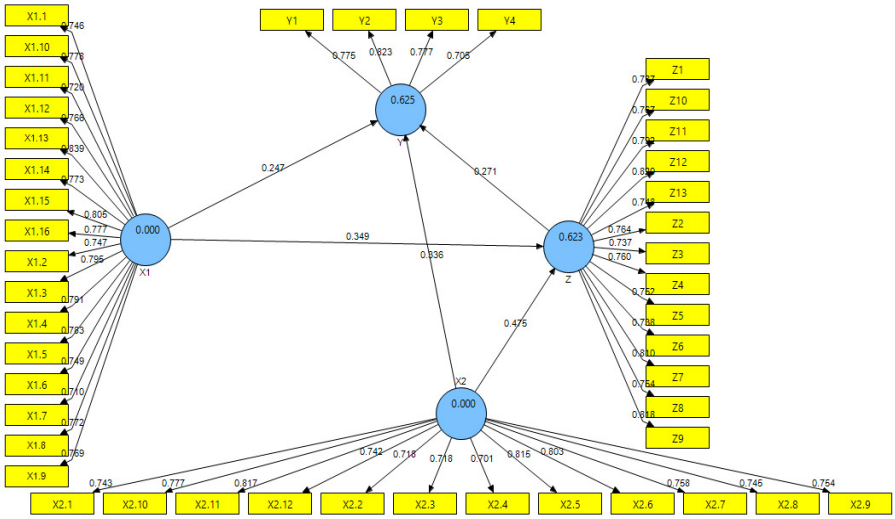
No	Criteria	Explanation	The Standart	Assessment Criteria
1	Loading factor (convergent validity)	Indicator of strength in explaining research variables	≥ 60 (Hair,2010; Ghozali , 2008)	All indicators in the latent contract have a factor loading value greater than 0.60. This can be explained that the indicator is valid means that it can make a large contribution to the latent construct.
2	Discriminant Validity	Test a number of indicators of variables that have no unidimensional	≥ 70	The results of the measurement of all indicators of the construct shows the correlation number is greater than the standard value of 0.70 meaning that the indicator of the construct has a close and valid relationship
3	*Square Root Of Average Variance Extracted (AVE)*	Testing the construct validity of the research variable	≥ 50	The four constructs of the research variable have a AVE value greater than the standard value of ≥ 50, which means that the evaluation of the measurement model has good discriminant validity (X_1 = 0.594 X_2 = 0.575; Z = 0.595; Y = 0.598).
4	*Composite reliability.*	Testing the reliability of the construct of the research variable	≥ 70	The results of the construct variable reliability test were greater than ≥0.70 meaning that the four research variables were reliable. (X_1=0,959; X_2= 0,942; Z = 0,854; Y= 0,950).
5	Cronbachs Alpha	Reliability testing for all constructs	≥ 70	The results of the construct variable reliability test were greater than ≥ 0.70 meaning that the four research variables were reliable. (X_1=0,9543; X_2= 0,9327; Z = 0,7754 ; Y= 0,9439)

Source: Authors

Table 1 is the result of structural model testing with the outer model method including: Loading factor, Discriminant Validity, AVE, Composite reliability and Cronbach al-

pha. In accordance with the measurement results with the Outer model in table 1, it can be concluded that the indicators in the research variables as constructs of the variables has shown to be valid and reliable. The results of these calculations can be shown in Figure 1.

Figure 1: Structural Model (*Outer Model*)



Source: Authors

Structural-Model Testing (Inner Model)

Testing with the inner model method using measurements of the path coefficient R2 (path coefficient), the value of the stone Geisser (Q2). Path coefficient with R2 is a test that describes the strength of the relationship between contracts in a research model. Q2 testing is a measurement of the model's predictive capability. In PLS statistical testing, every hypothesised relationship is performed using Bootstrap testing. The results of testing with the inner model can be seen in table 2.

Table 2: Assessment Criteria and Standard Values on the Inner Model Testing

No	Criteria	Explanation	The Standart	Assesment Criteria
1	R2 Endogenos Variabel	Construction of endogenous variability that can be formed by the variability of exogenous constructs	If the value of R2 = 0.67, then the model is categorized as substantial. If the value of R2 = 0.33, the model is categorized as medium. If the value of R2 = 0.19, then the model is categorized as weak (Chin, 1998) R2 value of 0, 70 is categorized as strong (Sarwono, 2013)	R2 - Z = 0.6231 The calculation result R^2 shows that the direct model of the variables X1 and X2 on Z entrepreneurial competence shows the result of 0.623. These results can be explained that the variables X1 and X2 affect Z able to explain at 62.31% and the remaining 17.69% determined variables outside the model (The model category is substantial) R^2- Y = 0.6250 The calculation result R2 shows that the direct model of the variables X1 and X2 and Z entrepreneurial competence shows the results of 0.6250. These results can be explained that the variables X1, X2, Z affect Y able to explain at 62.50% and the remaining 27.50% determined variables outside the model (The model category is substantial)
2	Q2 Model prediction capability test	Assessment for the proposed research model	If the Q2 value is greater than 0.1, it means that the values observed in the model have been reconstructed properly, and the model has predictive relevance. If Q2 is smaller than 0.1, that means the model has no predictive relevance	Q2 value is 0.8587 and values greater than 0.1 values that have been reconstructed well, this explains the research model that has predictive relevance. The amount of diversity of research data that can be explained by the structural model is 85.87%, and the remaining 14.13% is accepted by other factors outside the research model.

Source: Authors

Table 2 shows the Assessment Criteria and Standard Values on the Inner Model testing using R2 and Q2 values. The test results in table 2 show the results of R2-Z = 0.6231 and R2-Y = 0.6250. In relation to the results of the Q2 calculation, from these data, we can calculate the Q2 value as follows:

Value of Q2 = 1- (1 - R2) x (1 - R2)
Value of Q2 = 1- (1 - 0.6231) x (1 - 0.6250) = 0.8587

Based on the results of Q2 structural models, it can be said that the research model has a goodness of fit with good criteria. Results from the Bootstrap method for direct hypothesis testing can be seen in Tables 3.

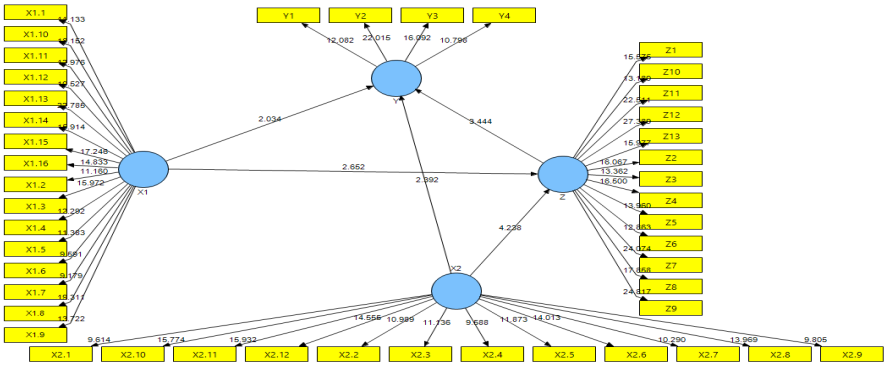
Table 3: Path Coefficient (Mean, STDEV, T-Values)

Hypothesis	Relationship Variable	Original Sample (O)	T Statistics (|O/STERR|)	p-value	Assessment Criteria
Hypothesis 1	X_1 -> Z	0.350	2.652	0.009	Significant
Hypothesis 2	X_2 -> Z	0.475	4.238	0.000	Significant
Hypothesis 3	X_1 -> Y	0.247	2.034	0.045	Significant
Hypothesis 4	X_2 -> Y	0.336	2.392	0.019	Significant
Hypothesis 5	Z -> Y	0.271	3.444	0.001	Significant
Hypothesis 6	X_1-> Z ->Y	0.350	2.047	0.043	Partial Mediation
Hypothesis 7	X_2-> Z ->Y	0.475	2.628	0.010	Partial mediation

Source: Authors

From the analysis of the results of the hypotheses testing, it can be concluded that the research model has a partial mediation variable; this means that the independent variable is not able to significantly influence the dependent variable without going through the mediator variable. In other words, entrepreneurial knowledge and entrepreneurial skills continue to have a partial effect on business performance without going through entrepreneurial competence. (The entrepreneurial competence as a mediating variable is full in the research model, as observed in the structural model, Inner Model, in Figure 2.)

Figure 2: Structural Model (Inner Model)



 Source: Authors

Discussion

The partial effect of the research results explains that entrepreneurial knowledge and entrepreneurial skills influence entrepreneurial competence. Entrepreneurial knowledge includes knowledge of business environment; business opportunities, business strategies, organisation, governance, and leadership. Entrepreneurial skill include: conducting communication, creative thinking, problem solving, and leadership. Work groups influence on entrepreneurial competencies include management, marketing, finance, human relations, business development, business performance, and social norms.

Entrepreneurship knowledge in Indonesia is obtained through the Government's empowerment programmes for SMEs in the form of coaching, training and business assistance in collaboration with universities. The central and regional governments in Indonesia are concerned about SMEs because of their key role in the country's regional and rural economy – for example in providing employment opportunities absorbing to reduce unemployment in the economy.

Al Mamun et al (2019), in a recent study, found that entrepreneurial knowledge and skills have an effect on entrepreneurial competencies in SMEs; also, Sembiring & Rasmulia (2016) found that entrepreneurial knowledge influences the business performance of SMEs.

The findings from the current study align with those of Al Mamun et al (2019 and Sembiring & Rasmulia (2016), but contradict conclusions in Echdar & Saban (2014) that entrepreneurial knowledge has no significant effect on business performance.

In the current study, the research model or mediation effect test results explain entrepreneurial competence as a partial mediating variable suggesting that entrepreneurial knowledge and entrepreneurial skills continue to have a partial effect on business performance without going through entrepreneurial competence.

Conclusion

The research model explains the influence of entrepreneurial knowledge and entrepreneurial skills on entrepreneurial competence and business performance. Entrepreneurial competence functions as a partial mediating variable meaning that entrepreneurial knowledge and entrepreneurial skills continue to influence business performance without going through entrepreneurial competence.

The novelty of this research lies in combining indicators of key variables of entrepreneurial knowledge, entrepreneurial skills, entrepreneurial competence and business performance with previous empirical studies to produce a valid and reliable research model.

Implications

In implementing empowerment programmes for SMEs, the Indonesian government should consider developing entrepreneurial competencies through training, coaching, and mentoring. Entrepreneurs are advised to join SMEs the Indonesian government empowerment programmes to improve entrepreneurial knowledge and skills so as to determine entrepreneurial competencies that have positive impacts on business performance.

Limitations

This study limits its scope to only one SMEs processing industrial sector; this limits the wider applicability of research. Future studies will need wider coverage of the SMEs sectors to show diversity of entrepreneurial knowledge and skills.

Correspondence
Prof Ernani Hadiyati
Gajayana University of Malang, Indonesia
Email: ernani_hadiyati@unigamalang.ac.id

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