“Mediating role of entrepreneurial competencies: Influence of personality traits on entrepreneurial intention”

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ARTICLE INFO
Ida Ketut Kusumawijaya and Partiwi Dwi Astuti (2021). Mediating role of entrepreneurial competencies: Influence of personality traits on entrepreneurial intention. Problems and Perspectives in Management, 19(3), 211-220. doi:10.21511/ppm.19(3).2021.18

DOI
http://dx.doi.org/10.21511/ppm.19(3).2021.18

RELEASED ON
Thursday, 02 September 2021

RECEIVED ON
Thursday, 15 July 2021

ACCEPTED ON
Friday, 27 August 2021

LICENSE
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JOURNAL
"Problems and Perspectives in Management"

ISSN PRINT
1727-7051

ISSN ONLINE
1810-5467

PUBLISHER
LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER
LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES
39

NUMBER OF FIGURES
2

NUMBER OF TABLES
7

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MEDIATING ROLE OF ENTREPRENEURIAL COMPETENCIES: INFLUENCE OF PERSONALITY TRAITS ON ENTREPRENEURIAL INTENTION

Abstract

This study aims to examine the role of entrepreneurial competency in mediating the influence of personality traits on entrepreneurial intention. Data were collected using a questionnaire sent to medium-sized business managers in the province of Bali, Indonesia; the sample size is 385 people. Assuming a response rate of 85%, 453 questionnaires were sent. Of these, 142 returned and a usable response rate of 30.37% was achieved. Data were analyzed using SEM-PLS with WarpPLS 7.0. The findings show that personality traits have a significant effect on entrepreneurial competency (β = 0.513; p < 0.001), personality traits significantly affect entrepreneurial intention (β = 0.266; p < 0.001). Furthermore, this study proves that entrepreneurial competency significantly affects entrepreneurial intention (β = 0.436; p < 0.001). This study also found the Sobel test value of 5.770, which means that entrepreneurial competency can influence personality traits and entrepreneurial intention as a partial mediator. There is a comprehensive view of the relationship between personality traits, entrepreneurial competency, and entrepreneurial intention. This study not only provides an understanding of the relationship between personality traits and entrepreneurial intention, but also provides evidence on the mechanism by which entrepreneurial competency mediates the relationship between personality traits and entrepreneurial intention.

INTRODUCTION

The intention in entrepreneurship is very important because it contributes to the behavior of individual activities to become an entrepreneur. Entrepreneurial intention relates to individual behavior related to entrepreneurship (Yatribi, 2016; Park, 2017). The factors that determine the success of realizing entrepreneurial intention include personality traits (Farrukh et al., 2017; Vodă & Florea, 2019) and entrepreneurial competencies (Botha et al., 2019). Personality traits are a unique characteristic of individuals shown by the internal locus of control, need for achievement, risk tolerance, and entrepreneurial alertness realizing entrepreneurial intention (Karabulut, 2016). However, the findings of Dinis et al. (2013) mentioned that personality traits i.e. tolerance, ambiguity, locus of control, and innovativeness, have no statistical significance and propensity comparing to risk that negatively influences entrepreneurial intention. This difference shows the gap in the relationship between personality traits and entrepreneurial intention. This gap requires a variable that mediates the gap between the relationship between personality traits and entrepreneurial intention. The need for mediation variables is in line with Prabhu et al. (2012), and Kumar and Shukla (2019) who found the relationship between
personality traits and entrepreneurial intention mediated by self-efficacy. Woo (2018) found the role of career adaptation variables in mediating relationships between personality traits and entrepreneurial intention. There has been no study that tested the role of entrepreneurial competency mediating the relationship between personality traits and entrepreneurial intention even though entrepreneurial competency is needed to ensure the sustainability of the business for those who are interested in becoming entrepreneurs. Because entrepreneurship is integrated from a set of skills, knowledge, attitudes, and activities that are beneficial for entrepreneurial success (Man, 2006). This is how the relevance of this study is explained, namely, it is crucial to test the role of entrepreneurial competency in mediating the relationship between personality traits and entrepreneurial intention.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

1.1. Literature review

The theory of planned behavior as the basis for understanding individual intentions and predicting rational behavior consists of attitude toward behavior, subjective norms, and perceived behavioral control (Ajzen, 1991; Krueger et al., 2000; Liñán & Chen, 2006). The intention is a significant antecedent of a behavior (Fishbein & Ajzen, 2005). The theory of planned behavior is used on entrepreneurial intention to set up a business venture (Miranda et al., 2017). Entrepreneurial activities are developed with psychological characteristics to motivate individuals to turn their intentions into actions (Farrukh et al., 2017).

Personality traits reflect individual characteristics that distinguish the behavior of other individuals in a different social system (Chung, 2017). Personality traits are unique characteristics of individuals that are permanently shown when interacting in various environmental situations. Personality traits are seen as strong attitudes and behaviors in the face of various pressures of uncertain situations in achieving success. According to Dinis et al. (2013), personality traits are important features of entrepreneurs that can make individuals more confident, more aware, and more interested in an entrepreneurial career. Personality traits are considered the most valuable assets and are the tendency of individuals to maintain strong and positive relationships with others (Ullah et al., 2013).

Competency is an individual's ability, skill, knowledge including values, motivation, and behavior (Wu, 2009; Mitchelmore & Rowley, 2010). Individual competencies make an important contribution to creating business performance and a company's growth and success (Robles & Zaraga-Rodriguez, 2015; Ferreras-Garcia et al., 2019). When associated with entrepreneurship, competency is demonstrated by the ability to understand the rapidly changing environment, market opportunities, competitive threats, and company weaknesses. Therefore, entrepreneurial competencies become very important in the process of realizing these intentions in the creation of a business.

Entrepreneurial intention is attractive to individuals who are concerned with the formation of new businesses and is a thought process to identify by emphasizing opportunities rather than threats (Krueger et al., 2000). The process of starting a new business reflects the hard work of realizing entrepreneurial intention. The more successful in realizing the intention to become a business, the stronger the entrepreneurial intention that the individual has. Research that examines entrepreneurial intention to find out intentions related to entrepreneurship mostly refers to research developed from the theory of planned behavior model (Ferreira et al., 2012; Miranda et al., 2017).

Personality traits determine a person's ability to work (Tang, 2021), including stable motives, attitudes, and individual actions that influence the capacity of entrepreneurship (Woo, 2018). Furthermore, entrepreneurial capacity determines the competitiveness of an organization (Robles & Zaraga-Rodriguez, 2015), where the involvement of entrepreneurial competency is a vital resource. Increasing entrepreneurial competency is supported by individual personality characteristics with the process of developing entrepreneurial thinking and behavior such as the ability to prepare competitive business plans. The
findings of Tang (2021) show evidence that personality traits are related to competencies.

Entrepreneurial intention is the intention of a person to be an entrepreneur and can be more successful when they establish their ventures (Karabulut, 2016). Entrepreneurial intention is influenced by personality traits (Prabhu et al., 2012). Personality traits are the source of the emergence of entrepreneurial intention. Personality traits are used to create individual interest in pursuing entrepreneurship. An investigation that provides empirical evidence that personality traits influence entrepreneurial intention was conducted by Farrukh et al. (2017), Lacap (2017), Kusumawijaya (2018), and Kumar and Shukla (2019).

Entrepreneurial competency, i.e. quality of knowledge, skills, and attitudes leads these individuals to start businesses (Botha et al., 2019). The involvement of competency in entrepreneurial ability becomes the capital for individuals to realize entrepreneurial intention (Dong et al., 2018). The findings of Peng et al. (2012) systematically explored the influence of individual factors and entrepreneurial competency on entrepreneurial intention. The involvement of entrepreneurial competency as an individual’s potential becomes more significant in the process of realizing entrepreneurial intention. Mourad and Tounes (2015), Al Mamun et al. (2016), and Daliman et al. (2019) provided empirical evidence that entrepreneurial competency is related to entrepreneurial intention.

Tang (2021) showed that personality traits have a positive effect on entrepreneurial competency. On the other hand, there are research findings showing personality traits related to the entrepreneurial intention by Prabhu et al. (2012), Farrukh et al. (2017), Lacap (2017), and Kumar and Shukla (2019). Likewise, Peng et al. (2012), Mourad and Tounes (2015), Al Mamun et al. (2016), Botha et al. (2019), Dong et al. (2018), and Daliman et al. (2019) provided evidence that entrepreneurial competency is related to entrepreneurial intention.

This study examines the effect of personality traits on entrepreneurial competency, personality traits on entrepreneurial intention, entrepreneurial competency on entrepreneurial intention, analyzes the mediating role of entrepreneurial competency on the influence of personality traits on entrepreneurial intention in medium-sized business managers in Bali.

1.2. Hypotheses development

The hypotheses that can be formulated from the above statement are as follows:

H1: Personality traits affect entrepreneurial competency.

H2: Personality traits affect entrepreneurial intention.

H3: Entrepreneurial competency affects entrepreneurial intention.

H4: Entrepreneurial competency is able to mediate the influence of personality traits on entrepreneurial intention.

2. METHODS

The sample of this study is medium-sized business managers in Bali, Indonesia. The sample size was determined using the Rao (1996) formula, and the resulting sample size was 385 people. Assuming a response rate of 85%, 453 questionnaires were sent. Of these, 142 returned and a usable response rate of 30.37% was achieved. This low usable response rate is since many medium-sized business managers in Bali are not operating during the COVID-19 pandemic. All items were measured using a five-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). The personality traits instrument was adopted from Ullah et al. (2013) and Dinis et al. (2013); it contains six items: (a) openness to experience, (b) agreeableness, (c) extraversion, (d) propensity to take a risk, (e) need for achievement, and (f) neuroticism. Entrepreneurial competency adopted from Ferreras-Garcia et al. (2019) consists of five.
items: (a) entrepreneurial competencies, (b) business and management competencies, (c) human relations competencies, (d) conceptual and relationship competencies, and e) attitudes or features competencies. Entrepreneurial intention adopted from Ferreira et al. (2012) contains six items: (a) attitudes toward entrepreneurship, (b) subjective norms, (c) perceived behavior control, (c) self-confidence, (e) tolerance of ambiguity, and (f) innovativeness. Data were analyzed using PLS-SEM (Hair et al., 2017), with WarpPLS 7.0 (Kock, 2020) to estimate the research model.

The results of descriptive statistics were acquired through SPSS 23 (see Table 1); the respondents answered the questionnaire with a mean value of 4.62 for personality traits, 4.65 for entrepreneurial competency, and 4.49 for entrepreneurial intention, indicating a value close to 5.00, meaning the average respondents agree with the item in question.

3. RESULTS

3.1. Measurement model analysis

The results of the goodness of fit measurement are presented in Table 2.

Table 1. Descriptive statistics of variables

| Variable                  | Theoretical score | Actual score | Mean | SD |
|---------------------------|-------------------|--------------|------|----|
| Personality traits        | 1 5               | 3.00 5.00    | 4.62 | 0.43 |
| Entrepreneurial competency| 1 5               | 2.20 5.00    | 4.65 | 0.52 |
| Entrepreneurial intention | 1 5               | 3.00 5.00    | 4.49 | 0.51 |

The goodness of fit criterion of the research model refers to Kock (2020) that the APC, ARS, and AARS values with $p < 0.001$. Table 2 shows that this model meets these criteria and is significant. The AVIF value in this study shows that there is no vertical and lateral multicollinearity in the research model.

The measurement of the validity of the research instrument refers to Fornell and Larcker (1981), and it consists of convergent validity with an average variance extracted (AVE) value greater than 0.5. Discriminant validity with the AVE value of all research latent variables is greater than the correlation coefficient of the latent variables. Predictive validity is met after being measured from the $q$-square value of endogenous variables greater than 0 (zero). In this study, the values of AVE and $q$-square (see Table 3) indicate that the research instrument has met the validity criteria.

The reliability criteria of the research instrument are shown from the composite reliability value and the Cronbach’s alpha value of each research instrument with a value greater than 0.7 (Fornell & Larcker, 1981). Table 3 shows that this research instrument is said to be reliable. Evaluation of multicollinearity measurements between indica-
tors is as measured by full collinearity VIP < 3.3. This is also a value that has met the criteria.

Convergent validity can be met by referring to Hair et al. (2017) that the reflective construct has a value above 0.70 and a significant p-value (< 0.05). This study’s (see Table 4) convergent validity for the reflective construct has been fulfilled. Table 4 also shows that the cross-loading value of other construct indicators is lower than the construct; hence, the discriminant validity is met in this study.

3.2. Structural model analysis

The results of the analysis of the research model show (see Table 5 and Figure 1) that it supports H1, i.e., personality traits have a significant effect on entrepreneurial competency ($\beta = 0.513; p < 0.001$), and H2, i.e., personality traits significantly affect entrepreneurial intention ($\beta = 0.266; p < 0.001$). Furthermore, it proves H3, which states that entrepreneurial competency significantly affects entrepreneurial intention ($\beta = 0.436; p < 0.001$). The mediation effect for H4, shown in Table 7 mediation analysis with a Sobel test value of 5.770 that the entrepreneurial competency is able to mediate personality traits and entrepreneurial intention.

$R^2$ square is the coefficient of determination that shows the percentage of the effect of the endogenous latent variable on the exogenous latent variable. According to Chin (1998) the $R^2$-squared value for endogenous variables is 0.67 (substantial), 0.33 (moderate) or 0.19 (weak). The $R^2$-squared value in this study for entrepreneurial competency was 0.263, indicating that it is in the weak category; entrepreneurial intention had an $R^2$-squared value of 0.395, meaning that it is placed in the moderate category.

Effect size is a measure of the weak (0.02), moderate (0.15), or large (0.35) influence of the latent predictor variable Hair et al. (2017). Table 6 shows an effect size of personality traits on entrepreneurial competency of 0.263, which means a moderate effect. The effect of personality traits on entrepreneurial intention in the weak category (0.138) and entrepreneurial competency contributes to en-

### Table 4. Combined loadings and cross-loadings

| Construct indicators | PT      | EC      | EI      | P value* |
|---------------------|---------|---------|---------|----------|
| Pt1 (0.837)         | –0.145  | –0.075  | < 0.001 |
| Pt2 (0.827)         | –0.078  | 0.063   | < 0.001 |
| Pt3 (0.847)         | 0.221   | –0.012  | < 0.001 |
| Pt4 (0.773)         | –0.046  | 0.142   | < 0.001 |
| Pt5 (0.790)         | 0.048   | –0.233  | < 0.001 |
| Pt6 (0.796)         | –0.071  | 0.082   | < 0.001 |
| Ec1 (0.934)         | –0.141  | < 0.001 |
| Ec2 (0.823)         | –0.057  | < 0.001 |
| Ec3 (0.857)         | 0.334   | < 0.001 |
| Ec4 (0.847)         | 0.140   | < 0.001 |
| Ec5 (0.934)         | –0.141  | < 0.001 |
| Ei1 (0.920)         | –0.061  | < 0.001 |
| Ei2 (0.882)         | 0.170   | < 0.001 |
| Ei3 (0.819)         | –0.109  | < 0.001 |
| Ei4 (0.787)         | –0.126  | < 0.001 |
| Ei5 (0.920)         | –0.061  | < 0.001 |
| Ei6 (0.882)         | 0.170   | < 0.001 |

Note: * means all significant at p < 0.001.

### Table 5. Path coefficient and $R^2$-squared

| Variable               | Entrepreneurial competency | Entrepreneurial intention |
|------------------------|----------------------------|---------------------------|
| Personality traits     | 0.513 (p < 0.001)*         | 0.266 (p < 0.001)*        |
| Entrepreneurial competency | 0.436 (p < 0.001)*        |                           |

| $R^2$-squared | 0.263 | 0.395 |

Note: * means all significant at p < 0.001.
Entrepreneurial intention in the moderate category (0.257). Although it does not show a large value, from a practical perspective, personality traits and entrepreneurial competency still have an important role in determining entrepreneurial intention.

The approach of Baron and Kenny (1986) was used to examine the mediation of entrepreneurial competency on the influence of personality traits on entrepreneurial intention. The Sobel (1982) test formula was used for this calculation:

\[ Z = \frac{a \cdot b}{SE_{(ab)}} \]  

where \( SE_{(ab)} = \sqrt{a^2Sb^2 + b^2Sa^2} \).

First, the influence of personality traits on entrepreneurial intention is \( \beta = 0.518; p < 0.001 \). Second, the influence of personality traits on entrepreneurial competency is \( \beta = 0.513; p < 0.001 \), then the influence of entrepreneurial competency on entrepreneurial intention is \( \beta = 0.436; p < 0.001 \). Third, calculate the mediating effect when personality traits and entrepreneurial competency affect entrepreneurial intention. Table 7 shows a Sobel test value of 5.770, which means that the entrepreneurial competency is able to mediate personality traits and entrepreneurial intention as a partial mediator (Preacher & Hayes, 2004). Thus, all assumptions of the Baron and Kenny (1986) method are met.
4. DISCUSSION

This study noted the same findings as Tang (2021), namely that there is an influence of personality traits on entrepreneurial competency. The results of the study confirm that the personality traits of medium-sized business managers in Bali often play an important role in developing business competencies. Creative thinking and tolerant communication skills become personality identities in creating entrepreneurial competency. Entrepreneurial competency consists of business and management competencies, human relations competencies, and conceptual and relationship competencies. Competency is obtained from experience and responsibility in the process of achieving business goals. Interpersonal interaction in business competition further strengthens the personality. A strong personality is demonstrated by competency in compiling a competitive business plan to deal with the rapidly changing socio-economic environment. It is supported by Mitchelmore and Rowley (2010) who investigated entrepreneurial competencies, their measurement and their relationship to entrepreneurial performance and business success.

This study succeeded in proving the existence of a relationship between personality traits and entrepreneurial intention. This finding supports the views of Prabhu et al. (2012) and Lacap (2017): individual personality correlates with entrepreneurial intention. This supports H2, i.e., the personality traits of medium-sized business managers in Bali have a positive and significant influence on entrepreneurial intention. A strong interest in becoming an entrepreneur can grow from personality such as the need for achievement, ability to innovate, and propensity to take a risk. Personality characteristics are full of enthusiasm, easily motivated, friendly, easily interact socially, and increase self-confidence. This enhances the confidence to be able to take control and make it easier for medium-sized business managers in Bali to realize their interest in becoming entrepreneurs. This result notes the same findings as Farrukh et al. (2017), and Kumar and Shukla (2019): entrepreneurial intention can be realized by personality traits.

The results in this study are similar to those presented by Mourad and Tounes (2015) and Al Mamun et al. (2016), namely entrepreneurial competency affects entrepreneurial intention. This finding confirms the entrepreneurial competency of medium-sized business managers in Bali as a determinant of entrepreneurial intention. Entrepreneurial intention is an attitude and behavior that is indicated by subjective norms, perceived behavior control, and innovativeness. Entrepreneurial intent is realized with the competency to create something that has added value. Competency is the ability and experience through the learning process to achieve the desired goals. Competencies related to entrepreneurship include business competencies, conceptual competencies, and attitudes competencies. This finding supports Dong et al. (2018) and Daliman et al. (2019) that entrepreneurial competency is able to create entrepreneurial intention.

The results of this study provide evidence that the entrepreneurial competency is able to mediate personality traits and entrepreneurial intentions among medium-sized business managers in Bali. The role of competency is needed to realize the interest in becoming an entrepreneur. According to medium-sized business managers in Bali, competency is able to create optimism in overcoming problems, the courage to take risks, and the ability to innovate and make ideas to build businesses a reality. This finding confirms the research of Tang (2021): personality traits are able to form entrepreneurial competency to start a business. The results presented in this study are similar to Farrukh et al. (2017) and Lacap (2017): personality traits have an impact on entrepreneurial intention. This study also provides support for the findings of Peng et

| Table 7. Mediation analysis |
|----------------------------|
| Variable relationship      | P → D without M | P → M | M → D | P → D with M | Sobel Statistics | Result     |
| Personality traits → Entrepreneural competency → Entrepreneurial intention | 0.518** | 0.513** | 0.436** | 0.266* | 5.770** | Partial mediation |

Notes: P: predictor, D: dependent, M: mediator variable; ** means p < 0.001; * means p < 0.05.
CONCLUSION

The results of this study indicate that personality traits have a significant relationship with entrepreneurial competency. In other words, the higher the personality traits, the higher the entrepreneurial competency. Then, this study found that personality traits were significantly related to entrepreneurial intention. This means that the higher the personality traits, the higher the entrepreneurial intention. Next, the findings of this study also show that entrepreneurial competency has a significant relationship with entrepreneurial intention. This illustrates that the higher the entrepreneurial competency, the higher the entrepreneurial intention. Furthermore, the results of this study indicate that entrepreneurial competency plays a partial role in mediating the relationship between personality traits and entrepreneurial intention. This provides an understanding for the company that the activity of increasing entrepreneurial competency is very important because it has a role in the relationship between personality traits and entrepreneurial intention. The following research is expected to further explore personality traits and competency to increase the competitiveness of entrepreneurs. Based on this concept, human resource management practices become a business model in the company’s management strategy, because of its significant contribution in creating a sustainable competitive advantage.

AUTHOR CONTRIBUTIONS

Conceptualization: Ida Ketut Kusumawijaya, Partiwi Dwi Astuti.
Data curation: Partiwi Dwi Astuti.
Formal analysis: Ida Ketut Kusumawijaya, Partiwi Dwi Astuti.
Funding acquisition: Ida Ketut Kusumawijaya, Partiwi Dwi Astuti.
Investigation: Ida Ketut Kusumawijaya.
Methodology: Ida Ketut Kusumawijaya, Partiwi Dwi Astuti.
Project administration: Ida Ketut Kusumawijaya, Partiwi Dwi Astuti.
Resources: Ida Ketut Kusumawijaya.
Software: Ida Ketut Kusumawijaya.
Supervision: Partiwi Dwi Astuti.
Validation: Ida Ketut Kusumawijaya, Partiwi Dwi Astuti.
Visualization: Ida Ketut Kusumawijaya.
Writing – original draft: Ida Ketut Kusumawijaya.
Writing – review & editing: Partiwi Dwi Astuti.

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