

The Level of Importance of Entrepreneurial Competencies according to Entrepreneurs and Scientists

**Benedicta Prihatin Dwi Riyanti¹, Angela Oktavia Suryani², Christine
Winstinindah Sandroto³, Silverius Y Suharso⁴**

Atma Jaya Catholic University of Indonesia^{1,2,3}
Pancasila University⁴

Jl. Jenderal Sudirman Kav.51 Jakarta Selatan 12930, Indonesia
Correspondence Email: christine.wins@atmajaya.ac.id

ABSTRACT

This study aimed to describe the rank of importance among 13 entrepreneurship competencies and the difference of the rank between entrepreneurs and scientists. About 47 entrepreneurs and 22 scientists gave their evaluation by giving rank from 1 to 13. The *Mann-Whitney U-test* showed that most of the competencies were perceived important at the same rank by the two groups, except for the competence of "Information seeking" ($U\text{-test} = 722, p < 0.01$; Mrank entrepreneurs = 6.36, Mrank scientist = 9.33). The top three competencies that perceived highly important by both groups are initiative, seeking and utilizing opportunities, and perseverance.

Keywords: competencies, rank of importance competencies, small-medium entrepreneur

INTRODUCTION

Entrepreneurship plays essential roles in many levels, namely individual, organization, community, and even at the national level. Being an entrepreneur is one solution when the opportunity to be an employee in a governmental office is shrinking. At the organization level, it is proven that entrepreneurship helps the organization survive in an economic crisis. It is also found that at the national level, entrepreneurship provides strength for a nation to fight poverty and unemployment.

Learning that entrepreneurship is vital to develop a nation, acceleration programs to promote new entrepreneurs are extended by the government, especially after the monetary crisis in 1998. The need to develop entrepreneurship is driven by the reality that the effectiveness of various entrepreneurship programs promoted by the government, has not yet shown significant results. The number of entrepreneurs in Indonesia is still 3.3% of the population of 250 million (Kominfo, 2017). While the percentage of the open unemployment rate from those who pass the undergraduate program has risen from 5.34% to 6.22%. It is shown that there is still a need for new job orientation, one of which is to become an entrepreneur (BPS, 2016). The intention of being an entrepreneur is important (Cahyani., et all, 2018) however, the competencies also take part as crucial antecedents.

Competencies support individuals being a successful entrepreneur are essential to be identified to increase the number of entrepreneurs. Research on this topic is

significant. Research on the importance of entrepreneurship competency has been carried out by Snell & Lau (1994). They found several crucial competencies for small businesses to grow. They are: have a clear vision and goals, can formulate effective strategies, use strategic approaches in human resource management, promote a culture of learning, maintain closeness with customers, and have an approach that focuses on quality. At the business development stages, Thompson, Stuart, and Lindsay (1997) found important competencies, namely forward-looking and strategic planning, endurance, encouragement and dedication, communication skills, initiative talent, ability to create profits, global awareness and ability to motivate others. According to Bortkeviciene and Vaitkevicius (2016), essential competencies of entrepreneurs are financial management skills, advertising skills, ability to judge people and their compatibility with the organization, sociability, ability to understand the power of external changes and customer needs, problem-solving skills and the ability to sell ideas. Other experts, Robles and Rodriguez (2015) in their exploratory study with Delphi Analysis found the relevance of competencies for the effectiveness of entrepreneurship. Of 20 competencies that were considered as antecedents of entrepreneurship effectiveness, they found 4 competencies that were highly significant, namely risk assumption, initiative, responsible, and dynamism. Competencies with moderate impact on effectiveness were troubleshooting, search and analysis of information, result orientation, change management and quality of work.

The current research was intended to identify which entrepreneurial competencies that are considered important/unimportant by entrepreneurs and scientist in entrepreneurship. The results can help the researcher and practitioner in entrepreneurship to determine and construct effective coaching programs to “produce” reliable and competent new entrepreneurs. This study implemented Spencer and Spencer’s (1993) construct of entrepreneur competencies. The competencies are covering thirteen dimensions that are naturally owned by entrepreneurs. The competencies are (1) Initiatives, (2) Seeking and Utilizing Opportunities, (3) Perseverance, (4) Seeking Information, (5) Focus on High-Performance Levels, (6) Commitment to Work, (7)) Orientation to Efficiency, (8) Systematic Planning, (9) Problem Solving, (10) Self-Confidence, (11) Persuasive Ability, (12) Strategies to Influence, and (13) Firmness.

Research questions in this study were:

1. What is the order of important/less critical of Spencer and Spencer’s entrepreneurial competencies?
2. Is there a difference in the judgment of entrepreneurs and entrepreneurial scientists on the level of importance of the competencies?

Benefits of this current research were:

1. This research contributes to the development of entrepreneurship science discussing competencies of entrepreneurs.
2. This study also provides important information to the development of the curriculum design for entrepreneurship education programs and entrepreneurship development programs.

Literature Review

Competence is a common word that described the ability or capacity of someone in carrying out a particular task/activity. Rowe (in Ahmad, et.all, 2018) defines "competent" as a skill or standard of performance, in contrast to "competence," which refers to the behavior in which performance is achieved. Boyatzis (1982) and Spencer and Spencer (1993) popularizing the use of the word competence. They use the word "competence" in two senses: (1). Threshold competency as the human quality needed to do a job and (2). Differentiated competency as a fundamental characteristic of someone who makes him the best performance.

Hoffmann (in Ahmad.et.all, 2018), observed that competencies could be defined in three different ways, namely (i) observable performance (output), (ii) the standard of results, or results, of a person's performance, and (iii) the underlying attributes of a person, such as his knowledge, skills, and abilities. Rivai and Sagala (2013) described competencies as the basic characteristics of individuals related to effective performance or superior competencies that are different from other average competencies. Another expert, Lans et.all (2014), described competence as the ability to apply several knowledges, skills, and thought patterns in a particular professional context. Gangani et.all (2006) states that competence is related to success in a job, as well as in entrepreneurship. Entrepreneurial competence is defined as the basic characteristics possessed by a person, which is associated with the success of creating a new business. These characteristics include general and specific knowledge, motives, traits, self-image, social roles, and skills that may or may not be known by the person (Spencer & Spencer, 1993). Entrepreneurial competence can lead to better company performance and growth and also economic development (Mitchelmore & Rowley, 2013). Churchill and Lewis (in Mamun et.all, 2016) stated that entrepreneurial competence has the potential to drive business growth.

Type of Entrepreneurial Competencies

Colombo and Grilli (in Wenhall, 2013) explained that entrepreneurial competencies are competencies that are never single. They are a combination of several knowledges, skills, and attitudes that are needed for individuals to develop, manage, and handle their risks. Muzychenko and Saeed (in Ahmad, et.all, 2018) distinguished aspects of innate competencies and acquired/learned competencies. Innate competencies (internal elements) are competencies that involve traits, attitudes, self-image and social roles and are referred to as "internalized" elements. Internalized competencies usually are owned by those who own businesses and actively managing it. Acquired/trained competencies (external elements) are competencies acquired in the workplace or through theoretical or practical learning (e.g., skills, knowledge, and experience). The internalized aspects of competence are relatively difficult to change, whereas learned competencies may be increased/decreased through appropriate training or education. The external competencies should be practiced continuously to make them useful.

Shermon (2004), differentiates competencies into two types, namely hard (technical) skills, and soft skills. Hard competencies are competencies to job-specific abilities. This competency is needed for work related to the world of the technology industry, and areas that are concerned with personal knowledge and skills. The non-technical competencies (soft skills) are related to the sociological

term. It refers to the cluster of personality traits, social graces, facilities with language, personal habits, friendliness, and optimism that can group people based on their degrees. This competence is more concerned with abilities and personal attributes and needed for work that is concerned with the ability of individuals in dealing with others.

Many studies on competencies are usually emphasizing types of entrepreneurial competencies. For example, Mitchelmore and Rowley (2010) explained the existence of five entrepreneurial competencies, while Man and Lau (2001) divided competencies into six competencies that represent six fields of entrepreneurial behaviors. Spencer and Spencer (1993) showed thirteen main dimensions in entrepreneurship. Chou, Shen, Hsiao & Chen (2010) develop ten competencies in business students. The entrepreneurial competency model designed by the Entrepreneurship Education Consortium (Wenhall, 2013) stated there are six types of personal competencies of effective entrepreneurs, namely interpersonal skills, strong initiative, ambition, adaptability & flexibility, willingness to take risk and willingness to learn. Brinckmann (in Wickramarante, Kiminamil & Yagi, 2014) explains six entrepreneurial competencies, namely analytical planning competencies, innovative competencies, implementation competencies, leadership competencies, teamwork competencies, and network competencies. Callisten (2015) explains six soft skills, namely public speaking, time management, relationship building, leadership, negotiation, and empathy. Riyanti & Suwartono (2018) explained three entrepreneur competencies, namely business management competency, strategic thinking skills in managing a business, and the ability to see the opportunities.

Numbers of studies have explained the competencies that are important for the entrepreneur's success. Caliendo and Kritikos (2008) and Sanches (2011) explained that from various studies on the rank of competencies, it is important to identify the competencies that are sustained in the high rank, therefore we can develop programs to improve those competencies. However, various studies show different results (look, Thompson, Stuart, and Lindsay, 1997; Robles & Rodriguez, 2015); Bortkeviciene and Vaitkevicius, 2016)). It is possible because the construct has a different definition and meaning. Values, beliefs, and culture also influence different results.

Considering previous studies described above, the current research is intended to identify the level of the rank of entrepreneurship competencies by using Spencer and Spencer's concept of entrepreneurial competencies. In this study, we test the rank of the thirteen competencies based on the level of important rated by entrepreneurs and scientists in entrepreneurship. The result of this study may help the entrepreneur to understand his/her environment and context, subsequently, he/she can be proactive and diminish the impact of a negative business environment.

RESEARCH METHOD

The study involved 47 entrepreneurs from the small-medium business sector and 22 entrepreneurial scientists. They were recruited by convenience sampling method. The participants were invited by the researcher to attend a workshop held by the researcher and expert partners in SME. The workshop was discussing

human resources management in SME. The workshop was considered as appreciation and reward for their participation.

In the filling of the questionnaires, the participants were asked to evaluate the quality of items of the entrepreneurial competencies scale. The scale was newly constructed by the researcher. It was build based on the situational judgment test approach. Previously, researchers interviewed some entrepreneurs about definitions and sample of behaviors explaining the definition. Of these responses, the researcher defined each dimension. For each dimension, there were 5 to 7 items written in a model of cases (problems) and 4 alternatives solutions. The participants were introduced to the definitions of each competency and then evaluated whether the items were inherent and relevant with the definitions on a scale of 1 (irrelevant) to 6 (highly relevant). After that, they were asked to indicate the score of each solution, whether they were effective (score 4) or non-effective solutions (Score 1). At the end of the evaluation, they were asked to rank the thirteen competencies for entrepreneurs to be a success. Each participant reported the rank from 1 to 13. The data from the last evaluation was used for this research.

This research analyzed the rank scores identified by participants. Because the level of measurements of the data were rank scores and the number of participants was relatively small, we implemented two groups comparisons of mean rank U-test. The analysis was using SPSS 21.

RESULTS AND DISCUSSION

Results

The data were analyzed by the implemented Mann-Whitney U test to compare the rank reported by entrepreneurs and scientists. The *U-test* showed that most of the competencies were perceived important at the same rank by the two groups, except for the competence of "Information seeking" (*U-test* = 722,50, $p < 0.01$; Mrank entrepreneurs = 6.36, Mrank scientists = 9.33).

Table 1: List of Competencies Rank by Entrepreneurs and Entrepreneurial Scientist

No.	Competencies	Mean Rank entrepreneurs	Mean Rank Scientist	U-values	p-values	Rank Entrepreneurs	Rank Scientist
1.	Initiative	3.81	3.62	461.00	0.66	1	1
2.	Seeking and Utilizing Opportunities	4.00	4.57	513.50	0.79	3	2
3.	Perseverance	4.45	3.29	358.00	0.07	2	3
4.	Seeking information	6.36	9.33	722.50	0.00**	12	5
5.	Focus on High-Performance Levels	7.57	7.76	493.00	1.00	7	8
6.	Commitment to Work	8.30	8.90	551.50	0.44	10.5	10
7.	Orientation to Efficiency	7.91	8.62	542.00	0.52	9	9
8.	Systematic	7.36	6.19	394.50	0.19	5	7

9.	Planning Problem Solving	7.26	6.67	424.00	0.35	6	6
10.	Self- Confidence	5.30	4.90	476.00	0.81	4	4
11.	Persuasive ability	9.02	8.14	414.00	0.29	8	11
12.	Strategies to Influence	9.28	8.90	464.50	0.70	10.5	12
13.	Firmness	9.91	10.00	476.00	0.81	13	13

** significantly difference

Table 1 described the list of the rank of the entrepreneurial competencies. Most of the competencies were relatively in the same position for entrepreneurs and scientists' groups. In the top three, we can find the competencies of initiative (M-rank = 1), seeking and utilizing opportunity (M-rank = 2.5), and perseverance (M-rank = 2.5). At the bottom of three, the competencies are firmness (M-rank = 13), strategies to influence (M = 11.25), and persuasive (M-rank = 9.5).

Discussion

The results showed that from 13 competencies, at the top rank is initiative. The initiative is described as the ability and power to act or take charge before others do. It is also portraying a readiness to act independently. This competency empowered an entrepreneur to take action when seeing problems, potencies, opportunity, or even something uncommon around him/her. Through this competency, the business will always on the move and transform. This competency is considered a fundamental element of being an entrepreneur.

The second and the third competency that is evaluated highly by all participants are seeking and utilizing opportunity and perseverance. The second competency is very close to the first rank. Entrepreneurs should be sensitive and alert to opportunities. They have to "move" continuously to see chances to improve the business and themselves. The third competency, namely perseverance, is characterized by personal strength foundations such as diligent, determination, endure, quickly recover from disappointment, and have a "never-give-up" spirit. These characteristics are important for entrepreneurs to achieve success.

The bottom rank of the list is firmness. The firmness is seen as not suitable for entrepreneurs since this competency is contradicting with the culture of Indonesian society, namely harmony. Firmness is considered to put the conflict at the front, that would create an embarrassment in social context to the people involved in the conflict. Harmony is highly valued and maintained by society. The next two competencies that are less appreciated as important competencies are strategies to influence and persuasive ability. These competencies are less respected probably because influencing others is still regard as an adverse action, namely forcing their own will to others.

The top three competencies found in this study overlap with competencies found in Robles and Rodriguez (2015). These experts found that the importance of competencies for entrepreneurs is risk assumption, initiative, responsible and dynamism. Those important competencies also overlap with a cluster of achievement competencies introduced by Arafeh (2016). In the model of competencies, Arafeh (2016) found three clusters that must be attained by

entrepreneurs, namely achievement, planning dan power. The cluster of achievement consists of opportunity-seeking and initiative, persistence, fulfilling commitment, demand for quality and efficiency, taking a calculated risk. The cluster of planning involved goal-seeking skills, information seeking, systematic planning, and monitoring skills. In the cluster of power, the competencies include independence and self-confidence, persuasion and networking. These results showed that the top three competencies can be useful for the entrepreneurship program. One alternative to implement the program is by including them in the curriculum of entrepreneurship education/school. However, more analysis is still needed to have more comprehension explanation on each competency, especially the implementation of these competencies and their relevance to the Indonesian culture.

CONCLUSIONS

The top three competencies that perceived highly important by entrepreneurs and scientist are initiative, seeking and utilizing opportunities, and perseverance. Most of the competencies were perceived important at the same rank by the two groups, except for the competence of "Information seeking"

REFERENCES

- Ahmad, N.H., Suseno, Y., Seet, P-S., Susomrith, P., & Rashid, Z. (2018). Entrepreneurial Competencies and Firm Performance in Emerging Economies: A Study of Woman Entrepreneur in Malaysia. *Research Gate*.Chapter. January. DOI: 10.1007/978-3-319-59282-4 2
- Arafeh, L. (2016). an Entrepreneurial Key Competencies Model. *Journal of Innovation and Entrepreneurship*, 5(26), 1-26
- Bortkeviciene, V., & Vaitkevicius, R. (2016). The Development of Adults' Entrepreneurial Competence for their Successful Career. *International Journal of Learning and Intellectual Capital*. 12(2/3), 238.
- Boyatzis, R.E. (1982).The Competent Manager: a Model for Effective Performance. New York: John Wiley & Sons.
- BPS. 2016. Data Sensus Ekonomi. www.bps.go.id
- Cahyani, R. R., Riani, A. L., Kurniadi, E., & Paningrum, D. (2018). Family Background, Entrepreneurship Education, and Creativity in Supporting Entrepreneurship Intention. *Asia Pacific Journal of Management and Education*, 1(1), 1-12.
- Caliendo, M & Kritikos, A. S., (2008). Is Entrepreneurial Success Predictable? An Ex-Ante Analysis of the Character-Based Approach. *Kyklos*, Vol. 61, Issue 2, pp. 189-214, May 2008. Available at SSRN: <https://ssrn.com/abstract=1121094> or <http://dx.doi.org/10.1111/j.1467-6435.2008.00398.x>
- Callisen, L. (2015). Six Softskill for entrepreneur: A guide to success. www.startupnation.com/articles/6-soft-skill-entrepreneur-guide-success/oct-12.
- Chou, C. M., Shen, C. H., Hsiao, H. C., & Chen, S. C. (2010). A study on constructing entrepreneurial competence indicators for business department students of vocational and technical colleges in Taiwan. *World Transactions on Engineering and Technology Education*, 8(3), 316-320.

- Kominfo, 2017. Ketika Presiden Berbagi Pengalaman Jadi Wirausaha. <https://www.kominfo.go.id/content/detail/12074/>
- Lans, t., van Galen, M.A., Verstegen, J.A.A.M., Biemans, H.J.A., & Mulder, M. (2014). Searching for Entrepreneurs among Small Business Ownermanagers in Agriculture. *NJAS-Wageningen Journal of Life Sciences*. 68, 41-51.
- Man, T. W. Y., dan Lau, T. (2001). *Entrepreneurial Competencies and the Performance of Small and Medium Enterprises in the Hong Kong Service Sector*. Dissertation, not published. Hong Kong: Department of Management of the Hong Kong Polytechnic University.
- Gangani, N., McLean, G. N., dan Braden, R. A. (2006). A Competency-Based Human Resources Development Strategy. *Performance Improvement Quarterly*, 19(1), 127-139.
- Mitchelmore, S. & Rowley, J. (2010). Entrepreneurial Competencies: a Literature Review and Development Agenda. *International Journal of Entrepreneurial Behaviour & Research*. 6(2), 92-111.
- Mitchelmore, S. & Rowley, J. (2013). Entrepreneurial Competencies of Women Entrepreneurs Pursuing Business Growth. *Journal of Small Business and Enterprise Development*, 20(1), 125-142.
- Mamun, A., Subramaniam, P.; Nawi, C.; Zainol. 2016. Entrepreneurial Competencies and Performance of Informal Micro-Enterprises in Malaysia. *Mediterranean Journal of Social Sciences*. Vol. 7 No. Mei, p.273-281. ISSN 2039-2117 (online) ISSN 2039-9340 (print)
- Riyanti, B.P.D. & Suwartono, C. (2018). Psychometric Evaluation of Newly Developed Self-Assessment of Entrepreneurial Competencies. *International Journal of Applied Business & International Management*. 3(1).
- Rivai, V.I & Sagala, E. J.. (2013). *Manajemen Sumber Daya Manusia untuk Perusahaan*. Jakarta: Raja Grafindo Persada.
- Robles, L. & Rodriguez, M.Z. (2015). Key Competencies for Entrepreneurship. *Procedia. Economics and Financial*. 23, 828-832. www.elsevier.com/locate/proceeding.
- Sanchez, R. (2012). The influence of Entrepreneurial Competencies on Small Firm Performance. *Revista latinoamericana de psicología (REV LAT AM PSICOL)* Volume 44, No. 2. P.165-177. ISSN 0120-0534.
- Shermon, G. (2004). *Competency-Based Human Resource Management: A Strategic Resource for Competency Mapping, Assessment and Development Centers*. New Delhi: Tata McGraw-Hill.
- Snell, R.S., & Lau, Agnes. (1994). Exploring Local Competencies Salient for Expanding Small Businesses. *Journal of Management Development*. 13(4), 4-15.
- Spencer, L. M, & Spencer, S. M. (1993). *Competence at Work*. Canada: John Wiley & Sons, Inc.
- Thompson, J.E., Stuart, R., & Lindsay, P.R. (1997). The Competence of Top Team Members: a Framework for Successful Performance. *Team of Performance Management*. 2(2), 57-75.
- Wenhall, P. (2013). Entrepreneurial Competency. Catalyst for entrepreneurial invention. Ventureprise, Inc.
- Wickramarante, Kiminamil & Yagi (2014). Entrepreneurial competencies and entrepreneurial orientation of Tea Manufacturing Firm in Sri Lanka. *Asian Social Science*; 10(18).