

# **The Portrait of Entrepreneurial Orientation Among Women Entrepreneurs in Greater Jakarta: A Rasch Model Approach**

**Banu Rinaldi\***

Senior Lecturer, Business Creation Program, Management Department  
BINUS Business School Undergraduate Program  
Bina Nusantara University  
Jakarta, Indonesia 11480

\*Corresponding author: [banu.rinaldi@binus.ac.id](mailto:banu.rinaldi@binus.ac.id)

**Maria Grace Herlina**

Senior Lecturer, Management Department  
BINUS Business School Undergraduate Program  
Bina Nusantara University  
Jakarta, Indonesia 11480

[herlina01@binus.edu](mailto:herlina01@binus.edu)

## **Abstract**

Entrepreneurship is essential to Indonesia's economic progress. 99.9% of all Indonesian firms are micro, small, and medium-sized (MSMEs). Sixty percent of Indonesia's registered micro, small, and medium-sized businesses were held by women (MSMEs). However, it is difficult for more than 70 percent of female entrepreneurs to expand owing to a lack of funding and market access. Most female entrepreneurs operate in the informal and conventional female industries. There are still prevalent gender inequalities in essential company management abilities. Women frequently lack the vocational and technical abilities and job experience necessary to operate enterprises. By sending questionnaires with closed-ended questions on a 5-point Likert scale, the research was able to acquire primary data from 230 women entrepreneurs in Greater Jakarta. This study contributes significantly to the existing literature on entrepreneurship by comparing the entrepreneurial orientation of female entrepreneurs along three dimensions: innovativeness, proactiveness, and risk-taking. In addition, the Rasch model was applied in this study. According to the study's findings, the entrepreneurial orientation of female entrepreneurs varies insignificantly with their level of education. This study's findings may be translated into actionable measures for identifying women business owners who are focused on growth. The report also proposes development approaches for encouraging the growth of women entrepreneurs.

## **Keywords**

Entrepreneurial Orientation, Women Entrepreneurs, Entrepreneurship Education and Entrepreneurial Development.

## **1. Introduction**

Considering their outsized importance in Indonesia's economy, MSMEs will be a vital component of growth and poverty reduction. MSMEs accounted for more than 99.9 percent of the total number of enterprises in Indonesia, which was projected to be greater than 57 million. The Ministry of Women Empowerment and Child Protection estimates that 60 percent of Indonesian micro, small, and medium-sized enterprises (MSMEs) are owned by women, representing about a quarter of the work force (Melissa et al, 2015). The Global Entrepreneurship Monitor indicated that around 26 percent, or 22 million, of Indonesia's total adult female population of 85 million are active entrepreneurs (Nawangpalupi et al., 2015). While estimates vary due to differing classifications of women entrepreneurs and inadequate data, all approximations indicate a high absolute number of female entrepreneurs in Indonesia, as well as a very high proportion of the adult female population that is entrepreneurial.

In addition to being numerous, the share of women entrepreneurs in Indonesia is increasing, with women-owned businesses developing faster than those owned by males (Asia Foundation, 2013). Despite economic expansion, inequality continues. In terms of earnings, revenue, and workers, the typical woman-owned enterprise in Indonesia is much smaller than the average male-owned enterprise. Women-owned businesses are more likely to suffer finance and business climate obstacles, and so are less likely to grow at the same rate as male-owned businesses. The situation is not specific to Indonesia; an estimated 70% of women-owned businesses worldwide are either unserved or neglected by financial institutions, resulting in a \$285 Billion funding gap (IFC, 2016).

Motivation for starting a business has been linked to a desire to find new chances in the market, discontent with existing job, and a lack of employment prospects (Lladós-Masllorens and Ruiz-Dotras, 2022). While the Covid-19 outbreak was going on, many individuals in the formal sector were laid off. It has resulted in the loss of many employments. The informal sector, such as owning or running a Micro, Small, and Medium Enterprise (MSME), is where the majority of those who were laid off ended themselves after being terminated from their jobs. The data from the National Statistical Bureau (BPS) shows that the number of employees in the informal sector climbed from 77.68 million workers in August 2020 to the current figure of 78.14 million workers in February 2021 (Mukhaer, 2021). The data shows informal workers rise up 60% of the total workforce (Elisabeth, 2021). The term "informal sector" refers to micro and ultra-micro businesses (Middia Martanti *et al.*, 2021).

Long before the pandemic outburst, women start enterprises for a variety of reasons (Akehurst *et al.*, 2012). Women may be more inclined to establish their own businesses since they can better manage their work-life balance. Entrepreneurship is a great way for women to have greater control over their work and family schedules (Lladós-Masllorens and Ruiz-Dotras, 2022). Women entrepreneurs must be self-starters with a positive attitude, eagerly looking for information, outstanding interpersonal skills, and a strong desire to succeed. Successful women entrepreneurs have traits such as "success and achievement, risk taker, opportunity explorer, persistence, facing uncertainty, independence, flexibility, planner, self-confidence (Mihalcea *et al.*, 2012).

Males have a somewhat greater propensity to develop an entrepreneurial orientation, according to research, which indicates a (historically) enduring gender disparity in entrepreneurial orientation. Several hypotheses have been offered to explain this discrepancy. These theories pertain to gender variations in social and human capital, as well as in access to financial resources and personality (Abbasiachavari & Block, 2022). This study will examine the characteristics of female entrepreneurs based on their innovativeness, proactiveness, and willingness to take risks.

Existing research on female entrepreneurship indicates that women's lack of self-confidence, their smaller networks, and prejudice from resource providers are significant barriers to their entrepreneurial entry (Brana, 2013). The intensity of these hurdles is affected by low levels of education. Our study contributes to this discussion in the literature on female entrepreneurship by examining the relationship between disparities in entrepreneurial orientation among women and their level of education. University education is a significant factor in both entrepreneurial approach and venture performance (Van der Sluis *et al.*, 2008). Numerous research has explored the impact of curricular and extracurricular activities on the establishment of an entrepreneurial attitude (Colombo & Piva, 2020), but they seldom differentiate between genders.

## **1.1 Objectives**

This study aims to provide an in-depth analysis of the entrepreneurial orientation (EO) of female entrepreneurs in Greater Jakarta using the Rasch Model Approach. Knowingly, Rasch Model Analysis is utilized by a small number of researchers. In addition, the role of education level in the entrepreneurial orientation of women entrepreneurs in Greater Jakarta will be investigated.

This study sheds new light on the profile of entrepreneurial orientation among women entrepreneurs. Moreover, it contributes to the development of women entrepreneurs in a practical manner.

## **2. Literature Review**

### **2.1 Entrepreneurial Orientation**

The notion of entrepreneurial orientation is one of the most well-known notions in the study of entrepreneurship (EO). The original intent of the EO idea, which was established more than three decades ago, was to evaluate a company's

entrepreneurial spirit. Danny Miller is widely recognized as the creator of this concept (although not the father of the name). According to Wasilczuk and Richert-Kaźmierska (2020), an entrepreneurial firm is one that innovates goods and markets, takes risks, and is the first to come up with "proactive" ideas, beating its competitors to the punch.

Miller did not identify entrepreneurial orientation first; he offered it alongside an explanation of how to quantify it. Entrepreneurship is a crucial trait of high-performing firm. Covin and Wales (2012) studied the three components of entrepreneurial orientation: innovativeness, proactiveness, and risk taking. In his paper, written more than 30 years ago, Miller discussed this topic. Since then, EO research has advanced, including the creation of measurement techniques. Each dimension on the Miller/Covin and Slevin 10-degree EO measurement scale has three questions. The two additional aspects are evaluated on a 10-point scale, although only one question is asked for each (Wasilczuk and Richert-Kaźmierska, 2020).

In 1983, Miller and Friesen proposed the concept of Entrepreneurial Orientation (EO). It was modified by Covin and Slevin between 1989 and 1991 (Linton, 2019). They distinguished three forms of EO: proactiveness, risk-taking, and innovativeness (Almeida *et al.*, 2019; Parsian and Mobaraki, 2016; Rezaei and Ortt, 2018). The researchers define EO as "a combination of decision-making processes, methodologies, and innovative behaviors" (Almeida *et al.*, 2019; Lomberg *et al.*, 2017; Zehir *et al.*, 2015). The term "entrepreneurial orientation" (EO) is increasingly frequently used to describe the entrepreneurial level of a firm. Studies indicate that EO is crucial for encouraging long-term creativity, regeneration, and proactive behavior (Lomberg *et al.*, 2017; Al Mamun *et al.*, 2017; Rezaei and Ortt, 2018).

Innovation is the apex of entrepreneurship since these three elements combine to form a unified whole or combination that cannot exist alone. Risk-taking is one of the EO characteristics that pertains to the propensity to take calculated risks, such as entering unknown markets and committing a significant percentage of resources to risky activities. Innovativeness is the ambition to create new commodities and processes, innovate new methods, and attain leadership positions. Proactiveness, on the other hand, is a market-shaping mentality that entails providing new products or services in advance of anticipated demand and influencing the market (Gochhait and Pokharnikar, 2020; Mutlutürk and Mardikyan, 2018; Sahoo and Panda, 2019).

## **2.2 Women Entrepreneurs and Their Characteristics**

Women's entrepreneurship may be divided into four distinct sorts depending on the quantity and depth of support they get from males in their community. Traditionally, women are only nominally in charge of their family businesses while their husbands or males are in charge. If a business is owned by both a woman and a man, it is classified as a "woman-owned" business. In the third form, all decisions are made solely by the woman who owns the business. The fourth kind involves young women who struggle to establish and operate their own businesses. This research focused on women who own and run their own business (Kumar and Singh, 2021).

Women are often more risk-averse than males, and risk aversion reduces their entrepreneurial drive (Gimenez-Jimenez *et al.*, 2020). Similarly, variations in hereditary factors, psychological qualities (e.g., extraversion), self-image (e.g., self-confidence), education, and personal connections may diminish women's entrepreneurial inclination (Zhang *et al.*, 2009). Because women tend to be less self-confident, their ability to expand their businesses may be hampered (Braná, 2013). Moreover, women tend to have a less positive opinion of themselves, their talents, and entrepreneurial ideas, as well as the entrepreneurial environment (Langowitz & Minniti, 2007).

The gender gap in entrepreneurship has traditionally been attributed to differences in human and social capital, in addition to women's lack of confidence. The education-acquired talents of women are presumably less transferable to the entrepreneurial profession and, as a result, entrepreneurial careers are viewed as having lower expected returns (Walters & McNeely, 2010). Women face unique obstacles when gaining access to networks; they continue to struggle to join male-dominated professional networks (Marlow & McAdam, 2012). Additionally, discrimination by resource providers, particularly capital providers, hinders the expansion of women-owned businesses (Carter *et al.*, 2003).

## **2.2 Education & Entrepreneurial Orientation**

In his study, Sánchez (2013) found that entrepreneurial education was significantly connected with entrepreneurs' risk-taking and proactive abilities. Another study discovered that entrepreneurs who received entrepreneurship education were more creative. Consequently, colleges play a significant role in entrepreneur training since superior information and a higher degree of experience and skills equip individuals with a greater capacity to engage in entrepreneurial

activities and develop entrepreneurial mindsets (Cho & Lee, 2018; Mutlutürk & Mardikyan, 2018; Sutanto et al., 2018).

Entrepreneurs with greater entrepreneurship experience had a higher EO than those with no entrepreneurial experience. Based on the notion that entrepreneurship can be taught and learned, education appears to aid students in acquiring the skills necessary for a successful performance throughout the entrepreneurial process. This skill set may assist aspiring entrepreneurs and stimulate entrepreneurial activity (Cho & Lee, 2018; Sahoo & Panda, 2019; Sutanto et al., 2018).

Entrepreneurs will get the necessary self-assurance to begin their businesses if suitable entrepreneurship teaching is offered during, before, or after their higher education programs. In addition, by involving students in a variety of business activities, education plays a crucial role in fostering an entrepreneurial mindset (Cho & Lee, 2018; Hoffman & Peters, 2021; Sahoo & Panda, 2019; Sutanto et al., 2018).

This research aims give in-depth analysis about entrepreneurial orientation (EO) among women entrepreneurs using Rasch Model Approach. Thus, the researchers arrive at the following hypotheses after conducting a thorough literature research:

**Hypothesis 1:** Innovativeness significantly differ among women entrepreneurs based on educational level

**Hypothesis 2:** Risk Taking significantly differ among women entrepreneurs based on educational level

**Hypothesis 3:** Proactiveness significantly differ among women entrepreneurs based on educational level

### 3. Methods

The study will give in-depth analysis about entrepreneurial orientation (EO) among woman entrepreneur based on their educational level in Greater Jakarta. This study used a quantitative design to conduct empirical research using Rasch Model Approach. All items were graded on a five-point Likert scale, with one indicating strongly agree and five indicating strongly disagree. The questions used as a measure of EO was adapted from the work consisting of 14 indicators (Almeida *et al.*, 2019; Rezaei and Ortt, 2018; Wasilczuk and Richert-Każmierska, 2020). The research hypotheses of this study were obtained Rasch Model Analysis with WINSTEPS Version 5.2.1.0. Rash Model also uses to run the validity test, reliability test of the research instruments. Additionally, Rasch Model Analysis can help reduce the number of biased responses on self-report questionnaires (Boone *et al.*, 2014a; Sumintono, 2014). (Table 1)

Table 1. Reliability and Validity Test Results

Research Variables	Alpha Cronbach	Item Reliability	Person Reliability	Item Validity
Entrepreneurial Orientation	0.89	0.98	0.84	14 items - accepted

Source: Primary Data, 2021

The reliability of the EO instrument indicates that all responses are excellent (0.84). It implies that the respondents understood the questionnaire items well. The research instrument items are also excellent (0.98). Additionally, the instruments have a strong Cronbach alpha (0.89). It implies that there are good correlations between the items and the respondents' responses (Boone *et al.*, 2014a; Sumintono, 2014). Table 2 shows the research indicators and dimensions as a part of EO variable.

Table 2. The indicators and dimensions of entrepreneurial orientation activities

Innovativeness	Risk Taking	Pro-activeness
Observing unique products/services (I1)	Investing in opportunities with high returns and risks (RT1)	Taking the initiative to act (P1)

Innovativeness	Risk Taking	Pro-activeness
Investing in long-term development (I2)	Take action to achieve goals (RT2)	Being the first person for new products/services (P2)
Looking for more productive new ways (I3)	Leveraging diverse resources to grow (RT3)	Monitoring technology trends (P3)
Being creative at work (I4)	Taking risks with new ideas (RT4)	Looking for opportunities (P4)
	Exploring any opportunities (RT5)	Finding out future customer needs (P5)

Source: Primary Data, 2021

#### 4. Data Collection

The research was conducted in Greater Jakarta, Indonesia, in 2021. It took approximately six months to complete the study. The data were collected from woman entrepreneurs in Greater Jakarta using a personal survey questionnaire and convenience sampling. This convenience sampling has been recognized and used in several studies with unlimited population (Razzaq *et al.*, 2019)(Razzaq *et al.*, 2019). The pragmatic ground supporting this type of convenience sampling is the unlimited population of young entrepreneurs in Greater Jakarta.

The study successfully collected the primary data from 230 women entrepreneurs by distributing closed-ended questionnaires. However, only 191 responses can be examined further. As the data was collected through personal references or self-report questionnaires, Rasch Model Analysis, specifically Person Measure Analysis used to filter for the responses' bias (Boone *et al.*, 2014a; Sumintono, 2014) (Boone *et al.*, 2014; Sumintono, 2014).

The woman entrepreneur is 31% between twenty to thirty years old, 36% between thirty to forty years old, and 33% above forty years old. Their educational background are 32% high school graduates, 16% are diploma holder and 52% are bachelor graduates. The tenure of their business is 42 % less than 2 years, 33% between two to five years and 25% more than five years. Their business areas are 55% in the culinary business.

#### 5. Results and Discussion

##### 5.1 Numerical Results

According to the Rasch Model analysis (Table 3) shows the EO dimensions based on most frequent activities among woman entrepreneurs. These woman entrepreneurs frequently looking for more productive new ways (I3), exploring any opportunities (RT5), and looking for opportunities (P4). The Rasch Model analysis also reveals the rarest activities taken by the woman entrepreneurs are investing in long-term development (I2), investing in opportunities with high returns and risks (RT1), being the first person for new products/services (trend setter) (P2).

Table 3. Activities in Entrepreneurial Orientation

Entrepreneurial Orientation Dimensions	Frequent Activities	Rare Activities
Innovativeness	Looking for more productive new ways (I3) (-0.70 logit)	Investing in long-term development (I2) (1.69 logit)
Risk Taking	Exploring any opportunities (RT5) (-1.19 logit)	Investing in opportunities with high returns and risks (RT1) (3.25 logit)
Proactiveness	Looking for opportunities (P4) (-1.00 logit)	Being the first person for new products/services (P2) (1.11 logit)

Source: Primary Data, 2021

##### 5.2 Validation

The validation of research hypotheses (Table 4) using Rasch Model Analysis reveals that there is not any significant difference in innovativeness among woman entrepreneurs based on their education ( $0.394 > 0.05$ ). It means that hypothesis 1 declined statistically. For hypothesis 2 that stated there is a significant difference risk taking dimension among woman entrepreneurs based on their education, it is statistically declined ( $0.677 < 0.05$ ). Finally, hypothesis 3

proved there is not any significant difference in proactiveness among woman entrepreneurs based on their education (0.198 > 0.05). As a result, hypothesis 3 is statistically declined.

Table 4. Statistical Hypothesis Tests

Entrepreneurial Orientation Dimensions	Mean measure (logit)			Welch-2sided Prob. ( $\alpha$ 0.05)	Validation
	Non-Bachelor	Bachelor	All		
Innovativeness	2.49	2.88	2.70	0.394	H1 declined
Risk Taking	4.25	4.11	4.18	0.677	H2 declined
Proactiveness	4.61	5.12	4.89	0.198	H3 declined

Source: Primary Data, 2021

The EO Map (Figure 1) shows, the woman entrepreneurs are high in proactiveness but low in innovativeness. The hypothesis test shows that there are not any significant differences among woman entrepreneurs in innovativeness, risk taking, and proactiveness. It implies the education level of the woman entrepreneurs makes no differences in entrepreneurial orientation. Despite their education level, all the woman entrepreneurs have the same level in proactiveness (the highest), risk taking, and innovativeness (the lowest).

Entrepreneurial Orientation among Women Entrepreneurs

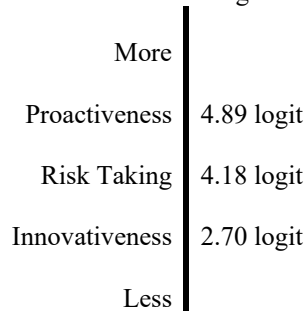


Figure 1. EO Map

As the hypothesis testing shows that they are not any significant differences among woman entrepreneurs based on their educational level, the further Rasch analysis also shows that all the woman entrepreneurs have the same frequent and rare activities in each entrepreneurial dimensions as shown in Table 5.

Table 5. The EO Comparison

Educational Level	Entrepreneurial Orientation (EO)		
	Innovativeness	Risk Taking	Proactiveness
Non-Bachelor			
Frequent Activities	Looking for more productive new ways (I3)	Exploring any opportunities (RT5)	Looking for opportunities (P4)
Rare Activities	Investing in long-term development (I2)	Investing in opportunities with high returns and risks (RT1)	Being the first person for new products/services (P2)
Bachelor			
Frequent Activities	Looking for more productive new ways (I3)	Exploring any opportunities (RT5)	Looking for opportunities (P4)
Rare Activities	Investing in long-term development (I2)	Investing in opportunities with high returns and risks (RT1)	Being the first person for new products/services (P2)

Source: Primary Data, 2021

### **5.3 Discussion**

Surprisingly, the innovativeness, proactiveness, and risk-taking dimensions of female entrepreneurs' entrepreneurial orientation do not differ significantly based on their educational level. This finding contradicts the findings of previous research, which suggested that educational level plays a role in entrepreneurial orientation. These findings are likely attributable to the characteristics of Indonesian female entrepreneurs that are unaffected by educational attainment. 60 percent of Indonesia's small and medium-sized enterprises (SME) are owned by women.

The majority of women entrepreneurs in Indonesia are engaged in 'necessity' businesses, so these figures must be interpreted with caution. Typically, these entrepreneurs operate their own businesses from their homes. High unemployment and low wages in the formal sector force women in Indonesia into self-employment, resulting in a large number of "necessity" women entrepreneurs in the country. Women entrepreneurs with a greater entrepreneurial orientation are more likely to gain access to capital and the market, thereby increasing the likelihood of business expansion. However, this study found that growth-oriented women entrepreneurs, as indicated by entrepreneurial orientation level, cannot be differentiated by university education level.

If we investigate the entrepreneurial aspects in greater detail. Whether or not they have a university education, Indonesian women entrepreneurs are characterized by a high level of proactiveness and risk taking, but a low level of innovativeness. Both non-bachelors and bachelors are frequently seeking opportunities, exploring any opportunities, and seeking more productive new methods. It indicates that they are capable of being growth-focused female entrepreneurs.

Thus, it can be argued that we cannot target growth-oriented female entrepreneurs based on their level of education. In Indonesia, there are numerous expanding businesses run by women who did not attend college. The activities they engage in should be the primary focus of your investigation. For instance, many female entrepreneurs are successful because they frequently enroll in training programs, attend trade fairs, are involved in their communities, etc.

This finding has important implications for developing female entrepreneurs, particularly in Indonesia. Women without a bachelor's degree and women with a bachelor's degree have equal potential as growth-oriented female entrepreneurs. It must evaluate applicants solely based on their level of entrepreneurial orientation, focusing on innovativeness, risk-taking, and proactiveness. Moreover, emphasis must also be placed on increasing the level of innovation among Indonesian women entrepreneurs. To enhance the innovation of the product or service, these programs must support them.

### **6. Conclusion**

In Indonesia, more than 99.9 percent of all businesses were comprised of MSMEs. 60% of micro, small, and medium-sized firms (MSMEs) in Indonesia are held by women. The statistics suggests that Indonesia has a large number of female entrepreneurs. However, more than 70 percent of female entrepreneurs find it difficult to expand due to a lack of capital and market access. Most female entrepreneurs are engaged in informal and traditional sectors. There are still persistent gender disparities in fundamental business management skills. It highlighted the need of studying the entrepreneurial orientation of female entrepreneurs.

This study's major purpose was to determine whether women entrepreneurs had distinct levels of entrepreneurial orientation based on innovativeness, risk-taking, and proactiveness. The Rasch Model was used to assess the data obtained from 230 female entrepreneurs using closed-ended questionnaires. Surprisingly, the innovativeness, proactiveness, and risk-taking elements of the entrepreneurial orientation of female entrepreneurs do not vary considerably with their educational degree. The major conclusion of this study, however, is that we cannot target growth-oriented female entrepreneurs based on their degree of schooling. In addition, the study indicated that regardless of their educational background, Indonesian women entrepreneurs exhibit a high degree of proactiveness and risk-taking, but a low level of innovativeness.

Both non-bachelor and bachelor entrepreneurs have significant potential for business success, according to the conclusions of this study. The findings of this study provide fresh insight on women's entrepreneurial development, notably in Indonesia. It shall evaluate women entrepreneurs entirely based on their entrepreneurial orientation, with an emphasis on inventiveness, risk-taking, and initiative. In addition, there must be a focus on boosting the degree of

creativity among Indonesian women entrepreneurs. These initiatives must assist the innovation of the product or service to improve it.

This study's limitation to data from Greater Jakarta is a deficiency. Several questions remain unresolved. First, comparative study on the performance of entrepreneurs with and without a bachelor's degree is necessary. Second, greater study is necessary to find the most effective strategy and curriculum for fostering female entrepreneurs.

## References

- Abbasiachavari A., Block J., Perceptual factors explaining the gender gap in entrepreneurial propensity: A replication and extension. *J. Bus. Ventur. Insights* 2022; 17: e00303, 2022.
- Akehurst, G., Simarro, E. and Mas-Tur, A., "Women entrepreneurship in small service firms: Motivations, barriers and performance", *Service Industries Journal*, Vol. 32 No. 15, pp. 2489–2505, 2012.
- Almeida, J., Daniel, A.D. and Figueiredo, C., "Understanding the role of entrepreneurial orientation in junior enterprises", *Journal of Entrepreneurship Education*, Vol. 22 No. 2, pp. 1–14, 2019.
- Asia Foundation. "Access to Trade and Growth of Women's SMEs in APEC Developing Economies." The Asia Foundation, Jakarta, 2013.
- Boone, W.J., Yale, M.S. and Staver, J.R., *Rasch Analysis in the Human Sciences, Rasch Analysis in the Human Sciences*, Springer US, New York, available at:<https://doi.org/10.1007/978-94-007-6857-4>, 2014a.
- Boone, W.J., Yale, M.S. and Staver, J.R., *Rasch Analysis in the Human Sciences, Rasch Analysis in the Human Sciences*, available at:<https://doi.org/10.1007/978-94-007-6857-4>, 2014b.
- Brana, S., Microcredit: An answer to the gender problem in funding? *Small Business Economics*, 40(1), 87–100, 2013.
- Carter, N., Brush, C., Greene, P., Gatewood, E., & Hart, M., Women entrepreneurs who break through to equity financing: The influence of human, social and financial capital. *Venture Capital*, 5(1), 1–28, 2003.
- Cho, Y.H., & Lee, J.H., Entrepreneurial orientation, entrepreneurial education and performance. *Asia Pacific Journal of Innovation and Entrepreneurship*, 12(2), 124–134, 2018.
- Colombo, M. G., & Piva, E., Start-ups launched by recent STEM university graduates: the impact of university education on entrepreneurial entry. *Research Policy*, 49(6), 2020.
- Covin, J.G. and Wales, W.J., "The Measurement of Entrepreneurial Orientation", *Entrepreneurship: Theory and Practice*, Vol. 36 No. 4, pp. 677–702, 2012.
- Elisabeth, A.E., "Pandemi Covid-19 Bikin Korban PHK Lari ke Sektor Informal", *Idxchannel.Com*, pp. 1–4, 2021.
- Gimenez-Jimenez, D., Edelman, L. F., Dawson, A., & Calabrò, A., Women entrepreneurs' progress in the venturing process: the impact of risk aversion and culture. *Small Business Economics*, 1–21, 2020.
- Gochhait, S. and Pokharnikar, T., "Entrepreneurial (Attitude, Orientation and Intention) Among Various Categories of Students", *European Journal of Molecular & Clinical Medicine*, Vol. 07 No. 2, pp. 5628–5637, 2020.
- Hoffman, M., & Peters, R., Universities as a pipeline of entrepreneurs in an emerging economy a model of entrepreneurial intention. *Academy of Entrepreneurship Journal*, 27(2), 1–6, 2021.
- International Finance Corporation., "Improving Access to Finance for Women-Owned Businesses in India." International Finance Corporation, New Delhi, 2016.
- Kumar, S. and Singh, N., "Entrepreneurial prospects and challenges for women amidst COVID-19: a case study of Delhi, India", *Fulbright Review of Economics and Policy*, Vol. 1 No. 2, pp. 205–226, 2021.
- Langowitz, N., & Minniti, M., The entrepreneurial propensity of women. *Entrepreneurship Theory and Practice*, 31(3), 341–364, 2007.
- Linton, G., "Innovativeness, risk-taking, and proactiveness in startups: a case study and conceptual development", *Journal of Global Entrepreneurship Research*, *Journal of Global Entrepreneurship Research*, Vol. 9 No. 1, available at:<https://doi.org/10.1186/s40497-019-0147-5>, 2019.
- Lladós-Masllorens, J. and Ruiz-Dotras, E., "Are women's entrepreneurial intentions and motivations influenced by financial skills?", *International Journal of Gender and Entrepreneurship*, Vol. 14 No. 1, pp. 69–94, 2022.
- Lomberg, C., Urbig, D., Stöckmann, C., Marino, L.D. and Dickson, P.H., "Entrepreneurial Orientation: The Dimensions' Shared Effects in Explaining Firm Performance", *Entrepreneurship: Theory and Practice*, Vol. 41 No. 6, pp. 973–998, 2017.
- Al Mamun, A., Kumar, N., Ibrahim, M.D. and Bin Yusoff, M.N.H., "Validating the measurement of entrepreneurial orientation", *Economics and Sociology*, Vol. 10 No. 4, pp. 51–66, 2017.
- Marlow, S., & McAdam, M., Analyzing the influence of gender upon high-technology venturing within the context of business incubation. *Entrepreneurship Theory and Practice*, 36(4), 655–676, 2012.
- Melissa, E., A. Hamidati., M. Saraswati., and A. Flor., "The Internet and Indonesian Women Entrepreneurs:



- Examining the Impact of Social Media on Women Empowerment.” Impact of Information Society Research in the Global South, 2015.
- Middia Martanti, D., Magdalena, F., Ariska, N.P.D., Setiyawati, N. and Rumboirusi, W.C.B., “Dampak Pandemi Covid-19 terhadap Tenaga Kerja Formal di Indonesia”, *Populasi*, Vol. 28 No. 2, p. 52, 2021.
- Miftahuddin, A., Hermanto, B., Raharja, S.J. and Chan, A., “City brand attractiveness on tourism using rasch model approach”, *International Journal of Supply Chain Management*, Vol. 9 No. 2, pp. 150–156, 2020.
- Mihalcea, A.D., Mitan, A. and Vitelar, A., “Generation Y: views on entrepreneurship”, *Economia Seria Management*, Vol. 15 No. 2, pp. 277–287, 2012.
- Mukhaer, P., “Informalisasi Ekonomi”, Kompas Newspaper, Jakarta, 2021.
- Mutlutürk, M. and Mardikyan, S., “Analysing factors affecting the individual entrepreneurial orientation of university students”, *Journal of Entrepreneurship Education*, Vol. 21 No. Special Issue, pp. 1–15, 2018.
- Nawangpalupi C, G. Pawitan, A. Gunawan, M. Widyarini, B. Bisowarno, and T. Iskandarsjah.. “Global Entrepreneurship Monitor 2014 Indonesia Report.” UNPAR Press, Bandung, 2015.
- Parsian, M. and Mobaraki, M.H., “Investigating of the effect of entrepreneurial orientations on formation of entrepreneurial identity”, *Management Science Letters*, Vol. 6, pp. 627–634, 2016.
- Razzaq, S., Shujahat, M., Hussain, S., Nawaz, F., Wang, M., Ali, M. and Tehseen, S., “Knowledge management, organizational commitment and knowledge-worker performance: The neglected role of knowledge management in the public sector”, *Business Process Management Journal*, Vol. 25 No. 5, pp. 923–947, 2019.
- Rezaei, J. and Ortt, R., “Entrepreneurial orientation and firm performance: the mediating role of functional performances”, *Management Research Review*, Vol. 41 No. 7, pp. 878–900, 2018.
- Sahoo, S. and Panda, R.K., “Exploring entrepreneurial orientation and intentions among technical university students: Role of contextual antecedents”, *Education and Training*, Vol. 61 No. 6, pp. 718–736, 2019.
- Sumintono, B., *Model Rasch Untuk Penelitian Ilmu-Ilmu Sosial*, November 2., Trim Komunikata, 2014.
- Sutanto, E.M., Sigliols, P.J., & Putih, I., University Students' Entrepreneurial Performance. *Journal of Economics, Business & Accountancy Ventura*, 21(2), 251–258, 2018.
- Van der Sluis, J., Van Praag, M., & Vijverberg, W., Education and entrepreneurship selection and performance: A review of the empirical literature. *Journal of Economic Survey*, 22(5), 795–841, 2008.
- Walters, J., & McNeely, C. L., Recasting Title IX: Addressing gender equity in the science, technology, engineering, and mathematics professoriate. *Review of Policy Research*, 27(3), 317–332, 2010.
- Wasilczuk, J.E. and Richert-Każmierska, A., “What potential entrepreneurs from generation y and z lack-ico and the role of EE”, *Education Sciences*, Vol. 10 No. 11, pp. 1–14, 2020.
- Zehir, C., Can, E. and Karaboga, T., “Linking Entrepreneurial Orientation to Firm Performance: The Role of Differentiation Strategy and Innovation Performance”, *Procedia - Social and Behavioral Sciences*, Elsevier B.V., Vol. 210, pp. 358–367, 2015.
- Zhang, Z., Zyphur, M. J., Narayanan, J., Arvey, R. D., Chaturvedi, S., Avolio, B. J., Larsson, G.. The genetic basis of entrepreneurship: effects of gender and personality. *Organizational Behavior and Human Decision Processes*, 110(2), 93–107, 2009.

## **Biographies**

**Banu Rinaldi, SE., MBA**, is a Lecturer, Researcher, and Coach/Mentor specializing in entrepreneurship through his position as Faculty Member and Business Advisor at the Business Creation Program – Bina Nusantara Business School. Additionally, he is a practitioner/entrepreneur in the food industry and actively involved in MMSME communities. Banu is an enthusiast for MSME development and entrepreneurship, as evidenced by his prior experiences and numerous research/publications. Entrepreneurial orientation, export development, digital business transformation, and sustainability performance related to small and medium-sized business are among his areas of expertise.

**Dr. Maria Grace Herlina, S.Sos., MM** is a Senior Faculty Member in the Management Department of Bina Nusantara Business School. She also works as the Deputy Head of the Management Program. Her love of teaching has encouraged her to devote her expertise and experiences to improving the next generation for many years by teaching, studying, and producing scientific publications. She has done various local and international studies, and she has published multiple scientific articles in international journals that are Scopus indexed. Human resource management, organizational behavior, entrepreneurial behavior, and knowledge management behavior are among her knowledge areas.