Entrepreneurial Orientation Differences Between Generation Y and Generation Z Entrepreneurs in Greater Jakarta (According to the Rasch Model)

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

Abstract

Entrepreneurship is essential to Indonesia's economic development. It is evidenced by 99.9 percent of all Indonesian firms are micro, small, and medium-sized enterprises (MSMEs). Entrepreneurship is regarded as a phenomenon that has received the greatest attention in recent years. Among scholars, there is a strong desire to investigate the entrepreneurial phenomena not only because of its unavoidable importance in boosting the economy and creating job possibilities. Young generations play an essential part in entrepreneurial ventures since they are more likely to start a new business than older generations. However, research studies found Gen Y and Gen Z have different characteristics, which leads to differences in entrepreneurial orientation. The study successfully collected the primary data from 389 newbie entrepreneurs who distributed closed-ended questionnaires using a 5-point Likert scale. This study adds significantly to the existing entrepreneurial literature by examining entrepreneurial orientation between these two generations based on three dimensions: innovativeness, proactiveness, and risk-taking. In addition, the Rasch model was used in this study. The study's outcomes demonstrate a significant difference in risk-taking dimension between gen Y and gen Z. Practical implications based on this research of entrepreneurial orientation among the two generations can be empowered through entrepreneurial education programs. The study provides the recommended methods to develop each gen Y and gen Z entrepreneurs.

Keywords

Entrepreneurial Orientation, Gen Y Entrepreneurs, Gen Z Entrepreneurs, Entrepreneurship Education and Entrepreneurial Development.

1. Introduction

Entrepreneurs is seen as an individual with distinct personality qualities, despite the fact that there are many different viewpoints on the subject. As far as character traits go: "(1) cooperativeness and a strong team player, (2) strong desire to work hard and learn new things, (3) ability to listen to others and build networks, (5) not competitive but visionary and goal setting, (6) strong self efficacy, (7) coach or trainer and (8) not more risk-prone than other professionals". Entrepreneurs must be self-starters with a can-do mentality, a thirst for knowledge, excellent interpersonal skills, and a drive for success. The characteristics of successful entrepreneurs as "success and accomplishment, risk carrier, opportunity explorer, persistence, confronting uncertainty, feedback, independence, adaptability, planner, self confidence, motivator, and stress taker". Accordingly, it may be concluded that entrepreneurs are born with strong motives and a strong sense of business that can be found in human nature and in specific personality types (Mihalcea et al., 2012).
The current workforce is made up of four generations: The Baby Boomers (1947–1964), Generation X (1965–1980), Generation Y (Millennials, 1981–1995), and Generation Z (1996 and beyond) (Julita Eleonora Wasilczuk, 2020). A pioneer in the generation idea was Karl Mannheim. In his definition of a generation, he defined it as a group of individuals of the same age. These two people have a lot in common because of their shared history, culture and circumstances (Simic, 2019; Statnickė et al., 2019).

Millennials are another name for Generation Y. By 2025, they will account for three-quarters of the worldwide workforce. They come from a time of demographic upheaval, so they are entering the workforce alongside older generations and are more at ease with technology and computers. They adapt to communication technology more easily (Islam et al., 2011; Reza and Sarraf, 2019; Simic, 2019).

On the other hand, Generation Z is the digital generation, having grown up with cell phones and computer games and being familiar with immediate communication and social networking. They are naturally optimistic, realistic, globally aware, and inclusive. They are goal-oriented, entrepreneurial and seek answers in the workplace. They have personal accountability and a need for feedback. Millennials are collaborative and work well in today's empowered workplace as long as there are enough challenges and opportunities to keep them interested (Islam et al., 2011; Saileela and Thiruchanuru, 2018; Simic, 2019; Statnickė et al., 2019; Stevanin et al., 2020; Toro et al., 2019; Veingerl Čič and Šarotar Žižek, 2017).

Generations Y and Z are excited in launching new firms (Francis and Hoefel, 2018; Liu et al., 2019), Gen Y and Gen Z share many similarities since they were both reared during the exponential growth of digital technology such as instant messaging, the internet, and personal computers (Seemiller and Grace, 2016). In the context of entrepreneurship, technological and communication advancements nurture creative and proactive minds that are free to exchange and absorb ideas, information, or knowledge from anywhere and at any time (Francis and Hoefel, 2018; Liu et al., 2019). However, Gen Y likes texting, but Gen Z uses symbols, emoji, short films, and memes to communicate (Francis and Hoefel, 2018; Fromm and Read, 2018). Such disparate communication and behavior features may influence their entrepreneurial approach. Prior research has concentrated mostly on entrepreneurial inclination. However, only a small number of research have explored the entrepreneurial inclination of Generations Y and Z.

1.1 Objectives
This study aims to give in-depth analysis by comparing entrepreneurial orientation (EO) between gen Y entrepreneurs and gen Z entrepreneurs using Rasch Model Approach.

2. Literature Review
2.1 Entrepreneurial Orientation
One of the most well-known concepts in the field of entrepreneurship study is the idea of entrepreneurial orientation (EO). When it was first conceived more than 30 years ago, the EO concept was meant to gauge a company's entrepreneurial attitude. Danny Miller is widely acknowledged as the originator of this idea (although not the father of the name). An entrepreneurial company is one that innovates products and markets, takes risks, and is the first to come up with "proactive" inventions, beating its rivals to the punch, according to the author Julita Eleonora Wasilczuk, 2020).

Entrepreneurial orientation was not first named by Miller; it was presented together with an explanation of how to measure it. According to the research, entrepreneurship is an important characteristic of high-performing companies. Three elements of entrepreneurialism were identified by Covin and Slevin [3]: invention, proactivity and risk taking. Miller talked about this more than 30 years ago in his paper. Since then, EO research has progressed, including the development of methods for measuring it. There are three questions for each dimension on the Miller/Covin and Slevin 10-degree EO measuring scale. A 10-point scale is used to assess the two new dimensions, although only one question is asked for each one (Wasilczuk, 2020).

Miller and Friesen first suggested the Entrepreneurial Orientation (EO) idea in 1983. It was improved between 1989 and 1991 by Covin and Slevin (Linton, 2019). They classified EO into three types: proactive, risk-taking, and innovative (J. Almeida et al., 2019; Parsian and Mobarak, 2016; Rezaei and Ort, 2018). The scholars describe EO as
"a collection of decision-making processes, methods, and behaviors that result in innovation" (J. Almeida et al., 2019; Lomberg et al., 2017; Zehir et al., 2015). The term "entrepreneurial orientation" (EO) is now often used to characterize an organization's entrepreneurial level. According to studies, EO is vital in stimulating long-term innovation, regeneration, and proactive behaviors (Al Mamun et al., 2017; Lomberg et al., 2017; Rezaei and Ortt, 2018).

These three aspects combine to generate a cohesive whole or combination that cannot exist apart from one another—innovation is the pinnacle of entrepreneurship. One of the EO features that relates to the predisposition for taking calculated risks, such as entering unexplored markets and allocating a considerable portion of resources to hazardous initiatives, is risk-taking. Innovativeness is characterized as the desire to develop new goods and processes, invent new approaches, and become leaders. Proactiveness, on the other hand, is a market-shaping attitude that comprises introducing new items or services ahead of potential demand and influencing the market (Gochhait and Pokharnikar, 2020; Mutlutürk and Mardikyan, 2018; Sahoo and Panda, 2019).

2.2 Generation Y

The setting alludes to globalisation, economic stability, and the rise of the internet as key world events that influence the way of thinking of Generation Y (Francis and Hoefel, 2018; Okros, 2020). Despite being technologically savvy and using digital technology in their daily lives, Generation Y has a very lengthy attention span and is comfortable listening to lectures or reading textbooks (Feher, 2019; Francis and Hoefel, 2018). Generation Y is familiar with the typical approach of studying or seeking guidance from role models before acting (Chicca and Shellenbarger, 2018).

Generation Y tends to balance real and virtual life (Seemiller and Grace, 2016; Howe and Strauss, 2000). They recognize the impact of social relationships with their peers and conventional role models (e.g., family, successful businesspeople, etc). (Meola, 2016; Otieno and Nyambegera, 2019). By starting new firms, Generation Y also aspires to play an active part and have a direct influence on the larger community (Balda and Mora, 2012; Francis and Hoefel, 2018; Liu et al., 2019).

2.3 Generation Z

Digital technological development, the global recession, terrorism, and, most recently, the COVID-19 pandemic are some of the events that have occurred in the background of Generation Z. (Francis and Hoefel, 2018; Okros, 2020). Gen Z is more likely to be referred to as "digital natives" due to their high reliance on digital media and online literature (Feher, 2019; Francis and Hoefel, 2018).

Regarding the order of learning, Gen Z favors experiential learning or doing before asking/thinking. Furthermore, the phrase "identity nomads" is used to Gen Z since they want to be defined by a single stereotype and experiment on social media to build several digital identities (Fromm and Read, 2018). Gen Z's role model is themselves; they are self-starters, self-learners, and self-motivated (Otieno and Nyambegera, 2019).

This research aims give in-depth analysis by comparing entrepreneurial orientation (EO) between gen Y entrepreneurs and gen Z entrepreneurs using Rasch Model Approach. Thus, the researchers arrive at the following hypotheses after conducting a thorough literature search:

**Hypothesis 1:** Innovativeness significantly differ between gen Y and gen Z entrepreneurs

**Hypothesis 2:** Risk Taking significantly differ between gen Y and gen Z entrepreneurs

**Hypothesis 3:** Proactiveness significantly differ between gen Y and gen Z entrepreneurs

3. Methods

The study explores and give in-depth analysis by comparing entrepreneurial orientation (EO) between gen Y entrepreneurs and gen Z entrepreneurs 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 of (Wasilczuk, 2020; Almeida et al., 2019, Rezaei and Ortt, 2018) consisting of 14 indicators. 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 (Table 1). Additionally, Rasch Model Analysis can help reduce the number of biased responses on self-report questionnaires (Boone et al., 2014; Sumintono, 2014).
### Table 1. Reliability and Validity Test Results

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Alpha Cronbach</th>
<th>Item Reliability</th>
<th>Person Reliability</th>
<th>Item Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Orientation</td>
<td>0.88</td>
<td>0.99</td>
<td>0.84</td>
<td>14 items - accepted</td>
</tr>
</tbody>
</table>

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 (0.99). Additionally, the instruments have a strong Cronbach alpha (0.88). It implies that there are good correlations between the items and the respondents' responses (Boone et al., 2014; 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

<table>
<thead>
<tr>
<th>Innovativeness</th>
<th>Risk Taking</th>
<th>Pro-activeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observing unique products/services (I1)</td>
<td>Investing in opportunities with high returns and risks (RT1)</td>
<td>Taking the initiative to act (P1)</td>
</tr>
<tr>
<td>Investing in long-term development (I2)</td>
<td>Take action to achieve goals (RT2)</td>
<td>Being the first person for new products/services (P2)</td>
</tr>
<tr>
<td>Looking for more productive new ways (I3)</td>
<td>Leveraging diverse resources to grow (RT3)</td>
<td>Monitoring technology trends (P3)</td>
</tr>
<tr>
<td>Being creative at work (I4)</td>
<td>Taking risks with new ideas (RT4)</td>
<td>Looking for opportunities (P4)</td>
</tr>
<tr>
<td></td>
<td>Exploring any opportunities (RT5)</td>
<td>Finding out future customer needs (P5)</td>
</tr>
</tbody>
</table>

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 the young entrepreneurs (gen Y and gen Z) 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). 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 476 young entrepreneurs by distributing closed-ended questionnaires. However, only 389 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., 2014; Sumintono, 2014).

There is 52% male with the female for 48%. The gen Z entrepreneur is 38% between twenty to thirty years old and 62% between thirty to forty years old. Their education 47% are diploma holder and 53% are bachelor graduates. The tenure of their business are less than 2 years, with 50% 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 young entrepreneurs (gen Y and gen Z). These young entrepreneurs frequently looking for more productive new ways (I3), leveraging diverse resources to grow (RT3), looking for opportunities (P4). The Rasch Model analysis also reveals the rarest activities taken by the young entrepreneurs (gen Y and gen Z). Those are investing in long-term development (I2), investing in opportunities with high returns and risks (RT1), being the first person for new products/services (P2).
Table 3. Activities Frequency in Entrepreneurial Orientation

<table>
<thead>
<tr>
<th>Entrepreneurial Orientation Dimensions</th>
<th>Frequent Activities</th>
<th>Rare Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovativeness</td>
<td>Looking for more productive new ways (I3) (-0.64 logit)</td>
<td>Investing in long-term development (I2) (1.27 logit)</td>
</tr>
<tr>
<td>Risk Taking</td>
<td>Leveraging diverse resources to grow (RT3) (-1.08 logit)</td>
<td>Investing in opportunities with high returns and risks (RT1) (2.72 logit)</td>
</tr>
<tr>
<td>Proactiveness</td>
<td>Looking for opportunities (P4) (-0.84 logit)</td>
<td>Being the first person for new products/services (P2) (1.23 logit)</td>
</tr>
</tbody>
</table>

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 between gen Y entrepreneurs and gen Z entrepreneurs (0.14 > 0.05). It means that hypothesis 1 declined statistically. For hypothesis 2 that stated there is a significant difference risk taking dimension between gen Y entrepreneurs and gen Z entrepreneurs, it can be statistically accepted (0.026 < 0.05). Finally, hypothesis 3 proved there is not any significant difference in proactiveness between gen Y entrepreneurs and gen Z entrepreneurs (0.422 > 0.05). As a result, hypothesis 3 statistically declined.

Table 4. Statistical Hypothesis Tests

<table>
<thead>
<tr>
<th>Entrepreneurial Orientation Dimensions</th>
<th>Mean measure (logit)</th>
<th>Welch-2sided Prob. (α 0.05)</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y</td>
<td>Gen Z</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td>Innovativeness</td>
<td>5.07</td>
<td>4.69</td>
<td>4.89</td>
</tr>
<tr>
<td>Risk Taking</td>
<td>3.62</td>
<td>4.19</td>
<td>3.88</td>
</tr>
<tr>
<td>Proactiveness</td>
<td>4.65</td>
<td>4.46</td>
<td>4.56</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2021

The comparison table (Table 5) shows, according to the Rasch Model, there are not any differences between gen Y and gen Z entrepreneurs based on the innovative dimensions and proactive dimensions. On the contrary, the comparison shows there are significant differences based on risk taking dimension. These comparison results can support the hypothesis validation previously.

Table 5. The Entrepreneurial Orientation Comparison

<table>
<thead>
<tr>
<th>Generation</th>
<th>Entrepreneurial Orientation (EO)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Innovativeness</td>
</tr>
<tr>
<td>Gen Y</td>
<td>Looking for more productive new ways (I3)</td>
</tr>
<tr>
<td>Frequent Activities</td>
<td></td>
</tr>
<tr>
<td>Rare Activities</td>
<td>Investing in long-term development (I2)</td>
</tr>
<tr>
<td>Gen Z</td>
<td>Looking for more productive new ways (I3)</td>
</tr>
<tr>
<td>Frequent Activities</td>
<td></td>
</tr>
<tr>
<td>Rare Activities</td>
<td>Investing in long-term development (I2)</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2021
5.3 Discussion
The study concluded that there are no significant differences in innovativeness between entrepreneurs from generations Y and Z. This may be due to the fact that both generations have characteristics that align well with the innovativeness attributes that emphasize taking action without waiting for others. Specifically, these two generations are technologically sophisticated, which increases the capacity for innovation in the current digital era. In addition, the study revealed that both generations typically seek out more productive new methods. It means that entrepreneurs of generations Y and Z are capable of creating creative products.

Another notable discovery was that entrepreneurs of generations Y and Z take risks in significantly different ways. Gen Z was discovered to be more daring than gen Y. The outcome is consistent with the cited literature. Generation Z likes actual learning or doing before asking/thinking. They are not hesitant to test new company strategies. In addition, the investigation revealed that gen Z and gen Y have distinct properties. Gen Z typically takes action to achieve goals, whereas Gen Y frequently utilizes a variety of tools for growth. It means that entrepreneurs of Generation Z are quicker to launch new businesses.

This study did not find significant differences between gen Y and gen Z entrepreneurs in proactiveness. This outcome may be explained by the fact that both generations are fearless in the face of uncertainty and prepared to share their expertise. In addition, they are noted for their independence, creativity, respect for diversity, adaptability, and preference for flat, interactive, and community-oriented structures or collaborative networks, all of which enhance their proactivity. In addition, the study revealed that both generations are constantly on the lookout for fresh chances. It suggests that both generations are eager to pursue entrepreneurial chances.

This has the implication that both gen Y and gen Z entrepreneurs have enormous potential to be successful business owners. Education and training can be administered in the same manner to these two generations because of their entrepreneurial similarities. They have various risk-taking characteristics. This indicates that the mentorship program is ineffective for gen Z, whereas gen Y needs a mentor as a role model. During their business journey, Gen Z merely needs to be provided with several resources and opportunities to assist them learn independently. They require the expert coach after encountering challenges.

6. Conclusion
The primary objective of this study was to evaluate whether entrepreneurs from generations Y and Z have distinct levels of entrepreneurial orientation based on innovativeness, risk-taking, and proactivity. The study analyzed the data collected from 389 young entrepreneurs using closed-ended questionnaires using the Rasch Model. Innovativeness and proactiveness did not differ significantly between the two individuals, according to the findings of this study. However, the key finding of this study is that the risk-taking abilities of entrepreneurs from generations Y and Z differ dramatically.

The findings of this study reveal that both gen Y and gen Z entrepreneurs have enormous potential for entrepreneurial success. The results of this study provided new light on entrepreneurial education for these two generations. Education and training can be administered in the same manner to these two generations because of their entrepreneurial similarities. The mentorship program is ineffective for Gen Z; instead, they should be supplied with various resources and opportunities to assist them learn independently throughout their entrepreneurial path.

A weakness of this study is that only Greater Jakarta data were collected. A number of questions remain unanswered. First, comparative research on the entrepreneurial performance of entrepreneurs from generations Y and Z is required. Second, additional research is required to determine the optimal approach for developing these two generations.

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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.