Original Article

The Effect of Human Resource Competence on Entrepreneurial Intention among Millennial Generation: Mediating Role of Technology

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Academic Editor: Ruzita Manshor.

Received: 17 February 2023 Accepted: 22 April 2023 Published: 31 May 2023

Abstract: Today, the COVID-19 pandemic impacts declining economic activities due to an increase in the number of unemployed on a large scale. The significant increase in the number of open unemployed is not only caused by a slowdown in economic growth but also due to changes in people's behavior related to the COVID-19 pandemic and social restriction policies, both on a small and large scale. This study investigates the mediating role of technology in the relationship between human resource competence and entrepreneurial intention among the millennial generation. This quantitative study was designed using a survey questionnaire with 97 respondents. The data were analyzed using Structural Equation Modelling (SEM) with Partial Least Square (PLS). SEM consists of two sub-models: measurement model (outer model) and structural model (inner model). The result indicates that human resource competence significantly affects the role of technology and entrepreneurial intention. Besides that, this study found that the role of technology mediates the relationship between human resource competence and entrepreneurial intention. In conclusion, this study proves that the role of technology is a significant factor in the relationship between the competence of human resources and the millennial generation's entrepreneurial intention.

Keywords: human resource competence; technology; entrepreneurial intention.

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1. Introduction

The COVID-19 pandemic has an impact on weakening activity in the economic sector, which causes an increase in the number of unemployed on a large scale. The significant increase in the number of open unemployed is not only caused by a slowdown in the pace of economic growth. According to the projections of the Center of Reform on Economics (CORE), Indonesia will range from -2% to 2% this year, but also due to changes in people's behavior related to the COVID-19 pandemic and social restriction policies, both on a small and large scale. The latest data from the Central Statistics Agency (BPS) in August 2019, the open
unemployment rate reached 7.05 million people or 5.28% of the total workforce. The Center of Reform on Economics (CORE) Indonesia estimates that open unemployment in the second quarter of 2020 will increase by 4.25 million people. This figure is a projection made by CORE based on a mild scenario of the impact of the coronavirus pandemic. Meanwhile, in the medium scenario, there will be an additional 6.68 million unemployed people, while in the severe scenario, there will be 9.35 million people (Mardiyah & Nurwati, 2020).

Education does not always guarantee or ensure that someone can work for it. Of course, it is necessary to develop human resource competencies, including skills, knowledge, insight, and behavioral attitudes in working in a field of work or entrepreneurship. Entrepreneurship is a powerful weapon in overcoming the problem of unemployment and poverty as a ladder to the dream of every community to be financially independent and participate in building community welfare (Asmani, 2011). Ideally, a country can progress if it has the competitiveness of entrepreneurs as much as 5% of the total population. Unfortunately, until now, Indonesia is still facing the problem of limited job opportunities. This condition worsens the global competitive situation as the ASEAN Economic Community/MEA begins to take effect. Of course, the government must encourage increasing the number of entrepreneurs (Marganingsih & Pelipa, 2017). According to presidential instruction No. 4 of 1995 concerning the national movement to socialize and cultivate entrepreneurship, instruction aims to invite all Indonesians to develop programs for implementing entrepreneurial activities to support the national economy so that efforts must be made to improve continuously (Astiti, 2014).

Judging from the 2020 population census results, Indonesia's population in 2020 will reach 270.2 million people. Compared to 237.63 million in the 2019 census or the previous year, an increase of 32.6 million. According to records, Indonesia's population in 2020 is dominated by Generation Z and Millennials. The population of Generation Z born in 1997-2012 reached 74.93 million people or 27.94% of the total population. The millennial population born in 1981-1996 reached 69.38 million or 25.87% of the total population (Bayu, 2021).

Figure 1. Millennials and Generation Z in Indonesia
Source: Data Journalism Source Dkatadata.co.id

Figure 1 indicates that the younger generation dominates Indonesia, both the millennial generation and Generation Z. Therefore, of course, special encouragement and attention from the government is needed for young generations, both millennial and Generation Z, to increase the spirit and intention in entrepreneurship. It is reinforced by the research conducted by the Alvira Research Center, which says that the millennial generation has great business potential. In 2020, the millennial generation will dominate the population in Indonesia with a portion of around 34 percent and will continue to dominate until 2035 (Nurhanisah, 2019). Institute for Development of Economics and Finance (INDEF) economist Bhima Yudhistira explained that the millennial generation will encourage the acceleration of the industrial
revolution 4.0. They are known to be easy to adapt to technology, not only as consumers but also as creators. The life of the millennial generation cannot be separated from technology, especially the internet; entertainment has become a basic need for this generation (Saliha, 2021). From the data, this study indicates that the role of technology is very closely related to the lifestyle and daily activities of the millennial generation, which encourages adaptability to exist technological developments based on the explanations described previously, encouraging researchers to be Intentioned in researching the extent to which the millennial generation's competence as a resource humans and the role of technology in attracting the millennial generation to become entrepreneurs.

2. Literature Review

2.1. Human Resources Competence

Competence is the ability of a person's characteristics, skills, and empowerment to do or carry out his work based on the skills, knowledge, creativity, and practice within him to produce an expected performance. (Nurjaya, et al. 2021). Indicators of human resource competence consist of the following characteristics: knowledge, HR skills, attitude, and responsibility expertise in performing tasks (Cahmawati & Romandhon, 2021).

2.2. The Role of Technology

Information technology is a technology that has a function in processing data, processing data, obtaining, compiling, storing, and changing data in various ways to obtain useful or quality information, namely information that is relevant, accurate, and timely, which is used for business, government, as well as personal needs and is strategic information for making a decision (Cahmawati & Romandhon, 2021). The indicators of the role of information technology consist of Information Centers and data storage, data and information management, and process management system (Cahmawati & Romandhon, 2021).

2.3. Entrepreneurial Intention

Intention in entrepreneurship is a psychological symptom of intention and a desire to run a business with ideas or feelings of pleasure because it benefits him. Intention in entrepreneurship is a wholehearted desire to do business independently, with one's own will (Indrayanti, 2013). The indicators of intention in entrepreneurship are personal challenge, innovation, leadership, and flexibility.

3. Materials and Methods

This quantitative study uses SEM (Structural Equation Modeling) analysis method. Data management in this study will use SmartPLS software version 3. PLS is used to explain whether there is a relationship between latent variables (prediction). The PLS (Partial Least Square) method consists of two sub-models, namely the measurement model (outer model) and the structural model (inner model). The data collection technique in this study used a questionnaire distributed to research samples belonging to the millennial generation category in various regions in North Sumatra. Because the total population is uncertain, the number of samples is sought using the Cochran formula (Sugiyono, 2017). Based on the calculation of the Cochran formula, the sample taken is 97 respondents. The sampling technique used is accidental sampling.

4. Results

4.1. Assessment of Measurement Model (Outer Model)

The measurement model (Outer Model) is carried out to describe or describe the relationship between latent variables (constructs) and their indicators or the relationship of these variables to the measurement theory.

<table>
<thead>
<tr>
<th>Indicator(s) (s)</th>
<th>HR Competence (X)</th>
<th>The Role of Technology (Z)</th>
<th>Entrepreneurial Intention (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X.1</td>
<td>0.789</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X.2</td>
<td>0.843</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X.3</td>
<td>0.836</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X.4</td>
<td>0.870</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z.1</td>
<td>0.850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z.2</td>
<td>0.894</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1 captures that all the items that are indicators of each of the variables in this study have a factor loading value above 0.70. Therefore, all these items deserve to be used as indicators in this study. Furthermore, all items become measuring instruments.

### 4.1.1. Construct Validity and Reliability

**Table 2. The Result of Construct Validity and Reliability**

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Cronbach’s Alpha</th>
<th>Rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR Competence</td>
<td>0.855</td>
<td>0.858</td>
<td>0.902</td>
<td>0.697</td>
</tr>
<tr>
<td>The Role of Technology</td>
<td>0.868</td>
<td>0.850</td>
<td>0.893</td>
<td>0.789</td>
</tr>
<tr>
<td>Entrepreneurial Intention</td>
<td>0.841</td>
<td>0.850</td>
<td>0.893</td>
<td>0.677</td>
</tr>
</tbody>
</table>

Table 2 shows the criteria for validity and reliability because they have met the criteria and requirements in testing the validity and reliability of the construct. Where the value of Cronbach’s Alpha, Rho A and Composite Reliability, Human Resource Competence (X), Role of Technology (Z), and Intention in Entrepreneurship (Y) is greater than 0.70, and the Average Variance Extracted (AVE) value is greater than 0.50. Thus, the data that has been distributed can be trusted and can be used as data to answer research questions.

### 4.2. Analysis of the Structural Model (Inner Model)

The results of the inner model analysis can be seen from several indicators, which include the coefficient of determination (R²), Predictive Relevance (Q²), and Goodness of Index (GoF) (Hussien, 2015). The results of the structural model displayed by smartPLS version 3, in this study are as follows:

**Figure 2. The Result of PLS Bootstrapping**

### 4.2.1. Coefficient of Determination (R-square)

Assessing a model with PLS begins by looking at the R-square for each dependent latent variable. The results of the calculation of R² in this study are as follows:

**Table 3. The Result of Coefficient of Determination (R-Square)**
Table 3 shows that the $r^2$ value of the technology role variable (Z) is 0.170, which means that the role of technology (Z) is influenced by human resource competence (X) by 17% or in other words the contribution of human resource competence is 17% while the remaining 83% is the contribution of other variables not discussed in this study.

4.2.2. Goodness of Fit Model

Calculation of the Goodness of Fit Model can be used to determine the contribution given by exogenous variables to endogenous variables. GoF value in PLS analysis can be calculated using Square Predictive Relevance ($Q^2$). The following are the results of the calculation of the Goodness of Fit Model in this study: 

\[ Q^2 = 1 - (1 - r_1^2) (1 - r_2^2) = Q^2 = 1 - (1 - 0.170) (1 - 0.727) = Q^2 = 1 - (0.83) (0.273) = Q^2 = 0.773. \]

The result indicates that the Q-Square Predictive Relevance ($Q^2$) value is obtained at 0.773 or 77.3%. It can indicate that the diversity of the Millennial generation's entrepreneurial Intention variable (Y) can be explained by the overall model of 77.3%, or it can also be interpreted that Human Resource Competence (X) and the Role of Technology (Z) on Entrepreneurial Intention (Y) as a whole is 77.3%. In comparison, the remaining 22.7% contributes to variables not discussed in this study, such as price, perception, service quality, capability, and security.

4.3. Hypothesis Testing

4.3.1. Direct Effects

Direct effect testing is used to explain hypothesis 1, hypothesis 2, and 3 through path coefficients. The path coefficient value can be seen through the t-statistic, which must be above the t-table, namely 1.96, which means that exogenous variables affect endogenous variables in each predetermined hypothesis. The t-statistic value of 1.960 or the probability value of the significance level ($\alpha = 5\%$), concludes that the accepted hypothesis is that there is a significant effect between the variables tested. Table 4 shows the results of testing the hypothesis directly by bootstrapping on the following SmartPLS 3 software:

| Path Analysis | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|---------------|---------------------|-----------------|----------------------------|--------------------------|----------|
| Human Resources Competence → Entrepreneurial Intention | 0.690 | 0.702 | 0.070 | 9.843 | 0.000 |
| Human Resources Competence → The Role of Technology | 0.431 | 0.413 | 0.152 | 2.717 | 0.007 |
| The Role of Technology → Entrepreneurial Intention | 0.291 | 0.284 | 0.111 | 2.634 | 0.008 |

Table 4 captures the results of hypothesis testing. The result indicates that human resource competence significantly affects the millennial generation's entrepreneurial intention. Based on the test results contained in the table above, it can be seen that the t-statistic value of the relationship between human resource competence (X) and entrepreneurial Intention (Y) is 9.843 with a significant magnitude of 0.000. The test results show that the t-statistic is 1.96, and the result is a significant level of significance ($\alpha = 5\%$). It significantly influences human resource competence (X) and entrepreneurial Intention (Y). Hypothesis 1 is accepted.

Also, human resource competence significantly affects the role of technology. Based on the test results contained in the table above, the t-statistic value of the relationship between human resource competence (X) and the role of technology (Z) is 2.717, with a significance of 0.007. The test results show that the t-statistic is 1.96, and the result is a significant level of significance ($\alpha = 5\%$). It shows a significant influence
between the competence of human resources (X) and the role of technology (Z). Hypothesis. Hypothesis 2 is accepted.

Besides that, the role of technology has a significant effect on intention in entrepreneurship, based on the test results contained in the table above, it can be seen that the value of t-statistics, the relationship between the role of technology (z) on intention in entrepreneurship (Y) is 2.634 with a significance of 0.008. The test results show that the t-statistic is 1.96 and the result is a significant level of significance (α = 5%). This shows that there is a significant influence between the role of technology (Z) on the intention in entrepreneurship. Hypothesis 3 is accepted.

4.3.2. Indirect Effect

Indirect effect testing is used to explain exogenous variables and endogenous variables are associated with intermediaries (mediation) through path coefficients. The path coefficient value can be seen through the t-statistic which must be above the t-table, namely 1.96, which means that there is an influence of exogenous variables on endogenous variables through mediation on the predetermined hypothesis. The t-statistic value of 1.960 or the probability value of the significance level (α = 5%), has the conclusion that the accepted hypothesis is that there is a significant effect between the variables tested. The following can be seen the results of testing the hypothesis directly by bootstrapping on the following smartPLS 3.3.3 software:

Table 5. The Result of Path Coefficients (Indirect effect)

| Path Analysis               | Original Sample(O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|-----------------------------|--------------------|-----------------|----------------------------|---------------------------|----------|
| Human Resources Competence → The Role of Technology → Entrepreneurial Intention | 0.120              | 0.112           | 0.054                      | 2.212                     | 0.027    |

Table 5 explains that the competence of human resources has a significant influence on entrepreneurial intention mediated by the role of technology. The following test results contained in the table above can be seen that the t-statistic value of the relationship between human resource competence (X) and intention in entrepreneurship (Y) mediated by the role of technology is 2.212 with a significant magnitude of 0.027. The test results show that the t-statistic is 1.96 and the result is a significant level of significance (α = 5%). This shows that there is a significant influence of human resource competence (X) on entrepreneurial intention mediated by the role of technology (Z). Thus, the role of technology is clearly able to mediate human resource competencies with entrepreneurial Intentions and thus hypothesis 4 is accepted.

Table 6. The Result of Summary of Hypothesis Testing

| Proposed Hypotheses | Path Coefficient | T statistics (|O/STDEV|) | P Values | Decision | Significant |
|---------------------|------------------|--------------------------|----------|----------|-------------|
| Hypothesis1         | 0.690            | 9.843                    | 0.069    | Accepted | Significant |
| Hypothesis2         | 0.431            | 3.817                    | 0.000    | Accepted | Significant |
| Hypothesis 3        | 0.291            | 0.263                    | 0.008    | Accepted | Significant |
| Hypothesis 4        | 0.120            | 2.212                    | 0.027    | Accepted | Significant |

Table 6 captures that four proposed hypotheses are accepted. Human resources competence has a significant positive effect on entrepreneurial intention.

5. Conclusions

This study concludes that there is an effect between the competence of human resources and the interest in entrepreneurship. Which shows that competence is a matter of consideration in growing interest in entrepreneurship. The results of the second hypothesis test indicate that there is a significant effect of
human resource competence on the variable role of technology. With the more competent human resources, it will be easier to adapt to technological developments. The results of the third hypothesis test show that the role of technology has a significant effect on interest in entrepreneurship. This shows that with easier access to the role of technology and the role of technology in entrepreneurship, it is certainly able to attract the interest of the millennial generation to become entrepreneurs. The results of the fourth hypothesis test of the role of technology can mediate between human resource competencies and millennial generation's entrepreneurial interest. This shows that the role of technology is a factor that can bridge between the competence of human resources and the millennial generation's entrepreneurial interest. This means that one of the efforts to increase interest in entrepreneurship in the millennial generation, a strategy for developing good human resource competencies can be carried out through the role of technology because the research results show that the role of technology is a mediating factor to attract millennial generation entrepreneurship interest.

Author Contributions: Conceptualization, R.S.; methodology, R.S.; software, R.S.; validation, R.S.; formal analysis, R.S.; investigation, R.S.; resources, R.S.; data curation, R.S.; writing—original draft preparation, R.S.; writing—review and editing, R.S.; visualization, R.S.; project administration, R.S.; funding acquisition, R.S. The author has read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Not applicable.

Acknowledgments: The author would like to thank Sekolah Tinggi Ilmu Ekonomi Bina Karya Tebing Tinggi, Indonesia, for supporting this research and publication. I would also like to thank the reviewers for their constructive comments and suggestions.

Conflicts of Intention: The authors declare no conflict of intention.

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