GAMIFIED ENTREPRENEURIAL TRAINING, MATURITY OF E-COMMERCE ADOPTION IN ENHANCING SMALL BUSINESS PERFORMANCE

Lasmy, Bina Nusantara University
Tirta Nugraha Mursitama, Bina Nusantara University
Asnan Furinto, Management,Bina Nusantara University
Setyo Hari Wijanto, IndonesiaUniversity

ABSTRACT

Entrepreneurship is the main driver of a country's economy, including Indonesia. MSMEs provide a large contribution to Indonesia's GDP, even larger than large scale businesses. In addition, it has high labor absorption. Therefore, the business performance of MSMEs needs to be maintained, even scaling up. However, MSMEs lack confidence in e-commerce adoption and have minimal entrepreneurship training. This study examines the gamified role of entrepreneurship training (ET) on the maturity of e-commerce adoption (MECA) in enhancing the performance of small businesses (SBP). This research is a quantitative study, distributing questionnaires online with a total number of respondents of 459 small businesses in the F&B sector in Jakarta with age >3 years, and data analysis using SEM LISREL. This study's results are gamification, which plays an essential role in the ET process; ET and MECA has a significant effect on the MECA, partially. Meanwhile, ET does not have a significant effect on the SBP through MECA mediation.

Keywords: Gamification, Entrepreneurial Training, Maturity of E-Commerce Adoption, SmallBusiness Performance.

INTRODUCTION

The complexity of today's industrial environment has made entrepreneurship more crucial than ever. Entrepreneurship is one of the main drivers of a country's economic sustainability (Pereverzeva, 2015). It is essential to increase the number of growth-minded entrepreneurs as they create jobs, take in large numbers of the unemployed, reduce poverty, improve living standards, involving the surrounding environment, have productivity, high levels of innovation and export (Mason & Brown, 2013). Besides, MSMEs contribute more than large businesses to Indonesia's GDP. The calculation of the Annual Growth Rate (AGR) based on the number of units resulted in medium enterprises having an annual growth rate greater than 0.3% compared to small businesses and based on their contribution to GDP. Medium enterprises also contributed 0.7% greater than small businesses. The conclusion is that medium enterprises can make a better contribution to GDP with a much smaller number of units than small businesses. So that if small businesses can be scaled up to medium-sized enterprises, the percentage of GDP contribution will be even better. Small businesses need to scale up so that economic growth also increases.

Deputy for Business Restructuring, Abdul Kadir Damanik, said that SMEs struggle to scale up because they are not confident in the technology (Pasardana, 2019). Only 20% of

MSME players adopt e-commerce (Menkominfo, 2019), and it is predicted that less than 2% use advanced digital technology (Deloitte, 2015). This statement is also supported by research (Maryeni et al., 2012) that in terms of e-commerce adoption, Indonesian MSMEs are still at the presence or non-adopter level.

Deputy Chairman of Entrepreneur Mark plus. Inc. & President of ICSB, Dr. Jacky Mussry(2019); the director of the Wismilak Group and the Chairperson of APINDO, Ronald Walla (2019), stated that the problems faced today are the participation of small entrepreneurs in training is still minimal, and there is a tendency to become followers in developing their business both in terms of product development and determining business locations. The CentralStatistics Agency's data also supports this statement that the number of micro and small businesses in DKI Jakarta that takes part in BPP (Counselling, Training, Guidance) decreases from year to year, only 3% in 2018. Meanwhile, those who do not participate in BPP are increasing from year to year, reaching 97% in 2018. For this reason, stimulation is needed to encourage entrepreneur involvement in participating in entrepreneurship training (Dalborg, 2015). This stimulation can be done by adopting gamification in the entrepreneurial training process. Gamification is applying game elements to the non-game industry, which aims to change and encourage behaviour. Scopus.com notes that there have been 469 scientific articles on gamification in business since 2011, but gamification has not been found in entrepreneurship training. Gamification will be added in the entrepreneurship training process as a dimension, and gamification elements become additional indicators for entrepreneurial training variables.

Therefore, this study aims to analyse the role of entrepreneurship training in improving small businesses' performance. The contribution of novelty in this research is the adoption of gamification as a dimension of entrepreneurial training variables. This study's results are expected to enrich the picture for business actors, employers' associations, and the government to scale up.

LITERATURE REVIEW

The characteristics of MSMEs in various countries vary widely. Indonesia itself, through the Indonesian Banking Development Institute and Bank Indonesia (2015), divides business characteristics based on annual income, such as annual income >300 million-2.5 billion including the category of small-scale businesses.

Entrepreneurial Training (ET)

According to the Global Entrepreneurship Monitor report, more studies are needed on entrepreneurship training, especially on whether training can significantly impact, training is related to individuals and is a place to enrich knowledge, skills to meet future needs (Noev et al. 2017) and relevant abilities (Frese & Gielnik, 2014). Entrepreneurship training categories include motivation, business knowledge, and entrepreneurial skills (Ladzani & van Vuuren, 2002).

Gamification

Gamification is the addition of a game element to an existing process to influence people's behaviour, such as changing the buying behaviour of an item or service, motivating, increasing creativity and others (Landers et al., 2018; Mekler et al., 2017). The use of gamification is expected to change Indonesian small entrepreneurs' behaviour minimally participating in entrepreneurship training. According to Hamari & Koivisto, gamification indicators consist of appreciation or recognition, social influence, fun, excitement, function or

usefulness, and ease to use (Hamari & Koivisto, 2015; Koivisto, 2017).

Maturity of E-Commerce Adoption (MECA)

The term e-commerce is widely used and has different meanings, depending on the study's views and the author. E-commerce, referred to in this study, is commercial transactions between sellers and buyers that are carried out electronically using the internet network and online means (Candra & Nasution, 2014).

Small Business Performance (SBP)

In general, the success of a business is seen from the overall achievement of business performance in allocating and managing its resources. Several previous studies have believed that measuring the business performance of a business is not enough to measure only from the financial side such as profit, sales growth, return on investment, but also measured from the non-financial side such as business reputation, employee loyalty, customer satisfaction and innovation (Jain & Moreno, 2015; Sucahyo et al., 2016).

Previous studies have suggested that more training is needed to encourage the maturity of e-commerce adoption (Barrera, 2017; Nantembelele & Gopal, 2018; Noor & Suprayoga, 2019; Saif-Ur-Rehman & Alam, 2016). Several previous researchers concluded that MECA is a crucial factor in the process of gaining competitive advantage and improving company performance (Chang et al., 2015; Haseeb et al., 2019; Wardoyo et al., 2018).

Based on the explanation above, the provisional assumptions are as follows:

H₁: *Entrepreneurial Training (ET) has a positive effect on the Maturity of E-Commerce Adoption (MECA).*

H₂: *Maturity of E-Commerce Adoption (MECA) has a positive effect on small business performance (SBP).*

H₃: *Entrepreneurial Training (ET) has a positive effect on small business performance (SBP) through the mediation of Maturity of E-Commerce Adoption (MECA).*

RESEARCH METHODOLOGY

This research focuses on the quantitative approach. Data collection by distributing questionnaires online to entrepreneurs in Jakarta. The data collection time is cross-sectional. The data analysed using Structural Equation Modeling LISREL 8.8. Then to test the indirect effect will use the SOBEL test calculation approach (Sobel, 1982). The object of this research is entrepreneurs or small business owners, both men and women in Jakarta, whose business age is at least three years, are engaged in the food and or beverage industry and wish to move up a grade. Based on the BPS report, the number of small businesses in the DKI Jakarta province in 2018 was 9,791. The total population is then calculated using the Taro Yamane formula (Yamane, 1967) and produces the minimum required sample size of 385 units. At the same time, the sampling technique uses nonprobability sampling - purposive sampling. The Likert scale used in this study is a measurement from a scale of 1 to 6 to avoid respondents' biased answers to "neutral" or "doubtful."

RESULTS

Descriptive Statistics

Table 1 below shows the descriptive analysis contains the analysis unit's profile and respondent profile.

Table 1 DESCRIPTIVE ANALYSIS		
Category	Description	%
Gender	Male	48
	Female	52
Generation	Z	42
	X	37
	Millennial	20
	Baby boomers	1
Participation in entrepreneurship training in a year	Never	1
	<12	87
	>12	12
The main consideration for participating in entrepreneurship training	Topic or Material	61
	Trainer/Speaker	11
	Location	11
	Fee	15
	Time	1
	Others	1

The pattern of the respondents' answers is summarized and converted to Percent of MaximumPossible (POMP) scores (Cohen et al., 1999) which have a scale of 0-100. POMP score results, namely 66.69-83.35, which means that the respondents agree/feel satisfied/consider the latent variables ET and SBP, their dimensions and indicators necessary. Furthermore, the latent variables MECA shows business that have adopted e-commerce as a medium for buying and selling transactions only 185 units (40.31%).

SEM Analysis

The results of overall fit model test of each latent variable ET, MECA and SBP can be concluded that the latent variable measurement model has a good overall model fit. All of dimensions and indicators is reliable because the VE value >0.50 and the CR value >0.70; valid because the SFL value >0.50 and all SFL is significant because the value >1.96.
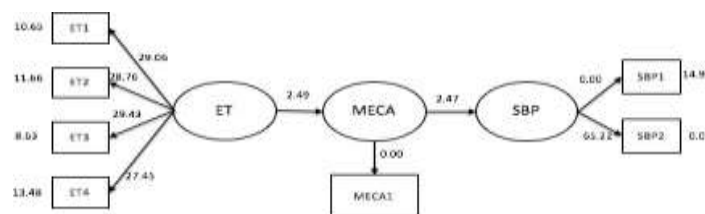

FIGURE 2
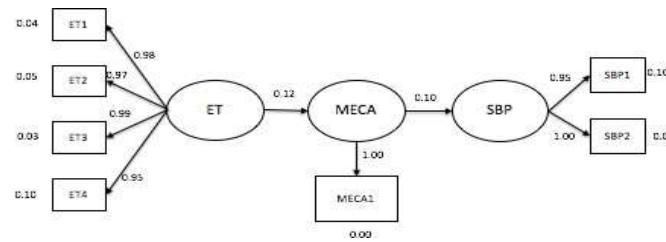**ESTIMATION RESULTS OF THE RESEARCH MODEL AFTER BEING SIMPLIFIED (T-VALUE)**

FIGURE 3
**ESTIMATION RESULTS OF THE RESEARCH MODEL AFTER BEING
SIMPLIFIED (STANDARD SOLUTION)**

TABLE 2
RESEARCH MODEL STATISTICAL TEST RESULTS

Hypotesis	t-Value*	Coefficient	Conclusion
H1 : ET → MECA	2,49	0,12	Significant Positive, H1 is accepted, the data support the model
H2 : MECA → SBP	2,47	0,10	Significant Positive, H2 is accepted, the data support the model
H3 : ET → MECA → SBP	1,76 ***	0,12x0,10= h yh0,012	Not significant, H3 is rejected; the data does not support the model.
GOFI: : RMSEA (≤ 0,08**) = 0,00; NNFI (≥ 0,90**) = 0,98; CFI (≥ 0,90**) = 0,99; RFI= (≥ 0,90**) = 0,98; IFI (≥ 0,90**) = 0,99; SRMR(≤ 0,05**) = 0,08; GFI(≥ 0,90**) = 0,94; Norm χ^2 (≤ 2) = 0,00			

absolute (t-value) ≥ 1.96 is Significant; absolute (t-value) <1.96 is not significant
** Criteria for a Good Fit
*** calculated using a calculation for the SOBEL TEST (quantpsy.org)

Based on figures 2 and 3 the printed output of the LISREL 8.8 program, the t-value and the coefficient of the path that connect the two latent variables of the study can be obtained so that statistical tests can be carried out on these trajectories, as shown in table 1. Besides, can also be obtained a GOFI value that indicates the suitability of the data with the model for the research model's structural model. From Table 2, it can be seen that, except for the SRMR, which shows a poor fit, the remaining seven GOFIs show an excellent fit; thus, it can be concluded that the overall fit of the structural model is good. The statistical test results of the relationship between latent variables in table 1 show that there are three relationships tested, two are significant, and one is not significant.

DISCUSSION AND CONCLUSION

The conclusion from the results of this study is that ET has an effect on SBP, as well as MECA. However, MECA did not mediate the relationship between ET and SBP. ET had a significant positive effect on MECA. These results are in line with previous research (Barrera, 2017; Nantembelele & Gopal, 2018; Noor & Suprayoga, 2019) and supports the statement that more participation in entrepreneurship training is needed, primarily related to how to choose and adopt effective and efficient e-commerce according to each business's scope. Besides, based on the path diagram test results of the latent variable ET, it shows that the amount of gamification representation (ET4) has a t-value of 27.45 and has a good model fit. The gamification dimension (ET4) is measured by six indicators and produces the largest to most minor SFL value sequence, namely the usefulness of 0.92, ease of use of 0.92, enjoyment of 0.90, recognition of 0.87, social influence of 0, 82, and playfulness of 0.77. This can be

interpreted that the entrepreneurship training attended by small business entrepreneurs contains elements of gamification, and entrepreneurs feel satisfied, agree and consider each of these elements necessary. Therefore, the application of gamification in entrepreneurship training needs to be carried out and continued so that it is increasingly capable of being a stimulus that encourages involvement, participation of small business entrepreneurs in long-term and routine entrepreneurship training. Gamification can change individual behaviour, for example, from not being interested in being interested (Conaway et al., 2016; Ramadan, 2018; Xu et al., 2017), gamification can increase one's involvement towards something (Kumar & Raghavendran, 2015; Mekler et al., 2017).

MECA, have a significant positive effect on SBP. These results are in line with previous research (Haseeb et al., 2019; Lekmat, 2018). The results of hypothesis 2 testing also mean that entrepreneurs are aware of the importance of the maturity level of e-commerce adoption in business activities. However, data shows that mostly business unit still doesn't adopt e-commerce in their business activities. This may be due to a lack of skills related to e-commerce (Awaludin, 2019).

Meanwhile, ET did not have a significant effect on SBP through MECA mediation. This may occur due to several factors; for example, most customers are not e-commerce users, e-commerce adopted by businesses is less or not following the target market, or businesses do not need e-commerce and other factors. The results of this research hypothesis test differ from previous research (Frese & Gielnik, 2014; Ladzani & Van Vuuren, 2002).

SUGGESTIONS

This study has achieved its objectives and answered questions. However, future research still has certain limitations, such as adding new variables such as gender, expanding the scope of research, conducting this research with an experimental approach, and others.

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