



Research Paper

Entrepreneurial Human Capital as Performance Improvement MSMEs in Indonesia

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ABSTRACT: *The declining performance of MSMEs during the Covid-19 pandemic has become a concern for all stakeholders because of their considerable contribution and role to the national economy. MSMEs performance assessment based on human capital is a very interesting thing to research. Business people are less aware that a business entity is a unit that contains knowledge, abilities, and skills that can differentiate products produced from competitors. The purpose of this study was to examine the effect of entrepreneurial human capital on the performance of MSMEs. The sample is the owner of MSMEs in the food and beverage manufacturing sector in DKI Jakarta, Indonesia. The independent variable is entrepreneurial human capital which consists of education, training, experience, and competence. The dependent variable is the performance of MSMEs using the dimensions of productivity performance, business performance, responsiveness, responsibility, and company accountability. The results showed that the training, experience, and competence of entrepreneurs are entrepreneurial human capital factors that have an impact on the performance of MSMEs. Investments in various pieces of training to increase knowledge resources, skills, and abilities of entrepreneurs have proven to be able to improve the performance of MSMEs, especially in the food and beverage sector in Indonesia. The more entrepreneurship training that is followed and the experience possessed will increase the competence and ability of MSME actors in running their business to improve MSME business performance.*

KEYWORDS: *Entrepreneur, Human Capital, SME's Performance*

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I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are a business sector that has enormous potential and has an important and strategic role in national economic development. MSMEs make a major contribution to employment and poverty reduction and increase income and community welfare so that it has an impact on increasing Gross Domestic Product. However, to maximize this potential, MSMEs face several problems. The main problem faced by MSMEs is the low quality of human resources which has an impact on the low ability of entrepreneurs to create and take advantage of business opportunities, absorb and use production technology, production planning, and company management. This can be seen from the products produced by MSMEs which in general are still very traditional. Lack of business knowledge is also reflected in the inability of MSMEs to seek and open new opportunities to develop their businesses.

The declining performance of MSMEs during the Covid-19 pandemic has become a concern for all stakeholders because of their considerable contribution and role to the national economy. According to Menurut [1], the dominant factor in achieving company goals is the company's ability to manage Intangible Assets. Human Capital is part of Intangible Assets which has a very important role in the progress of a business entity. Assessment of MSME performance based on human capital is a very interesting thing to research. Business people are less aware that a business entity is a unit that contains knowledge, abilities, and skills that can differentiate products produced from competitors.

Human Capital is still a matter of controversy regarding the appropriate dimensions and indicators to measure Human Capital, this is due to the decreasing trend of natural resources [2]. Human capital refers to motivation, leadership, entrepreneurial spirit, identity, family emotions, creativity, skills, abilities, commitment and dedication, family relationships, and professionalism [3]. Human capital according to [4] consists of 6 categories, namely Self employee capability, Other employee capabilities, Self employee sustainability, Other

employee sustainability, Self employee satisfaction, and Other employee satisfaction. Different from Zaragoza-Saez et al., the emphasis of the dimensions proposed by each is on the employee, especially the satisfaction of the workers themselves. Other researchers who suggest the dimensions of measuring human capital are [5] consisting of Qualification/competence, Motivation/commitment, and personnel. According to [6], human capital consists of education, experience, training, intelligence, energy, work habits, trust, and initiative. As an intangible resource for the company, human capital is an important element in the process of transforming information into valuable knowledge that will improve the company [7]. In this study, Entrepreneurial Human Capital is implemented as an independent variable consisting of education, training, experience, and entrepreneurial competence.

The concept of education as an investment has developed rapidly and is increasingly believed by every country that the development of the education sector is a key prerequisite for the growth of other development sectors. In the aspect of resources, the low quality of MSMEs is caused by the level of education. Theoretically, the better a person's level of education, the better his productivity. Human capital investment is any activity that improves the quality (productivity) of workers. Therefore, education will give birth to a productive workforce, because they have adequate competence, knowledge, and skills. An educated workforce with adequate quality is a determining factor for increasing production capacity, thus providing stimulation for the development of MSMEs. The human capital theory has experienced rapid development. In its development, greater attention was paid to aspects related to training. Training is an important component of human capital investment. This refers to the knowledge and training needed and experienced by a person that increases his ability to carry out activities of economic value. Some recent literature points to the importance of training. The lack of training followed by entrepreneurs will result in their knowledge and ability to manage their business so that their businesses are unable to compete and have low competitiveness. Training will also affect the sustainability of the company and a greater propensity for business and economic growth [8], [9].

According to [10], human capital is a representation of knowledge, competence, skills, and experience of human resources that provide economic value for the organization. The added value that can be contributed by workers can be in the form of developing the competencies possessed by workers, transferring knowledge from workers to the company, and changing management culture. Experience gained from the environment, previous workplace, and family will influence business actors in managing their business. The level of experience possessed by business actors will make entrepreneurs smarter in managing their business so that it has a good impact on business development and their business performance. The better the level of entrepreneurship experience that is owned or obtained by entrepreneurs, the more the business development will be carried out, on the contrary, the lack of entrepreneurship experience that is owned or obtained by entrepreneurs will make entrepreneurs reluctant to develop their businesses.

Experience as a result of working in a company in the same industry before starting a business is proven to be able to increase business productivity performance [11]. This result is in line with research [12] which states that Educational qualifications, Work experience before starting the business, Related experience before starting the business, Managerial experience before starting the business, Business education, Financial management competence, Marketing management competence, Personnel management competence, General management competence have a positive effect on the performance of SMEs. Experience in activities relevant to business ownership enhances the viability of the company. Entrepreneurs with higher education will generate more profits, while entrepreneurs with more experience can create more jobs.

Several previous studies have highlighted the importance of human capital in helping companies in various industries to achieve business performance, especially in small and medium-sized companies [13] which shows that human capital consists of knowledge, experience, professional abilities, and cognitive ability that affects organizational performance as measured by market share, sales, profits, firm size, general performance and performance relations. The results of a similar study showing that human capital has a positive effect on the performance of MSMEs were documented by [13]–[19]. However, [20] showed different results, where human capital had no significant effect on performance.

Based on the description above, this study aims to analyze the influence of entrepreneurial human capital which consists of education, training, experience, and competence on the performance of MSMEs in the manufacturing sector in Indonesia. The manufacturing sector was chosen because it is considered to have a major role in employment which has a significant impact on the national economy. This research is different from previous research because it uses different dimensions of the performance of MSMEs which consist of productivity performance, business performance, responsiveness, responsibility, and accountability.

II. LITERATUR REVIEW

2.1. Entrepreneurial Human Capital

The human capital theory proposed by [21] in an article entitled "Investing in Human Resources" introduced the theory of Human Capital. Schultz argues that both knowledge and skills are forms of capital. The

concept of human capital implies investment in people through education and training. Capital investment in people leads to an increase in the productivity of human resources, which in turn leads to the company's profit level. The human capital theory was then widely developed by [22] in his book entitled 'Human Capital' views human capital as similar to physical production tools such as factories and machines. Human capital is a means of production in which additional investment produces additional output. Human capital can be substituted but is not transferable like land, labor, or fixed capital.

The first researcher to adapt human capital theory in the context of entrepreneurship was [23], who stated that despite the general application of human capital to employees, there is no reason why it should not apply to entrepreneurs as well. According to [24], entrepreneurial human capital refers to an individual's knowledge, skills, and experience related to entrepreneurial activity. Entrepreneurial human capital is important for the development of entrepreneurship. [25] uses Resource-Based Theory (RBT) to explain the importance of human resources for entrepreneurship. According to RBT, human capital is considered a source of competitive advantage for entrepreneurial firms [12].

According to [25], human capital can be divided into general human capital and special human capital. General human capital in the case of entrepreneurs is usually measured by educational qualifications and the number of years of work experience. Specific human capital includes specific business education, specific skills, industry-related experience, and managerial experience. The human capital theory assumes that knowledge provides greater cognitive skills for individuals, thereby encouraging their productivity and efficiency potential to develop in each activity [22]. Training is an important component of human capital investment [26]. This refers to the knowledge and training needed by a person who can improve his or her capabilities in carrying out economic values, the word training refers to the acquisition of knowledge, skills, and competencies, as a result of the training, while education refers to employee development carried out through formal education.

Entrepreneurial experience shows that trading family background is not the main thing when someone starts a business. Experience gained from the environment, previous workplace, and family will influence business actors in managing their business. The experience gained from the previous workplace will make an entrepreneur better at managing their business. Not a few business actors whose parents also used to run a business, so to open their own business, business actors have the experience gained from their parents. Parents usually teach them how to trade well, how to get customers, and how to compete fairly. Apart from the previous workplace and parents, the experience can also be obtained from the environment. Higher education owned by entrepreneurs, the amount of entrepreneurship training that is followed, and the experience they have will increase the competence and ability of MSME actors in running their business to improve MSME business performance.

2.2. MSMEs Performance

The company's performance generally includes two parts, namely financial performance, and non-financial performance. Financial performance describes a company's performance that can be measured in terms of money and financial operations, while non-financial performance is a company's performance that cannot be measured in terms of money, such as brand reputation, customer satisfaction, organizational performance, and innovation performance [27], [28]. Financial performance is usually associated with a firm's short-term viability, while non-financial performance is more likely to be associated with long-term sustainable growth. But the most important thing is to manage and harmonize financial and non-financial performance comprehensively.

Performance measurement in Small and Medium Enterprises uses non-financial performance as measured by productivity to measure the level of efficiency, business performance, company response in recognizing community needs, responsibility, and accountability in carrying out business activities [28].

2.3. The Effect of Entrepreneurial Human Capital on MSMEs' Performance

Human capital is one of the dimensions of intellectual capital that has a major contribution to the company's strategic decisions and has an important role in the context of MSMEs/UMKM [29], [30]. Human capital refers to employee competence, knowledge, training, skills, innovation, attitude, commitment, wisdom, experience, employee capability, motivation, creativity, entrepreneurial spirit, and leadership [3]–[6], [31].

The relevant characteristics of human capital are qualifications, Business education, Work experience before starting the business, Related experience starting the business, and competencies consisting of financial management competence, and marketing management competence [12]. Human capital according to [3] consists of motivation, leadership, entrepreneurial spirit, identity, family emotion, creativity, skill, ability, commitment and dedication, family relationships, and professionalism. According to [6], human capital consists of education, experience, training, intelligence, energy, work habits, trust, and initiative.

The human capital theory assumes that knowledge brings greater cognitive skills to individuals, thereby encouraging their productivity potential and efficiency for developing activities [22]. In many studies, human

capital has been empirically proven to be an important factor influencing the performance of MSMEsUMKM [13]–[19].As a result, we formulated the following research hypotheses:

Entrepreneurial Human Capital factors (education, training, experience, and entrepreneurial competence) have a positive effect on MSME performance.

III. METHOD

This study uses a quantitative design with causality.The independent variable is entrepreneurial human capital which consists of education, training, experience, and competence.The dependent variable is the performance of SMEs using the dimensions of productivity performance, business performance, responsiveness, responsibility, and company accountability.The sample is the owners of MSMEs in the food and beverage manufacturing sector as many as 200 MSMEs who fill out a complete questionnaire are 100 MSMEs owners in DKI Jakarta, Indonesia.The questionnaire instrument uses a Liker scale from 1 to 7 responses.Data analysis used multiple regression analysis with SmartPLS, where the independent construct was measured using first-order confirmatory, while the performance of MSMEs was measured using second-orderconfirmatory.Figure 1 below shows the proposed research model:

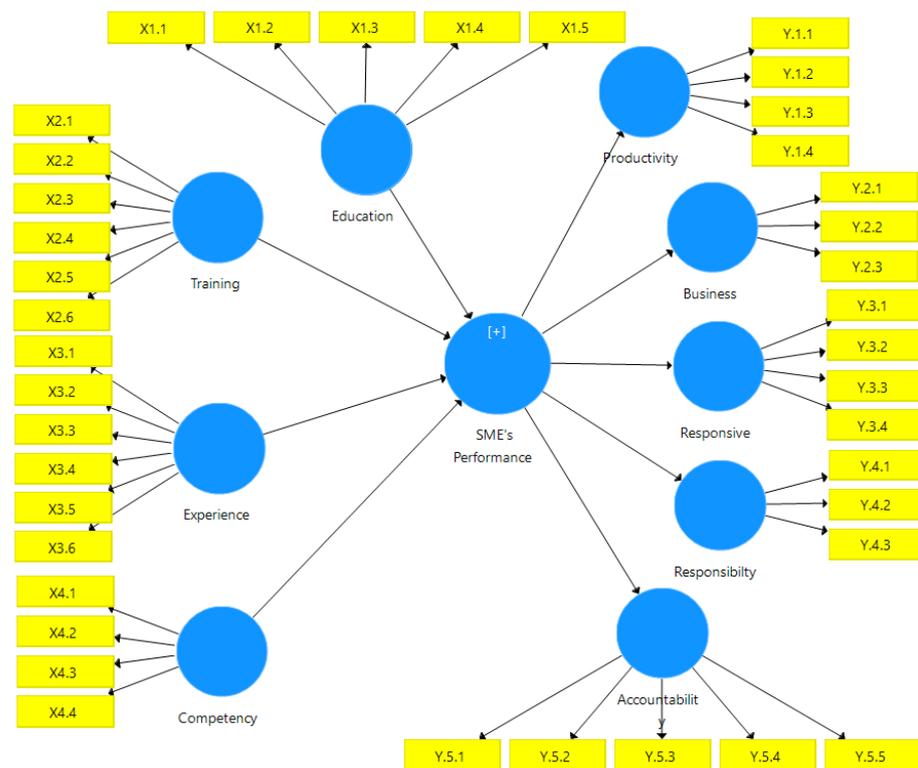


Figure 1. Research Model

To test the research hypothesis, the following research model is used:

$$Perform = \alpha + \beta_1Edu + \beta_2Tra + \beta_3Exp + \beta_4Comp + \varepsilon \dots (ResearchModel)$$

IV. RESULT AND FINDING

Table 1. Profile of respondents

Characteristics	Percentage
Education	0
Elementary School	0
Junior High School	40
Senior High School	7
Bachelor	46
Magister	7
Doctor	0
Respondent's Income	
< Rp. 10,000,000	83
Rp 10,000,000 – Rp 50,000,000	14

Rp 50,000,000 - Rp 100,000,000	2
>Rp 100,000,000	1

After providing an online survey for five months, the total responses were 200, complete and valid answers were 100 respondents (MSME owners). The low absorption of respondents is due to the difficulties faced during the Covid 19 pandemic. Table 1 shows the profile of respondents who provide some general information, including education and MSME sales turnover. The majority of respondents have junior high school and undergraduate education, namely 40% and 46%, respectively. MSME sales turnover of more than 80% is still below IDR 10 million per month.

Table 2. Construct Reliability and Validity

Construct	Outer Loading
Education (X1) CA = 0.932, CR = 0.951, AVE = 0.831	
MSME leadership competencies are ideal (X1.1)	0.530 (eliminated)
MSME leaders continue to learn (X1.2)	0.847
Entrepreneurs develop knowledge and skills (X1.3)	0.907
The firm provides learning that can increase productivity (X1.4)	0.935
Learning can increase profitability (X1.5)	0.904
Training (X2) CA = 0.951, CR = 0.961, AVE = 0.803	
Entrepreneurs attend training (X2.1)	0.902
Training according to Employer's demands (X2.2)	0.881
Training helps leaders on the job (X2.3)	0.911
Continuous training program (X2.4)	0.893
Training increases employee motivation (X2.5)	0.891
Training can improve performance (X2.6)	0.899
Experiences (X3) CA = 0.937, CR = 0.950, AVE = 0.761	
The ability of business leaders in their fields (X3.1)	0.919
Business leaders consistently do their best (X3.2)	0.855
Business leaders make the company different from other companies (X3.3)	0.891
The company prides itself on efficiency (X3.4)	0.873
Very professional company leader (X3.5)	0.789
Leadership experience can increase company productivity (X3.6)	0.901
Competency (X4) CA = 0.754, CR = 0.845, AVE = 0.577	
Business management skills (X4.1)	0.700
Employee Management Ability (X4.2)	0.723
Efficiency in business (X4.3)	0.845
Using IT in management (X4.4)	0.774
SME's Performance (Y) CA = 0.966, CR = 0.969, AVE = 0.625	
Productivity (Y.1) CA = 0.938, CR = 0.95, AVE = 0.85	
Efficiency in business (Y.1.1)	0.939
Effectiveness of service to customers (Y.1.2)	0.891
Smooth business in the production process (Y.1.3)	0.943
Smooth business in the marketing process (Y.1.4)	0.902
Business Performance (Y.2) CA = 0.81, CR = 0.889, AVE = 0.729	
MSMEs have a good brand image (Y.2.1)	0.892
MSMEs have an attraction (Y.2.2)	0.763
Buyers/service users return to using products/services (Y.2.3)	0.900
Responsiveness (Y.3) CA = 0.893, CR = 0.925, AVE = 0.756	
Response to community needs (Y.3.1)	0.860
Prepare business agenda (Y.3.2)	0.884
Service priority (Y.3.3)	0.862
Developing public services (Y.3.4)	0.872
Responsibility (Y.4) CA = 0.804, CR = 0.886, AVE = 0.724	
Responsible for product quality (Y.4.1)	0.934
There are no defective products/services (Y.4.2)	0.654
Carry out administrative activities well (Y.4.3)	0.735
Accountability (Y.5) CA = 0.917, CR = 0.938, AVE = 0.752	
Recording of Purchases and Sales (Y.5.1)	0.861

Construct	Outer Loading
Obedient to pay taxes (Y.5.2)	0.834
Recording cash transactions (Y.5.3)	0.887
Quality financial reports (Y.5.4)	0.825
Distinguish between business finances and personal finances (Y.5.5)	0.853

Note: CA (Cronbach alpha), CR (Composite Reliability), AVE (Average Variance Extracted).

The validity of the construct measurement was tested through content validity, convergent validity, and divergent validity. To verify whether the latent variable is well explained by the observed variable, a convergent validity test is carried out. The convergent validity of the measurement model with indicator reflections is assessed based on the correlation between item scores or component scores with latent variable scores or construct scores estimated by the SmartPLS program. To measure the validity, reflective indicator loadings were used with standard loading of 0.7, convergent validity using Average Variance Extracted 0.50, Internal consistency reliability was measured using Cronbach's alpha, and composite reliability with a minimum value of 0.70 [32].

Based on table 2 above, there is only 1 indicator that has an outer loading below 0.7, namely X1.1, so that indicator is omitted from the estimation model. The MSME performance construct uses a confirmatory second-order, both the first order and second-order confirmatory loading indicators have met the minimum loading standard of 0.7. The lowest loading indicator value is 0.70 and the highest value is 0.943. Cronbach's alpha coefficient and composite reliability for all constructs above 0.7 are higher than the acceptable threshold of 0.7, indicating a good level of construct reliability and internal consistency. The AVE indicator ranges from 0.577 to 0.845 which is greater than the 0.5 thresholds. Therefore, the overall internal consistency of validity, reliability and convergent validity of the construction measurement scale can be concluded very well, so it can be said that the human capital investment construct consisting of education, training, experience, and entrepreneurial competence has high validity and reliability, as well as the MSME performance construct has high validity and reliability both in dimensions and research constructs. So it can be concluded that the five dimensions of the MSME performance construct (productivity, business performance, responsiveness, responsibility, and accountability) influence shaping MSME performance.

Table 3. Fornell-Larcker Criterion

	1	2	3	4	5	6	7	8	9	10
Accountability	0.867									
Competency	0.607	0.760								
Education	0.617	0.516	0.911							
Experience	0.743	0.662	0.741	0.872						
Productivity	0.673	0.563	0.600	0.702	0.919					
Quality	0.591	0.528	0.537	0.701	0.861	0.854				
Responsibility	0.779	0.496	0.565	0.673	0.800	0.750	0.90			
Responsiveness	0.734	0.546	0.680	0.736	0.883	0.850	0.833	0.90		
Performance	0.850	0.613	0.670	0.795	0.9	0.881	0.90	0.90	0.790	
Training	0.652	0.526	0.706	0.784	0.644	0.604	0.650	0.676	0.716	0.896

A construct can be said to be valid if the root value of AVE is greater than the correlation between latent variables. The Fornell-Larcker criterion was used to explore the discriminant validity problem, namely comparing the square root value of the Average Variance Extracted (AVE) of each construct with the correlation between other constructs in the model. The square root of the AVE for all latent constructs must be greater than the correlation between the other constructs. As shown in Table 3, the square root of the AVE is given in diagonals and in bold, while the off-diagonal elements display the intercorrelations between constructs. It can be seen that the square root of AVE on the diagonal is much higher than the correlation between constructs in all cases. This implies that the model has met the requirements of discriminant validity.

The collinearity test was introduced by [33] as a systematic method to assess the presence of collinearity and bias in general methods. The collinearity test is carried out through the VIF value, according to [32] collinearity occurs when the VIF value is 5, the latent construction VIF value for education is 2.446, training is 2.85, experience is 3.854, and competence is 1.783, so it can be concluded that there is no collinearity in the research model.

Table 4. PLS-SEM path coefficients.

Hypothesis	Coeff	t-value	p-value	Test Result	Effect size (f ²)
H1 Edu → Perform	0.116	1.034	0.151	NotSupported	0.017

H2	Training → Perform	0.200	1.849	0.033**	Supported	0.043
H3	Experience → Perform	0.455	3.149	0.001***	Supported	0.164
H4	Competency → Perform	0.147	1.936	0.027**	Supported	0.037

Significant level: *p < 0.1, **p < 0.05, ***p < 0.01

After confirming the reliability and construct validity, the next step is to test the structural measurement model using the coefficient of determination (R^2). The coefficient of determination (R^2) is part of the total variation in the dependent variable which is explained by the variation in the independent variable. According to [32], the value of R^2 is considered weak, moderate, and strong if it shows around 0.25, 0.50, and 0.75 respectively. MSME performance has an R^2 value of 0.658, meaning that this value indicates that MSME performance can be explained by the human capital construct consisting of education, training, experience, and competence of 65.8% while the remaining 34.2% is influenced by other variables. which are not included in the research model.

The explanatory factor in the model explains 65.8% of the MSME performance variability. This value determines a satisfactory level of predictability. Based on the standard path coefficient, t-value, and p-value shown in Table 5, three hypotheses in the research model are supported (at p-value < 0.05) namely training, experience, and entrepreneurial competence have a positive effect on MSME performance, but one hypothesis has no effect, namely education. As illustrated in Table 5, training, experience, and entrepreneurial competence are significant positive predictors of human capital investment on MSME performance. Each MSME responds differently (not significantly) related to education, so education is not a determining factor for MSME performance. In addition to assessing whether or not there is a significant relationship between variables, this study also assesses the magnitude of the influence between variables with Effect Size or f-square. R^2 only shows how much the predictive variable can explain the variability of the dependent variable. The effect size f^2 is very useful for determining the extent to which the explanatory or mediating variable contributes to the R^2 of the dependent variable. The f^2 values of 0.35, 0.15, and 0.02 were considered as large, medium, and small effect sizes. If the exogenous construct greatly contributes to explaining the endogenous construct, the difference between the included R^2 and the excluded R^2 will be relatively higher, which ultimately leads to f^2 [34].

Based on Table 4, the impact of experience on MSME performance has a moderate value of f^2 (0.164), the effect of training and competence has a small effect size (0.043 and 0.037), while the impact of education on MSME performance has no effect (0.017).

V. DISCUSSION

The results of hypothesis testing indicate that entrepreneurial training, experience, and competence are entrepreneurial human capital factors that have an impact on MSME performance. This empirical finding is consistent with the human capital theory found by Schultz (1961) and developed by Becker (1964) that investment in human capital leads to increased performance. This empirical evidence also supports the Resource-Based Theory (RBT) regarding the importance of human resources for entrepreneurship. According to RBT, human capital is considered a source of competitive advantage for entrepreneurial firms. In line with [24], entrepreneurial human capital refers to an individual's knowledge, skills, and experience related to entrepreneurial activity.

The results of this study also confirm previous findings, where human capital plays a significant role in improving the performance of MSMEs[13]–[19]. Investment in various training to increase the knowledge resources, skills, and abilities of employees has proven to be able to improve the performance of MSMEs, especially in the food and beverage sector in Indonesia. HR training and development activities are very important to maintain and improve the skills and knowledge of workers, to be able to create a sustainable competitive advantage.

Human capital investment through training will be able to expand employee knowledge (knowledge management). This allows MSME owners as leaders to take more rational steps in acting or making decisions, this entrepreneurship training also allows entrepreneurs to learn the technical knowledge needed to lead and run an organization. The knowledge gained from training becomes an incentive to create innovation and contributes to the ability to influence others to achieve goals in running the organization.

Training is an important component of investment, knowledge, and training needed by a person to increase his capability in carrying out economic values[26]. While experience refers to on-the-job training provided by the company. Entrepreneurial experience shows that family background, experience gained from the environment, previous workplace, and family is proven to be able to influence business actors in managing their businesses. The experience possessed by entrepreneurs will have a good impact on the performance of MSMEs. The better the experience, the better the performance of MSMEs. Based on empirical evidence, entrepreneurial human capital consists of training, experience, and competence. The more entrepreneurship

training that is followed and the experience possessed will increase the competence and ability of MSME actors in running their business to improve MSME business performance.

VI. CONCLUSION

This study contributes to the theoretical discussion of human capital and provides evidence of the importance of human capital in improving the performance of MSMEs in DKI Jakarta, the capital city of Indonesia. To increase social capital, MSME owners must always ensure that they maintain and increase their network with customers, suppliers, commercial banks, and government institutions. Employers need to attend seminars and trade shows and also join trade associations. Government agencies such as the Ministry of MSMEs and Bapenas can provide training in business management skills, financial management, and utilization of information systems and technology for new MSMEs or MSMEs with small sales turnover. Awareness should be created for the training program through advertising in local and national media, and collaboration with academics and practitioners also needs to be increased. Educational institutions must introduce and strengthen entrepreneurship education, students can be oriented to entrepreneurship from an early age so that it becomes easier to develop a successful business. Companies are encouraged to invest in various training to improve the knowledge resources, skills, and abilities of employees who are better than competitors to be able to create a sustainable competitive advantage.

This study has limitations in the MSME business sector, where the respondents are only in the food and beverage manufacturing sector. The results of the study were not confirmed through in-depth interviews due to the limitations of the Covid-19 pandemic. Future research is expected to more comprehensively examine human capital factors in various business sectors.

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