

## Research Article

# Development of Human Resource Quality, Competitive Advantage of MSMEs with Innovation as Mediation in the Perspective of Islamic Economics

**Femei Purnamasari**

Universitas Islam Negeri (UIN) Raden Intan Lampung, Indonesia

### ORCID

Femei Purnamasari: <https://orcid.org/0009-0000-9665-5965>

### Abstract.

The research investigates the influence of training methods on innovation in Small and Medium Industries (IKM). In analyzing the influence of the independent variable on the dependent variable both partially and partially, simultaneously carried out with three stages of analysis, namely univariate, bivariate, and multivariate analysis, all of which were carried out using the Structural Equation Modeling (SEM) approach. These results explain that p training has no significant effect on competitive advantage. The direct influence of training methods on innovation. The t-statistical value of training methods on innovation is 6.542, which is smaller than the t-table of 1.96. These results explain that training methods have a significant effect on innovation. The indirect influence of competitive advantage in Small and Medium Industries (IKM) on innovation through the Sobel hypothesis test and the results of the Sobel test calculations obtained a statistical value of 0.208 because the t-statistical value obtained was  $0.208 < 1.985$  with a significance level of  $0.835 > 0.10$ , so proves that competitive advantage has no significant effect on innovation. The indirect influence of training methods through competitive advantage on innovation, in Small and Medium Industries (IKM) with the results of the Sobel test calculations obtained a statistical value of 2.560 because the statistical t value obtained was  $2.560 > 1.985$  with a significance level of  $0.010 < 0.10$ , thus proving that Innovation (Z) can mediate the relationship between the influence of training methods on Competitive Advantage and hypothesis 4 is accepted.

**Keywords:** Human Resource Quality Development, Competitive Advantage, Small and Medium Industries, Innovation

## 1. Introduction

Creative Indonesia aims to create a positive national image by raising public awareness of the creative industry's contribution to the Indonesian economy by enhancing the government's declared competitive advantage. Since Presidential Directive No. 6 of 2009 on the development of creative industries, the President of the Republic of Indonesia has so far directed 28 central and local government agencies to support creative industry development policies. (Kominfo, 2015).

Corresponding Author: Femei Purnamasari; email: [femeipurnamasari@radenintan.ac.id](mailto:femeipurnamasari@radenintan.ac.id)

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From Table 1 below it can be seen that Micro, Small, and Medium Enterprises (MSMEs) are thriving in several regions in Indonesia. This can be seen from the data reported by the Ministry of Cooperatives and Small and Medium Enterprises (Komenkop, 2022). The total number of MSMEs in Indonesia will exceed 8.71 million business units in 2022. Java dominates this sector. It was recorded that West Java became the MSME champion with a total of 1.49 million business units. Thin in second place is Central Java, which reached 1.45 million units. Third, there is East Java with 1.15 million units. Outside of the big three, the gap is quite far. DKI Jakarta, which won the fourth position, can carve almost 660 thousand units. Fifth, there is North Sumatra with an achievement of 596 thousand units. The number of businesses is at least in three regions, namely West Papua with 4.6 thousand business units, North Maluku with 4.1 thousand units, and Papua with 3.9 thousand units.

From the growth rate of MSMEs in Indonesia above, it turns out that there are still many obstacles, one of which is according to the Ministry of Communication and Informatics [3], by 2022 there will be around 64 million units of micro, small and medium enterprises (MSMEs). throughout Indonesia. However, the number of digital MSMEs that can do business online *is* only about 19 million business units, or 29%.

Creative economic development is a competitive advantage for Micro, small, and medium enterprises have many options, including investment in human resources. This investment can be made in a variety of ways, including through education and training. Developing the ability to continuously innovate requires the active and creative participation of workers to continuously develop their expertise and skills [4].

Creativity is a potential possessed by each individual because each individual has the power of imagination, desire, and action to change one thing into another [5]. Creativity is something that can be developed, but this development cannot be achieved by accident but must be through a learning process. Training is a method that allows the learning process to take place as a tendency to increase creativity [6]. Among the various resources held by the company, human resources occupies a strategic place among others. Without human resources, it is impossible to use other resources, let alone manage to produce a product. But in reality, many companies have not realized the importance of human resources for the survival of the company. However, there are still companies that consider human resources as the most important asset of the organization, as human resources motivate and maintain the work of other resources [7].

Improvements in terms of resource development are certainly expected to emerge new talents in applying products so that new creativity emerges. From the background

TABLE 1: Comparison of Provincial MSMESK Growth in Indonesia in 2022.

No	Name	Value / Unit
1	West Java	1,494,723
2	Central Java	1,457,126
3	Elast Java	1,153,576
4	DKI Jakarta	658,365
5	North Sumatra	595,779
6	Banten	339,001
7	South Sumatra	330,693
8	West Sumatra	296,052
9	West Nusa Tenggara	287,882
10	Lampung	285,909
11	South Sulawesi	268,299
12	Riau	252,574
13	In Yogyakarta	235,899
14	Aceh	229,101
15	North Sulawesi	116,666
16	Gorontalo	85,583
17	Bengkulul	83,523
18	East Nusa Tenggara	81,742
19	Kep. Riau	76,217
20	South Kalimantan	72,113
21	Jambi	57,597
22	East Kalimantan	46,824
23	Bali	40,764
24	Kep. Bangka Belitung	30,770
25	West Kalimantan	29,813
26	Central Sulawesi	29,706
27	West Sulawesi	20111
28	Maluku	18,789
29	Southeast Sulawesi	8,978
30	North Kalimantan	7,588
31	Central Kalimantan	6,606
32	West Papua	4,604
33	North Maluku	4,141
34	Papua	3,932

Source: Ministry of Cooperatives and Small and Medium Enterprise (Kemenkop MSMEIS)

above, the authors are interested in knowing how much influence the development of

the quality of human resources has in increasing *competitive advantage* in Indonesia micro, small, and medium enterprises coupled with innovation can be supported in increasing *competitive advantage* on small and medium businesses. So the author describes the title related to the existing problems namely **Human Resource Quality Development towards Competitive Advantage On Micro, Small and Medium Enterprises with Innovation as Mediation Variable**: seen from the influence developing the quality of human resources in a competitive advantage in micro, small and medium enterprises (MSMEs), whether there is a direct influence on the development of the quality of human resources towards innovation through increasing the competitive advantages of micro, small and medium enterprises (MSMEs), is there an indirect effect of innovation? innovation on the competitive advantage of micro, small, and medium enterprises (MSMEs), whether there is an impact of human resource quality development through competitive advantage in innovation, in micro, small, and medium enterprises (MSMEs).

## 2. Literature Review

The big theory in this study uses theories of entrepreneurship, more than 200 years of research on entrepreneurship has given many definitions of the word “entrepreneur”. However, no theory of entrepreneurship has been developed to explain or predict when an entrepreneur, however defined, may emerge or enter business. Indeed, the search for the best possible definition has slowed the theory’s progress.

Schumpeter’s concept based on the economic outcome that entrepreneurs create value by engaging in new combinations that cause disruption is embodied in many definitions proposed over the past 50 years. We strongly recommend that you apply Schumpeter’s definition for learning and policy-making purposes [8].

Cantillon Theory (1983) This theory does not consider the entrepreneur as a factor of production, but as an agent that takes risks and thus balances supply and demand in the economy. In a neoclassical context, this function is similar to a residual demand optimizer, e.g. business owners hiring workers and landowners for labor and capital in a world where demand or production uncertain .

Marshall Approach to Entrepreneurship Marshall (1949) Being an entrepreneur creates balance. For Schumpeter, the key fact of modern business is that its leaders are incapable of fulfilling the powerful social role of the entrepreneur. Neoclassical theory and thus “Marshallian” analysis attempt to explain equilibrium conditions in the market assuming perfect knowledge and information, perfect competition (existence of many

firms). ), the existence of homogeneous goods and free in and out of the market. Marshall's primary interest and objective was to show that the market is clear under the assumption of perfect competition and has no opportunity for excess profit and therefore no exploitation of labor in the process. production because each party receives a marginal contribution to national production and production. income. Marshall used small changes (innovations) in the market processes of many small competitors and cryptically showed that large-scale production was essential for economic progress and innovation. economy. [11]

Definition of Competitive Advantage [12] defines competitive advantage as a strategic advantage of firms that cooperate to be more competitive in the market. The strategy must be designed to achieve a sustainable competitive advantage, so that the company can capture both old and new markets. The most important thing for a successful strategy is to identify the real assets of the company, in this case the physical and immaterial resources that make the organization unique.

Competitive advantage according to [13] can be fulfilled if customers obtain consistent differences in the most important attributes of the products produced compared to competitors where these differences are a direct impact of the gap / capability between producers and competitors.

Development of the quality of human resources is one form of effort to improve the ability of employees to handle various types of tasks and apply the skills needed in accordance with the type of work available. The development effort is beneficial for the organization and individual employees. The right skills and experience of employees and managers can strengthen an organization's competitiveness and ability to adapt to a changing environment especially when there is external turbulence. The development of the quality of human resources can also be carried out using a human capital approach that emphasizes 3 approaches, namely: the intellectual capital approach, the social capital approach, the soft capital approach.

Innovation is the process of generating ideas, evolving from an update and introducing a new product, process or service into society, innovation refers to an idea, product, information technology, new institutions, behaviors, values and practices that are not yet widely known, accepted and used or practiced by most members of the community in a particular locality, may be used or encourage change in every aspect of people's lives.

An advancement procedure is required in MSMEs since in numerous businesses, it'll be indeed more unsafe in case the company does not improve. Both buyers and

industry have experienced normal changes and enhancements to the items advertised. The advancement technique too makes a difference businesses discover modern challenges for their advancement and growth. Innovation strategy could be an administration concept, comprising numerous inner and outside exercises that increase the development potential of a trade. It is essential the significance and part that impacts the arrangement of the development procedure. This part comes from trade representatives, directors, as well as clients.

Competitive Ways Doing trade is a portion of Muamalah, in this manner, commerce is additionally indistinguishable from the laws administering Muamalah issues. Subsequently, a free competition which justifies various strategies could be a hone that must be disposed of since it is opposite to the standards of Islamic muamalah. In doing trade, everybody will relate to other parties such as trade accomplices and commerce competitors. As an interpersonal relationship, a Muslim businessman must still endeavor to supply the most excellent benefit to his commerce accomplices. It's just that, it is impossible for Muslim businessmen that the best service is also interpreted as providing "service" with things that are prohibited by Sharia. Among the most important Islamic ethics in doing business are as follows: **Honesty** is the main characteristic and noble Islamic ethics, and honesty is an eternal motivation in the character and behavior of a Muslim. As one of the means to improve his charity, erase his sins, and a means to enter heaven. **Amanah** Islam wants business people to have a conscience so that they protect Allah's rights and human rights and can protect their muamalah from behavior that encourages them to take an established way of life. Among the benefits of **tolerance** are easy interaction, facilitating muamalah, and accelerating the circulation of capital. Fulfilling contracts and promises Islam orders its people to fulfill rights, respect promises, and all other agreements. For a business person to fulfill the agreement he made, he must stay away from weak memory and weak spirit. Islam encourages its people to fulfill the contract as long as it does not conflict with Sharia corridors.

### 3. Methods

#### 3.1. Population and Sample

The population in this study were micro, small and medium enterprises (MSMES in Lampung Province) which were recorded at the Cooperative Service for Small and Medium Enterprises in Lampung Province, in this study the authors narrowed down the population, namely only the number of micro, small and medium enterprises/MSMES in

TABLE 2: Operational Variables.

Information Variable		Indicator Variable	Instrument	No grain
dependent	<i>Competitive Advantage (Y)</i>	Valuable Competencies (Valuables)	Efforts to increase effectiveness	1
			Efforts to increase efficiency	2
			Exploit existing opportunities	3
			Strategize	4
			Implement strategy	5
			Efforts to minimize threats	6
		Rare Competency	Resources that are not owned by competitors	7
			Capabilities that competitors do not have	8
			Has a very potential competence	9
		Competence is not easy to imitate (In-imitable)	Has a unique history	10
			Have a sustainable advantage	11
			Products related to social needs	12
			Resources that are difficult for competitors to imitate	13
			Capabilities that are difficult for competitors to imitate	14
Competence is not easily replaced (Non-Substituted)	Has a strategic equivalent in competing		15	
	The company's resource strategy can be exploited separately		16	
	Modifications in implementing product strategy		17	
	Resources that are difficult to replace by competitors	18		
independent	Resource Quality Development (X)	Intellectual Capital	Capabilities that are difficult to replace by competitors	19
			Has educational level Formal	20
			Expand knowledge	21
		Social Capacity	Creativity development	22
			Able to build a network (social network)	23
			Increase synergy	24
			Have emotional intelligence	25

TABLE 2: Continued.

Information Variable	Indicator Variable	Instrument	No grain	
		Have emotional intelligence	26	
		Trustworthiness	27	
	Soft Capital	Honest	28	
		Good etiquette	29	
		Discipline	30	
		Patient	31	
38 Mediation	Innovation (Z)	Product Innovation	Product color	32
			Open and closed system innovation	33
			What is the process of creating a product	34
			How is the production process	35
		Process Innovation	What is the process of packaging technology	36
			Research and development efforts	37
			New engine love	38
			Trying to sell the product	39
			How to distribute it	40
		Marketing Innovation	How to advertise it	41
			Attempts to create demand	42
			Technical development	43
			Administration development	44
		Organizational Innovation	Technical development	45
			Administration development	46

Bandar Lampung in 2021 with a total of 118,533 small businesses, and the sample size will be calculated using the Slovin technique according to [14]

The sample is a fraction of the number and characteristics belonging to this population, or a fraction of the members of the population sampled, the sample in this Study focuses on small and medium-sized industries registered with the Ministry of Industry and Trade, Industry and Commerce Indonesia. The Slovin formula for determining the sample is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Information:



$n$  = sample size/number of respondents

$N$  = Population size

$E$  = Percentage

In the Slovin formula, the accuracy of the sampling error can still be tolerated; in this study the percentage of leeway used was 5%, with a total population in this study of 118,533 SMEs and the calculation results can be rounded to achieve a good fit. Thus, to know the research sample, with the following calculations:

It is known that:  $n = 118.533 / (1 + (118.533 \times (0.05)^2))$

$118.533 / (1 + 296.3325)$

$118.533 / 297.3325 = 398.654$  rounded up to 399

From the measurements above, a sample of 399 Small Businesses in Bandar Lampung can be taken.

### 3.2. Instrumentation

The instruments were used in this study in several ways that is:

Documentation is data collection for research purposes use of data secondary which obtained with an open website from the object researched namely [www.brisyariah.co.id](http://www.brisyariah.co.id), so that it can be obtained report finance bank bri sharia from streak time quarter.

In studies literature (libraries research) writer gathers and learns various theories and drafts related bases to the problems discussed in writing the thesis. Theories and drafts are obtained from books, articles, and journals. Journals related to the problem are to be discussed.

The questionnaire is a data collection technique that involves providing a set of written questions/questions with alternative answers to respondents. The design of the actual questionnaire is closed so that respondents can answer easily and quickly. The measurement scale used is the Likert scale, with five alternative answers with the following scores or criteria:

Strongly agree (SS) gelt 5

Agree (S) to receive a score of 4

Disagree (KS) gelt score 3

Disagree (TS) gelt score 2

Strongly Disagree (STS) gets 1 point

### 3.3. Analysis Data

Technique analysis data directed For answer formula problem or test hypothesis Which has formulated in thesis This. Because the data is quantitative, then the technique of data analysis using statistical methods is Already available. Following This is method analysis Which is used as follows:

Validity check Data is collected by questionnaire method. Before distributing questionnaires to survey subjects, they must pass a validity test. The purpose of validity testing is to measure whether a measure is valid, in this case, a prepared questionnaire. To know if an instrument is valid, i.e. by looking at the correlation coefficient ( $r$ ) between the item's score and the total score. A questionnaire is considered valid if the questions in the questionnaire can reveal something to measure for the questionnaire. [15]

Reliability testing is done to determine if the tool used is reliable, the meaning of reliability is that if the tool is tested more than once, the result will be the same. According to Sugiyono (2014: 182), "Reliability is the degree to which a measurement using the same object will produce the same data." To check reliability, especially using the split-half method, the results can be seen from the values. correlation value between figures, then the tool is said to be reliable, or to compare it with a cut-off value of 0.3, the tool is reliable if  $r > 0.3$  Otherwise, if  $r$  counts  $<$  from the  $r$  value in the table, which is  $<0,3$ , then the instrument can be said to be unreliable According to Arikunto (2013) the alpha formula is used to find the reliability of tools with scores other than 1 and 0, for example questionnaires or descriptive questions. The formula used in this reliability test is

### 3.4. Methods of Data Processing and Data Analysis

To analyze the effect of independent variables on the dependent either partially or simultaneously, three stages of analysis were carried out, namely *univariate*, *bivariate*, and *multivariate analysis*, all of which were carried out using *the Structural Equation Modeling (SEM)* approach.

An SEM assumption The following are some assumptions in SEM:

Bivariate analysis In the bivariate analysis stage, a correlation test was carried out between the observed variables in the same construct. This stage is important because the correlation between variables in one construct can be used to see whether the specification of the model to be formed is correct or not. The estimation model of a construct should have unidimensionality (fulfills the assumption of linearity, and is

convergent). Because the dependent variable in this study is more than one, the correlation technique used is a canonical correlation. According to Ghozali (2018), canonical correlation is simultaneously capable of predicting more than one dependent variable and more than one independent variable. Canonical correlation aims to determine the weighted value of each set of dependent and independent variables to obtain a linear combination of the set of variables that gives the maximum correlation. In addition, canonical correlation can also explain the nature of the relationship which is determined based on the relative contribution of each canonical function variable.

The multivariate analysis in this study uses the SEM (Structural Equation Modeling) method where SEM is a statistical technique to test and estimate causal relationships using a combination of statistical data, statistics and the qualitative causal hypothesis. SEM is a combined technique that includes the confirmatory aspects of factor analysis, path analysis, and regression that can be considered a special case in SEM.

**Development of Theoretical Model** The first step in SEM is to theoretically identify the research problem. In this study, the problem that was identified was the training method, and its effect on competitive advantage with innovation as an *intervening variable*. This problem was examined by researchers in depth through a review of the literature, both journals and *textbooks*. After an in-depth review, the researcher examined the relationship between exogenous and endogenous latent variables as a basis for making hypotheses which must be supported by strong theoretical justification because SEM is a tool for confirming whether the observational data is following the theory or not.

### **3.5. Path Diagram Development (Path Diagram) path analysis is an extension of multiple linear regression analysis. Path analysis is a causal analysis technique that occurs in multiple linear regression if exogenous variables affect endogenous variables not only directly but also indirectly.**

The development of the flow chart in this study is as follows:

X : HR Quality Development

Z : Innovation

Y : Competitive Advantage

Convert path diagrams into structural equations and measurement models.

The third step is to convert the flowchart into equations, both structural equations and measurement model equations. Following is the complete model for this study, including

latent variables, size, and index as the basis for formulating structural equations and measurement equations for each index.

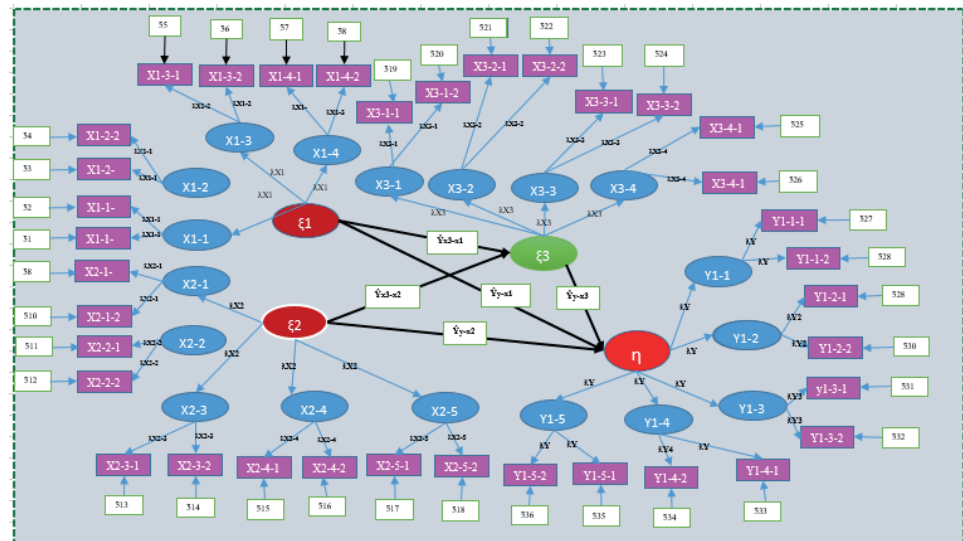


Figure 1: ??????.

Figure 1.

Structural Equation and Measurement Model

1. The measurement equation for the Human resources (HR) quality development variables with 3 indicators is as follows:

$$PI1 = \beta1 * PI, \epsilon 1$$

$$PI2 = \beta2 * PI, \epsilon 2$$

$$PI3 = \beta3 * PI, \epsilon 2$$

1. The measurement equation for the Innovation variable (IV) with 4 indicators is as follows:

$$IV1 = \beta1 * IV, \epsilon 1$$

$$IV2 = \beta2 * IV, \epsilon 2$$

$$IV3 = \beta3 * IV, \epsilon 3$$

$$IV4 = \beta4 * IV, \epsilon 4$$

1. The measurement equation for the competitive advantage (CA) variable with 4 indicators is as follows:

$$CA1 = \beta1 * CA, \epsilon 1$$

$$CA2 = \beta2 * CA, \epsilon 2$$

$$CA3 = \beta3 * CA, \epsilon 3$$

$$CA4 = \beta4 * CA, \epsilon 4$$

1. The structural equation for the innovation variable is as follows:

$$IV = \gamma1 * SQ + \gamma2 * IV, \epsilon$$

$$CA = \gamma1 * SQ + \gamma2 * IV + \gamma3 * CA, \epsilon$$

### 3.6. Selecting the Type of Proposed Input Matrix and Model Estimation

The type of input matrix is the input data in the form of a variance or covariance matrix or a correlation matrix. The raw observed data will be automatically converted by the program into a covariance matrix or a correlation matrix. Covariance matrices have an advantage over correlation matrices by providing comparative values between different populations or different samples. However, the covariance matrix is more complicated because the values of the coefficients must be interpreted in terms of the units of measure of the structure.

TABLE 3: Design of Correlation Matrix of Independent Variables.

	HR		IV
HR	1		$R_{cs-sq}$
IV			1

TABLE 4: Design of Covariance Matrix of Latent Variables.

	HR	IV	ca
HR	1	$R_{cs-sq}$	$R_{cl-sq}$
IV		1	$R_{cl-cs}$
ca			

The estimation of the proposed model depends on the number of research samples, with the following criteria:

1. Between 100 – 200: *Maximum Likelihood ( ML)*
2. Between 200 – 500: *Maximum Likelihood or Generalized Least Square (GLS)*
3. Between 500 – 2500: *Unweighted Least Square (ULS)/ Scale Free Least Square (SLS)*

#### 4. Above 2500: *Asymptotically Distribution Free (ADF)*

The range above is only a reference and is not a requirement. If the sample size is below 500 but the normality assumption is not met, you can use ULS or SLS.

The next step is to estimate the measurement model and estimate the structure of the equation. Measurement model estimation, also known as confirmatory factor analysis (CFA), is specifically calculated by a diagram of the research model by providing two-way arrows between each structure. This step involves seeing if the covariance matrix of the sample under study is significantly different from the estimated population matrix. No significant difference is expected, so the chi-squared significance is greater than 0.05.

### 3.7. Possible Occurrence of Identification Problems

1. Some of the defining problems that often arise that make the model unfeasible include
2. The large standard deviation for one or more coefficients.
3. The standard error indicates that the developed model is not viable. The standard error is expected to be relatively small, less than 0.5 or 0.4, but the value of the standard error must not be negative, which will be explained later in point 3. 3. The program failed to create the information matrix to be presented.
4. If the program cannot generate a single solution, the output will not appear. This can be due to several reasons, such as too few samples or iterations performed that do not converge. 5. The appearance of strange numbers such as negative variance errors.
5. The variance of the expected error is relatively small but cannot be negative. If the value is negative, it is often called the Heywood case and the pattern cannot be interpreted and a message will appear in the output because this solution is deprecated. 7. There appears to be a very close correlation between the estimated coefficients obtained (eg  $\geq 0.9$ ).
6. This disorder is also commonly referred to as singularity and makes the model unsuitable for use as a means of validating an already synthesized theory.

### 3.8. Evaluation of the Goodness of Fit Criteria

After processing the data with Lisrel, the resulting output is generated *which* requires interpretation from the researcher, below are the characteristics of a good model, there are 9 criteria as shown in the table below.

TABLE 5: Model Fitment Test Statistics.

No	Model Fitment Test Statistics	Interpretation
1.	Goodness-of-Fit Indices (GFI)	Value > 0.9 indicates good fit
2.	Root Mean Squared Residual (RMSR)	Value < 0.05 indicates good fit
3.	Root Mean Square Error of Approximation (RMSEA)	Value less than 0.05 indicates good fit
4.	Adjusted Goodness of Fit (AGFI)	Value > 0.9 indicates good fit
5.	Normal Fit Index (NFI)	Value > 0.9 indicates good fit
6.	Non-Normed Fit Index (NNFI)	Value > 0.9 indicates good fit
7.	Normed Chi-Square (NC)	Less than 1 (bad model), more than 5 (model needs modification)
8.	Comparative Fit Index (CFI)	Value > 0.9 indicates good fit
9.	Incremental Index Fit (IIF)	The higher the IIF value, the more fit a model is with the data.

Source: Ghazali, 2008.

### 3.9. Interpret Test Results and Model Modifications

Researchers can modify the model to improve the prepared model, with the important caveat that any model change must be supported by strong theoretical justification. The model should not be modified without strong theoretical support. Modification of the model can be done by adding arrows between the constructs (which can also add a hypothesis) or by adding two arrows between the indicators, which must also be supported by a solid theory. The feasibility assessment of the revised model can be compared with the pre-modified model. The chi-square reduction between the pre-modified model and the post-modified model must be greater than 3.84. Changes to the indicator with the largest index change can be made. This means that if the two indices are correlated (by two arrows), the chi-square will decrease as much as the modified index (MI) of that number. For example, if MI is written as the largest number 24.5, then if the two indices are correlated, the chi-square of 24.5 will be significantly reduced because it is greater than 3.84 as mentioned above.

Hypothesis testing can also be carried out in this seventh step with a critical ratio criterion of more than 2.58 at a 1 percent significance level or 1.96 for a significance

of 5%. This step is equivalent to testing the hypothesis in the well-known multiple regression analysis.

### 3.10. Design for Data Processing in Lisrel

To facilitate data processing, it is necessary to design inputs for Lisrel. The following is a design for latent variables and observation variables as well as the syntax to be used for Lisrel.

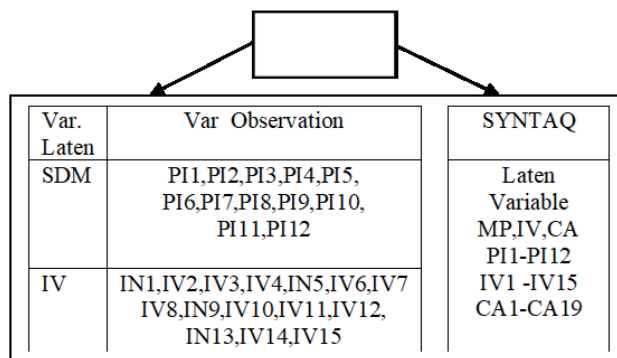


Figure 2: Data Processing Var.

To perform data analysis, the application used is Lisrel, the data that has been collected from the tabulation of the questionnaire results is first entered into the Excel application with the following notation:

1. Latent variable development of human resource quality, HR notation, indicator or observation variable, PI1, PI2, PI3, PI4, PI5, PI6, PI7, PI8, PI9, PI10, PI11, PI12
2. Innovation latent variable, notation IV, indicator or observation variable, IN1, IV2, IV3, IV4, IV5, IV6, IV7, IV8, IV9, IV10, IV11, IV12, IV13, IV14, IV15
3. Competitive advantage latent variable, CA notation, indicator or observation variable, CA1, CA2, CA3, CA4, CA5, CA6, CA7, CA8, CA9, CA10, CA11, CA12, CA13, CA14, CA15, CA16, CA17, CA18, CA19

After making notations for latent variables and observation variables, then make a design syntax for generating, path diagrams, etc. Here is the draft syntax.

```
SDM1-SDM2- SDM3 = HR
IV1 -IV15 = IV
CA1-CA19 = CA
HR=IV
HR=CA
```



IV=CA

CA=IV

Then to make sure this syntax can work or not, a simulation is carried out with *dummy* data first and it turns out that this *syntax* can run well and can generate the desired output.

## 4. Results And Discussion

The results table for the internal weights from the bootstrap run results were used to determine the direct influence between the variables of each hypothesis. The trick is to look at the values of the path coefficients of each hypothesis and the t-stat value. A good coefficient value should exceed > 0.5. This coefficient comes from the estimate column of the original sample. The t-stat value comes from the t-stat column in the results table for the internal weights. A t-stat value greater than 1.96 indicates a significant direct effect of each hypothesis.

TABLE 6: Submission of Hypotheses.

	Original Sample (O)	Sample Means (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEVI)	P Values
X -> Y	0.025	0.029	0.120	0.207	0.836
X -> Z	0.480	0.487	0.073	6,542	0.000
Y -> Z	0.416	0.411	0.104	4,007	0.000
X -> Y -> Z	0.247	0.245	0.083	2,967	0.003

Based on table 3, the results of testing hypotheses 1 and 2 with t-statistics can be explained as following:

### 4.1. Direct Influence

1. The Effect of Training Methods on *Competitive Advantage* The t-statistic value of the training method against *Competitive Advantage* is 0.207 smaller than t-table 1.96. These results explain that the training method has no significant effect on *Competitive advantage*

2. Training methods on innovation The t-statistic value of training methods on innovation 6,542 is smaller than t - table 1.96. These results explain that the training method has a significant effect on innovation.

## 4.2. Influence No Direct

1. Competitive advantage in Micro, Small and Medium Enterprises (MSMEs) towards innovation.

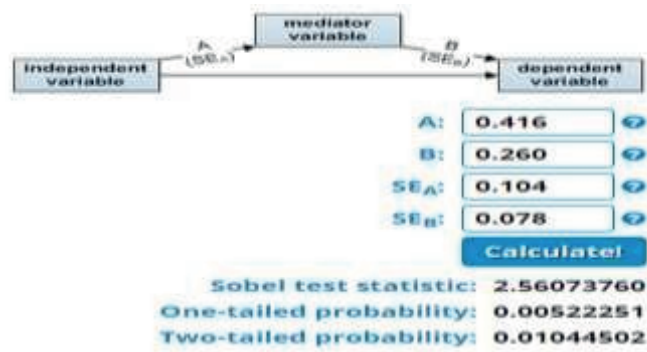


Figure 3: Test Sobel hypothesis 3.

Figure 1. Sobel Hypothesis Test and the results of the Sobel test calculations obtained a -statistical value of 0.208 because the t-statistic value obtained was 0.208 < 1.985 with a significance level of 0.835 > 0.10, thus proving that *competitive advantage* has no significant effect on innovation

2. Developing the quality of human resources through competitive advantage towards innovation, in Micro, Small and Medium Enterprises (MSMES)

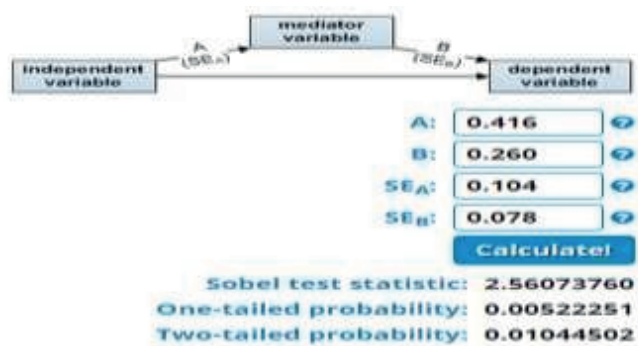


Figure 4: Test Sobel hypothesis 4.

the results of the Sobel test calculations obtained a -statistic value of 2.560 because the t value of the statistic obtained is 2.560 > 1.985 with a significance level of 0.010 < 0.10 proving that Innovation (Z) is capable mediate connection influence training methods against *Competitive Advantage* hypothesis 4 accepted.

## 5. Conclusion

Development of quality human resources to competitive advantage in Micro, Small and Medium Enterprises (MSMEs), thus it can be concluded that training methods of valuable competencies Soft Capital (X11), Social Capacity (X12), Intellectual Capital (X13) have influence Which significant *On The Job Training* (Y1.1) and *Off The Job Training* (Y1.2). By paying attention to the positive and significant value of the original sample estimate, it can be concluded that the development of the quality of human resources increase *Competitive Advantage* is good from differentiation and focus.

influence on the development of the quality of human resources towards innovation, in increasing competitive advantage in Small and Medium Industries (IKM), so it can be concluded that the training methods of valuable competencies (X1.1), Rare Competencies (X1.2), Competencies Not Easily Imitated / In - imitable (X1.3), competence is not easily replaced / non-substitutable (X1.4) to innovation (Z) which is reflected by namely Product Innovation(Z1.1), Process Innovation(Z1.2), Marketing Innovation(Z1.3), Organizational Innovation(Z1.4). By paying attention to the value of the original sample the positive and significant estimate, it can be concluded that the training method will affect innovation.

The indirect effect of competitive advantage in Small and Medium Industries (IKM) on innovation, thus can be concluded that *Competitive Advantage* reflected by indicators *On The Job Training* (Y1.1) and *Off The Job Training* (Y1.2) have a significant influence on innovation reflected by the indicator Product Innovation(Z1.1), Process Innovation(Z1.2), Marketing Innovation(Z1.3), Organizational Innovation(Z1.4). By paying attention to the positive original sample estimate value and significance, it can be concluded that Social Media will improve Marketing Performance Good value sales, growth, and portion market.

The effect of training methods through competitive advantage on innovation, in Small and Medium Industries (IKM), based on the results of data analysis and mediation sobel test, social media (X1) is not influential to *Competitive Advantage* (Y) through variable innovation (Z) with a t-count value of 0.208 < t table of 1.985 with a p-value of 0.835. So can concluded that *Competitive Advantage* (Z) is not capable mediate influence training method (X1) to *Competitive Advantage* (Y).

*Competitive Advantage from the Perspective of Islamic Economics* For a Muslim businessman the business he does is to acquire and develop property ownership. The task of humans is to try to obtain wealth or sustenance in the best way possible. Islam teaches that competition is not interpreted as an attempt to kill other competitors, but is done to give the best of their efforts.

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