

Factors Influencing Competitiveness of MSMEs in East Java

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1 Factors Influencing Competitiveness of MSMEs in East Java

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1 **Abstract:** In East Java, there are numerous centers of Micro Small and Medium Enterprises (MSMEs) with each having its unique characteristics on the products. To determine the competitiveness level of MSMEs, there are numerous different perspectives possible to be used including the orientation of social capital, intellectual capital, entrepreneurship, technology, innovation, market, and competitiveness. In running the business, the MSME business sector has to be oriented towards the seven aspects in order that the business to be successful and able to survive in the present era of global competition. The independence of MSME business sector reflects the competitiveness level of the existing products available in the market. Competitiveness is the ability of a national economy to achieve a highly sustainable economic growth. It includes proper policies, suitable institutions, and other supporting economic characteristics that make a highly sustainable economic growth possible to achieve. The results of the study later found that out of 17 variables used as the forming factors namely Factor 1 (Component 1), Factor 2 (Component 2), Factor 3 (Component 3), and Factor 4 (Component 4) each had a high correlation coefficient of consecutively 0.768, 0.960, 0.786, and 0.901; meaning that each of the correlation levels was high as the value was > 0.5. Thus, Factor 1, Factor 2, Factor 3, and Factor 4 were said to be appropriate to be used representing the 17 independent variables which affected the competitiveness level of the MSMEs business sector in five cities in East Java, Indonesia.

Keywords: factor analysis, competitiveness

INTRODUCTION

Micro, Small and Medium Enterprise (MSME) is one of the economic levers in Indonesia. The existence of MSME does not only provide real contributions on the national Gross Domestic Product (GDP), but also on the labor absorbance level, even distribution of development results and poverty reduction. It has to be admitted as well that this MSME business sector has played its role as a safeguard for the national economy during an economic crisis. This can be seen when a monetary crisis happened in Indonesia. By that time, big companies experienced great losses, but the MSME business sector still managed to thrive and exist without experiencing any meaningful losses.

MSME business sector empowerment program in East Java has been developed in the past few years. The objective of this program is to improve the competitiveness level of the MSME business sector in East Java, especially in the MSME centers in the province so that they significantly contribute to the provincial GRDP level.

Table 1. Economic Conditions across Provinces in Java and Indonesia

Description	2013	2014	2015	2016
Economic growth (c to c)				
East Java 5	6.08	5.86	5.44	5.55
The Special Capital Region of Jakarta	6.11	5.91	5.88	5.85
West Java	6.06	5.09	5.03	5.67
Central Java	5.81	5.30	5.40	5.28
The Special Region of Yogyakarta	5.40	5.18	4.94	5.05
Banten	5.86	5.47	5.37	5.26
National	5.78	5.02	4.88	5.02
Contribution of East Java GRDP to the National GRDP (%)	14.99	14.16	14.36	14.44

Source: East Java Central Bureau of Statistics

The contribution of the MSME business sector in East Java Province has been quite influential to the GRDP of the province. The East Java Province is one of the 35 provinces in Indonesia with a potential economic growth which is considered to be quite high compared to that of the other provinces across Indonesia.

Table 2. The Number of MSME Business Actors in East Java

No.	District/City	Total			Number of MSMEs
		Micro	Small	Medium	
1	Blitar District	242,838	11,362	1,422	255,622
2	Kediri District	243,969	-	-	243,969
3	Malang District	387,607	24,372	2,537	414,516
4	Jember District	418,164	-	1,318	419,482
5	Banyuwangi District	280,204	15,269	1,233	296,706
6	Probolinggo District	227,155	-	-	227,155
7	Pasuruan District	237,353	10,564	885	248,802
8	Bojonegoro District	274,902	-	-	274,902
9	Lamongan District	243,602	8,535	-	252,137
10	Sumenep District	264,062	-	-	264,062
11	Surabaya City	-	31,867	6,039	37,906
12	Sidoarjo District	-	14,836	1,536	16,372
13	Gresik District	-	9,569	-	9,569
14	Malang City	-	9,414	1,197	10,611
15	Jombang District	-	8,587	-	8,587
16	Mojokerto District	-	-	2,611	2,611
17	Ngawi District	-	-	855	855
18	Other Cities/Districts	3,713,838	117,452	10,777	3,842,067
	Total	6,533,694	261,827	30,410	6,825,931

Source: East Java Central Bureau of Statistics

Besides, the economic growth level of the East Java province for the last few years has been much contributed by the MSME business sector, where the number of the MSME business actors in several cities and districts in East Java has significantly increased.

The present research study was conducted in several centers of MSME distributed in five different cities and districts in East Java (Surabaya City, Sidoarjo District, Mojokerto City/District, Kediri City/District, and Madiun City/District). The selection of the research locations was basically prioritized on the number of MSME business actors.

The main objective of this research was to analyze factors that influenced the competitiveness level of MSMEs in the MSME centers distributed in 5 different regions in East Java.

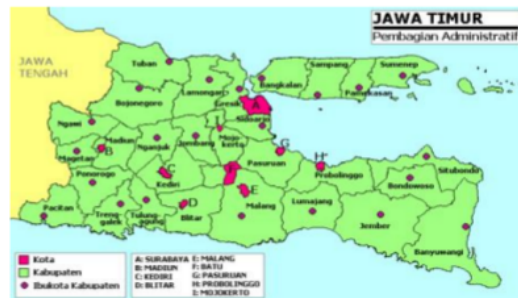


Figure 1. Research Locations

LITERATURE REVIEW

Social Capital

Nahapiet and Ghoshal (1998) state that the social capital of a company can provide a competitive advantage. The social capital theory discusses how the social relationships had by the organizations can influence the resources and performances of the company (Koka and Prescott, 2002). According to Nahapiet and Ghoshal (1998), the social capital “as the actual and potential resources contained in, available through, and generated from the individually and organizationally owned relationship networks”, where the social capital is understood in three dimensions: relational dimensions (trust, identification, and obligation), cognitive dimensions (ambition, vision, and mission sharing), and structural dimensions (power and number of networks between parties).

According to Schoroeder, *et al.* (2002), the social capital can be classified into two, they are internal and external social capital. Internal social capital is a relationship between human resources and other parties outside the organization, such as with the consumers. The internal and external social capital can change according to the changes in the internal and external conditions.

Intellectual Capital

Edvinsson and Malone (1997) define *intellectual capital* (or IC) simply as knowledge to be converted into a numerical value. Meanwhile, according to Steward (1997), intellectual is material in the form of knowledge, information, intellectual property, and experience which can be used to create wealth by developing a competitive of an organization. When material intellectual is effectively structured and used, this can later create a higher asset value. This is what is then called intellectual capital (IC).

Entrepreneurship Orientation

The definition of entrepreneurship is the creative and innovative ability which are used as bases and resources in attempt to look for opportunities towards success. According to Kumalaningrum (2012), it is explained that a company with entrepreneurial orientation can achieve the target market and better position than the competitors. All companies always observe market changes and respond quickly to the changes. The company's ability to be proactive and courageous to take risks making the company to be able to create innovative products ahead of the competitors so that they have competitive advantage because they will be able to satisfy the customers and identify factors which influence the customer satisfaction.

Miller (1983) introduces three specific dimensions of entrepreneurial orientation, namely innovativeness, proactiveness, and risk taking. Miller (1983) in Solomon (2004) remarks that entrepreneurial orientation is an orientation to try to be the first in market product innovation, take risks, and take proactive actions to defeat competitors. It is further explained that entrepreneurial orientation has a positive correlation with the performance of small enterprises. Later, the dimensions include independence, innovativeness, willingness to take risks, competitive aggressiveness and proactivity.

Innovation Orientation

Kasper *et al.* (2006) suggest that innovation can be defined as a conversion of knowledge and ideas into commercial and/or social benefits evident in new or revised products. Hurley and Hult (1998) explain that innovation may function as a company mechanism to adapt in its dynamic environment so that the company is required to be able to create new thoughts, ideas, and offer innovative products as well as improve services to satisfy the customers. Narver & Slater (1990) argues that a company which is able to create product innovations will excel in the industrial competition, moreover if the product innovations have an advantage which is seen as a plus point when compared to the products and services of other companies. Lucas and Ferrell (2000) remark that marketing and innovation are seen as important aspects in driving economic growth and primary component of competitive advantage.

Technology Orientation

Wuys *et al.* (2004) in Wahyudiono (2011) state that technological orientation is an application of technology on new products which is seen as a potential resource to construct competitive advantage. This is because the application of technology which is used in an integrated manner becomes an effective way of creating a greater value, not just an added value. The ability of a company in developing and applying technology to new products will produce a *superior value* manifested in high-quality products.

Market Orientation

Narver and Slater (1990) define market orientation as a cultural organization that is the most effective and efficient for creating behaviors needed to create *superior value* for the customers and *superior performance* for the company. This market orientation consists of three components, namely customer orientation, competitor orientation, and interfunctional coordination. Customer orientation and competitor

orientation including all respective activities are involved in an attempt in obtaining information about the customers and competitors in the target market and distributing them through business. Meanwhile, interfunctional coordination is based upon the information about the customers and competitors and it includes coordinated business ventures. Kohli and Jaworski (1990) define market orientation as a search of information about the market related to the current and future desire of the customers. Market orientation also deals with distribution of information about the market (all information about the customers, competitors, government policies, others which are still related to the designated target market).

Competitiveness Orientation

According to Todaro (2000), competitiveness is an ability of a nation or country to compete in a free market and expand its economic influence and control over other countries. In business, competition intersects all internal and external aspects of the company so that attempts to improve are always needed especially in facing competition in the open market. The competitiveness of MSMEs may include (1) advantage to optimally use resources to produce products which are accepted by the market resulting in high income; (2) advantage to continuously grow; and (3) ability to respond to market changes. The competitiveness of MSMEs are also influenced by the internal capacity, access to productive resources, market/demand condition, market share, and sustainable output growth.

RESEARCH METHODS

Type of Research

This research is a quantitative descriptive research design of which objective is to analyze the factors influencing the competitiveness of MSME business actors in East Java. The approach used in this research is descriptive-analytical. According to Nazir (2003) a descriptive research method is a method in researching the status of a group of people, an object, a set of conditions, a system of thought or even a class of incidents in the current time frame. The purpose of this descriptive research is to make descriptions, pictures or illustrations in a systematic, factual, and accurate way on the object of the study.

Research Sample

In conducting this research, the sample used included MSME business actors in the MSME centers in five different areas in East Java Province, namely Surabaya City, Sidoarjo District, Mojokerto City/District, Kediri City/District, and Madiun City/District in different business sectors.

The sampling technique used in this research was purposive sampling technique. In this technique, the sampling was carried out only on the basis of consideration of the researchers who regarded the desired elements were already present in the members of the selected research sample. The considerations used by the researchers in selecting this purposive sampling technique were:

- 1) The research respondents were considered to have relatively homogenous characteristics
- 2) The research respondents had at least 5 years experience of running the business on average
- 3) The research respondents were selected from several MSME centers in five different locations in East Java Province.

Data Analysis Technique

The data analysis technique used by the researchers was factor analysis, which is a multivariate statistical analysis technique used to reduce and conclude variables into factors. Factor analysis is a form of analysis used to reduce or summarize data from varied variables and convert them into a limited number of variables called factors; it still contains most of the information of the original variables. According to Malhorta (2005: 289), the factor analysis model in general is illustrated as follows:

$$X_i = A_{i1}F_1 + A_{i2}F_2 + \dots + A_{im}F_m + V_iU_i$$

Where:

X_i = Standardization of variable i

A_{ij} = Standardization of multiple regression coefficient i in common factor j

F = Common factor

V_i = Standardization of coefficient from variable i on unique factor i

U_i = Unique factor for variable i

M = Number of common factors

One unique factor is not correlated to other unique factors and the common factor. The common factor itself is actually equally expressed for linear combinations of observed variables so that the formulation becomes:

$$F_i = W_{ij} X_1 - W_{i2} X_2 - W_{i3} X_3 + \dots - W_{ik} X_k$$

Where:

F_i = the i -th factor estimation

W_i = Weight or factor coefficient score

K = number of variables

According to Malhotra (1999), in constructing an analysis, the following factors need to be taken into account:

- 1) Formulation of Problems
- 2) Correlation Matrix, there are two important analyses in this stage namely:
 - a. Bartlett Test of Sphericity (BTS)
 - b. Kaiser – Mayer – Olkin (KMO) Test
- 3) Determination of the Number of Factors
- 4) Factor Analysis Technique and Method
- 5) Factor Rotation
- 6) Factor Interpretation

RESEARH FINDINGS AND DISCUSSION

Data Analysis of Research Results

The results of testing the data using factor analysis in this research passed through three different KMO and Bartlett's Tests. In the first KMO and Bartlett's Test, there was 1 out of the 19 variables which had the MSA score < 0.5 namely innovation orientation. Therefore, this variable expectations to be reduced and retested. Next, in the second KMO and Bartlett's Test, there was 1 out of the 18 variables which had the MSA score < 0.5 namely innovation orientation. Therefore, this variable expectations to be reduced and retested. In the third KMO and Bartlett's Test, the results were as shown in table 3 below:

Table 3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.768
Bartlett's Test of Sphericity	Approx. Chi-Square
	1060.018
	df
	136
	Sig.
	.000

Source: The researchers, data was processed

The results of KMO and Bartlett's Tests showed the value was 0.768 with the significance level of 0.000. Therefore, as the value was bigger than 0.5 and the level of significance was much lower than 0.05, the existing variables and samples were considered to be adequate to be further analyzed. Next, it is important to focus on the MSA score from the following illustration of output in Table 4 below. If there were any MSA value lower than 0.5, then the variable would be considered in valid and had to be reduced and another test would need to be administrated by firstly excluding the invalid variable from the calculation. Based on the MSA, there were 17 variables which had MSA value greater than 0.5 so all the 17 variables were then said to be valid. Also, the output shown by the anti-table image represented all the variables having MSA value > 0.5 . Therefore, because there was not any variable with an MSA value smaller than 0.5, there was no need to extract and select other variables.

Determining the number of Factors

After completing the variable feasibility testing and obtaining the variables which already fulfilled the requirements, the variables were then arranged based on their correlations suggested by the KMO and Bartlett's Test results.

1) Communalities

Communalities are basically the total numbers of variants of an initial variable which can be explained by the existing factor. The bigger the communalities of a variable, the closer the relationships with the obtained components.

Table 4
Communalities

	Initial	Extraction
Building trusts	1.000	.895
Initiating coordination	1.000	.614
Combining knowledge, skill, and innovativeness	1.000	.909
Developing knowledge, competence and skills of the employees	1.000	.656
Maintaining and developing harmonic relationships	1.000	.862
Feeling dissatisfied before achieving targets	1.000	.909
Having a good level of self-control	1.000	.669
Preferring to include the employees in various activities	1.000	.637
Willingness to take risks	1.000	.781
Planning to purchase modern equipments	1.000	.650
Trying to accurately use the modern technology	1.000	.859
Trying to understand customer's wants and expectations	1.000	.792
Being updated with activities conducted by competitors	1.000	.881
The products are always updated with the market trends	1.000	.754
Being ready to compete	1.000	.850
Trying to stock up the products as the market demands	1.000	.832
Always trying to be open and look for information	1.000	.556

Extraction Method: Principal Component Analysis.

Source: The researchers, SPSS output

The Communalities table shows the value of the factors which explain the variable's variants. The value put in the Communalities table is always positive. For instance, in the variable of "Building Trust" showed a positive value of 0.895, in the variable of "Initiating Coordination" showed a positive value of 0.614, in the variable of "Combining knowledge, skill, and innovativeness" showed a positive value of 0.909, in the variable of "Developing knowledge, competence, and skill of the employees" showed a positive value of 0.656, and in the variable of "Maintaining and developing harmonic relationships" showed a positive value of 0.862, etc.

2) Total Variance Explained

The Total Variance Explained table shows the value of each analyzed variable. In this research, there are 17 variables used meaning that there are also 17 components to be analyzed. There are two kinds of analysis of the total variance explained, they are:

1. Initial Eigenvalue which show the obtained components: if all of the factors are summed up the total number of variables is shown. In Table 6 below, it is shown that the value is set in a sequential order.

Table 5.
Initial Eigen value

No.	Variable		Value
1	Building trusts	(X1)	6.747
2	Initiating coordination	(X2)	3.717
3	Combining knowledge, skill, and innovativeness	(X3)	1.558
4	Developing knowledge, competence and skills of the employees	(X4)	1.085
5	Maintaining and developing harmonic relationships	(X5)	.764
6	Feeling dissatisfied before achieving targets	(X6)	.641
7	Having a good level of self-control	(X7)	.506

8	Preferring to include the employees in various activities	(X8)	.450
9	Willingness to take risks	(X9)	.352
10	Planning to purchase modern equipments	(X10)	.314
11	Trying to accurately use the modern technology	(X11)	.246
12	Trying to understand customer's wants and expectations	(X12)	.230
13	Being updated with activities conducted by competitors	(X13)	.123
14	The products are always updated with the market trends	(X14)	.118
15	Being ready to compete	(X15)	.069
16	Trying to stock up the products as the market demands	(X16)	.051
17	Always trying to be open and look for information	(X17)	.028
	Total		17.000

Source: The researchers, SPSS output

Each of the variables has eigenvalue ≥ 1 or < 1 . In this factoring process, the number of feasible factors is identified. This can be determined by looking at the value of eigenvalue of a factor with the value of ≥ 1 or < 1 .

- Extraction Sums of Squared Loading is used to show the number of obtained variants. The result shows 4 variant outputs: 39,686; 21,866; 9,165; 6,382 as illustrates in Table 6 below.

2 Table 6
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	6.747	39.686	39.686	6.747	39.686	39.686	4.757	27.980
2	3.717	21.866	61.551	3.717	21.866	61.551	3.863	22.725	50.705
3	1.558	9.165	70.717	1.558	9.165	70.717	2.632	15.483	66.188
4	1.085	6.382	77.099	1.085	6.382	77.099	1.855	10.911	77.099
5	.764	4.496	81.595						
6	.641	3.771	85.366						
7	.506	2.975	88.341						
8	.450	2.648	90.988						
9	.352	2.071	93.059						
10	.314	1.850	94.909						
11	.246	1.445	96.354						
12	.230	1.354	97.708						
13	.123	.724	98.432						
14	.118	.692	99.124						
15	.069	.409	99.532						
16	.051	.302	99.834						
17	.028	.166	100.000						

Extraction Method: Principal Component Analysis.

Source: The researchers, SPSS output

Based on the above Table 6, out of the 17 variables included in this research, there are four core factors which represent the eigenvalue with the value greater than 1 and the process of forming each of the factors can be explained as follows:

- Component 1

Out of the 17 variables considered in the factor analysis with each variable having 1 variant then the total variants is $17 \times 1 = 17$. Next the 17 variables are summarized into 4 factors such that the variants can be explained by 1 factor, namely $6.747/17 \times 100\% = 39.686\%$ with the eigenvalue greater than 1, which is 5.769.

2) Component 2

Out of the 17 variables considered in the factor analysis with each variable having 1 variant then the total variants is $17 \times 1 = 17$. Next the 17 variables are summarized into 4 factors such that the variants can be explained by 1 factor, namely $3.717/17 \times 100\% = 21.866\%$ with the eigenvalue greater than 1, which is 3.717.

3) Component 3

Out of the 17 variables considered in the factor analysis with each variable having 1 variant then the total variants is $17 \times 1 = 17$. Next the 17 variables are summarized into 4 factors such that the variants can be explained by 1 factor, namely $1.558/17 \times 100\% = 9.165\%$ with the eigenvalue greater than 1, which is 1.558.

4) Component 4

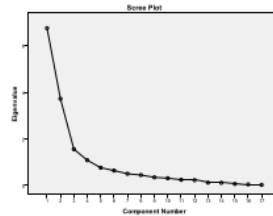
Out of the 17 variables considered in the factor analysis with each variable having 1 variant then the total variants is $17 \times 1 = 17$. Next the 17 variables are summarized into 4 factors such that the variants can be explained by 1 factor, namely $1.085/17 \times 100\% = 6.382\%$ with the eigenvalue greater than 1, which is 1.085.

Based on the rotation result, there are 4 factors obtained with different set of eigenvalue and variants with the extract. The total 4 factors can also be used to explain problems as much as 77.099%

3) Scree Plot

If at the table of total experience explained the total number of obtained components with numerical calculation is explained, the Scree Plot depicts the explanation in a graph by describing it in slopes.

Figure 2
Scree Plot



Source: The researchers, SPSS output

Based on the graph, it is obvious that from the axis line Component 1 the value stops at the eigenvalue point passing the number 2 value which later forms Factor 1. Then the axis line of Component 1 moves to Component 2 as the line from Factor 1 decreases at 45° angle. Next the axis line of Component 3 moves to Component 4 with the line decreases again at 45° angle stopping at the eigenvalue point below 1. Next, from Component 5 to Component 17 the overall form of eigenvalue is under point 1 value which is not in accordance with the requirement. From the graph, it is evident that four factors are the most suitable way to summarize the 17 variables.

Conducting Factor Matrix Rotation

The core process of the factor analysis is to conduct extraction on the existing group of variables, so that there is one or more obtained components. In order to identify the results and determine the factors to be used including the matrix rotation so that the grouping of variables or data can be summarized and the factors can be identified with the condition of the loading factor bigger than or equals to 0.5.

The component matrix shows the correlational value between one variable and the obtained component which is called factor loading value. Based on the correlational value of the 17 obtained components, it can be explained from the numerical data from Component 1 to Component 4 as illustrated in Table 8 above. All of the obtained value is varied, as they are bigger or smaller than 0.5. However, if Table 8 is closely examined, there are some of the variables which are ambiguous. For example the variable

correlational value of “Building trust” with Component 1 is .700, with Component 2 is .158, with Component 3 is .533, and with Component 4 is -.309, and so on.

Table 7

Component Matrix^a

	Component			
	1	2	3	4
Building trusts	.700	.158	.533	-.309
Initiating coordination	.750	-.045	.133	.177
Combining knowledge, skill, and innovativeness	-.294	.903	.079	-.048
Developing knowledge, competence and skills of the employees	-.315	.714	.155	.150
Maintaining and developing harmonic relationships	-.276	.878	.049	-.111
Feeling dissatisfied before achieving targets	.629	.062	.661	-.270
Having a good level of self-control	.665	.110	.454	.098
Preferring to include the employees in various activities	.627	-.017	.059	.489
Willingness to take risks	.531	-.011	.247	.662
Planning to purchase modern equipment	-.261	.724	-.030	.240
Trying to accurately use the modern technology	-.238	.895	-.029	.026
Trying to understand customer's wants and expectations	.787	.221	-.351	.013
Being updated with activities conducted by competitors	.834	.212	-.372	-.052
The products are always updated with the market trends	.775	.265	-.278	-.076
Being ready to compete	.852	.154	-.152	-.277
Trying to stock up the products as the market demands	.870	.195	-.150	-.120
Always trying to be open and look for information	.630	.165	-.360	.053

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Source: SPSS Data Processing Output

This proves that there is there are still some obtained components which are not yet accurate. In order to solve this kind of problem, the rotation method is then used. Based on the rotation method conducted by the researchers, the following details in Table 8 illustrate the Rotated Component Matrix and Table 9 illustrating the Component Transformation Matrix.

Table 8

Rotated Component Matrix^a

	Component			
	1	2	3	4
Building trusts	.325	-.013	.883	.100
Initiating coordination	.462	-.201	.380	.464
Combining knowledge, skill, and innovativeness	-.027	.941	.034	-.151
Developing knowledge, competence and skills of the employees	-.166	.792	-.013	.041
Maintaining and developing harmonic relationships	.007	.904	.041	-.209
Feeling dissatisfied before achieving targets	.167	-.074	.925	.141
Having a good level of self-control	.268	-.015	.639	.435
Preferring to include the employees in various activities	.370	-.117	.144	.682
Willingness to take risks	.166	-.054	.180	.848
Planning to purchase modern equipment	-.030	.782	-.167	.098
Trying to accurately use the modern technology	.064	.919	-.054	-.090
Trying to understand customers' wants and expectations	.859	-.010	.108	.207
Being updated with activities conducted by competitors	.914	-.039	.137	.161
The products are always updated with the market trends	.833	.032	.198	.139
Being ready to compete	.822	-.105	.402	.018
Trying to stock up the products as the market demands	.822	-.053	.354	.167
Always trying to be open and look for information	.722	-.021	.006	.186

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 5 iterations.
 Source: SPSS Data Processing Output

Table 9
Component Transformation Matrix

Component	1	2	3	4
1	.768	-.249	.466	.362
dimen2	.262	.960	.100	-.023
sion03	-.564	.078	.786	.240
4	-.152	.104	-.394	.901

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 Source: SPSS Data Processing Output

Based on the illustrations in Table 8 and Table 9 above, the researchers provide the following analyses and explanations on the rotation model factor analysis results.

1. *Building trust* variable
 For the Building trust variable, the value of Component 1 = .325, Component 2 = -.013, Component 3 = .883, and Component 4 = .100. Due to the fact that the highest value is on Component 3 as much as .883 then the Building trust variable was classified in Component 3 group.
2. *Initiating Cooperation* variable
 For the Initiating Cooperation variable, the value of Component 1 = .462, Component 2 = -.201, Component 3 = .380, and Component 4 = .464. Due to the fact that the highest value is on Component 4 as much as .464 then the Initiating Cooperation variable was classified in Component 4 group.
3. *Combining knowledge, skill, and innovativeness* variable
 For the Combining knowledge, skill, and innovativeness variable, the value of Component 1 = -.027, Component 2 = .941, Component 3 = .034, and Component 4 = -.151. Due to the fact that the highest value is on Component 2 as much as .941 then the Combining knowledge, skill, and innovativeness variable was classified in Component 2 group.
4. *Developing knowledge, competence, and skill of the employees* variable
 For the Developing knowledge, competence, and skill of the employees variable, the highest value is on Component 2 as much as .792 then the Initiating Cooperation variable was classified in Component 2 group.
5. *Maintaining and developing harmonic relationships* variable
 For the Maintaining and developing harmonic relationships variable, the highest value is on Component 2 as much as .904 then the Maintaining and developing harmonic relationships variable was classified in Component 2 group.
6. *Feeling dissatisfied before achieving targets* variable
 For the Feeling dissatisfied before achieving targets variable, the highest value is on Component 3 as much as .925 then the Feeling dissatisfied before achieving targets variable was classified in Component 3 group.
7. *Having a good level of self-control* variable
 For the Feeling dissatisfied before achieving targets variable, the highest value is on Component 3 as much as .925 then the Feeling dissatisfied before achieving targets variable was classified in Component 3 group.
8. *Preferring to include the employees in various activities* variable
 For the Preferring to include the employees in various activities variable, the highest value is on Component 4 as much as .682 then the Preferring to include the employees in various activities variable was classified in Component 4 group.
9. *Willingness to take risks* variable

For the Willingness to take risks variable, the highest value is on Component 4 as much as .848 then the Willingness to take risks variable was classified in Component 4 group.

10. *Planning to purchase modern equipment* variable

For the Planning to purchase modern equipment variable, the highest value is on Component 2 as much as .782 then the Planning to purchase modern equipment variable was classified in Component 2 group.

11. *Trying to accurately use the modern technology* variable

For the Trying to accurately use the modern technology variable, the highest value is on Component 2 as much as .919 then the Trying to accurately use the modern technology variable was classified in Component 2 group.

12. *Trying to understand the customers' wants and expectations* variable

For the Trying to understand the customers' wants and expectations variable, the highest value is on Component 1 as much as .859 then the Trying to understand the customers' wants and expectations variable was classified in Component 1 group.

13. *Being updated with activities conducted by competitors* variable

For the Being updated with activities conducted by competitors variable, the highest value is on Component 1 as much as .914 then the Being updated with activities conducted by competitors variable was classified in Component 1 group.

14. *The products are always updated with the market trends* variable

For the *Products are always updated with the market trends* variable, the highest value is on Component 1 as much as .833 then the *Products are always updated with the market trends* variable was classified in Component 1 group.

15. *Being ready to compete* variable

For the *Being ready to compete* variable, the highest value is on Component 1 as much as .822 then the *Being ready to compete* variable was classified in Component 1 group.

16. *Trying to stock up the products as the market demands* variable

For the *Trying to stock up the products as the market demands* variable, the highest value is on Component 1 as much as .822 then the *Trying to stock up the products as the market demands* variable was classified in Component 1 group.

17. *Always trying to be open and look for information* variable

For the *Always trying to stock up the products as the market demands* variable, the highest value is on Component 1 as much as .722 then *Always trying to stock up the products as the market demands* variable was classified in Component 1 group.

Based on Table 9 regarding Component Transformation Matrix, it can well be illustrated that either Component 1, Component 2, Component 3, or Component 4 has a correlation coefficient of 0.768, 0.960, 0.786, and 0.901 meaning that the correlations is considered to be very strong as since the value is greater than 0.5. In other words, Component 1, Component 2, Component 3, and Component 4 can then be considered to be accurate to summarize the 17 independent variables.

Factor interpretation

The 17 variables have been rotated into three components. In order to ease the effort of writing this report, the three obtained components are then put into the summary of analysis results as seen in Table 10 below.

Table 10
Summary of Factor Analysis Results

Component	Eigen value	Value of Variant	Obtained component Value	Loading Factor
1	6.747	39.686	Trying to understand customers' wants and expectations (X12)	0.859
			Being updated with activities conducted by competitors (X13)	0.914
			The products are always updated with the market trends Being ready to compete (X14)	0.833
			The products are always updated with the market trends Always trying to be open and look for information (X15)	0.822
			(X16)	0.822
(X17)	0.722			
2	3.717	21.866	Combining knowledge, skill, and innovativeness (X3)	0.941
			Developing knowledge, competence and skills of the employees (X4)	0.792
			Maintaining and developing harmonic relationships (X5)	0.904
			Planning to purchase modern equipment (X10)	0.782
			Trying to use the modern technology appropriately (X11)	0.919
3	1.558	9.165	Building trust (X1)	0.883
			Feeling dissatisfied before achieving targets (X6)	0.925
			Having a good level of self-control (X7)	0.639
4	1.085	6.382	Initiating cooperation (X2)	0.464
			Preferring to involve the employees in various activities (X8)	0.682
			Willingness to take risks (X9)	0.848

Source: The researchers, SPSS Data Processing Output

Based on Table 10 above, Component 1 consists of the *Trying to understand customers' wants and expectations* (X12), *Being updated with activities conducted by competitors* (X13), *The products are always updated with the market trends* (X14), *Being ready to compete* (X15), *The products are always updated with the market trends* (X16), and *Always trying to be open and look for information* (X17) variables which becomes the main component that influence the competitive advantage of MSME business actors in MSME centers in 5 different cities/districts in East Java.

Component 2 which consists of the *Combining knowledge, skill, and innovativeness* (X3), *Developing knowledge, competence and skills of the employees* (X4), *Maintaining and developing harmonic relationships* (X5), *Planning to purchase modern equipment* (X10), *Trying to use the modern technology appropriately* (X11) variables are considered to be able to influence the competitive advantage of the MSMEs business actors in the MSME centers in five different cities/districts in East Java.

Component 3 which consists of the *Building trust* (X1), *Feeling dissatisfied before achieving targets* (X6), and *Having a good level of self-control* (X7) is shown to be able to influence the competitive advantage for the MSME business actors in MSME centers in five different cities/districts in East Java.

Next, Component 4 which consists of the *Initiating cooperation* (X2), *Preferring to involve employees in various activities* (X8), and *Willingness to take risks* (X9) variables is shown to be able to influence the competitive advantage for the MSME business actors in MSME centers in five different cities/districts in East Java.

As a result, the obtained components can be described as: Component 1 is said to be closely related to the market and competitiveness orientation; Component 2 is said to be closely related to the intellectual capital and technological orientation; Component 3 is said to be closely related to the social capital and entrepreneurial orientation; and Component 4 is also said to be closely related to the social capital and entrepreneurial orientation. Nevertheless, the innovation orientation does not have any influence on the competitiveness of the MSME business actors in MSME centers in 5 different cities/districts in East Java. From the analysis and discussion explained above, it can be concluded that the competitiveness of MSME business actors in the MSME centers is strongly influenced by the variable of social capital, intellectual capital, entrepreneurial orientation, technological orientation, market orientation, and competitiveness orientation, while the innovation orientation is shown to have no influence on the level of the competitiveness advantage of the business actors. The innovation orientation does not have any significant influence as basically the business actors in the MSME centers in 5 different cities/districts in

East Java have conducted various innovations, either in the quality, design, model, as well as packaging of the products. Despite this, the business actors have been conducting innovations in various disciplines such that their products are in accordance with the customers' wants and expectations. Nonetheless, the business actors have also tried to initiate innovations by differentiating their products from their competitors' products that are available in the market.

CONCLUSION AND SUGGESTIONS

Conclusion

According to the explanations in the previous chapters, the conclusions drawn from the results of the research include:

1. Based on the results of data processing using the SPSS program, it can be identified that the value of Chi-Square obtained from the Bartlett's Test of Sphericity is 1060.018 with the level of significance as much as 0,000. Regarding the fact that the significance level is lower than 0.05, then there is no correlation between each variable and the obtained components. This is also supported by the value of Kaiser-Meyer-Olkin (KMO) Test as much as 0.768 (which is greater than 0.5), meaning that the factor analysis conducted is considered to be accurate so that the variables can be processed further.
2. By using the Factor Analysis method, some new components and variables were identified which can be considered as the primary components between the analyzed variables.
Out of the 17 variables which have been analyzed using the rotation of components, there are 17 variables which make up for 4 new components as the determining variables that influence the competitiveness of the MSME business actors in the MSME centers of 5 different cities/districts in East Java, namely:
 - a) Component 1 which consists of the *Trying to understand customers' wants and expectations* (X12), *Being updated with activities conducted by competitors* (X13), *The products are always updated with the market trends* (X14), *Being ready to compete* (X15), *The products are always updated with the market trends* (X16), and *Always trying to be open and look for information* (X17) variables are considered to be the primary factors that influence the competitiveness of the MSME business actors in the MSME centers of 5 different cities/districts in East Java. The factors are able to explain the competitiveness level with the percentage of variants as much as 39.686%
 - b) Component 2 which consists of the *Combining knowledge, skill, and innovativeness* (X3), *Developing knowledge, competence and skills of the employees* (X4), *Maintaining and developing harmonic relationships* (X5), *Planning to purchase modern equipment* (X10), *Trying to use the modern technology appropriately* (X11) variables are considered to be able to influence the competitive advantage of the MSMEs business actors in the MSME centers in 5 different cities/districts in East Java. The factors are able to explain the competitiveness level with the percentage of variants as much as 21.866.
 - c) Component 3 which consists of the *Building trust* (X1), *Feeling dissatisfied before achieving targets* (X6), and *Having a good level of self-control* (X7) is shown to be able to influence the competitive advantage for the MSME business actors in MSME centers in five different cities/districts in East Java. The factors are able to explain the competitiveness level with the percentage of variants as much as 9.165.
 - d) Component 4 which consists of the *Initiating cooperation* (X2), *Preferring to involve employees in various activities* (X8), and *Willingness to take risks* (X9) variables which influence the competitive advantage for the MSME business actors in MSME centers in five different cities/districts in East Java. The factors are able to explain the competitiveness level with the percentage of variants as much as 6.382.

Suggestions

By looking at the analysis on the results and discussion, the suggestions that can be given are:

1. The sustainability of the MSME business sector empowerment program in East Java should be carried out in increasing competitiveness should take into account several factors, including: social capital

orientation, intellectual capital orientation, entrepreneurial orientation, technology orientation, market orientation, and competitiveness orientation. Whereas, innovation orientation needs to be a major consideration in continuing the MSME empowerment program, because there are many issues and phenomena of business and global markets that have led to new products resulting from product innovations that previously existed.

2. As for the variables contained in Component 2, Component 3, and Component 4 as the supporting factors, it should still be taken into consideration that in increasing the competitiveness of the MSME business sector is through the MSME sector empowerment program in East Java in general, and in 5 cities / regencies in East Java in particular.

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