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MARKETING STRATEGY WITH PATH ANALYSIS IN INCREASING COMPETITIVE ADVANTAGE IN TOURISM INDUSTRY SMES IN EAST JAVA

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ABSTRACT

This study aims to identify the marketing performance of the East Java tourism industry SMEs in particular related to the marketing strategy and model the determinants of the marketing success of the East Java tourism industry SMEs in the marketing strategy sector. This study uses quantitative analysis in the form of path with the analyzed data obtained from the results of the questionnaire. Data were obtained from 11 regions in East Java, 40 SMEs were taken from each region and 3 UKM employees were taken from each SME as research respondents. The results showed that the marketing strategy variables for the entire region in East Java, namely Spiritual Marketing (X1), Market Orientation (Y1) and Competitive Advantage (Y2) variables can significantly affect Marketing Performance (Y3). Knowing the influence of marketing strategy on marketing performance that can achieve better development and strengthening of tourism industry SMEs in East Java.

Keywords: *Competitive Advantage, Marketing Strategy, SMEs, Path, Tourism Industry*

1. INTRODUCTION

It is important for the Indonesian tourism industry to increase the contribution of gross domestic product (GDP) to trigger more foreign exchange earnings and also provide employment opportunities for the Indonesian people. Currently, Indonesia's tourism sector contributes about 4% of the total economy [8]. By 2021, the Indonesian government wants to double this figure to 8% of GDP, an ambitious target. It implies that within 4 years, the number of visitors needs to be doubled to around 20 million. So that the absolute aspect of a solution strategy for the phenomenon, considering the perspective of tourist destinations, is as an indicator of the success of the national development program in the field of sustainable tourism.

The tourism industry is an important factor for economic progress, contributing significantly to the country's economy, nine percent contributing to *Gross Domestic Product*, as a foreign exchange contributor factor of [9]. The progress of tourism, generates great opportunities for the welfare of the community, [10]. The tourism industry business opportunity has been caught by the government [12], as a priority development sector which is expected to gain a lot of foreign exchange [13]. By President Joko Widodo, the tourism industry is often referred to as *leading sector* of the nation's economy.

The absolute aspect of the solution strategy for the phenomenon, considering the perspective of tourist destinations, is as an indicator of the success of the national development program in the field of sustainable tourism. The implementation of the appropriate paradigm is through the empowerment of Small and Medium Enterprises (SMEs) in the tourism industry, [6][7]. On the other hand, the Indonesian government opens opportunities for the community to participate in maximizing tourist destinations through the empowerment of tourism industry SMEs [7]. The added value of SMEs is the business sector that was able to survive the multidimensional crisis of 1998 and the global crisis of 2008. The existence of SMEs is an aspect of contributing to the regional and national economy as a driving force for the Indonesian economy [14]. Including the tourism industry SMEs, are the largest contributor to GDP to date. So, the empowerment of tourism industry SMEs is absolutely necessary because it has a significant impact on improving the economy both individually and as a whole [15]. In terms of employment, the tourism industry SMEs have contributed to the field of more than 11 million people in Indonesia, so SMEs in cities and districts that are engaged in the tourism industry, absolutely prepare the right marketing strategy. Aspects of optimizing the right integrated marketing strategy, development achievements, strengthening tourism industry SMEs. Meanwhile, tourism as a priority development sector is expected to gain a lot of foreign exchange [9]. It is proven that the significant contribution given by the Indonesian tourism sector to the welfare of the community through the National Gross Domestic Product of 92.38% [11]. Thus, the integrated marketing strategy has a dominant influence on the implementation of achievements.

2. LITERATURE REVIEW

2.1 Spiritual Marketing

A suitable marketing to market this noble corporate value is *spiritual marketing*. *Spiritual marketing* seeks to help companies that have a good spirit to gain a competitive advantage. In an era where business ethics is getting less attention and honesty is *resource*, business spirituality will become the next source of competitiveness. This also happens to the tourism industry SMEs in East Java [1].

2.2 Market Orientation

Orientation reflects the extent to which the company creates satisfaction by meeting customer needs and wants as an organizing principle in the company [17]. Market orientation is very valuable, rare, non-exchangeable, and cannot be perfectly imitated, which is considered as one of the internal capabilities and resources that can potentially create competitive advantage [16].

2.3 Competitive Advantage

Advantage is basically something that is dynamic, and cannot be maintained [2]. This is because the competition today and the competition in the future must be viewed as a competition with high dynamics and not something static, so it requires the right strategy. Competitive advantage is an advantage over competitors that is obtained by getting a larger number of customers, through lower prices or by providing more benefits that match higher prices [3]. Competitive advantage is a tool in achieving organizational financial goals to gain success over its competitors.

2.4 Marketing Performance

Performance Marketing performance is one aspect in determining business performance. A company can improve if the company is able to choose and implement the right approach [18]. Marketing performance is generally used to measure the impact of a company's strategy. Theoretically there are many ways to achieve and perpetuate marketing performance, one of which states that by being customer and competitor oriented, a company will be able to improve its performance [19]. Oriented to customers and competitors is one method that can be used if the company wants to excel in the competition.

Marketing performance is characterized by good sales growth from previous years and higher growth than competitors, as well as having a wider market share compared to previous years [5]. Meanwhile, poor marketing performance is indicated by declining sales, declining sales compared to the previous year as well as competitors in the same industry, decreasing market share.

2.5 Regression

Analysis Regression analysis is one method to determine the causal relationship between one variable and another [4]. If the two variables have a linear relationship, a straight-line equation will be formed which is called a linear regression line.

The simple linear regression equation can be written as follows.

$$Y_{1i} = f(X_i) + \varepsilon_{1i} \tag{1}$$

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i \tag{2}$$

Can be formed matrix:

$$\mathbf{Y}_{n\times 1} = \underset{\sim}{X}_{n\times 2}\boldsymbol{\beta}_{2\times 1} + \boldsymbol{\varepsilon}_{n\times 1}$$

$$\begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ \vdots \\ Y_n \end{bmatrix} = \begin{bmatrix} 1 & X_1 \\ 1 & X_2 \\ 1 & X_3 \\ \vdots & \vdots \\ 1 & X_n \end{bmatrix} \begin{bmatrix} \beta_0 \\ \beta_1 \end{bmatrix} + \begin{bmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \vdots \\ \varepsilon_n \end{bmatrix}$$

with:

Y_i : Endogenous variable of observation to $-\ i$ $(i = 1, 2, 3, \ldots, n)$;

X_i : Variable exogenous observation to $-\ i$;

n : Number of observations;

β_j : Coefficient of influence of exogenous variables on endogenous variables $(j = 0,1)$;

ε_i : *Random error* th observation $-\ i$.

Consistent Properties of Parametric Component Estimators

In this section we will investigate the consistent nature of the $\underset{\sim}{\hat{\beta}}$ in the nonparametric

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regression model. For this purpose, the following assumptions are given

A1. $\{X_n; n \geq 1\}$ is a sequence of random variables that are distributed identically and independently with zero mean and with variation $v_j < v, 0 < v < \infty, j = 1,2,...,rp$

A2. $E(\underset{\sim}{\varepsilon}) = \underset{\sim}{0}$

A3. $E(x_{jk}^2 e_k^2) < \vartheta < \infty, j = 1,2,...,rp; k = 1,2,...,rn$

A4. $E(x_{jk}^2 s_k^2) < \omega < \infty, j = 1,2,...,rp; k = 1,2,...,rn$

Based on these assumptions, the following items are compiled to demonstrate the consistent nature of the parametric component estimators $\hat{\underset{\sim}{\beta}}$.

Lemma 1:

If $\hat{\underset{\sim}{\beta}}_n$ is a sequence of parametic component estimators given by Theorem 1, then:

$$\hat{\underset{\sim}{\beta}}_n - \underset{\sim}{\beta} = \left[\boldsymbol{X}^T\boldsymbol{B}\boldsymbol{X} - \boldsymbol{X}^T\boldsymbol{A}^T(\underset{\sim}{\lambda})\boldsymbol{B}\boldsymbol{X}\right]^{-1} \left[\left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\underset{\sim}{f}\right] + \left[\boldsymbol{X}^T\boldsymbol{B}\underset{\sim}{\varepsilon} - \boldsymbol{X}^T\boldsymbol{A}^T(\underset{\sim}{\lambda})\boldsymbol{B}\underset{\sim}{\varepsilon}\right]\right] \quad (3)$$

Proof:

Based on Theorem 1, can be obtained that:

$$\begin{aligned}
\hat{\underset{\sim}{\beta}}_n - \underset{\sim}{\beta} &= \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\boldsymbol{X}\right]^{-1} \boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\left(\boldsymbol{X}\underset{\sim}{\beta} + \underset{\sim}{f} + \underset{\sim}{\varepsilon}\right) - \underset{\sim}{\beta} \\
&= \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\boldsymbol{X}\right]^{-1} \boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\left(\underset{\sim}{f} + \underset{\sim}{\varepsilon}\right) \\
&= \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\boldsymbol{X}\right]^{-1} \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\left(\underset{\sim}{f} + \underset{\sim}{\varepsilon}\right)\right] \\
&= \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\boldsymbol{X}\right]^{-1} \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\underset{\sim}{f} + \boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\underset{\sim}{\varepsilon}\right] \\
&= \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\boldsymbol{X}\right]^{-1} \left[\boldsymbol{X}^T\left(\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\underset{\sim}{f} + \boldsymbol{B}\underset{\sim}{\varepsilon}\right) - \boldsymbol{X}^T\boldsymbol{A}^T(\underset{\sim}{\lambda})\boldsymbol{B}\underset{\sim}{\varepsilon}\right] \\
&= \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\boldsymbol{X}\right]^{-1} \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\underset{\sim}{f} + \boldsymbol{X}^T\boldsymbol{B}\underset{\sim}{\varepsilon} - \boldsymbol{X}^T\boldsymbol{A}^T(\underset{\sim}{\lambda})\boldsymbol{B}\underset{\sim}{\varepsilon}\right] \quad (4) \\
&= \left[\boldsymbol{X}^T\boldsymbol{B}\boldsymbol{X} - \boldsymbol{X}^T\boldsymbol{A}^T(\underset{\sim}{\lambda})\boldsymbol{B}\boldsymbol{X}\right]^{-1} \left[\boldsymbol{X}^T\left[\boldsymbol{I} - \boldsymbol{A}(\underset{\sim}{\lambda})\right]^T \boldsymbol{B}\underset{\sim}{f} + \boldsymbol{X}^T\boldsymbol{B}\underset{\sim}{\varepsilon} - \boldsymbol{X}^T\boldsymbol{A}^T(\underset{\sim}{\lambda})\boldsymbol{B}\underset{\sim}{\varepsilon}\right]
\end{aligned}$$

Furthermore, to show that the sequence of the estimator $\hat{\underset{\sim}{\beta}}_n$ is a consistent estimator, the following lemma is needed which states the convergence property of the right-hand product term on the right side of Lemma 1.

2.6 Path

Analysis Pathway analysis is known since 1934 and was first developed by a geneticist Sewall Wright. Path analysis is a technique to estimate the effect of a set of exogenous variables on endogenous variables from a series of observed correlations. The purpose of path analysis is to measure the direct effect in each separate path in the system so as to find the magnitude of the variation of a given effect that can be determined by each cause.

Path analysis depends on the degree of correlation between variables in a system. There are two endogenous variables, namely the mediating endogenous variable and pure endogenous variables. Mediating endogenous variables are connecting variables between exogenous variables and pure endogenous variables.

It is known that the simple linear path analysis model is as follows.

$$\begin{aligned}
Y_{1i} &= f(X_i) + \varepsilon_{1i} \\
Y_{2i} &= f(X_i, Y_{1i}) + \varepsilon_{2i} \quad (5) \\
Y_{1i} &= \beta_{01} + \beta_{XY_1} X_i + \varepsilon_{1i} \\
Y_{2i} &= \beta_{02} + \beta_{XY_2} X_i + \beta_{Y_1Y_2} Y_{1i} + \varepsilon_{2i} \quad (6)
\end{aligned}$$

matrix can be formed as follows:

$$\mathbf{Y}_{2n\times1} = \underset{\sim}{X}_{2n\times5}\boldsymbol{\beta}_{5\times1} + \boldsymbol{\varepsilon}_{2n\times1}$$

$$\begin{bmatrix} Y_{11} \\ Y_{12} \\ Y_{13} \\ \vdots \\ Y_{1n} \\ Y_{21} \\ Y_{22} \\ Y_{23} \\ \vdots \\ Y_{2n} \end{bmatrix} = \begin{bmatrix} \underset{\sim}{X}_X & \underset{\sim}{0}_{n\times 3} \\ \underset{\sim}{0}_{n\times 2} & \underset{\sim}{X}_{XY} \end{bmatrix} \begin{bmatrix} \beta_{01} \\ \beta_{XY_1} \\ \beta_{02} \\ \beta_{XY_2} \\ \beta_{Y_1Y_2} \end{bmatrix} + \begin{bmatrix} \varepsilon_{11} \\ \varepsilon_{12} \\ \varepsilon_{13} \\ \vdots \\ \varepsilon_{1n} \\ \varepsilon_{21} \\ \varepsilon_{22} \\ \varepsilon_{23} \\ \vdots \\ \varepsilon_{2n} \end{bmatrix}$$

with:

$$\underset{\sim}{X}_X = \begin{bmatrix} 1 & X_1 \\ 1 & X_2 \\ 1 & X_3 \\ \vdots & \vdots \\ 1 & X_n \end{bmatrix}; \underset{\sim}{X}_{XY} = \begin{bmatrix} 1 & X_1 & Y_{11} \\ 1 & X_2 & Y_{12} \\ 1 & X_3 & Y_{13} \\ \vdots & \vdots & \vdots \\ 1 & X_n & Y_{1n} \end{bmatrix}$$

with:

Y_{hi} : the – th endogenous variable $-h$ the observation $-i$ $(h = 1, 2\ ; i = 1, 2, 3, \ldots, n)$;

X_i : Variable exogenous observation to $-i$;

n : Number of observations;

The variables used in path analysis need to be transformed into standard form so that they have the same mean and variance, so that the path parameters can be compared with other path parameters.

Standardization is done by changing the average to 0 and the proper variance to 1 using the following formula [20].

$$Z_{X_i} = \frac{X_i - \bar{X}}{S} \tag{7}$$

with

$$S = \sqrt{\frac{\left(X_i - \bar{X}\right)^2}{n-1}} \tag{8}$$

with :

Z_{X_i} : The value of the exogenous variable in the i observation that has been transformed into standard form

X_i : The value of the exogenous variable on the i observation

$\bar{X}$: Average of exogenous variables

S : Standard deviation

The standard deviation of Equation (6) which has been standardized can be seen in the following equation.

$$Z_{Y_{1i}} = \beta_{XY_1} Z_{X_i} + \varepsilon_{1i}$$
$$Z_{Y_{2i}} = \beta_{XY_2} Z_{X_i} + \beta_{Y_1Y_2} Z_{Y_{1i}} + \varepsilon_{2i} \tag{9}$$

With the matrix form as follows.

$$\begin{bmatrix} Z_{Y_{11}} \\ Z_{Y_{12}} \\ Z_{Y_{13}} \\ \vdots \\ Z_{Y_{1n}} \\ Z_{Y_{21}} \\ Z_{Y_{22}} \\ Z_{Y_{23}} \\ \vdots \\ Z_{Y_{2n}} \end{bmatrix} = \begin{bmatrix} \mathbf{Z}_X & \underset{\sim}{0}_{n\times 2} \\ \underset{\sim}{0}_{n\times 1} & \mathbf{Z}_{XY} \end{bmatrix} \begin{bmatrix} \beta_{XY_1} \\ \beta_{XY_2} \\ \beta_{Y_1Y_2} \end{bmatrix} + \begin{bmatrix} \varepsilon_{11} \\ \varepsilon_{12} \\ \varepsilon_{13} \\ \vdots \\ \varepsilon_{1n} \\ \varepsilon_{21} \\ \varepsilon_{22} \\ \varepsilon_{23} \\ \vdots \\ \varepsilon_{2n} \end{bmatrix}$$

With :

$$\mathbf{Z}_X = \begin{bmatrix} Z_{X_1} \\ Z_{X_2} \\ Z_{X_3} \\ \vdots \\ Z_{X_n} \end{bmatrix}; \mathbf{Z}_{XY} = \begin{bmatrix} Z_{X_1} & Z_{Y_{11}} \\ Z_{X_2} & Z_{Y_{12}} \\ Z_{X_3} & Z_{Y_{13}} \\ \vdots & \vdots \\ Z_{X_n} & Z_{Y_{1n}} \end{bmatrix}$$

2.7 Path Analysis Assumptions

Six assumptions that underlie path analysis, among others [21]:

1. The relationship between variables is linear and additive. The assumption of linearity can be checked with a scatter plot, but the results will be subjective. Another way of checking the assumption of linearity is with the Regression Specification Error Test (RESET) introduced by Ramsey in 1969.
2. The remainder is normally distributed (remaining normality). The method for testing the normality of the residuals is the Kolmogorov-Smirnov. The test for the effect of the predictor variable on the response variable is valid if the residuals obtained have a normal distribution [22].

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3. The pattern of the relationship between variables is recursive (one-way causal flow system). The characteristics of the recursive model are:
   a. Between ε_i are independent of each other.
   b. Between ε_i and X_i are independent.
4. Minimum endogenous variables in interval measuring scale.
5. Research variables were measured without error (valid and reliable research instrument).
6. The analyzed model is specified based on relevant theories and concepts.

The assumption that can make the model change is the assumption of linearity. The assumption of linearity affects the shape of the model. If the linearity assumption is met, then the path analysis is parametric, but if the linearity assumption is not met there are 2 possibilities, if the nonlinear form is known, then use nonlinear path analysis, if the nonlinear form is unknown and there is no information about the data pattern, then use nonparametric path analysis..

The relationship between variables can be known using linearity test, one of which is the Regression Specification Error Test (RESET) method. The following are the steps in conducting the RESET test bellow [23].

a. Determine the initial regression equation:

$$y_i = \beta_{01} + \beta_{11}x_i + \varepsilon_{1i} \tag{10}$$

By using the least squares method (MKT) approach, the parameter estimation in equation (11) can be obtained below

$$\hat{y}_i = \hat{\beta}_{01} + \hat{\beta}_{11}x_i \tag{11}$$

The next step is to calculate the coefficient of determination (R^2) in the equation $\hat{y}_i$as in equation (2.11) below

$$R_1^2 = 1 - \frac{\sum_{i=1}^{n}(y_i - \hat{y}_i)^2}{\sum_{i=1}^{n}(y_i - \bar{y}_i)^2} \tag{12}$$

b. Determine the second regression equation:

$$y_i^* = \beta_{02} + \beta_{12}x_i + \beta_{22}\hat{y}_i^2 + \beta_{32}\hat{y}_i^3 + \varepsilon_{2i} \tag{13}$$

By using the least squares method (MKT) approach, the parameter estimation in equation (14) can be obtained below

$$\hat{y}_i^* = \hat{\beta}_{02} + \hat{\beta}_{12}x_i + \hat{\beta}_{22}\hat{y}_i^2 + \hat{\beta}_{32}\hat{y}_i^3 \tag{14}$$

The next step is to calculate the coefficient of determination (R^2) in the equation $\hat{y}_i$ like equation (15) below

$$R_2^2 = 1 - \frac{\sum_{i=1}^{n}(y_i - \hat{y}_i^*)^2}{\sum_{i=1}^{n}(y_i - \bar{y}_i)^2} \tag{15}$$

c. Perform linearity test between variables:

$H_0 : \beta_{22} = \beta_{32} = 0$

H_1: there is at least one j where $\beta_{j2} \neq 0$, with $j = 2,3$

The test statistic follows the distribution of F with the formula in equation (16) below

$$F = \frac{(R_2^2 - R_1^2)/2}{(1-R_2^2)/(n-(k+2))} \sim F_{(k-1,n-k-2)} \tag{16}$$

Accept H_0 if the test statistic F < critical point $F_{(k-1,n-k-2)}$ which means that there is a linear relationship between variables.. Reject H_0 if the test statistic F > the critical point $F_{(k-1,n-k-2)}$ which means the relationship between variables is not linear.

Another assumption that needs to be fulfilled is the assumption of normality. One of the assumptions underlying the path analysis is the assumption of residual normality [24]. A good model has a residual that is normally distributed with an average of 0 and a constant variance σ^2 which can be written with $\varepsilon_i \sim N(0,\sigma^2)$. Normality test can be done in various ways, one of which is the Kolmogorov-Smirnov test. The Kolmogorov Smirnov test is based on the maximum deviation value that can be calculated using the formula in equation (17). The following is the hypothesis of the Kolmogorov-Smirnov Test [25]:

$H_0 : \varepsilon_i \sim N(0,\sigma^2)$

$H_1 : \varepsilon_i \nsim N(0,\sigma^2)$

The Kolmogorov-Smirnov test statistic is written in equation (17).

$$D_n = \max\left|F_n(x) - F_0(x)\right| \tag{17}$$

with:

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D_n : the maximum deviation value between $F_n(\mathrm{x})$ and $F_0(x)$

$F_n(\mathrm{x})$: cumulative probability function of observations

$F_0(x)$: cumulative probability function of normal distribution.

The rule of decision making is if the value of $D_n < D_{tabel}$ then it was decided to accept H_0 or compare p_{value} with α. if $p_{value} > \alpha$ so accept H_0 and it can be concluded that the assumption of normality is met compare.

Another assumption that needs to be fulfilled is that the variance of the remaining observations from one observation to another is homogeneous. The meaning of homogeneous variance is that the error has the same variance value between the i-error and the-j error. Mathematically written $\sigma_{e1}^2 = \sigma_{e2}^2 = \cdots = \sigma_{ei}^2$, where *i, j = 1, ..., n*; and *n* = many observations. Homogeneity test of variance can be done using the Glejser Test, White Test, and others.

The detection of homoscedasticity can be done by the Breusch-Pagan test, with the hypothesis: equality (2.17) [26].

$H_0: \sigma^2{}_\mu = 0$

$H_1: \sigma^2{}_\mu \neq 0$

The Breusch-Pagan test equation is mathematically similar to the test statistic as follows

$$LM = \frac{NT}{2(T-1)}\left[\frac{\sum_{i=1}^{N}\left(\sum_{t=1}^{T}\hat{\mu}_{it}\right)^2}{\sum_{i=1}^{N}\sum_{t=1}^{T}\hat{\mu}_{it}^2} - 1\right] \quad (2.17)$$

With :

N : number of individuals

T : number of time periods

$\sigma^2{}_\mu$: variance of the residual model

$\hat{\mu}_{it}$: residual estimation of individual fixed coefficient model i period t

If LM > $\mathcal{X}^2_{(\alpha,1)}$ or p-*value* less than the significance level then reject the null hypothesis so that there is a heteroscedasticity problem. The homogeneity test of residual variance can also be detected by looking at the scatter diagram graph between the predicted value of the predictor variable and the residual value. If the dots form a certain regular pattern such as a big wave widening and then narrowing, then heteroscedasticity has occurred. If the points spread above and below the number 0 on the Y axis without forming a certain pattern, then there is no heteroscedasticity or the assumption of homoscedasticity is met.

2.8 Path Chart

The most important part of path analysis is creating a path diagram. The path diagram uses two arrow notations, namely a one-way arrow which states the direct influence of exogenous variables on endogenous variables and two-way arrows that show correlation relationships between exogenous variables [20]. A simple example of a simple path diagram can be seen in Figure 1. Variable X as an exogenous variable, variable Y1 as a mediating variable and variable Y2 as a predictor variable.

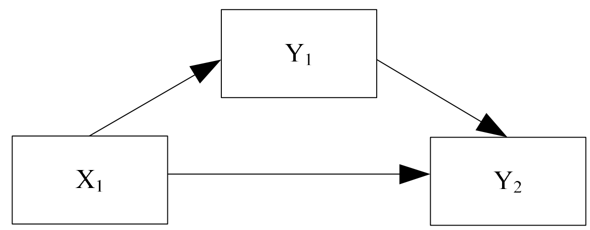

Figure 1. Simple Path Diagram

In Path analysis, there are exogenous and endogenous variables. The definition of exogenous and endogenous variables is as follows [27].

a. Exogenous Variable

Exogenous variables represent the treatment carried out by the researcher and are needed to assess the effect of treatment on several endogenous variables. Exogenous variables can give effect to endogenous variables and exogenous variables are not influenced by other variables in the model.

b. Endogenus Variable

Endogenous variables are interesting properties to be observed by researchers. The value of the endogenous variable is influenced by the value of the exogenous variable in the model.

3. RESEARCH METHODOLOGY

Method used in this study uses quantitative analysis in the form of *path* with the analyzed data obtained from the results of the questionnaire. Data were obtained from 11 regions in East Java, 40 SMEs were taken from each region and 3 UKM employees were taken from each SME as research respondents. While *path* is used in testing research hypotheses to determine the variables that can affect marketing performance. The researcher also considers that there is an influence of marketing strategy variables, namely Spiritual Marketing (X1), Market Orientation (Y1) and Competitive

Advantage (Y2) variables on the Marketing Performance variable (Y3). This is formed in the research model in Figure 2.

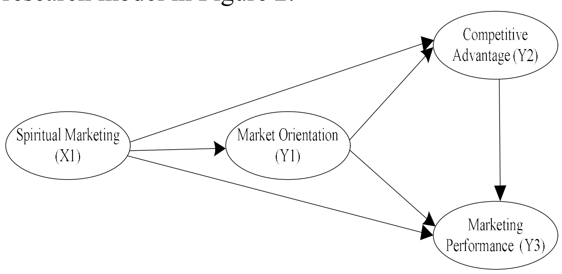

Figure 2: Research Model

In the research model, three research hypotheses are tested to determine which variables can affect the welfare of the community. The research hypotheses formed are as follows

Hypothesis 1

H_0: There is no influence of Spiritual Marketing on Competitive Advantage

H_1: There is an influence of Spiritual Marketing on Competitive Advantage

Hypothesis 2

H_0: There is no influence of Spiritual Marketing on Market Orientation

H_1: There is an influence of Spiritual Marketing on Market Orientation

Hypothesis 3

H_0: There is no influence of Spiritual Marketing on Marketing Performance

H_1: There is influence of Spiritual Marketing on Marketing Performance

Hypothesis 4

H_0: There is no influence of Market Orientation on Competitive Advantage

H_1: There is an effect of Market Orientation on Competitive Advantage

Hypothesis 5

H_0: There is no influence of Market Orientation on Marketing Performance

H_1: There is an influence of Market Orientation on Marketing Performance

Hypothesis 6

H_0: There is no effect of Competitive Advantage on Marketing Performance

H_1: There is an effect of Competitive Advantage on Marketer Performance Sources

3.1 Data Sources and Quantitative Data Studies

Data Quantitative data used in this study are primary data. Primary quantitative data in the form of SME employee data in 11 regions in East Java. For each area, 40 SMEs were taken as samples and for each SME 3 employees were taken as research samples. The areas involved include Pacitan, Lumajang, Malang, Batu, Surabaya, Banyuwangi, Blitar, Kediri, Jombang, Ponorogo, and Pasuruan.

4. RESULTS AND DISCUSSION

In all areas in this study, namely the 11 areas resulting from the *Path* of the Marketing Strategy variable, are presented in Table 1.

Based on Table 1, it is known that the results of *Path* of Marketing Strategy Variables in the entire region in this study are Spiritual Marketing Variables (X1) on Competitive Advantage (Y2); Competitive Advantage (Y2) on Marketing Performance (Y3); Spiritual Marketing (X1) on Market Orientation (Y1); Market Orientation (Y1) towards Competitive Advantage (Y2); Market Orientation (Y1) towards Marketing Performance (Y3); and Spiritual Marketing (X1) on Marketing Performance (Y3) directly has a significant effect. It can be seen from the p-value is less than 0.05. Meanwhile, for the indirect influence of the Marketing Variable, it is presented in Table 2.

Based on Table 2 it is known that the results of *Path* of Marketing Strategy Variables in the entire region in this study are Spiritual Marketing Variables (X1) on Marketing Performance (Y3) through Competitive Advantage (Y2); Spiritual Marketing (X1) on Competitive Advantage (Y2) through Market Orientation (Y1); and Spiritual Marketing (X1) on Marketing Performance (Y3) through Market Orientation (Y1) has a significant indirect effect. It can be seen from *the p-value* is less than 0.05.

5. CONCLUSION

From the results of the research model hypothesis testing using path analysis, it was found that there was a relationship between the marketing strategy variables, namely the Spiritual Marketing variable (X1), Market Orientation (Y1) and Competitive Advantage (Y2) on the Marketing Performance variable (Y3). Marketing strategy variables in each SME in the 11 research areas affect the Marketing Performance of an employee in each SME. In other words, SMEs need to maintain and improve the marketing strategy variables, namely Spiritual Marketing (X1), Market Orientation (Y1) and Competitive Advantage (Y2) variables to strengthen Marketing Performance (Y3).

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Table 1: Results of Path Direct Effect of Marketing Strategy Variables in All Regions

Number.	Predictor	Variable Mediation	Variable Response	Coefficient Direct Effect 1	*p-value* Direct Effect 1	Description Direct Effect 1	Coefficient Direct Effect 2	*p-value* Direct Effect 2	Description Direct Effect 2
1.	Spiritual Marketing (X_1)	Competitive Advantage (Y_2)	Marketing Performance (Y_3)	0.457	<0.01	Significant	0.454	<0.01	Significant
2.	Spiritual Marketing (X_1)	Market Orientation (Y_1)	Competitive Advantage (Y_2)	0.412	<0.01	Significant	0.452	<0.01	Significant
3.	Spiritual Marketing (X_1)	Market Orientation (Y_1)	Marketing Performance (Y_3)	0.412	<0.01	Significant	0.456	0.01	Significant
4.	Spiritual Marketing (X_1)	-	Marketing Performance (Y_3)	0.310	<0 ,01	Significant			

Table 2: Path Analysis Results Direct Effects of Marketing Strategy Variables in All Regions

Number	Predictor	Variable Mediation	Variable Response	Coefficient Indirect Effect	*p-value* Indirect	Description Effect
1.	Spiritual Marketing (X_1)	Competitive Advantage (Y_2)	Marketing Performance (Y_3)	0.207	< 0.01	Significant
2.	Spiritual Marketing (X_1)	Market Orientation (Y_1)	Competitive Advantage (Y_2)	0.186	< 0.01	Significant
3.	Spiritual Marketing (X_1)	Market Orientation (Y_1)	Marketing Performance (Y_3)	0.188	< 0.01	Significant
4.	Spiritual Marketing (X_1)	-	Marketing Performance (Y_3)	-	-	-