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INCOME ANALYSIS OF MICRO, SMALL AND MEDIUM ENTERPRISES (MSME) OF COASTAL SOCIETY OF CURRENT MADURA

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ABSTRACT

Small, Micro and Medium Enterprises (MSME) fisheries is one of the MME that contribute substantial national income. One of the areas whose society relying heavily on MME fisheries is the coastal society of the current Madura. The purpose of this research is to know: (1) fisheries MSME profile in Madura Coastal (2) Analysing the effect of variables, working capital, business experience, working hours and education level to the income of MSME owners in coastal area of Madura Strait. (3) Analysing the most dominant Factor of Production on the income of MSME owners in the Strait of Madura. Data analysis method used is statistical analysis classical assumption followed by multiple linear regression analysis. MSMEs fishery profile on the coastal of Madura Strait consists of commodities of crispy fish, crispy EBI, fish crackers, dried fish, smoked fish, fresh fish and fish fillets. The number of products sold per month averaged 1244 packs. Marketing is generally done by tell, the product is sold inside the city or outside the city. Mostly, the business owner does not have an organizational structure. The effect of working capital variable (0.28), experience (851.14), working hours (3077.83), education level (178.49) and dummy (2452.62) had a positive effect on income variable at 99% signification rate. The most dominant factor of production influence the level of income of MSME is factor of working capital production (X_1) that is equal to 0.28 with t-statistic value equal to 8,292 at significant level of 99%.

Keywords: Multiple Linear Regression, Small Micro and Medium Enterprises (MSMe), Income.

INTRODUCTION

O you who believe! You shall not eat of your neighbor's property with falsehood, unless it is in a trade that prevails on the basis of mutual love among you. And do not kill yourself. Indeed, Allah is Most Merciful to you.

East Java Province has the potential of fisheries sector, cultivation, and processing of fishery products. The three sub-sectors are interrelated in building fisheries and marine. East Java has a land area of 47,130.15 km² and an area of ocean of 110,764.28 km², from the description of the land area and the territorial sea, fisheries production in East Java amounted to 914,088.40 tons / year in 2008. East Java has a great opportunity to increase the productivity and quality of marine and fishery products. This shows that fisheries are one of the sectors that are optimized in national development (Primyastanto, 2011).

The coastal area of Madura Strait, especially Probolinggo, in Mayangan District is a coastal in several sub-districts, so fishery is one of the livelihoods of the people in Mayangan District. Besides, there are ports and fishing ports located in this district. Fishery production in

Mayangan sub-district is 14.914.410, while cultivation fishery is 177.444 (BPS Probolinggo City, 2016). Micro Small and Medium Enterprises (MSMEs) engaged in fisheries is one of the MSMEs that contribute substantial national income. MSMEs Fisheries are usually located in coastal areas that are managed by local communities as well as from outside the region. One of the areas whose society depends a lot on Fishery-Micro, Small and Medium Enterprises is the District of Mayangan.

Although micro, small and medium enterprises (MSMEs) engaged in fisheries is growing, there are some problems that are often experienced by business owners such as lack of capital, the increasing number of competitors, lack of innovation, ect. But it does not discourage the desire of the fishery community to keep moving and developing on this fishery MSMEs.

METHOD

This research was conducted at fishery MSME in coastal of Madura Strait, consisting of crispy fish business, crispy ebi, fish cracker, dried fish, smoked fish, fish fillet and fresh fish in March 2018. The population of this research is all of fishery MSME in coastal of Madura Strait especially in Probolinggo of Mayangan district which consist of commodity of crispy fish fish, crispy ebi, fish cracker, dried fish, smoked fish, fillet of fish and fresh fish. The sample of this research are 5 MSME of crispy jellyfish, 1 crispy ebi cultivator, 11 MSME of fish crackers, 4 MSME of dry fish, 8 MSME fish smoked, 1 small fish filler and 5 MSME fresh fish. Sampling using purposive sampling technique and sample calculation using Slovin formula. Regression model obtained from ordinal least square method (OLS) is a regression model that produces the best linear unbiased estimator (BLUE). This condition will occur if filled with several assumptions, called classical assumptions consisting of non-multicollinearity assumptions, homoscedasticity, non-autocorrelation, error equal to zero, independent variable is nonstochastic (constant value) and the error distribution is normal.

Multiple linear regressions are used to model the relationship between dependent and independent variables, with the number of independent variables more than one (Yamin, 2011). Sudarmanto (2005), that the level of accuracy of a regression line can be known from the amount of coefficient of determination or coefficient R^2 (R square). The coefficient value of R^2 in the regression analysis can be used as a measure to express the suitability of the regression line obtained. The greater the value of R^2 (R square) the stronger the ability of the actual regression model. The ability of the regression line to explain the variations that occur in Y is indicated on the value of the coefficient of determination or coefficient R^2 .

Partial influence test is intended to determine whether there is influence of one independent variable to the dependent variable, while one or more other variables are fixed or controlled. If the goal of the study is to obtain a pure correlation coefficient, then controlling of other independent variables that may contaminate or interfere with the correlation coefficient is one of the best ways (Creswell & Clark, 2007).

RESULT AND DISCUSSION

Profile of MSME of Coastal Madura Strait

Fishery MSME in District Mayangan consisting of crispy fish processing business, crispy ebi, fish crackers, smoked fish, dried fish, fillets fish and fresh fish. The average age of respondents is 41-45 years. Number of labor 2-3 people. Average income of Rp. 6.075.161,04

per month. Average working capital Rp. 28,117,150.62. Average experience of business owners is 4.6 years. Average working hours is 8 hours per day. The average of the last education of the business owner is elementary school (SD). The average business that is being run is micro business category.

Fishery MSMEs in the coastal of Madura Strait is engaged in the processing of smoked fish, fish crackers, crispy ebi, crispy fish, dried fish and fresh fish. The number of products sold per month averaged 1244 packs. Marketing is done by tell, products are sold in the city or outside the city, in the Malang, Sidoarjo, Mojokerto, Surabaya. The average transportation used on using motorcycles and pickups, the average business owner does not have an organizational structure and the division of tasks. Inhibitors of this business is the raw material is quickly rot, marketing is not easy, the difficulty of raw materials. The business runs progressively every year. Some MSMEs already use simple technology. Raw materials obtained from fishermen in the Mayangan District.

Statistical Analysis and Multiple Regression

From the result of statistical analysis of the classical assumption of output shows that the probability value is $0.451762 > 0.05$, it can be said that the residual data is normally distributed or in other words the assumption of normality is fulfilled. The result of output on working capital variable, business experience, working hours, education level and dummy have VIF value less than 10, which means working capital variable, business experience, working hours, education level and dummy does not occur multicollinearity. Or it can be said that non-multicollinearity assumptions are fulfilled. From the test results assumption of non heteroscedastisity can be seen that the value of p-value is 0.3554 where this value is greater than α ($0.3554 > 0.05$). So it can be concluded that the residual variation is constant or in other words assumption of non heteroscedastisity is fulfilled.

From the results of non-autocorrelation assumption testing can be seen that the value of Durbin Watson stat is 1.8769. The value d (Durbin Watson stat) is at the point of absence of autocorrelation is $du < d < 4-du$, hence can be concluded that there is no autocorrelation or in other words assumption non autocorrelation is fulfilled.

Variable that Effect the Income of MSME

Multiple linear regression analysis in this research is intended to know the amount of working capital factor (X_1), business experience (X_2), working hours (X_3), education level (X_4) and characteristics of UMKM (D_1) affect income (Y) Owner of Micro, Small and Medium Enterprise (MSME) Fisheries in the coastal of Madura Strait, especially Probolinggo, Mayangan District either partially or simultaneously (together). The following Table 1 shows the results of multiple linear regression analysis:

Variable	Coefficient Reg.	t-Statistics	Probability
Constanta	-12279.64	-5.347	0.0000***
X1(work capital)	0.28	8.292	0.0000***
X2(experience)	851.14	4.503	0.0001***
X3(work hour)	3077.83	3.88	0.0006***

X4(education)	178.49	3.574	0.0013***
Dummy	2452.62	3.723	0.0009***
R2	0.93		
Adjusted R2	0.92		
F-Statistics	77.26		0.0000***
*** = significant pada tingkat kepercayaan 99%			

Comparison of research result with theory that is based on research result, capital (X_1) is significant because owner of fishery MSME in Mayangan District have sufficient capital to run business so that based on research result, working capital influence to income equal to 0.28. The higher the capital then the income received will increase. This is in accordance with the theory (Riyanto, 2011) that every business requires for business operations that aim to get the maximum profit. In the sales activity that more products are sold obtaining in increased profits. To improve the product being sold, a business must purchase a large quantity of merchandise. For that required additional capital to buy merchandise or pay the operational costs for the purpose of owners of fisheries MSME increasing the profits can be achieved so that income can increase. Furthermore, for the need of capital, it is hoped that coastal communities will establish sharia microfinance institutions, where the laborers is expected to play an active role in the institution (Primyastanto, et al., 2013). So it becomes Community Learning Center (CLC) in order to empowering the coastal communities of Madura Strait.

This study is also in accordance with previous research (Nursandy, 2013), which states that the results showed that together or partially variable capital, significantly influence the income of entrepreneurs in the Sumber Village of Binakal District, Bondowoso.

The business experience (X_2) is significant ($\alpha < 0.01$). Because owners of MSMEs in the coastal of Madura Strait, Probolinggo, Mayangan District is long enough to run the business so that based on the results of research, business experience affecting income of 851.14. The longer the business experience the greater the income. This is in accordance with the theory, which states that the amount of income of a person depends on the amount of time spent working, the longer it will work the greater the income (Nursandy, 2013). The length of the working will determine the size of the income earned. The longer the work period the greater the income will be, because the longer working period is usually more experience. Besides, with the business experience, the entrepreneurship spirit is increasing so that it can change the habit in the business, it will increase the productivity as well as the income of the coastal community (Primyastanto et al., 2014a).

This study is also in accordance with previous research (Wardhana, 2014) which states that the variables of business experience and working hours affect the income of the craftsmen simultaneously or partially with a significance value of each of 0.000 and 0001.

Working hours (X_3) is significant ($\alpha < 0.01$) because the owners of MSME in coastal of Madura Strait, Probolinggo, Mayangan District have long working hours so that based on the results of research, work hours affect the income of 3077. 83. The increase in working hours is increasing income of business owners. This is in accordance with the theory (Tarmizi, 2009), which states that any increase or decrease in break time is a reduction or increase in working time. If the break time increases then the working time decreases and this will impact the income to be reduced. Thus if high income mean the price of a break is also high then there will be substitution between break and work hours, this will cause the time to work increased. The

increasing of work hours causes the outpouring of work increase, thus increasing incomes (Primyastanto et al, 2015).

According to Suyitman (2014), there is an initial supply curve rising to the upper right, but after a certain point, it turning to the left, usually a supply curve of this form is the supply curve of highly educated and high-income people. Up to a certain salary level, the number of offered working hours is steadily increasing, as with larger salaries, people are getting more active. But through a certain point (a certain level of salary is high enough) people feel no longer need to work too long.

From the analysis we can see that the working hour variable (X_3) shows a positive value (in line with the dependent variable). That is because business owners are still in the stage of offering manpower, business owners still want a larger salary, a certain level of high salary has not been achieved, the curve still continues to climb upwards, has not experienced the point of backward bending supply curve. The working hours of MSMEs in coastal fisheries will increase with the event of the sea harvest held once a year as the local wisdom that prevailed in the community (Primyastanto et al., 2014b).

The results of this study are also in accordance with previous research that is research (Firdausa, 2012), states that working hours affect the income of trade partially or simultaneously with a significance value of 0.000.

Education level (X_4) is significant ($\alpha < 0.01$). Because business owners have a high level of education so that based on the results of research, variables of education level affects the income of business owners of 178.49. The higher the level of education the income received increases. This is in accordance with the theory (Sukirno, 2013) the higher labour education, higher income he gets, because education enhances the ability of work and further work ability to increase productivity (Primyastanto et al. 2014c).

This research is also in accordance with previous research (Wulandari, 2015), which states that education has a significant influence on the income of MSME of Sentra Ceramics Industry Village Dinoyo Malang. This variable becomes a factor in determining the ability of entrepreneurs from the managerial side in managing their business.

And for dummy variable (D_1) significant ($\alpha < 0.01$). Dummy variable here to distinguish the effect of MSME characteristics on income variable. From the analysis it can be seen that small and medium enterprises influence the bigger income 2452.62 than micro business. This is in line with the study (Primyastanto, 2016), which states that businesses with greater technological capabilities will generate greater income on purse seine fishing.

The Coeffision of Determination R^2

The coefficient of determination is used to measure how much independent variable consisting of working capital, business experience, working hours, education level and dummy affect the dependent variable (income). The test criteria are as follows:

1. If R^2 approaches 0, then there is no influence of independent variables on the dependent variable.
2. If R^2 is close to 1, then there is influence of independent variable to dependent variable.

The coefficient of multiple determinations (R^2) is 0.92 where the value is close to 1, thus working capital, business experience, working hours, education level and dummy variable have a strong influence on income. The data also shows that the independent variables are able to explain the percentage of contribution to the ups and downs of income by 92% while the

remaining 8% is influenced by other variables outside the research model such as labor and raw materials (Fera et al, 2017).

The Simultaneous Test (F Test)

The simultaneous test (F test) is used to know simultaneously the effect of independent variable consisting of working capital variable (X_1), business experience (X_2), working hours (X_3), education level (X_4) and dummy variable (D_1) to dependent variable (income).

From the test results, contained in Table 1 can be seen that the probability value F arithmetic (F statistics) is 0.000 where the value is smaller than α ($0.00 < 0.01$). It can be said that the independent variables consisting of working capital (X_1), business experience (X_2), working hours (X_3), education level (X_4) and dummy variables (D_1) simultaneously affect the dependent variable (income) of 77.26 on level of significance or truth level of 99%.

Partial Test (t Test)

Partial test (t test) is used to find out partially the effect of independent variable consisting of working capital (X_1), business experience (X_2), working hours (X_3), education level (X_4) and dummy variable (D_1) to dependent variable (income). The test criteria for t test are:

1. If the probability value $t < 0.01$ means there is a significant influence between independent variables on the dependent variable.
2. If the probability value $t > 0.01$, means there is no significant influence between each independent variable to the dependent variable.

From the test results contained in Table 1, it can be seen that the value of p-value of t-test for working capital variable (X_1) is 0.000 where the value is smaller than 0.01 and from the table it can be seen also that the t-statistic value is 8,292, and regression coefficient value of 0.28, thus it can be said that the working capital variable (X_1) affects the dependent variable of 0.28 with the level of significance or truth level of 99%.

From the test results can be seen that the value of p-value of t-test for business experience variables (X_2) is 0.0001 where the value is smaller than 0.01 and from the table can be known also that the value of t-statistics is 4.503, and regression coefficient value 851.14. So it can be said that the business experience variable (X_2) affects the dependent variable of 851.14 with the level of significance or truth level of 99%.

From the test results can be seen that the value of p-value of t-test for the working hour variable (X_3) is 0.0006 where the value is smaller than 0.01 and from the table can be known also that the value of t-statistics is 3.880, regression coefficient value 3077.83 Sehingga it is said that the working hour variable (X_3) affects the dependent variable of 3077.83 with the level of significance or truth level of 99%.

From the test results can be seen that the value of p-value of t test for education level variables (X_4) is 0.00013 where the value is smaller than 0.01 ($0.00013 < 0.01$) and it can be seen also that the value of t-statistics is 3.574, and coefficient value regression 178.49 so it can be concluded that the education level variable (X_4) affects the dependent variable of 178.49 with a significance level of 99%.

From the test results it can be seen that the value of p-value t test for dummy variable (D_1) where this dummy variable to distinguish the category of MSME is 0.0009, the value is

smaller than 0.01 ($0.0009 < 0.01$). And it can be seen also that the t-statistic value is 3,723, and the regression coefficient value is 2452.62 it can be said that dummy variable (D_1) affects the dependent variable of 2452.62 with the level of significance or truth level of 99%.

CONCLUSION AND RECOMENDATION

Conclusion

From the results of testing the classical assumption known that the research data meet the classical assumption test. The regression equation in this research: $Y = -12279.64 + 0.28X_1 + 851.14X_2 + 3077.83X_3 + 178.49X_4 + 2452.62D_1$. The independent variables are working capital, experience; working hours, education and dummy have a positive influence on the dependent variable (income) with F-Count of 77.26 at 99% significance level. Adjusted $R^2 = 92\%$.

The independent variable that most affects the dependent variable of MSME's income is the working capital variable (X_1). Working capital variable affects the income of 8,292 at the level of significance 99%. Based on the research, it is proposed several things as follows:

1. For the government through a policy to establish micro-economic institutions as a model community learning center (CLC).
2. For MSME try to increase working capital, experience, working hours, education level to increase MSME income level.
3. For education and research institutions to conduct further research on short and long term business performance, as well as other outside variables (working capital, experience, working hours, education level).

Recommendation

For the government to provide cooling machine assistance to fresh fish commodities, and fish cooking cabinets for smoked fish commodities. For business owners to increase working capital, experience, working hours and education level. For Higher Education Institutions conducts research and guidance on existing MSMEs in order to establish a micro finance institution, as a form of CLC model.

From the analysis it can be seen that the lowest working capital value is found in the commodities of crispy fish and smoked fish. Therefore the government should provide assistance in the form of capital and counselling of small and medium enterprises in fisheries, especially on the commodity of crispy fish and smoked fish.

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