

## CHAPTER III

### DATA AND METHODOLOGY

#### 3.1 Research Site

Based on the research objectives to be achieved, the location of the place in this study is MSMEs in Bandarlampung City.

#### 3.2 Sources Data

Sources of data in this study are::

##### A. Primary Data

The data in this study are primary data. According to Sugiyono (2019: 194) Primary data is data obtained through interviews or filling out questionnaires, which means that this data source directly provides data to researchers. Primary data was carried out through a survey method with a questionnaire containing respondents' statements in answering questionnaires related to the independent variable (Crowdfunding and Digital Payments) and the dependent variable (MSME Development). The primary data in this study was a questionnaire given and filled out by MSME actors regarding Financial Technology and MSME development in Bandarlampung City.

##### B. Secondary Data

According to Sugiyono (2018:456) secondary data are data sources that do not directly provide data to data collectors, for example through other people or through documents. In this study, the authors obtained data from libraries, library books and secondary data obtained from documents in agencies related to the problem. Data obtained from institutions or agencies, namely the Office of Cooperatives, Small and Medium Enterprises. The data is data on the number of SMEs in Bandar Lampung City.

### **3.3 Population and Sample**

#### **3.3.1 Population**

The population is part of the abstraction which includes: objects/subjects that have special values and characters chosen by researchers to study and then draw conclusions (Sugiyono, 2014). Population is not just the number of objects/subjects studied, but includes all the characteristics/properties possessed by the subject or object. The population contained in this study are those registered with the Department of Cooperatives and SMEs in Bandarlampung City.

#### **3.3.2 Sample**

The sample according to (Sugiyono, 2012) is part of the number and characteristics possessed by a population. The purpose of determining the sample is to obtain information about the object of research by observing only part of the population, an editorial on the number of research objects. With this sample, the research process will be easier and simpler.

The determination of the criteria for SMEs in sampling in this study are:

1. MSMEs who operation in Bandarlampung City and are still active in running their business.
2. The MSMEs sampled were 5 per sub-district in Bandarlampung City. There are 20 sub-district in Bandarlampung City which means the number of samples taken is 100.

### **3.4 Data Collection Techniques**

The data collection technique is a system carried out by researchers in order to obtain data in a study. The system used to obtain data, namely:

#### **3.4.1 Questionnaire**

Questionnaire technique is a system of collecting data that is carried out through the system by submitting several recorded problems to respondents so that they can give their responses. (Sugiyono, 2015). The questionnaire is a list of questions that must be filled out or answered by the respondent or the person to be measured. The purpose of preparing the questionnaire is to improve the parts that are not appropriate to be applied

in collecting data on respondents. Questionnaires are instruments or intermediary tools in the form of questions from researchers which are usually addressed to respondents to be answered.

Data collection was obtained directly from MSME actors in Bandar Lampung City, the data collection method used in this study was to distribute online questionnaires to respondents. Respondents will answer the statement items by choosing one of the answer options available in the questionnaire. In the study, a questionnaire was made using closed questions. The measurement of variables uses an interval scale, which is a tool for measuring variables with classification and order values.

The questionnaire system was chosen in this study to get a thorough and direct illustration of the MSMEs. This questionnaire contains questions for MSME actors in Bandar Lampung City related to the influence of fintech on the development of MSMEs.

### **3.5 Research Variables and Operational Definition**

#### **3.5.1 Variabel Dependent**

Variabel The dependent variable is a factor that is influenced or causes the existence of an independent factor (Sugiyono, 2012). In this study the dependent variable is the development of SMEs (Y). The development of MSMEs as success in business can be seen from the increasing number of sales due to the ability of entrepreneurs to seize existing business opportunities, so as to increase business financing.

All statements are measured using a five-point Likert scale, namely:

1=Strongly Disagree, 2=Disagree, 3=Netral, 4=Agree, 5=Strongly Agree.

#### **3.5.2 Variabel independent**

The independent variable is a factor that influences or is the reason for the emergence of a dependent factor (Sugiyono, 2012). The independent variable in this study of Financial Technology are Crowdfunding (X1) and Digital Payment (X2).

Variable independent is often referred to as a predictor which is denoted by X. The independent variables in this study are:

1. Crowdfunding is a form of funding for those who need funds to develop their business, where the funding is collected from several people
2. Digital Payment is Fintech digital payment firms offer online transaction payment services to make the process more convenient, quick, and affordable.

All statements are measured using a five-point Likert scale, namely: 1=Strongly Disagree, 2=Disagree, 3=Netral, 4=Agree, 5=Strongly Agree.

### 3.5.3 Operational Definition

The following is the operational definition of the variables used in the study by drawing conclusions from the understanding of variables and conditions at the research site, namely:

**Table 3.1 Operationalisation of Variable**

<b>Variabel</b>	<b>Definition</b>	<b>Indicator</b>	<b>Measuring Scale</b>
MSME Development (Y)	Micro, Small and Medium Enterprises in Bandarlampung City are developing very well and are now not only loved by parents but also young women as side jobs.	<ul style="list-style-type: none"> <li>• Increase sales turnover.</li> <li>• Increase profit.</li> <li>• Increase total manpower.</li> <li>• Increase opportunity development business.</li> <li>• Fulfilled life necessities.</li> </ul>	Measured through questionnaire with use ordinal scale
Crowdfunding (X1)	This fintech connects lenders (investors) and	<ul style="list-style-type: none"> <li>• Applications are made online.</li> <li>• Competitive</li> </ul>	Measured through questionnaire

	borrowers on a single platform.	<p>Interest Rates.</p> <ul style="list-style-type: none"> <li>• Easy, Short, and Safe Process.</li> <li>• Capital loan sufficient capital requirements.</li> </ul>	with use ordinal scale
Digital Payment (X2)	Fintech digital payment firms offer online transaction payment services to make the process more convenient, quick, and affordable.	<ul style="list-style-type: none"> <li>• Help payment effectiveness.</li> <li>• Help continuity business.</li> </ul>	Measured through questionnaire with use ordinal scale

### 3.6 Research Instruments

The research instrument used is a questionnaire with a Likert scale. According to (Sugiyono, 2012) "Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena". In this study using a Likert scale. Likert scale is a measurement scale to measure variables with variable indicators. The researcher uses a 5 Likert scale measurement, because the researcher wants to get a definite answer to the questions presented and so that it is in accordance with the limitations that the researcher wants to obtain. Questions that have been answered by the respondent get a number according to the corresponding answer choices.

**Table 3.2 Likert Scale**

Weights	Categories
5	Strongly Agree
4	Agree
3	Netral
2	Disagree
1	Strongly Disagree

Description of the statement indicators submitted to respondents in the questionnaire are presented in tabular form following:

**Table 3.3 Research Instrument Grid**

Variabel	Statement Item	Statement
<b>Development MSMEs</b>	1	Turnover and sales value for my business increased after getting crowdfunding and using digital payments.
	2	My current operational activities have increased after getting crowdfunding and using digital payments.
	3	My profit increased after getting crowdfunding and using digital payments
	4	I can add workers after obtaining crowdfunding and using digital payments.
	5	I can expand my business or open a branch after obtaining crowdfunding and using digital payments.
	6	My business development is influenced by

		crowdfunding and the use of digital payments.
	7	Crowdfunding and the use of digital payments are factors that increase my business development.
	8	The business development that I want is in accordance with the target.
	9	My economic condition has improved and I am more fulfilling my needs than before.
<b>Crowdfunding</b>	1	The crowdfunding that I use is from outside the business, which is called a loan.
	2	Crowdfunding is influential and beneficial for the sustainability of my business, and helps me in business difficulties.
	3	The amount of crowdfunding that I get is sufficient for my needs and increases my business capital.
	4	Crowdfunding helped me in procuring the business equipment I needed to grow my business.
<b>Digital Payment</b>	1	I use digital payments to make it easier, faster, and increase sales.
	2	There is an increase in income after using digital payments.
	3	Digital payments are influential and useful for the sustainability of my business.

### 3.7 Validity and Reliability Test

#### 3.7.1 Validity Test

According to Sugiyono (2015:71) in (Depiana, 2017), Validity is a tool measure used in measurement, can be used to measure what to measure. An instrument has high validation and vice versa. Valid research results will have similarities between the data collected and the data that actually occurs in the object under study. This test is carried out with a score collection technique, then the score is processed with the Pearson Coefficient Correlation in SPSS with the provision that if the significance value (P Value) is 0.05, then there is no significant relationship. Meanwhile, if the significant value (P Value) is 0.05, then there is a significant relationship.

#### 3.7.2 Reliability Test

Reliability means that it is reliable, which is also, if a measuring instrument is used repeatedly by the same researcher or by other researchers. The function of the reliability test is to know the extent to which the consistency of measuring instruments can provide the same results in measuring the same thing and the same subject. The results of the research can be said to be reliable if there is similarity of data in different times, and also a reliable instrument means an instrument that when used several times to measure the same object will produce the same data. In general, reliability is considered stable and consistent or in a sense already satisfactory if the range  $> 0.6$ .

**Table 3.4 Table Reliability Analysis**

Range	Strength of Association
$\geq 0.9$	Excellent
$\geq 0.8$	Good
$\geq 0.7$	Acceptable
$\geq 0.6$	Questionable
$\geq 0.5$	Poor



*Source: George and Mallery (2003).*

### 3.8 Data Analysis

#### 3.8.1 Multiple Linear Regression

Multiple linear regression analysis with the aim of testing the effect of more than one independent variable on the dependent variable. With multiple regression, it can be seen whether there is an effect of between crowdfunding and digital payments on the development of MSMEs. Multiple regression is used to test the truth of the hypothesis that proposed in this study.

The data analysis used in this research is the analysis of multiple regression. Multiple regression is useful for predicting the effect of two or more predictor variables against one criterion variable or for proves whether or not there is a functional relationship between two variables independent (X) or more with a dependent variable (Y). Regression analysis in this study was used to determine the effect of crowdfunding and digital payments for the development of MSMEs.

Formulation The multiple regression equation itself is as follows:

$$Y = b_0 + b_1X_1 + b_2X_2 + e$$

Note :

Y : MSME Development

$b_0$  : Constants

$b_1X_1$  : The direction number or regression coefficient, which shows the increase or decrease in the dependent variable based on the independent variable (Crowdfunding). If  $b$  (+) then it increases, and if (-) it decreases.

$b_2X_2$  : The direction number or regression coefficient, which shows the increase or decrease in the dependent variable based on the independent variable (Digital Payment). If  $b$  (+) then it increases, and if (-) it decreases.

### **3.9 Classical Assumption Test**

The test tool used is the classical assumption test, namely for find out if there are problems in the regression data. Assumption test classical which is used to measure how the influence of the independent variable on the dependent variable (Y), the researchers used regression analysis to compare two or more variables that can accounted for, then the following assumptions must be met. If the regression data has passed the test in the assumption test.

#### **3.7.1 Normality Test**

The Normality test is in charge of knowing the distribution of data in the variables that will be used in research and should be done before the data is processed based on research models. For To test more accurately, analytical tools and SPSS are needed. The normality of the data can be seen using the Kolmogorov – Smirnov test.

- Kolmogorov-Smirnov test.

This approach ensures that the data along the diagonal line is normally distributed by looking at the residual data whether it is normally distributed or not, with the decision:

- a. If the value of Asymp.Sig. (2-tailed)  $> 0.05$  then the residual data is normally distributed.
- b. If the value of Asymp.Sig. (2-tailed)  $< 0.05$ , then the residual data is not normally distributed.

#### **3.7.2 Multicollinearity Test**

The multicollinearity test aims to determine the existence of a perfect linear relationship between the independent variables in the regression model. To determine the presence or absence of multicollinearity symptoms, it can be seen from the value of the Tolerance and Variance Inflation Factor (VIF) through the SPSS program. According to (Situmorang & Lutfi, 2010), the common values that commonly used:

- a. Tolerance value  $< 0.1$  or VIF  $> 10$  (multicollinearity occurs).
- b. Tolerance value  $> 0.1$  or VIF  $< 10$  (no multicollinearity occurs).

### **3.8 Hypothesis Test**

#### **3.8.1 Partially (t -Test)**

Partial test (t-test) is used to understand whether the independent variable as a whole seems to have a significant effect or the dependent variable is not visible (Priyatno, 2012). Namely Crowdfunding (X1) and Digital Payment (X2) whether or not there is a positive and significant influence on the dependent variable, namely the development of MSMEs (Y) partially in the t test using SPSS with a specified significance level of 5% :

1. If the significance number is  $> 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, or the independent variable has no effect between the variables being tested.
2. If the significance value is  $< 0.05$ , then  $H_0$  is rejected and  $H_a$  is accepted, or the independent variable has an influence between the variables being tested.

#### **3.8.2 Simultaneous (F-test)**

The F test or Simultaneous test is the initial stage in identifying the estimated regression model as feasible or not. Which is used to explain the effect of independent variables on the dependent variable. The name of this test is called the F test because it follows the F distribution whose test criteria are like One Way ANOVA. F test is used to test the effect of variables using statistical hypotheses. Decision making is based on the probability value obtained from the results of data processing through the following SPSS program:

If probability  $< 0.05$  then  $H_0$  is rejected

If the probability  $> 0.05$  then  $H_0$  is accepted

The decision-making criteria for the proposed hypothesis are:

If  $F_{count} > F_{table}$  then  $H_0$  is rejected and  $H_a$  is accepted (significant)

If  $F_{count} < F_{table}$  then  $H_0$  is accepted and  $H_a$  is rejected (not significant).

#### **3.8.3 Coefficient of Determination ( $R^2$ )**

The coefficient of determination test aims to measure how far the model's ability to explain the variation of the dependent variable (Ghozali, 2016).

If the coefficient of determination  $R^2 = 0$ , it means that the independent variable has no effect at all (= 0%) on the dependent variable. On the other hand, if the coefficient of determination  $R^2 = 1$ , it means that the related variable is 100% affected by the independent variable. The location of  $R^2$  is in the interval between 0 and 1, algebraically expressed as  $0 \leq R^2 \leq 1$ . The magnitude of the coefficient of determination of the dependent variable can be known from the coefficient scoretable. partially independent variables on the partial correlation or quadratic correlation of the coefficient of determination simultaneously obtained from the magnitude of  $R^2$  or adjusted R square. A small adjusted R square value means that the proficiency of the independent variables in explaining the dependent variable is very limited.