

CHAPTER III

RESEARCH METHODS

A. Types of Research

Regarding to the background, formulation of the problem and the theories have been described previously, the type of research used in this research is descriptive research with quantitative approach. This research will conducted by collecting data and information about the company that will be the object of research. Descriptive research is research that only limits on effort reveals a fact that the results are focused on providing an objective picture of the actual condition of the object under study without doing the testing of hypotheses and make comparisons or to connect other variables. According to Cooper and Schindler (2001:261) the definition of descriptive research are as follows:

“Descriptive study is attempts to describe or define a subject, often by creating a profile of a group of problems, people, or events, through the collection of data and the tabulation of the frequencies on the research variables or their interaction; the study reveals who, what, when, where, or how much; the uni-variate concerns a question or hypothesis in which the which research asks about or states something about the size, form, distribution or existence of a variable”.

According to Cooper & Schindler (2006: 331) definition of quantitative research are as follows

“Quantitative research is used to determine exact figures and facts; it is also used to answer questions such as "how much, how often, how many, when, and who. Quantitative research is characterized by the use of facts and statistics to answer questions pertaining to how, who, and when. These types of research differ, but they are both widely used”.

Processing the data in this study by classifying, calculating, comparing, analyzing existing data, using the aid ratios, or the balance between a certain number of units using the numbers count, and then processed based on a formula or formulas appropriate in the data analysis.

Descriptive study using a quantitative approach is the right kind of research because of the researcher only gives a description on the condition in PT Indocement Tunggal Prakarsa Tbk. as the object of research through effective working capital management to achieve improved profitability, so it can be made a policy appropriate for the future. In addition, this type of research allows the researcher to understand what sub-topics to be done, so it can process the data, describing and explaining what has been observed from this study.

B. Research Focus

The focus of research aimed at restricting the study and provides research directions, so that the object under study is not very widespread. According to Moleong (2009: 97) there are specific purposes to be achieved in establishing the focus; the first determination of focus may limit the study. Second, the determination of this focus serves to meet the criteria to enter and remove a newly acquired information field.

Based on the description above, so the research focuses are:

1. Financial Ratios Analysis

The calculation of financial ratios has purpose to assess financial performance and status of a company. Ratios analyzed are:

- a. Liquidity Ratio. The calculation of liquidity ratio include net working capital, current ratio, quick ratio, and cash ratio.
 - b. Activity Ratio. The calculation of activity ratio include asset turnover, inventory turnover, account receivable turnover and fixed assets turnover ratio.
 - c. Profitability Ratio. The calculation of profitability ratio include gross profit margin, operating profit margin, return on investment, return on assets, and return on equity.
 - d. Financial (leverage) Ratio. The calculation of financial (leverage) ratio are include debt ratio.
2. Statement of changes in working capital from the period 2009 - 2011
Statement of changes in capital is a summary of the results of a company's financial activities in a particular period and presents the causes of changes in financial position of the company. The report analyzed the changes in capital from the period of 2009 until 2011.
 3. Analysis of projected financial statements
Analysis of projected financial statements obtained from the projected financial statements of the company which is a projection or estimate of the financial condition and results of operations for next year, precisely for the period of 2012.

C. Research Location

Research location is a place where researchers captured the real conditions of the object under study. The researcher choose PT Indocement Tunggal Prakarsa Tbk. as the object of research which already registered in Bursa Efek Indonesia (BEI). The researcher collect the data from Pojok Bursa Efek Indonesia (BEI) in Economic Faculty, Brawijaya University where placed in Jalan MT. Haryono 65 Malang.

The reason for choosing the PT Indocement Tunggal Prakarsa Tbk. as objects of research because of this company is one of the largest cement companies in Indonesia, moreover it maintains 3 world-class cement factories that produce quality cement products in Indonesia. PT Indocement Tunggal Prakarsa Tbk. has head office in Wisma Indocement, Lantai 8 Jl. Jenderal Sudirman Kav. 70 - 71 Jakarta 12910, Indonesia. Furthermore, the operations are spread over 3 factories in Bogor, Cirebon and Kotabaru. Regarding on the explanation above, it is really important to determine the size of working capital in order to make good performance for their business.

D. Data Source

This research requires the ability to analyze and interpret the data well; it would require an accurate and systematic data to the results obtained were able to describe the situation properly the object under study. In this research, PT Indocement Tunggal Prakarsa Tbk. is used secondary data as the data source. In

this research, secondary data obtained in the form of filing financial statements of the company.

“A secondary source is one that summarized information from primary sources (such as presenting the basic findings). Secondary sources of research include review of papers and theoretical articles that briefly describe studies and results, as well as descriptions of research found in textbooks, popular magazines, newspaper articles, television programs, films, or lectures” Bordens and Abbott (2005:61).

The other description about secondary data by Kumar (2010:139) “The use of secondary data is to obtain information and the collection of data from sources such as articles, journal, magazines, books, and periodicals to obtain historical and other types of information, are classified as secondary sources”.

E. Data Collection Techniques

Data collection techniques has important role in a research. Data collection techniques is a technique that is used to collect empirical research data (Tashakkori and Teddlie, 2003:298). Data collection techniques used in this study using a technique which is the documentation of data collection techniques by studying, classifying, and using the data in the form of relevant company records and financial statements relating to the research. Data collections techniques carried out by the researcher is documentation. According to Moleong (2009:216), “Documentation technique is written material or film, other term of record, that are not prepared because the requirement from investigator”.

Document that are collected that relates to this research are the organizational structure and financial report of PT Indocement Tungal Prakarsa Tbk.

F. Research Instruments

Research instruments is important in any research, because the research become more systematic and efficient . According to Kumar (2010:165), “The construction of a research instrument is the most important aspect of any research as it determines the nature and quality of the information.”

Instrument that used by researcher in this research is documentation guidelines. Documentation orientation is a tool that used in form of documents related to researched problem. Researcher use official documents from PT Indocement Tunggal Prakarsa Tbk. In accordance with the issues under study.

G. Technique Data Analysis

According to Cooper and Schindler (2001:760), definition of data and data analysis are as follows:

“Data is facts (attitudes, behavior, motivations, etc) collected from respondents or observations (mechanical or direct) plus published information; categorized as primary and secondary. Data analysis is editing and reducing accumulated data to a manageable size, developing summaries, looking for pattern, and applying statistical techniques”.

According to Moleong (2002:103) explains that data analysis is the process of sequence data set, organize into pattern, categories, and base unit description”.

Data analysis in this study using a quantitative approach to calculating, comparing and analyzing existing data using the help of ratios or comparison between a certain numbers of units of matter. The steps in data analysis are as follows:

1. Collecting and classify the data financial reports PT Indocement Tunggal Prakarsa Tbk. form of income statements and balance sheets 2009-2011 period
2. Prepare statement of changes in working capital
3. Prepare reports sources and uses of working capital
4. Conducting research on working capital management company with financial ratio analysis for three periods.

Ratios are used, among others:

- a. Liquidity Ratio. The calculation of liquidity ratio include net working capital, current ratio, quick ratio, and cash ratio.

- 1) Net Working Capital

$$\text{Net working capital} = \text{current assets} - \text{current liabilities}$$

- 2) Current Ratio

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

- 3) Quick Ratio

$$\text{Quick Ratio} = \frac{\text{Current assets} - \text{inventory}}{\text{Current Liabilities}}$$

- 4) Cash Ratio

$$\text{cash ratio} = \frac{\text{Cash and Cash Equivalents} + \text{Marketable Securities}}{\text{Current Liabilities}}$$

- b. Activity Ratio. The calculation of activity ratio include asset turnover, inventory turnover, average day inventory, account receivable turnover, average collection period and working capital turnover.

1) Asset Turnover

$$\text{Asset turnover ratio} = \frac{\text{Sales}}{\text{Total assets}}$$

2) Inventory Turnover

$$\text{Inventory turnover} = \frac{\text{cost of good sold}}{\text{inventories}}$$

3) Average Day Inventory

$$\text{Average Day Inventory} = \frac{\text{inventories} \times 360}{\text{cost of good sold}}$$

4) Account Receivable Turnover

$$\text{Account Receivable Turnover} = \frac{\text{Sales}}{\text{Average Account Receivable}}$$

5) Average Collection Period

$$\text{Average collection period} = \frac{\text{Average Account receivables} \times 360}{\text{Sales}}$$

6) Working Capital Turnover

$$\text{Working capital turnover} = \frac{\text{Sales}}{\text{current asset} - \text{current liabilities}}$$

c. Profitability Ratio. The calculation of profitability ratio include gross margin, net profit margin, Return on Investment, Return on Assets, and Return on Equity.

1) Gross Margin

$$\text{Gross Margin} = \frac{\text{Gross Margin}}{\text{Revenues}}$$

2) Profit Margin

$$\text{Operating Profit Margin} = \frac{\text{net income}}{\text{net sales}}$$

3) Return on Investment

$$ROI = \frac{\text{Net income}}{\text{Total assets}}$$

4) Return on Equity

$$ROE = \frac{\text{Net income}}{\text{Stockholder's equity}}$$

5) Return on Assets

$$ROA = \frac{\text{Earning Before Interest After Tax (EBIAT)}}{\text{Total assets}}$$

d. Financial (leverage) ratio

1) Debt Ratio

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

5. Conduct analysis of the effectiveness of working capital
6. Calculate financial projections for the next year, using;
 - a. Estimated sales based on increasing sales last year,
 - b. Estimated budget and preparation of cash balances
7. Analyzing projected financial statements with the financial ratios.