

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

Research methodology entails a step-by-step approach on how a research work will be conducted in terms of design, population, sampling technique, data collection technique, data analysis, and statistical research tools to be adopted.

#### **3.1. Research Design**

Research design is said to be plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis Crewell, 2003(113). Research design is the first step in research that provides the required blueprint for the conduct of the whole research.

This research combines qualitative and quantitative methods, because it shall seek to explain the context of the matter under study in terms of how and why it occurs and at the other hand, prefigured information to be gotten from financial statements and other sources. This is in tandem with the views expressed by Cassel, Symon, 2004(114). This study is also exploratory because it provides an in-depth investigation on the users' perception of importance of financial statements and stock price movement in making investment decisions.

#### **3.2. Population**

A research population is usually a large collection of individuals or objects which is the focus of a study. This sometimes is regarded as the universe or the entire number of objects related to the subject under study. Kothari, 2004(115) defines population of a study as all items in any field of inquiry and is also known as the 'universe' of the researcher. The population of this study comprises of the fourteen automobile companies listed in BSE/NSE in India and fourteen listed in the Tokyo Stock Exchange, all of which are original equipment manufacturers (OEM).

#### **3.3. Sample and Sampling Techniques**

The sample size of this study is ten automobile companies selected from capital markets of two different countries. They are two giant automobile manufacturing countries in Asia; India and Japan. Five automobile companies are selected from each country. The selection are done on the

basis of market capitalization, and production output, being the five top most auto manufacturing companies in each country. More so, the end products of the companies are the same and this makes comparison easier among the companies and between countries.

### **3.4. Scope of the study**

Sample size: the study concentrates on listed original equipment manufacturing (OEM) companies in the automobile sector of Japan and India for analyzing the financial statements and stock price movements to help investors in making investment decisions. The study covers ten automobile companies; five automobile companies of Japan and five automobile companies of India as to determine whether to invest in the sector or not. The list of the companies is shown on table 3.1 below:

**Table 3.1 List of automobile companies selected for the study**

	<b>List of Automobile companies in India</b>	<b>List of Automobile companies in Japan</b>
1	ASHOK LEYLAND LIMITED	HONDA MOTOR CORPORATION
2	EICHER MOTORS LIMITED	MAZDA MOTOR CORPORATION
3	MAHINDRA & MAHINDRA	NISSAN MOTOR COMPANY LIMITED
4	MARUTI SUZUKI INDIA LIMITED	SUZUKI MOTOR CORPORATION
5	TATA MOTORS LIMITED	TOYOTA MOTOR CORPORATION

### **3.5. Time Frame**

The study covers the time period from 2004-2005 to 2014-2015.

### **3.6. Data Collection**

Data for this research are collected from secondary sources. The data for financial performance analysis are mainly from published annual reports of the selected companies; and for stock performance, the data are from daily and weekly information of stock price movements on the

capital market in respect of the selected companies. The published annual reports are sourced from the official websites of the ten selected automobile companies for the study. The internet is also consulted for information regarding activities at the chosen stock exchanges of India and Japan.

### **3.7. Research Gaps**

In the researcher's study of existing literatures on the subject matter, the researcher was able to identify some missing links in them, hence the following identified gaps that necessitated this study:

1. Earlier studies were focused on developed countries and for periods 2011 and above;
2. There are no studies to best of our knowledge that compared automobile manufacturers outside India to the automobile manufactures in India.

### **3.8. Need and significance of the study**

Investment decision is crucial and involves huge amount of funds which requires careful thought and calculations; this is to avoid investing in assets that will not pay back. Financial statements users need to analyze the figures and other information of financial statements and give accurate interpretation of them so that informed decisions about a firm could be taken. And activities at the capital markets are used for technical analysis. Among the important users of the financial statements are investors. When investors are exposed to adequate and reliable information, they are most likely to take informed decisions. The need for the study is to enable investors make informed investment decisions based on available figures as a result of computations made of accounting numbers and stock performance in the capital market. Result of the study will guide investors to choose among the selected automobile companies the best one to invest, considering the risks, returns, future expected trend, strength and weaknesses. This will motivate investors to invest or discourage investors from investing in the automobile sector.

The study is, therefore, significant in several ways:

It will guide investors in making their investment decision, which will be helpful in making financial decisions.

It will also be useful in policy formulation by those countries that may want to establish automobile sector.

And because automobile sector plays a pivotal role in economic development of a nation, countries will make policies that will favor the establishment and expansion of the automobile sector.

The study will enable us understand the importance of undertaking financial and stock market performance analysis before deciding on making investments.

The study will be useful in guiding us make comparison between Indian automobile sector and the one of Japan.

And will also update data on the subject matter.

### **3.9. Data Analysis**

Data collected for this research is from financial statements and other sources that are analyzed for proper understanding of the result of the research. The data are organized in most convenient form using tables, graphs and charts to explain the data. The published financial statements do not always convey to the reader the real significance of the results and health of business unless they are analyzed and interpreted. In order to make financial statements more meaningful, they are analyzed and interpreted. We have chosen ratio as a tool to analyze financial statements and technical analysis to analyze stock price movements.

Ratio Analysis: Investors are interested in basic information relating to profitability and returns; so specifically, the following financial ratios have been calculated and analyzed to serve the objective of this research: Liquidity, Leverage, Profitability, efficiency. This enables the researcher to determine the financial performance of the various companies.

Technical Analysis: Stock performance analysis is done by use of technical analysis in which price movement of stock at the capital market is monitored over a period, and analysis is made using tables, graphs, charts and by means of moving averages.

### **3.10 Statistical tools and Techniques**

The major tools for analysis are ratios and technical analysis. To continue the process of analysis and interpretation, other statistical tools are used such as percentages, mean, standard deviation and coefficient of variance, computed by use of SPSS tool version