

CHAPTER THREE: METHODOLOGY

3.1 Research Methodology

Research methodology acts as the back bone of the analysis. Focus upon the research methodology empowers to establish a valuable research in the given time span (Kumar, 2019). This research investigates upon the methodology of the impact of multiples on stock returns and validity. This research is based on the empirical analysis of PSX. For that purpose, the research approach is discussed in this chapter along with the research philosophy. Afterward, the adopted research design is also determined. Furthermore, strategy of the research is also explained.

In addition to that, the chapter of research methodology also explains the methods which were adopted in order to collect data. Moreover, the analysis used in this research for the data gathered is also deliberated. Ethical consideration and research limitations, which were faced by the researcher, were also identified as they were the main challenges faced during data collection and analysis. At the end of this chapter, a chapter summary is given which summarises and highlights the significant factors as well as aspects examined in this chapter.

3.2 Research Philosophy

Research philosophy can be explained as the philosophical perspective through which a research is conducted. In other words, it is a set of belief and idea which empowers the researcher to complete the research by attaining the aims of the study. Research philosophy can be classified into three broad categories which are pragmatism, interpretivism, and positivism (Saunders et al., 2015). Positivism deals with the statistics and collection of numbers that are analysed by the appropriate tool. In addition to that, pragmatism focuses upon the philosophy and the psychological conditions. Along with that, interpretivism talks about both statistics and

collection of numbers as well as concentrates upon the philosophy and the psychological conditions (Quinlan et al., 2019).

As the statistics and collection of numbers that are analysed in this study therefore, positivism research philosophy is adopted by the investigator. It enabled the investigator to effectively and efficiently investigate the influence of equity multiples on stock returns along with this, it also allowed the researcher to examine upon the affiliation between the risk, stock returns, and equity multiples. Positivism authorised the researcher to construct a well-defined layout of the study which was obeyed throughout the research.

3.3 Research Approach

The perspective of the study is the set of methods opted by the researcher in order to complete the analysis commendably and competently. It is considered as the building block of the research as it determines the most effective approach for the research and therefore, complete research is conducted according to the approach selected (Sekaran and Bougie, 2016). That is why; it is suggested to select the most applicable research approach. According to the study proposed by Jackson (2015), which determines and states that there are two different types of findings approaches such as Inductive and deductive. With the help of inductive approach, a new theory is established whereas; deductive approach is implemented when a theory is tested.

In this research, the deductive approach is implemented because the impact of equity multiples on stock returns as well as volatility is determined which means that theory is tested and analysed. The deductive approach helped the researcher to gain a clear answer to the problem of the study. Along with that, this approach also empowered the investigator to evaluate the connection between the independent and dependent variables of the study.

3.4 Research Strategy

Research strategy can be defined as the set of policies and tactics which are followed by the researcher to establish a valuable research within the given time span. It is a plan of action shadowed in order to collect the relevant data and analyse it efficiently. The nature of the proposed theme of the research helps to establish the relevant research strategy. The strategy of the research is divided into seven broad subdivisions which are experimental research, case study, action research, grounded theory, surveys and ethnography along with archival findings (Chatterji et al., 2016). As this research is quantitative in nature as well as focuses upon the gathering of data and statistical information therefore, the findings strategy adopted for this study is experimental research. Experimental research includes the examination and analyses of the results.

3.5 Research Design

Research design can be referred to as the pattern of the research which is followed in order to keep the study aligned and focused upon the aims generated. In other words, the design of the research also helps to solve the research problem effectively and efficiently. The two subdivisions of research design are qualitative and quantitative. This has been argued by many researchers that qualitative research focuses upon the observation as well as to gather descriptive information whereas; quantitative design empowers the researcher to extract statistical information from various sources (Edmonds and Kennedy, 2016).

In this research, quantitative design is selected because the motive behind the study was to depict the factors that have an impact on the stock returns as well as analyse the relationship between the risk, stock returns, and equity multiples. With the help of quantitative research, the impact of equity multiples on volatility as well as on stock returns are analysed in PSX.

3.6 Data Collection Method

Approaches which are used to collect data from the sources with the motive to complete the study meritoriously and capably within the given time span is considered as the data collection methods. This section of the chapter explains the sources adopted by the analyst in order to gather the data. Furthermore, data can be collected by utilizing two basic sources which are primary and secondary. Primary sources are used to develop a new theory (Walliman, 2017). In other words, primary sources help to develop first-hand information which is never used by any other investigator.

On the other hand, secondary sources are used to test a theory. In other words, secondary sources analyses the second-hand information which is developed and used by any other investigator (Hair et al., 2015). As this research is quantitative in nature and the motive behind this research is to analyse the features that have an impact on the stock returns and examine the association between the risk, stock returns, and equity multiples therefore, secondary data was collected from. In addition to that, this research also focuses upon the impact of equity multiples on volatility as well as on stock returns are studied in the context of PSX.

Therefore, the secondary research design is used to extract the data from sources which includes websites such as Morningstar and Yahoo finance. Some of the data linked with equity multiples, stock returns as well as stock volatility were extracted from the aforementioned websites. Furthermore, 46 companies listed on PSX are used to obtain data. Those 46 companies are Indus Motor companies are Atlas battery limited, Ferozsons Laboratories Limited, Attock refinery limited, Lucky cement, Engro foods, Hub power company, GlaxoSmithKline Pakistan, National foods limited along with that Mitchells.

This can be determined that no financial company has been selected in order to extract the data whereas; the data is extracted from the manufacturing companies that are listed on PSX. Furthermore, for equity multiples, the data is extracted from years 2009 to 2008. This has been analysed in the previous chapter that the independent variable in this study is equity multiple and dependent variable stock returns and stock volatility.

3.7 Data Analysis Techniques

The data research technique is the strategy and practise which is used by the researcher in order to analyse the data. Analysis of the data plays an important role because the results of the study depend upon the analysis tools which are adopted by the researcher. That is why, it is essential for the investigator to adopt the most applicable and relevant technique to examine the data gathered. There are various techniques which are used to analyse data such as regression, co-relation, and frequency analysis, panel least square regression, thematic and content analysis (Castagnetti, Rossi and Trapani, 2015).

In this research, data were obtained from 46 manufacturing companies which are listed on PSX. In addition to that, for equity multiples, the data was extracted from years 2009 to 2008. Therefore, the analysis of the data was conducted using stable and non-specific effects testing. Whilst to decide which model was the most appropriate one, the researcher used Hausman testing in E-Views. These analysis tools empowered the researcher to efficiently examine the data and developed accurate output.

3.8 Ethical Consideration

Ethical considerations are the principles, rules, and norms that a researcher must follow in order to perform an implicit and efficient research. Ethical considerations enable the researcher to increase the worth of the research. On the other side, they also help the investigator

to develop research in such a way that it is accepted all over the world. Many researchers argue that investigator who does not follow the norms of ethical considerations tends to develop inefficient research and their research is not accepted globally. That is why it is imperative for the individual conducting the research to follow the rules of ethical consideration while conducting the study (Swain, 2016).

In order to establish a valuable analysis, the analyst has efficiently followed the rules of ethical consideration. For that purpose, the information extracted from reports of the companies which are helpful for attaining reliable data. The meaning of the data extracted is not changed and maintains its original essence. The data is extracted from secondary resources are honestly cited and referred. This empowered the researcher to enlarge the accuracy of the research as well as develop an efficient research study

3.9 Research Limitations

Restriction of the research are the barriers and issues faced by the researcher while conducting the research. In this research, many obstacles were such as collection and analyses of data was time consuming and required full concentration. Moreover, very limited time was given to the analyst in order to complete the research. But researcher competently tackled all the restrictions in order to conduct valuable research.

3.10 Chapter Summary

This can be concluded that basic aim behind the study was to conceptualise the equity multiples, stock volatility as well as stock returns. In addition to that, the motive behind this research also included recognition of the factors that have an impact on the stock returns. Along with that, inspection of the relationship between the independent and dependent variables of the study is also the mission of this research study. Moreover, the affect of multiples on stock returns

and validity is also studied in this research. Therefore, the research philosophy used in this study was positivism because the nature of the research is quantitative.

Furthermore, the research approach adopted in this research is a deductive approach. The deductive approach is implemented because the impact of equity multiples on stock returns and volatility was determined in this study. Along with that, it also helped to test and analyse the theory. That is why; the research strategy adopted in this research is experimental. In addition to that, the research design implemented in this analysis is quantitative and the data is gathered by using the secondary data collection method.

For that purpose, Morningstar and Yahoo finance websites are used to extract data. Moreover, 46 manufacturing companies are used to obtain data which are Indus Motor companies are Atlas battery limited, Ferozsons Laboratories Limited, Attock refinery limited, Lucky cement, Engro foods, Hub power company, GlaxoSmithKline Pakistan, National foods limited along with that Mitchells. The data was analysed by implementing fixed and random effects testing whilst, Hausman testing in E-Views was also used to decide the most appropriate model.