

Chapter 3 Methodology

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CHAPTER 3 Methodology

3.1 Introduction

This is a dissertation chapter that will shed light on the methodology that the research activity employs in the manipulation of various elements used to gather information intended for providing solution to the problem in question. Indeed, the chapter focuses on explaining the various elements facing the sample region of study. In particular, the research paper at this juncture focuses on the on the various means employed to unveil the destiny of the paper with a view to unveiling the aspects of target of the paper with respect to research question under which the problem revolves around. To achieve the core objective of the paper, this section therefore employs a well-defined which provides a clear excavation procedure prior to the acquisition of the information needed. In this regard, the various sources are explored in depth in order to provide a base for understanding the various aspects of the problem in question and therefore a solution to the problem.

There are various discrete approaches that are used towards across the entire process namely: qualitative and quantitative approaches. The quantitative approach is mode of carrying out research based on the responses from the individual respondents or the feedbacks from the particular sources. Indeed, the team of researchers undertaking the study then synthesizes the information given to deliver a conclusive opinion based remark that further contributes to the solution of the research problem. This implies that the researcher can be influential to the outcome of the research depending on where their opinion focuses. In essence the research methodology provides a systematic process that a researcher employs in order to solve the research problem (Mustafa, 2010).

Indeed, the methodology represents a scientific study of the manner in which the research is done. In the methodology chapter, the research analysis the various steps that the research adopts with a view to analyze the problem alongside the logistics involved. In this section, the researcher develops particular indices on the calculation of various conclusive parameters such as modes, means as well as the chi-square. In line with this, the researcher puts particular consideration on the assumptions accruing to techniques and criteria used in the adoption of a given conclusive remark. This therefore explains the importance of developing a comprehensive methodology. The research methodology therefore takes into account of various dimensions encompassing the logistics involved (Mustafa, 2010).

The research methodology therefore gives a clear outline of the mode in which the research was carried out and therefore makes it easy for the evaluation of the results from the research by the researcher himself or other interested partners. Indeed, it helps answer certain questions as to why the research was carried out, the definition of the research problem as well as the reason for the formulation of the hypotheses. Besides this, this segment defines the significance of using one technique in analyzing certain data relative to the other. This therefore provides a solution to ma host of problems outlined in the context of study. In common parlance, the dissertation refers to the active search for facts through pertinent art of scientific investigation (Choudhary, 2009).

The quantitative design on the other hand is the scientific digest of certain statistical data besides the use of narrative aspects. Indeed, the line of undertaking this research is objective in nature when the conclusive remarks are used in the active development of particular argument that leads in some sort of conclusion. In real sense, the quantitative approach does not therefore provide room for opinion from the respondent but concentrates its due attention on the facts

about the situation of study. As a result, the quantitative research approach is therefore fit for explanatory research aimed at synthesizing a conclusion from the statistical data given. In this regard, the combination of the two aspects of study enhances the reliability and the credibility of the results unveiled by the research. This paper therefore focuses on the Chapter three of the dissertation which in essence is the methodology and wishes to give particular attention to the data collection methods; validity of the results, its usefulness and reliability as well as sample collection (Kumar, 2005).

3.2 Research Design

This section of the research denotes the model and format used in the carrying out of the research. In particular, format employed in undertaking the research is pegged on the type of information being craved for and the sample selected data in the area of study. The key determiner of the design of the study is category of the research in either a qualitative or quantitative method. Indeed, it entails the aggregate methods of employed all through the researching process which also accounts for data collection and identification of the sample for study. This therefore leads to a series of concrete steps through which the study follows towards the achievement of a concrete solution to the problem in question (Welman & Huysamen, 2005).

3.3 Sample Selection

The research is always a function of all the findings unveiled by the various activities that the researcher engages in with a view to coming up with the most optimal solution to the problem or problems in question. However, the researcher does not involve the whole population of the respondent or sources in the course of

undertaking the research which could otherwise be practically tedious and virtually impossible. On the contrary, the researcher identifies a representative sample of the population of study which forms the background for analysis in order to unveil the requisite solutions. This sample selected may be a group of respondent who may be viewed as potential sources of the data needed in terms of eloquence and knowledge of the information in question (Manoharan, 2010).

The above process takes profound calculative measures in the identification of a representative sample using the most credible sampling method. On account of the latter, the researcher therefore identifies the sample space which in essence indicates the scope of the research and gives an overview of the most likely encounter during the research. In addition, the sample space also gives a cool focus on the background of the research which dictates the resource that the research activity may require for full implementation besides gauging their inter-relationships. In order to avoid biasness, the sample space which maps features likely to be encountered in the course of study should therefore be taken at random (Choudhary, 2009).

Additionally, the determination of the size of the sample is key factor in the identification of the study sample which shows the primary source of the data to be used in the research. A good sample therefore is one that shows a good representation of the whole area of study. Indeed, the conclusions made from the study of a sample represent the perception towards the whole area of study. As a result, the sample should demonstrate acute ability to portray the face of the entire region of study since the generalization of the result out the conclusion from study of a sample may be biased if the sample lacks representative features (Singh, 2012).

Indeed, the aspect of randomization of the selection of the samples also offers equal chances for all the parameters to contribute to the research and cuts down probability of the researcher to be biased. Compton, a research expert describes biasness as a significant variable that may negatively affect the credibility of the results from a research. As a result, the researcher should ensure zero tolerance to biasness if possible. To achieve this, the research team identifies the factors that share similar feature without any influence of the researcher on the selection of the sample on the bases of personal objections and tastes at the expense of the contextualized parameters of the research. In this regard the sampling technique should ensure that all members of the population sample are treated equally with a view to coming up with the requisite objective result that represents the state of the majority if not all. In summation, sampling techniques helps in the elimination of various components of facing the whole population of the respondents during the study (Exell & King Mongkut's University of Technology Thonburi, 2006).

Certain aspect of study is suited by certain sampling techniques and not others. For instance, the population of employees globally shares common features that are best portrayed through similarity in management techniques and working environments. Consequently, the adoption of proportional random sampling technique could be a better move in the realization of an unbiased result from the study of such a population. Indeed, despite the small variances in the features characterizing the international labour force, majority shares concrete features that can be suitably grouped into single harmonized data. Adequacy of the sample to completely cover the population also assists in the achievement of the objective of the study. In explanatory research, a research design is vital in the setting aside the

setbacks of invalid inferences. The larger the sample selected in a research activity, the lower the likelihood of biasness due to minimized sampling errors and better representation of the entire population of study (Rohilla, 2010).

Research expert, Fisher also argues that sample selection process is an important aspect of any research study, be it qualitative or quantitative. Consequently, the process should be carried out there is full focus of the absolute objectives of the entire research while at the same time avoiding biasness. Indeed, all this should be aimed at motivating the respondents to give the required information without the researchers' interference. However, other than the uniform treatment of the respondent, in some instances, generalization of the handling of respondent is broken by basing sample analysis on the sex, age among other categories (Sharma, 2004).

3.4 Unit of Analysis

Unit of analysis in any given research is a function of the various parameters in which the phenomenon under study is based and in which the problem research for refers to. In essence it denotes the tangible factors in which the study focuses on and evaluates its relevance to the study. Therefore, the core factors of study denote inclines itself to other variables affecting the population under study. Indeed, the unit of analysis is one of the most crucial variables in any research activity. Furthermore, the unit of analysis is the main entity that the research takes into account of throughout its endeavors. Many variables that may form a base mark for the unit of analysis include: persons; artifacts such as newspaper and photos; Geographical units such as towns and states among others. Unit of analysis is the value attached to the variable under study (Singh, 2012).

Any research must refer to a particular unit for which the study is based upon. For instance, the comparative performance in two discrete classrooms can be weighed based on the individual performance of the students given the performance of each. As a result, the individual student is the unit of analysis in this context. On the same note if the study on the two classes is based on physical appearance of the group, then the unit of analysis in this context is the group under study. In essence, there may be a variety of units of analysis if there exists a number of analyses within the same research. In essence, this means that a single research activity may comprise of a variety of research problems relating to a diverse pool of problems. This therefore points at varied units under scrutiny (Panneerselvam, 2004).

3.5 Data Collection Technique

The aim of any research is to collect important information that would assist in the process of resolving the confronting questions. However, research activities differ in both geographical coverage and the types of information needed. As a result, it is a vital consideration on the most effective means of collecting the data during the process of conducting the study. This basically refers to the data collection methods that the researchers use to obtain the requisite information from the respective respondents and from other identified sources. In essence, these techniques are the research instruments that the researcher which forms a major component of the research methodology. Other factors that dictate the choice of a data collection technique over the other are: the types of research; costs; as well as the targeted population and the researcher's personal preference. In this context, there exist both primary and secondary data collection techniques at the disposal of the researcher (ha, 2008).

While all other factors are vital, access to primary data sources, there are certain discrete methods that may be employed depending on the feasibility and efficiency factors. These

methods include interviews; objective group debates as well as issuing of questionnaires. These methods enable the researcher to obtain first hand information with a view to meeting the targets of the research. In addition, the collected data enables factual evaluation of opinions given and so the respondents among other important parameters. On the other hand, second hand information is obtained by use of different techniques that best decodes it from the secondary sources. These sources may include profile reports and business statistical records (Rajendra, 2008).

In essence, data collection techniques can be categorized into two namely the quantitative and the qualitative techniques. The quantitative techniques employ random sampling by use of prearranged collection instruments. These therefore are synchronized in a way that fits the different sources and response categories. As a result, the methods produce results that can be easily decoded and subjected to diverse manipulations. Indeed, quantitative research focuses on evaluating the correctness of the hypotheses or the general testing of the hypotheses resulting from the theoretical knowledge. However, as pointed out earlier, this approach may subject the respondent to a diverse treatments respect to variance in the study questions. Other than that, the researcher may also opt to collect data on the basis of participants and the features characterizing the situation at hand with a view to mitigate their invaluable influence on the dependent variables. Examples of quantitative research therefore includes: experiments; observation and recording; collection of data from the information systems of an institutional management as well as conducting close-ended surveys aided by questionnaires. As a result, the data collection techniques prove to be a very significant tool in any research undertaking (Rajkumar, 2008).

3.5.2 Interviews

A structured interview is one of the important tools in gathering first hand information. Indeed, it is an important tool used in the quantitative analysis. Interviews may however take

various perspectives namely: face-to-face interviews, telephone interviews or even the Computer Assisted Personal Interviewing (CAPI). The face-to-face interview is advantageous in that it gives the researcher an opportunity to establish a relationship with the respondent. This aspect further prepares the respondent psychologically to provide the response as may be deemed necessary for the study and therefore fosters cooperation. On the other hand telephone interviews may not give room for the establishment of mutual rapport. However, they are also advantageous as quite often, they may not take a lot of time while at the same are relatively cheap. On the same note, the researcher has a wider scope of respondent in that they can gather information from a vast number of respondents across the globe. However, telephone interviews do not offer high rate of response as for the case of the face-to-face interview (Rao, 2005).

In addition, the selection of the sample is highly subjected to biasness as the target population may not be having phones on aggregate leading to conducting of interviews from an exclusive population. Finally, the Computer Assisted Personal Interviewing (CAPI) is type of personal interview where the researcher undertakes a direct entry of data as provided by the responded from a one on one perspective. This method therefore eliminates the essence of using questionnaires while at the same time eliminates acute time wastage in data processing. However, the technique can prove rather expensive to install besides necessitating computer use skills for the researcher. The qualitative research on the other hand involves the use of secondary resources to gather statistical knowledge that is vital in the drawing of about the main aspect under study. This therefore often uses secondary while at times use primary sources which may include document reviews and observations (Bhattacharyya, 2003).

3.5.3 Focus group

The research aims at unveiling the factual or the opinions about situation of a given aspect of life depending on the information needed. To achieve this aspect, the research teams conduct minor debates with the respondent panels or individuals. The focus groups can be termed as group interview which mainly focuses on the optimal communication between the various participants of a given research activity. In essence, the research groups moderates the actual activity of the research. Focus groups are tools used when there is urgent data required. Indeed, the personalization of responses in this case is not encouraged. Instead, the participants are encouraged debate amongst themselves with a view to generating the requisite information for the research. This takes the format of a loud symposium where the respondents answer questions in the research while fellow participants contribute their views towards the same through exchanges of anecdotes (Bhattacharya, 2006).

The essence of the use of focus groups is therefore is the accessibility factor on the various aspects through clarity of thoughts that would not be possible through a face-to-face interview. Furthermore, the group work is an important tool for the researchers to use diverse styles of communication that different people use in their day to day interactions which may adopt a less formal approach. In this aspect, vital information may be easily decoded since the individual knowhow is not in absolute encapsulation on the well thought of responses towards direct questions. Indeed, the daily communication of the people may widely dictate the individual cranial capacity and therefore the role that the individual may play in the research. This therefore dictates the importance of the focus groups in a research undertaking (Singh & Nath, 2010).

3.6 Credibility of Study

The credibility of the study refers to how firm the study may stand to refute claims over its not holding to the absolute truth and therefore unreliable. The researcher is the a key figure in ensuring credibility of the study through the adoption of values such as honesty, integrity as well the ingenuous data collection process. There are certain elements that can be used in measuring the credibility level of the research. These are the testing of the acceptability of the research findings as well as gauging the ethical considerations of the research. On the latter, the researcher therefore maintains confidentiality and anonymity of the respondents which acts as an incentive for the respondent to give more information concerning the required topic of study. Furthermore, the researcher also gives clear and systematic steps and the methods used to conduct the study. This enhances trusts in the reader or the observer of the results and builds a confidence level of the clients with respect to the information unveiled through the research findings (Choudhary, 2009).

3.7 Reliability of Study

The reliability of the study is a function of sampling procedure which gives a general perception of the extent in which the aspect of study has been generalized. In this case, the researcher gives a general perception of the of the research methods that the study adopted and which makes an important aspect of the methodology of the study. The methods used should therefore, should ensure feasibility of the achievement of the set objectives. This therefore builds up the reliability and enhances the active role of the study in solving the problem of the study (Choudhary, 2009).

3.8 Validity of Information

The validity of data displayed in any research paper should have the aspect of validity. In essence, this aspect demonstrates the correctness of the data with respect to statistical units and figures. Such correctness of the information ensures that the results are not only credible but also reliable. Furthermore, it provides a concrete solution of the problem at hand and avoids the unnecessary wastage through investments in the wrong resolutions. It therefore refers to the extent to which the outcomes may reflect the intended idea or other aspect that the research focused on. The validity of the information obtained from the research undertaking can be tested at the early stages of the research, long before the actual research is carried out. For instance, this may be done through testing the validity of the questions in the questionnaire as well as the precisions towards the intended measure. This is known as the pre-testing tool of the study. Indeed, it is an important tool that facilitates the attainment of valid, credible and reliable results from a research undertaking (Singh, 2012).

3.9 Overview of Data Analysis

In this section of the research, the researcher shed a cross-cutting view of the analytical study of the data and the scrutiny of various aspects that the study was based on. Indeed, the section gives a reflection on the finding unveiled from the research outcomes as portrayed conclusions from the respondents' feedbacks. Indeed, the researcher uses this section to highlight the summarized findings of the research, the methods used in order to come up with the outcomes of the research. Data analysis is a complex and mysterious in the field of qualitative research. However, this section focus on the general trend of the data collection and analysis of the research while at the same time giving the collective bargain of the individual researcher. Consequently, the researcher expresses his personal opinions and commendatory statements on

the outcomes of the research. This section further unveils the full acceptance of theoretical assumption that clearly defines some common approaches that the research used extensively.

Besides giving a broad summary of the entire research with respect to the methods and variables use, the data analysis further gives a conclusive remarks on the outcome and shows the researchers point of view with respect to the problem and in line with the outcomes of the research. as a matter of fact, this aspect ensures that the recipients of the research findings can also share in the perception of the researcher with respect to the findings unveiled by the research.

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