Chapter 3
Research Methodology
3.1. RESEARCH FRAMEWORK

The automotive market of India is substantially dominated by Japanese and Indian Producers. On hand Tata Motors, Mahindra & Mahindra, Maruti Udyog, Hindustan Motors etc majorly dominated as Indian auto giants, Toyota, Honda, Ford, Fiat etc are foreign manufacturer actively functioning in Indian market. The domestic producer are primarily focusing on producing small and fuel efficient vehicles which are best suited for small cities in India and catering the needs of large consumer base of middle class while foreign players are more active to lure the upper class with their brand, style, class and comfort. Indian player are also active with their superior models in Indian and global market with their export orientation.

The development and growth of this sector attract the attention of each and every investor. This sector also has the record to share great value with their investor and hence the Indian investor having strong hold in this industry. The significance draws the attention to explore the existing payout policy in this industry and to investigate the perception and mindset of investors while making their dividend decision. It is very important to understand and explore because unlike many industry this industry involves large operating cycle, need intensive capital investment and comparative managers opt conservative approach while deciding their dividend policy.

So, it became very important to investigate and explore not on the basis of fact of yesterday but also understand the attitude and expectation of Young India while making its investment decision. That’s why we conduct both primary and secondary data analysis for better and accurate results.

3.2. RESEARCH DESIGN

As the industrial reforms are started in India, the entrepreneur came forward with zeal and enthusiasm to take new ventures but they have lack of capital. Setting up a new industry required huge capital investment and Indian entrepreneur need fund to start up new enterprise. This is only possible through company format of business where investor provide fund for setting up new enterprise. Investors’ invest their saving in terms of share with the expectation to get some return on their investment which terms
as ‘Dividend’. Return is associated with some level of risk and this combination of return and return constitute the concept of investment decision for a manager and an investor as well. Risk is termed as variability between expected return and actual return. It implied as quantum of return may be less than expected return. This risk may arises due to many factors viz. uncertainty in the market or economy, changes in interest rate, purchasing power, economic condition of the country, financial and economic issues related with business or industry etc. All such factors affect the working or performance of the company which reflect in the prices of share in terms of confidence of a shareholder in the stock.

If a company generates sufficient profit from its normal course of business it distribute in the form of dividend among their shareholders. So, dividend is widely accepted as a barometer for testing the performance and growth of the company. Dividends also help to build a positive image among shareholders and to attract investment from public at large. The way by which company opt to distribute its earning among shareholders is known as dividend policy of a firms. Dividend policy determines the practices opt by company regarding the distribution of profit. A company may opt conservative or liberal policy which is highly depending upon their nature of business, size of business and greatly upon their future plan. Other factor like market condition, policies opted by competitors, government regulation and expectation of shareholders also create pressure upon the management decision regarding dividend. These policies have a great impact upon the decision making of investors.

3.3. RESEARCH OBJECTIVES

The Main Objectives of the study are as follows:

1. To ascertain the effect of dividend on share price.
2. To quantify the effect on price of share due to declaration of dividend.
3. To examine the impact of declaration of dividend policy of a company on total volume, number of trade, turnover etc.
4. To explore the attitude and perception of investing community while making their investment decision.
3.4 SAMPLING DESIGN

The main focus of the study to examine the dividend policies adopted by Indian Companies especially those which are functioning in Automotive Sector. For this purpose researcher need to sort those companies which will considered as the true representative of the population. Considering the limitation of time and money the research is conducted with the help of some widely accepted standard. For the Sampling purpose, Top 500 Companies sorted by the reputed journals, research papers and daily digest are considered for this purpose for basic sorting. Finally, Economic Times top 500 companies are most appropriately found suitable for this purpose. So finally it is taken for the purpose of study. Since it includes companies from all sectors, firms exclusively belonging from automotive industry filtered for the purpose of study and top 10 companies which regularly reported top position year on year are considered for study.

Based on this the firms considered for study are as follows:

**Top 10 Automobile Firms**

- Hero Moto Corp
- Bajaj Auto Ltd.
- Ashok Leyland Ltd.
- Mahindra & Mahindra Ltd.
- Maruti Suzuki India Ltd.
- Tata Motors Ltd.
- TVS Motor Company Ltd.
- Eicher Motors Ltd.
- Force Motors Ltd.
- Escorts Ltd.

As the study is based on both primary and secondary data analysis, the following steps are formulated for secondary data analysis.

After sorting this list of companies researcher calculated average dividend 6 years from 2008 to 2013. The collected data was properly classified in form of tables for the
purpose of analysis and interpretation. The hypothesis was tested on 1% level of significance with the help of t-test.

3.5. NATURE OF THE STUDY

This empirical study consist primary and secondary data analysis for the precision of result. On one hand top 10 companies functioning in India which are most suitable representative of industry are considered for secondary data further primary data analysis done with 477 investors, who having stock position in these firms. All the secondary data has been retrieved from the renowned CAPITALINE database accessed from library of IIM Ahmadabad. The Primary data is conducted specially in Delhi & NCR region. For this purpose researcher approaches to the broking firms like Edelweiss, Karvy, Bajaj Capital and retrieved data about clients who having stock position in the said firms. Questionnaire drafted meticulously keeping in view the objective of the study, filled through emails and personal contact.

3.6. STATISTICAL TOOLS FOR ANALYSIS

**Average**

Average is widely used simplest tools for the purpose of analysis. It is also termed as Arithmetical Mean. The average or Mean is calculated by adding the values of all variable under consideration, divided by number of frequency.

**Standard Deviation**

Standard deviation is highly valued statistical technique to measure the dispersion or variation in the given data set. It expressed with the Greek letter σ pronounced as Sigma. If the standard deviation is close to ‘0’ it implies that there is a least variation in the given set of data and the data set average value is close to mean on the other hand if the value of standard deviation is high it shows dataset values are more scattered.

**Chi Square**

A chi-squared test, also referred to as $\chi^2$ test (or chi-square test), is any statistical hypothesis test in which the sampling distribution of the test statistic is a chi-square distribution when the null hypothesis is true. Chi-squared tests are often constructed
from a sum of squared errors, or through the sample variance. Test statistics that follow a chi-squared distribution arise from an assumption of independent normally distributed data, which is valid in many cases due to the central limit theorem. A chi-squared test can then be used to reject the hypothesis that the data are independent.

**Likert Scale**

Likert Scale is a highly used psychometrical scale to record the responses of individual in questionnaire. It allows the responder to record his response in relative scales. The responses are generally specifying the level of agreement or disagreement regarding a particular question or set of questions. Usually 5 point likert scale is used by most of the researchers.

**ANOVA**

Analysis of Variance (ANOVA) is developed by Prof. Ronald Fisher and profoundly used to compute and analyze the difference or variation among and between the pre-defined groups. ANOVA is widely used technique for the purpose of comparing multiple groups or multiple variables.

ANOVA has been applied based on its certain assumptions:

1. Assumption of Normal Distribution
2. Assumption of Homoscedasticity or Homogeneity
3. Independence of observation.

**Multiple Regression**

Multiple Regression is basically an extension of Linear Regression which is widely used to study the relationship between Multiple Independent Variable with respect to their predictors or Dependent Variables. In our study we have Dividend payout as Dependent Variable and All others as Independent Variable. Multiple regressions allows us to evaluate and determine the model fit on overall basis as well as helps to examine the extent to which each independent variable is contributing to the prediction of dependent variable.
Multiple Regression is also based on Certain Assumptions which are as follows:

1. Dependent and Independent variable must be a Ratio.
2. Two or More than two Independent variable is mandatory.
3. Linear Relationship between IDV and DV.
5. Data must not be correlated with each other or least correlated.
6. No Significant Outlier should be there to improve the model adequacy.
7. Data must be Normally Distributed.