CHAPTER 1
INTRODUCTION

“Balancing Business through Cost Optimization”
1.1 Introduction

The global economic meltdown had forced the corporate entities across the globe to adopt cost cutting strategies to protect and improve their margins. The focus of cost-cutting is primarily on bolstering margins. This strategy, though a working model, is often detrimental to the organisation in the long run. Some of the immediate effects may be lapses in delivery and quality of product. Customers are often very sensitive to these changes and rightly so, as they become unintentional recipients of the cost-cutting exercise. Majority of Airline companies had introduced cost cutting exercise. As a part of cost cutting exercise they had stopped offering Cold airline food to commuters. This has resulted in fall in number of commuters flying by such airlines. Consider a cost cutting exercise analogy- eating half an apple to save on the cost of the apple and saving for adversity. The impact of this reduction exercise is that, in the short term, the cost of apples consumed has indeed reduced. But now we need to spend on storing the half eaten apples, apples have a shelf life and will perish and, of course, people will not want to eat a half eaten apple. So in reality this cost reduction exercises has yielded far less benefits than expected. In view of this, mature companies started looking at long term strategies that can provide sustained benefits. Cost Optimization which focuses on customer value rather than just on cost reduction, is emerging as a viable alternative. Companies across the globe which have adopted Cost Optimization strategy are now realizing that it is not a one-time effort. Cost Optimization should be a focused effort and it brings
sustainable cost benefits to them. Corporate entities across the globe started realizing the importance of cost optimization. Today, the strategic challenge encountered by corporate entities includes affordable price and managing costs. Therefore, the corporate entities are facing a strategic dilemma between increasing revenue, decreasing cost and enhancing productivity. Therefore, Cost Optimization is emerging as new management practice across the globe. In 2008, Booz & Co (Research Agency) has conducted a survey of with a sample size of 30 leading companies in Germany, Italy, Austria and Switzerland to understand the Cost Optimization strategy / programme adopted by sample companies. Once again in the year 2011, Booz & Co has conducted a survey and found that 75 percent of the companies have adopted Cost Optimization strategy to survive and manage economic crises. The survey revealed that companies had recognized the importance of Cost Optimization in creating value - particularly in terms of improving service quality and compliance. The survey found that companies represented in the survey-have implemented general and administrative (G&A) optimization program for the previous three years. The survey reveals that all participating companies were satisfied with the outcome of their effort, despite the fact that the amount of time required accomplishing their cost-saving goals increased from an average of 17 months in the 2008 to 20 months in the 2011. In fact, 67 percent of participating companies reached their target savings level, and the remaining 33 percent exceeded it. Companies have also identified new areas for potential cost savings mainly in HR, IT and finance. Today, corporate entities across the globe in general and
corporate entities in India in particular are using Cost Optimization strategies to manage their business, improve productivity without compromising on quality. Few of the corporate entities across the globe which have adopted Cost Optimization strategies include TCO, Nexenta, Accenture, etc. Indian companies which have adopted Cost Optimization strategies include SAP, Labs India Pvt. Ltd., Logica, Deloitte, SAIL, etc. Therefore, the researcher felt it is opt time to take up the research on Cost Optimization.

1.2 Importance of Cost Optimization

Recently cost optimization is gaining importance as a contemporary tool of measuring business performance. The application of cost optimization technique is expected to yield following.

1. Creation of Economic Value Added
2. Creating Market Value Added
3. Capital Structure Optimization
4. Optimizing Cost structure
5. Cost cutting and Cost reduction
6. Profit Growth
7. Customer loyalty
8. Value added product or Service
9. High return on investment and
10. Achieving organizational goals
1.3 Review of Literature

Before we bring out need for the study, it would be appropriate for us to review certain existing studies related to Cost Optimization, Economic Value Added and Market Value Added. Review of existing earlier studies help us to find the research gap and also provide some understanding about the nitty-gritty of certain strategies. Hence the following studies have been reviewed.

Andrew Howe and Chris Humphries (2013) had used stochastic model to perform cost optimization and investment decision modeling for a system of interconnected power grids. The modeled utility system is composed of four independent power-generating regions. This optimization model helped players in taking capacity and transmission expansion investment-related decisions.

Azin Moallen (2006) had examined the optimization of cost of production line of a factory and developed an algorithm solution for the same.

Dr. Ganesh Sherman (2012) conduct study on “HR function Optimization methodology” This research helps an analysis of the current state of Human Resources within an organization, develop and analyze potential methodology, select a future state design, develop an implementation plan, conduct a broad-based roll-out, and monitor value added to the organization on an ongoing basis. He approach distinctly identifies four elements of the HR function optimization. HR Strategy & Capabilities, HR Technology, HR Service delivery model and HR process or policy redesign. It is the
synergic interactions among four elements that create the sustained value for HR optimization.

Khan Md. Ariful Haque, Md. Ahsan Akhtar Hasin (2012) made an attempt to develop a more realistic approach to solve project time-cost optimization problem under uncertain conditions, with fuzzy time periods. The researchers had used fuzzy time period model under different combinations of GA parameters and after result analysis optimum values of those parameters have been found for the best solution. The proposed model leads decision makers to choose the desired solution under different risk levels.

Manoj Anand ,B.S. Sahay & Subhashish Saha “Cost Management Practices In India: An Empirical Study” made an attempt of corporate India captures the development in the cost management practices such as accounting for overheads, applications of budgetary control and standard costing. The researcher finds that the firms have better insight for benchmarking and budgeting with ABC cost system yet the consistency in their priority of budget goals is lacking unlike the firms are using traditional costing systems. However both the ABC and traditional cost system users have clarity of reasons for effective implementations of planning and budgeting process in their organizations. This implies that the use of activity-based cost systems and standard costing is not mutually exclusive. There is a widespread use of sales variances and material variances vis-à-vis labor and overheads cost variances.
Mark Vonfange and Dru Lavigne conducted a study on “Cost Optimization through Open Source Software”. According to them, the cost of information technology (IT) as a percentage of overall operating and capital expenditures is growing as companies focusing on modernizing their operations. As IT becomes an increasingly indispensable part of company resources, the price tag associated with IT infrastructure is a heavy one. Therefore there is need to identify ways and means to reduce overhead while maintaining quality operations and staying current with technology. With its advancements in availability, usability, functionality, choice, and power, free open source software provides a cost-effective means for the modern enterprise to streamline its operations. The researchers made an attempt to quantify the benefits associated with the use of open source software.

Mittel. P.K. (2007) examined the issue relating to cost optimization in cement industry and suggested an approach and developed a framework for achieving cost optimisation objectives.

Moshe Gablinger, Aharon Yechiel & Yehuda Shevah (2014) had conducted a study on “Optimization of costs for procurement and transportation of pipes”. The author had developed a multi-period optimization model to calculate the costs of procurement and transportation of goods. The objective function aimed to minimize the combined costs of procurement and sea transportation of goods. The goods could be procured from various suppliers, and delivered by several shipping companies. As a case study, the Model was used to analyze the procurement of pipes for a water supply project in
West Africa. The model provided the optimal number of suppliers and the number of containers to be shipped from each. In the model an innovative algorithm is incorporated for the nesting of pipes of various diameters for optimal packing of a standard shipping container.

**Neetha Bapurikar (2012)** in her study attempted to develop cost optimisation approaches for Financial Service Institutions which was expected to reduce strategic cost. According to her firms that make the organizational commitment, design, implement strategic cost reduction programme can achieve dramatic increase in efficiency.

**O. Joshua and P. O. Lawal (2011)** had conducted study on “Cost Optimization of Sandcrete Blocks through Partial Replacement of Sand with Lateritic Soil”. According to them lateritic soil within Ota, Ogun State of Nigeria could be used in the production of hollow sandcrete blocks. This replacement is intended to develop more economic sandcrete blocks. The researcher finds the cost of lateritic soil in Ota is much less than the cost of the conventional fine aggregate used in the production of sandcrete blocks without compromising the integrity of the blocks. However, this work found the maximum permissible replacement that still makes the blocks to be within the recommended standard. replacement can be help the block moulding industries within Ota with a view to reducing the production costs of the blocks.

**Salma Shaheen Tazyeen Ahmad** has conducted a study on “Cost Optimization in Manufacturing of Toys using Linear Programming”.

According to him, cost Optimization is receiving more and more importance and attention due to society and technology advances. He tried to address the issues related to application of linear programming in cost optimization of toys especially in the area of manufacturing. He also discussed the methodology for optimal resource allocation and cost-effective toy production which would be beneficial for both people and other enterprise environments.

**Sandeep Parida and A. B. Andhare** had conducted a study on “Cost Optimization of Supply Chain Network: A Case Study of TMT Bar Manufacturing Company”. The researchers had used nontraditional technique like simple genetic algorithm and multi objective genetic algorithm. The researcher focused on minimization of total operating cost, shortage cost and stock level of inventory.

**Saurine Doshi (2009)** is of the view that controlling the total delivery cost of products is a key to profitability. He has recommended that the company should adopt strategic sourcing and re-designing distribution networks for achieving cost optimization objectives.

**Sonali Dharmadhikari (2013)** is of the view that retention of employees in high skilled areas such as IT, Software Development, Electrical Engineering, Accounting and Finance is big challenge for corporate entities. Organizations had accelerating their internal talent retention strategies. Researchers made an attempt to focus on cost effectiveness of “Internal Talent Retention” as a strategy of “Talent Management”. The objective of research paper is to study the costs
involved in Retention of employees Vs. Hiring. The analysis of costs of attrition led the researcher to conclude that retention emerges as a cost effective tool, talent strategy is strongly tilted towards the old paradigm of “Grow from within, internal talent retention strategy not only saves the cost but also encourages long term loyalty and hiring becomes costlier than retention. To sum up, strategy should seek In-House talent to grow thereby avoiding recruitment costs would be beneficial in the long term.

Surojit Ghosh; Bijan Sarkar (2011) had made an attempt to cost optimization through optimal layout design. According to them ALDEP, CORELAP and CRAFT are popular computerized techniques for finding out the optimal layout design. But they have used genetic algorithm and designed different types of layouts at minimum time without any hazards. This had ensured cost optimization.

Uros Klansek; Mirko Psunder(2010) has conducted study on Project Management; Planning Models; Project Analysis; Optimization Techniques The paper presents the cost optimization of the time schedules for project management. The nonlinear programming (NLP) model for the cost optimization of the time schedules under the generalized precedence relations between the project activities was developed and applied. The existing NLP optimization models have focused on the cost optimal solution of the project scheduling problems which include simplifying assumptions regarding the precedence relationships among the project activities.
Vineet Chaudhary, Parveen Kumar Yadav and Pawan Kumar Dahiya in their research work entitled “Evaluation of Cost Optimization for Travelling Salesman Problem (TSP) by Comparing Various Ant Colony Optimization (ACO) Algorithms” made an attempt to introduces Swarm Intelligence-based approaches, namely Ant Colony Optimization (ACO). The different operators in ACO and their effect on the quality of solution were highlighted in their research. The ACO algorithms variants like Ant System (AS), Elitist Ant System (EAS), Rank-based Ant System (ASrank), Min-Max based Ant System (MMAS) are detailed. The research paper puts forth a strong case for applicability of ACO for more complex optimization problems.

A Vijayakumar (2011) made an attempt to examine whether EVA has got a better predictive power relative to the traditional accounting measures such as EPS, ROCM, RONW, capital productivity and labour productivity. According to him EVA is the better predictor of market value compared to other accounting measures.

According to Issham Ismail (2011) is of the view that EVA per share could predict company performance better than traditional tools. He had used single and multiple regression analysis, specific coefficients least squares analysis and White’s heteroskedasticity-consistent variances and standard errors for data analysis.

According to Joibary Ali Reza Modanlo; Ali Reza Modanlo Joibary (2012) Market value added (MVA) is an external measure of how much better off the shareholders are as a consequence of
management's performance. The main purpose of his study was to introduce and to compute market value added (MVA) of Companies listed in Tehran Stock Exchange (TSE) during 2005 to 2009 periods separately and totally. The results indicated that the MVA of companies listed in TSE in 2005, 2006, and 2008 were positive and it means that TSE created wealth for stockholders and investors during these periods.

**Anil K Sharma and Satish Kumar (2010)** tried to find out the effectiveness of EVA in selected Indian companies. He also tried to examine whether selected companies are able to create value for their shareholders or not. He had used statistical techniques like Regression, Trend analysis, Chi square and ANOVA. He found that majorities of the sample companies were able to continuously create value for their shareholders during the study period. Study provide that EVA is gaining popularity in India as important measures of firm performance and more companies should disclose EVA figures in their financial report so as to reveal correct financial position to the various stakeholders.

**Bhatnagar (2004)** investigated the efficacy and appropriateness of EVA as a method of measuring profitability of a concern as compared to some traditional methods of measuring profitability like ROCE, NPV and EPS etc. The study was based on an analysis of data pertaining to 56 companies for 10 years ranging from 1988-89 to 1997-98. The year wise composite regression exercise indicated EVA to be the single variable, which was significantly related to
MVA. The result proved beyond doubt that EVA is the most significant measure of corporate financial performance.

**Ghambari and Sarlak (2006)** explained Economic Value Added (EVA) as an appropriate performance measure which evaluates the manner in which managerial actions affect shareholders value. As maximizing shareholders value is fast becoming the new corporate standard in India, this study attempts to compute and review the trend of EVA in India’s 17 automobile companies. The results of Generalized Estimating Equations (GEE) population-averaged model (Panel data analysis) indicates that there is a significant increasing trend in EVA during the period of study and the firms in the automobile industry are moving towards the improvement of their firms value.

**Hall and Geyser (2004)** examined the use of Economic Value Added (EVA) as a performance measure by South African agricultural co-operatives to determine whether value has been created for members. The study provided a detailed explanation of EVA and the methodology to compute EVA components. Further, the study computed EVAs of all the South African co-operatives and analyzed it over a time span of four years i.e. from 1998 to 2001. It was evident from the data that, over the four-year period under review, the WACC declined consistently (this was due to declining interest rates throughout the period, as well as to increased use of cheaper debt in the capital structure). Whilst this was a positive factor in the value creation process, it was virtually nullified by the fact that the rate of return declined, which resulted in a negative
spread. In addition, more capital was committed to the enterprises. This could be observed as a recipe for value destruction which occurred in the majority of the cases. The study also indicated fruit and vegetable sector as a single constant value creator. The study insisted that in order to create value, the rate of return on invested capital must be greater than the cost of capital.

**J H VH de Wet (2012)** in his work ‘Executive Compensation and the EVA and MVA Performance of South African Listed Companies highlighted that there was a significant relationship between executive remuneration and EVA and MVA, but that the correlation is better between executive remuneration and ROA and ROE. The purpose of his study was to test the relationship between executive remuneration of South African listed companies and EVA and MVA, as well as traditional performance measures such as return on assets (ROA) and return on equity (ROE).

**Kukreja and Giridhar (2005)** evaluated the financial performance of 23 selected companies from Indian Pharmaceuticals industry by using various new breed value based performance measures. It found that the companies that perform well on appropriate value based performance metrics are amply awarded by capital markets. Using 115 firm year observations, a correlation study was undertaken to see which metric (out of nine i.e., RONW, ROCE, EPS, EVA, Current Operational Value, Future Growth Value, CFROI (%), Free Cash Flow and Residual Cash Flow) was more correlated with Market Value Added. The metrics that were significantly correlated to MVA
were Future Growth Value, Current Operational Value, Free Cash Flow and EVA.

**Kumar and Pal (2008)** described that measurement of shareholders value in an enterprise forms the core of corporate performance. Companies adopt different methods for measuring the wealth they create for their shareholders. However, the subject matter of the best method still attracts a great deal of discussion among academicians and corporate managers. This paper examined whether the concept of Economic Value Added (EVA) is well understood by corporate managers and compared it with the other traditional financial performance indicators. For the purpose of analysis, this study relied on the information gathered through a primary survey in 18 out of 30 companies included in the BSE Sensex. According to this study, EVA has been ranked as the best indicator of performance, followed by Return on Capital Employed (ROCE), Rate of Return, Profit Margin, and Residual Income. It was also found that while some companies had already adopted the EVA technique to measure the shareholder value, a majority of the companies were aware of it, but yet to adopt this model.

**Machuga (2002)** explored the relationship between EVA and EPS directly. They examined the association between EVA and future earnings and how analysts incorporated EVA into their forecasts of earnings. Their premise was that if EVA was a predictor of future EPS and analysts were excluding EVA from their prediction models, then the absence of EVA could explain part of the analysts forecast error. In general, they found that information about EVA used to add
incremental value to a prediction model of EPS, and thus could explain analysts forecast errors. But the authors also noted that the relationship was reversed when the previous year’s earnings were not positive. In other words, the study concluded that EVA can be useful for predicting EPS in profitable firms.

**Malik (2004)** examined empirically the nature of relationships between EVA and Earning per Share (EPS), Return on Net worth (RONW) and Return On Capital Employed (ROCE) to develop an understanding that how the traditional performance measures are comparable to EVA. For this purpose, a sample of 50 companies with different asset sizes but having a uniform accounting year were selected and the relevant data was collected for a period of 5 years ranging from 1998-99 to 2002-03. Correlating the traditional measures with EVA using Pearson’s coefficient of correlation (r), it was found that the relationship was very low with EPS and high with RONW and ROCE. The study indicated that these traditional measures do not reflect the real value of shareholder’s wealth and thus EVA has to be measured to have an idea about shareholder value.

**Mangala and Joura (2002) conducted a** study of 15 companies among five industries (Fast moving consumer goods, Information Technology, Pharma, Automobile and Textile) and computed EVA. The results obtained by using regression analysis confirm Stern’s hypothesis and conclude that the company’s Current Operational Value (COV) is more significant in contributing to a change in market value of shares in Indian context.
**Medeiros (2005)** reported empirical evidence on the relationship between Economic Value Added and stock returns in Brazilian firms. The sample comprised of 6 Brazilian companies, which had disclosed their EVA for at least a four-year period (1996-1999). The hypothesis that EVA affected stock returns was tested through linear regression, using alternative models. Stock returns were taken as the dependent variable and one-year lagged change in EVA to be the independent variable. The study found that stock returns were influenced by the past behavior of EVA.

**Misra and Kanwal (2004)** observed that market valuation of securities listed on the Indian Stock Exchanges is more aligned to the intrinsic value today than it has been in the past. Basic thrust of the study is to establish the supremacy of EVA as a measure of financial performance over the traditional measures. EVA is the single most significant explanatory variable in explaining the variation in the Market Value Added and it finds a better reflection in the market value of the share as compared to the traditional measures of financial performance. The results show EVA (%) as the most significant determinant of MVA followed by ROTA. Hence, it concludes that relative measures of financial performance find a better reflection in the market value of shares.

**Mohammad Fawzi Shubita (2013) had undertaken a study on** “EPS and EVA Forecasting Ability for Industrial Jordanian Companies”. He had made an attempt to investigate the relationship between Economic Value Added (EVA) and Earnings per Share
(EPS). He had used correlation and multiple regression analyses. According to him, current earnings can predict future earnings, current earnings components can predict future earnings and current economic value added does not have incremental information content relative to current earnings components when predicting future earnings.

Panaganti Renuka and Gupta Madhu (2013) “Supply Chain management challenges for CPSC retail sector in India” Retailers face many challenges: time-to-market reductions are necessary due to shorter and shorter product life cycles, greater product variety causing more fluctuation in demand calls for high responsiveness in supply chains, and the ever increasing need for shorter lead times continues. However, as a result of the power that comes with control over consumer contacts, retailers today have the opportunity to organize the work in their supply chains in suitable ways.

This thesis focus on how retailers organize their supply chains challenges they face to compete in consumer markets, and asks the question: how are supply chains affected by retail value propositions? Three case studies have been conducted in order to answer this question. Two of the case companies were considered to utilize cost-based competition, and it was investigated that how they had organized activities in order to deliver their specific value propositions. Equivalent research of a third case company utilizing time-based competition was conducted. The study's findings are in line with theories in this field, i.e. that the nature of products demand pattern is crucial for that which should be focused on, and that
physical efficiency is important in cost based competition and market responsiveness in time-based competition.

Parasuraman (2000) identified the EVA position of India’s 14 major public sector banks. The study concluded that EVA is an important measure to judge a bank’s performance.

S Christina Sheela; K Karthikeyan (2012) in his work entitled ‘Measuring Financial Performance Using Eva & Mva in Indian Pharmaceutical Industry’ made an attempt to analyze the trend and growth of Shareholders’ Value in terms of EVA and MVA in Indian Pharmaceutical Industry with sample companies Cipla, Dr. Reddy's laboratories and Ranboxy laboratories.

S R Vishwanath (2010) in his research ‘EVA Financial Management at Godrej Consumer Products Ltd’ made an attempt to measure the performance of EVA model adopted Godrej Consumer Products Ltd. According to him, EVA program adopted by Godrej Consumer Products Ltd consists of three elements: EVA centers, EVA drivers and an EVA-based incentive program. The program has been successful in the initial years.

Seyed Mojtaba Hasani; Zadollah Fathi (2012) had made an attempt to measure relationship between the Economic Value added (EVA) and Stock Market Value (MV) and Profitability Ratios. He had studied 70 companies. The results were analyzed by using Pearson index between two indices, the economic value added index and the index of stock market value. According to these two variables are correlated, and the correlation is positive. The results of
the panel regression estimation also indicated a positive and significant relationship between two indices of the economic value added and stock market.

Singh and Garg (2004) empirically examined the appearance of EVA as a concept, among the Indian corporate (Inc.) both industry wise and sector wise. For this purpose, a sample of 50 companies was chosen on the basis of their market capitalization, regular attendance in BSE Dollex and on the basis of multi-stage random sampling with industry wise stratification. It covered a period of 5 years ranging from 1998 to 2002. The study explored that one-third of the sample companies generated negative EVA throughout the period and another one-third generated positive EVA but it had been less than Rs. 50 crores. About 20% of the companies added value between 50 crores to 500 crores. Further, EVA based ranking of different industries put personal care, refineries, fertilizer industry at top 5. Sector wise EVA based rankings depicted that public sector had reported negative aggregate EVA in four out of five years.

Tarika Singh and Seema Mehta (2012) had conducted a study on “Eva Vs Traditional Accounting Measures: A Pre Recession Case Study of Selected it Companies”. The purpose of the study was to explain the explanatory power of EVA for shareholders value creation. The author provided empirical evidence on the relative and incremental information content of EVA and traditional performance measures, earnings, and cash flow. The author had concluded that IT companies should always try to maximize shareholders value. If this is not done then their stocks will not be able to stand in the market.
Verma (2005) presented Indian banks’ profile to demonstrate a direct correlation between the investment in stakeholder relationships and corporate performance. Many Indian banks seemed to have destroyed shareholder’s wealth over a period of time and only a few had positively contributed to their wealth. With the help of EVA (Economic Value Added) and MVA (Market Value Added) which tell what the institution is doing with investor’s hard earned money, the study examined an appropriate way of evaluating banks performance and also found that which Indian banks had been able to create (or destroy) shareholders wealth since 1996-1997 to 2000-2001.

Weaver and Weston (2003) identified four alternative performance metrics used in value based management (VBM) and compared the strengths and limitations of each performance measure. These were (1) Intrinsic Value Analysis (IVA), the Discounted Cash Flow (DCF) methodology, (2) Returns to Shareholder (RTS, capital gains plus dividends) measured over appropriate time horizons, (3) Economic Profit (also called Economic Value Added) taken from the DCF free cash flow valuation and (4) The relationship between the market value of the firm’s financial instruments and the book value of the firm’s operating assets (expressed as equivalent to market value added (MVA), the q ratio, and the market-to-book ratio. The study used data for Hershey Foods Corporation to quantify the comparisons and relationships. It tested the relationships of alternative financial accounting performance metrics with that of market metrics on a historical basis as well as on a prospective basis.
The study found that the alternative financial performance metrics – discounted cash flow valuation, returns to shareholders, economic profit, the market to book ratio were highly correlated.

1.4 Need for the Study

Recently cost optimization has attracted the interest of researchers as well as academicians across the globe on account of global economic meltdown. Many Indian companies have adopted cost cutting strategies to manage downturn claiming the same as cost optimization strategies. They have misunderstood the cost optimization concept. They were also struggling to measure/quantify the benefits of cost Optimization Strategies. After reviewing the exhaustive literature on cost optimization and Economic Value Added, the researcher has come to know that several studies have been undertaken on Cost Optimization in select industries. But so far no specific study has been conducted on cost optimization relating to consumer product sector companies in India. Further, consumer product sector is passing through a difficult phase due to rising raw-material prices, transportation cost, power shortage, stiff competition between players etc. This has forced the companies to practice certain Cost Optimization Strategies. These all developments have encouraged the researcher to undertake the present study entitled “Cost Optimization in Select Consumer Product Sector Companies in India”.
1.5 Hypotheses of the Study
The following hypotheses have been formulated:

**H$_1$:** The Cost Optimization being practiced has positive relation with Value Added measures like Economic Value Added and Market Value Added.

**H$_0$:** The Cost Optimization being practiced has no positive relation with Value Added measures.

1.6 Objectives of the Study
The basic objective of the present study is to understand the Cost Optimization and its impact on Economic Value Added. Keeping the hypothesis and basic objective in mind, the following specific objectives are set for the present study.

1. To understand the level of awareness about cost optimization concept among employees of selected consumer product sector companies in India.

2. To know the various cost optimization strategies.

3. To know the impact of change in costs on Value added.

4. To understand the relationship between cost and value addition.

5. To measure Economic Value Added as well as Market Value Added, and

6. To offer suggestions for value creation through cost Optimization.
1.7 Methodology of the Study

1.7.1 Sample Size:

Top 10 companies from consumer product sector were selected for the purpose of study based on average total turnover of last 10 years. The companies so selected include: 1) ITC Ltd, 2) HUL Ltd, 3) Nestle Ltd, 4) Tata Coffee Ltd, 5) Tata Global Beverage Ltd, 6) Colgate Palmolive (India) Ltd, 7) Asian Paints, 8) Dabur Ltd, 9) Godrej Consumer Products and 10) Marico Ltd.

1.7.2 Source of Data:

The data for study has been collected from primary as well as secondary sources. The primary source of information includes interaction with Human Resource Manager of selected consumer product sector companies in India. The Secondary Source includes research articles, website, journals of Accounting and Finance, Management Accounting, Indian journal of finance, Newspapers – Business-line and Economic Times

1.7.3 Data Collection:

Cost data such as employees cost, material cost, operating cost and financial cost were collected from the records of selected consumer product companies (Annual Reports and other records). Stock market data were collected from Bombay Stock exchange to measure market value.

1.7.4 Research Tools:

The Economic Value Added of selected sample companies was calculated. An EVA model has been developed by researcher for
the purpose of measurement. \( \text{EVA} = \text{NOPAT} - \text{Cost of Capital} \), Where NOPAT = Net operating after tax, Cost of Capital = Total capital x % overall cost of capital. Cost of equity had been calculated by using CAPM methodology. The relationship was established between EVA and respective identified costs by using correlation technique. Finally analysis was carried out to know whether there is a cost optimization or not. Beta is calculated by using CAPM Model. Market Value Added was calculated by using the model: 
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\text{EMV} = \text{Number of Issued Shares} \times \text{Market Share Price}.
\]
The data so collected has also been analyzed by Pearson Correlation Coefficient Model. In our study, we have concluded that a company can be said to be cost optimum only when company’s cost increment has led increment in Economic value Added or company’s cost decrease which has the same amount of EVA as was earlier or has increased amount of EVA. Otherwise, company is said to be at suboptimum cost level.

1.7.5 **Study Period:**

The study period covers a period from 2009-10 to 2013-14.

1.8 **Scope of the Study**

The results and analysis carried out in the study will bring certain findings and suggestions which will help the respective companies in the sample in formulating policies and programmes in order to reduce cost in enhancing value.
1.9 Chapter Scheme

The entire research study is divided into six chapters. The snapshot of these chapters is as follows;

First Chapter ‘Introduction’ deals with the importance of cost optimization as a contemporary development, review of literature, need, hypothesis, objectives, methodology, scope, organization of the study and limitations of the study.

Second Chapter provides a conceptual understanding of cost, cost reduction, cost control and cost optimization and also provides theoretical aspects of Economic Value Added (EVA) and Market Value Added (MVA). A bird’s eye view of consumer product sector in India is provided in the

Third Chapter Profiling of consumer product sector companies such as ITC, HUL, NESTLE, Tata Coffee, Tata Global Beverage, Colgate Palmolive, Asian paints, Dabur India, Godrej consumer products and Marico companies is undertaken in the Fourth Chapter.

Assessment and analysis of Economic Value Added (EVA) and Market Value Added (MVA) in knowing the cost optimization is the subject matter of Fifth Chapter, and

Summary, findings, suggestions, framework for cost optimization and scope for further research is dealt in the Sixth and final chapter.
1.10  **Limitations of the Study**

Following are the limitations of the present study.

1. The study is confined only to ten (10) companies of consumer product sector.
2. Consistent and detailed data required for analysis was not available for the consumer product sector companies.
3. The impact on environmental due to Cost Optimization is not taken in to consideration.
4. Impact of inflation is not taken into consideration.
5. Cost optimization is not a one-time exercise it should be practiced consistently.
6. Cost optimization is not seen in relation to risk, return and growth.
7. No primary sources of information was used. Never the less every effort has been made to judge the Cost Optimization in an objective manner.