CHAPTER - I

Introduction, Objectives and Research Methodology.

1.1 Introduction:

The industrialization started from 1857 and it evolved through various phases. In India industries were protected by policy. But truly it has been liberalized since 1991. After liberalization, competition increased by leaps and bounds, it intensified globally. The business nuclei shifted to towards market and customer focused.

Indian industry has to follow the foot prints of global successful organization for survival and has to change the laid down practices. Profit has become customer friendly and good word. Basic purpose of the business is to earn reasonable profit. In the globally market dominant environment, profit can be achieved by making organization cost competitive.

In the competitive environment, survival of fittest becomes the ground rule. Cost competitiveness is key important feature of the successful organization. To make organization cost competetative, Supply chain has emerged as important function in early 21st century. It evolved from traditional store keeping to purchasing, distribution, warehousing to materials management; logistics to integration of important functions with encompassing to emerge in the form of supply chain management.

Meaning of the Supply Chain Management:

Supply chain management is a function which encompasses clear accountability and responsibility for deliverables starting from customer’s customer to supplier’s supplier. It translates customer’s customer requirement and links through till vendor’s vendor. In other words, it is a linked set of resources and processes that begins with the sourcing of raw materials and extends through the delivery of the end items to final customer.
1.2 Rationale:

Every organization has definite purpose which is reflected through its Vision, Mission, Value Statement. Profitability can be achieved by managing resources like Man, Machines, Materials, and Methods efficiently. Enhancing output through competitive process is important decision.

Unless organization has a clear vision about how it is going to be distinctly efficient and unique, offering something different from its competitor to some different group of customers, it is going to get eaten alive by the intensity of competition.

Improvements are necessary just to stay in the game. But staying in the game is not sufficient because if everybody is competing on the same set of variables, then the standard gets higher but no organization gets ahead. Getting ahead and then staying ahead is the basis of future competitive strategy: creating a distinctive competitive advantage. It is not just a matter of being better at what one does but a matter of being different at what one does. Therefore in the competitive environment, the profitability can be achieved from robust process like Supply chain.

The emergence of global competition with rapid technology advances led to increase in more demanding customer expectations. The traditional manufacturing model of mass production is being reengineered and restructured to improve a firm's competitiveness in this new environment. As companies have improved their internal operations by increasing product quality while reducing costs, firms have achieved parity on these dimensions in many industries. These companies are now looking to develop competitive advantages in areas such as delivery, flexibility and innovation. All of these emphasize the importance of time. Organization started looking these initiatives through supply chain management.

The last two decades have seen the rise of a plethora of acronyms always used in conjunction with production management and control. To name a few JIT (Just-In-Time), ZI (Zero-Inventory), VMI (Vendor Managed Inventory). All these have now been integrated within the domain of Supply Chain Management Process.
1.2.1 Backdrop Reference:

Purpose of any organization is to earn profit; supply chain is perceived an effective root to achieve the result. It is essential and important to study the reference topic under backdrop of present competitive industrial scenario.

Since 1991, the Indian economy is being progressively liberalized. Since then its integration into the global economy has started deepening. On one hand liberalization and globalization have provided unprecedented opportunity for the growth and expansion of the industry in general and manufacturing sector in particular. On the other hand Indian industry today has to get ready to face stiff competition from imports due to tariff reduction. Parallelly, Indian Industry needs to improve its export capability through competitiveness.

The share\(^1\) of manufacturing sector within the industrial sector has shown only a marginal improvement from 16.6 percent in 1991 as it is growing at a slow annual average pace of 6.3 percent. India’s share in the global trade is less than 1 percent, which is much below her potential.

- Manufacturing has been recognized as the main engine for growth and accordingly emphasis was placed on growth of industry in most of our Five Year Plans. Manufacturing will remain one of the principal means by which wealth is created. It is a matter of concern that the contribution of manufacturing to GDP has remained stagnant for over two decades since 1985. One of the major reasons for the low level of contribution has been India’s inability to build and maintain competitiveness needed to meet the global challenges as well as to develop a larger domestic market through low cost production. The low levels of manufacturing growth had its adverse impact on employment generation.
- There is no denying that India possesses a comparative advantage in many respects. With its experienced work force, large pool of scientists, engineers and managers, reasonable endowment of natural resources and a large

\(^1\) Data source from CII website – www.mycii.com
domestic market India has the potential to emerge as a major manufacturing hub for the global market.

- India has potential to emerge as economic super power by realizing huge pollution base, youth strength, growing market place, excellent natural sources, demography and changes in policies which is pro globalization.

1.3 Choice of Subject:

Currently in Indian FMCG Manufacturing Industry, to become efficient and profitable many new initiatives have been attempted a few of these are listed below:

2. Lean Manufacturing.
3. Outsourcing & strategic alliances
4. Collaborative product development
5. Total Productive Maintenance (TPM)
6. Total Quality Management (TQM)
7. Six Sigma & JIT

All of the above mentioned tools are globally acclaimed and widely proven; however, the same tools when applied in Indian context do not give desired results on profitability. It is extremely important to understand functional aspects of an organization with its expected contribution in the survival process.

The concept of supply chain management (SCM) is getting rooted in industry. However, during the past 5-10 years, there has been an increased focus on SCM as a competitive weapon due to the significant effects that supply chain activities have on all elements of an organizations financial performance, including operating costs, revenue growth and asset management. Hence supply chain management is key contributor in the organization process and profitability. It is imperative to explore the supply chain dynamics for the competitive benefit. A gap has been noted in industry at SCM function, which need to bridge with a well-structured, clearly communicated, having defined roles and responsibility of individuals, trained with professional approach, motivated employee will add value to its function which has impact on organization’s profitability. At the same time, organizational focus on deployment of right manpower, identifying clear key performance areas and
indicator, its measurement and monitoring is essential. Hence this study is
undertaken for further learning and research in reference to FMCG industry in India.

1.4 Objectives:

The present study is undertaken with the main objective of examining the
current practices of Supply Chain Management followed in various Indian industries
and comparing them with the best practices for enhancing the profitability of Indian
industry in particular to FMCG sector.

FMCG as it is more fondly known as has always seen an extremely intriguing
sector. In India this sector is estimated at more than 500 billion and comprises
segments like personal care, soaps and detergents, skin care, oral care, health and
hygiene products agro products and branded foods, driven by consumers, the
common man and volume it has always posed serious challenges to the
manufacturers. Extensive advertising, innovative promotion schemes, attractive
products discounts etc. that are used to lure the consumer directly eat into the
manufacturers bottom-line. And with thriving competition from the branded and
organized market as well as from the unbranded and unorganized market, the onus is
now on the supply chain and how cost effectively it performs. Most of the products
in this category are low cost, thus allowing consumers to be impulsive in buying
decision. Product availability all the time becomes the key to impulsive buying. This
further makes an efficient supply chain epicenter of manufacturer’s strategy.

FMCG products are closely associated with direct end users. The influence of
consumers related to choice, like and dislikes, demography, seasonality, brand,
marketing etc. are peculiar. The volume of products, movements of goods is quite
large in comparison with other type of products. Distribution channels are wide and
complex in FMCG industries. Hence scope and role of supply chain is crucial
considering financial aspect of organization. Turnaround of goods in FMCG
industries are quite frequent, it is directly correlated with end user and measurements
of system parameter are comparatively clear hence FMCG sector is chosen for study
in particular.
The development of FMCG Market in Maharashtra was facilitated by the economic viability of the state. It is one of the richest states of India with one of the highest per capita income. Overview FMCG Market in Maharashtra\(^2\) is one of the strongest among the states of India. The most economically important city of India, Mumbai is located in Maharashtra. The city of Mumbai is regarded as the economic powerhouse of India. The state of Maharashtra also has other cities that are important in terms of economic activities like Pune, Nagpur, Aurangabad, Thane, Nashik, Kolhapur etc. Each of these cities of Maharashtra has made substantial contribution towards the growth of the state. The state of Maharashtra is one of the most industrially developed states of India and is home to most of the corporate offices in India. The state has one of the highest numbers of industries in India and it is regarded as one of the richest states in India. There has been a substantial increase in the rate of consumerism in Maharashtra in the recent years and such that the trend is still growing with the increase in income. The cities of Maharashtra have been one of the important driving forces for the development of FMCG markets.

Major FMCG organisations and brands have their presence in Maharashtra are:

- Food products and beverage - Nestle, Kellogs, PepsiCo, Coca Cola, Uni Lever, Cadbury India, Parle, Hienz, ITC, MTR, Perfetti, Tata Tea, Parrys Confectionery, Venkey's Chicken, Goodricke, Nilgiris, Mother Dairy, Amul India, Gits Food Products Pvt. Ltd, Kwality Walls, Vadilal Ice cream, Goodricke, SmithKlineBecham,

- Cleaning and household insecticides - Reckitt Benckiser, Jyothy Laboratories, Godrej Sara Lee.


\(^2\) [http://business.mapsofindia.com/fmcg/maharashtra.html#sthash.4pY0b053.dpuf]
Following are the specific objectives of this study.

1. To study evolution process of Supply Chain Management in Indian industry particularly FMCG Sector.
2. To examine current supply chain management process in Indian Industry particularly FMCG Sector.
3. To identify strength & weakness of current supply chain model.
4. To analyze impact of supply chain management on the business process for profitability.
5. To develop supply chain model for competitiveness.

The above objectives are defined keeping in mind to understand industrial revolution, subsequently emergence of supply chain management in industry, importance of supply chain as a function from organizational profitability perspectives, globalization trends, best practices and strategies followed in supply chain management, its impacts on profitability in Indian Industry by focusing on FMCG sector.

1.5 Hypothesis:

Hypothesis is usually considered as the principal instrument in research. In this study following hypothesis are made in view of objectives in mind and are tested on the basis of data collected from sampled professional, working in FMCG industries.

We set hypothesis under study to test are:
1. Supply chain Management is the major custodian of the wealth of the organization.
2. Efficiency of supply chain management can be improved by adopting professionalism in SCM function.
3. Employee involvement is less due to lack of motivation.
4. Organizations Profitability can be improved with competitive supply chain management.
1.6 Research Methodology:

The adoption of proper and sound methodology in any economical investigation forms a vital part of the research study. It consists of scope of study, designing of questionnaires, sampling techniques, data collections, analysis of data, finally, presentation and interpretation of the data. The different aspects of research methodology are adopted in this study as given below.

1.6.1 Scope of the study:

The scope of this work undertaken is to study impact of supply chain function on profitability of an organization. Leverage organization’s profit enhancement through efficient supply chain function by sectorial study in FMCG industrial sector in particular in India.

This Study is restricted to FMCG sector in Indian industries in general and Maharashtra state in particular. It covers major industrial belt located in and around of Aurangabad, Pune, Nashik and Mumbai in Maharashtra State.

The State of Maharashtra in India is considered as one of the progressive states in terms of industrial township, growth and investments. It has major cities like Mumbai, Pune, Nagpur, Nasik and Aurangabad. These cities are well developed and known for very good industrial investment belts in the state.

1.6.2 Duration:

During the study a trend analysis for more than past 25 years is considered. It is learnt about industrial revolution in general across the globe and in India, industrial township development and growth of industry in the region through literature review and industry expert interaction. However actual survey work in this research study is undertaken during the year 2013 - 2014.
1.6.3 Nature of Data:

We have collected and used primary and secondary data for the study.

1.6.3.1 Primary Data:

We have used both primary as well as secondary data in this study. Secondary data is collected and used in understanding industrial revolution process globally, how it is flown to India, development of industrial sector in India as one of economic pillar, initiation of liberalization process, understanding frame work of supply chain management and its evolution process. However, primary data is used for detailed investigation of supply chain management.

Method of Data Collection:

Primary data is collected by both direct personal interview method as well as mailed questionnaires method. A well-structured questionnaire is prepared and mailed to various organizations. The questions are directed at examining the current practices of Supply Chain Management followed in industries. A well-structured questionnaire is used for collection of data. Questionnaire is divided into four sections.

First section is about general information to understand profile of supply chain function and representing FMCG organization. The questions are framed in such a way to understand profile of the organization, span of SCM function with quantum and quality of manpower, stability of operation etc.

Second section covers questions leading to understand and articulate SCM in FMCG industry which emphasizes on performance attributes like supply chain reliability, supply chain responsiveness, supply chain flexibility, supply chain cost and supply chain asset management etc.

Information is a great enabler for SCM. In order to understand extent of IT application and issues related to IT tools in supply chain, its impact on the practices and performance of the organization so questions relating to these aspects are included in third section of the questionnaire.

For effective performance measurement, supply chain strategy metrics must be linked to organizational profitability. This measurement is needed to enhance
organizational performance in design to set the dimensions of strategies for cost control and as a feedback for the control of process. So lastly questions related to this aspect are covered in the last section of the questionnaire in order to benchmark effective supply chain management leading towards profitability.

The primary data is derived from survey of industries in Maharashtra from Mumbai, Nashik, Pune, Nagpur & Aurangabad region. The organizations out of state of Maharashtra are mainly from Chennai, Gurgaon, Hyderabad and Bangalore. The questionnaires and survey link was sent to professionals working in FMCG industries from small, medium and large scale.

In order to capture visionary views, we have interviewed five professionals who are recognized as successful business leaders and experts in supply chain profession in and around of Aurangabad industrial belt. This helped in understanding future business trend.

**Sampling Technique and Sample size:**

A multi stage stratified random sampling technique is used for selection of industries. Due care is taken to include different segments of FMCG industries namely Food, Pharmaceuticals, Beverages – alcoholic and non-alcoholic both sectors, Engineering Consumer durables and nondurables, Health care, Seeds etc. in the samples.

To our survey request, which we have planned for various 100 industries SCM professionals; we received responses from 52 professionals of various industries. The survey response consists of 73 percent from industries based in Maharashtra and 27 percent from States out of Maharashtra. The professionals who have responded, 98 percent are working in manufacturing industry whereas 2 percent are representing service industry. The survey response indicate that most of the respondents were from industry turnover range of INR 25 Crore to over INR 600 Crore, having annual procurement budget in the range of 40 percent to 60 percent of their turnover, inventory holding in the range of 40 percent - 50 percent of cost of production, total organization strength is in the range of 50 to over 500 persons and that of in the supply chain is 20 to 100 persons depending upon the scale of industry.
1.6.3.2 Secondary data:

The secondary data collected from the available literatures, study and research conducted earlier, Government reports, financial data of organizations, industry survey reports, books on supply chain, conferences on supply chains, periodicals, supply chain magazines, journals and internet data base sources. Such data is used for understanding industrial revolution process, development and emergence of supply chain function, defining supply chain frame at large in industry.

1.6.4 Presentation of data:

The data collected are processed and analyzed in light with objectives and hypotheses. It is presented in the form of Tables, Diagrams, Graphs, Maps, Pie charts, Bar charts, Trend Charts etc.

1.6.5 Data Analysis and Technique used:

In the present study, simple statistical tools like averages, weighted averages, frequencies, median, percentages etc. and statistical tools like co-relation analysis, testing of hypotheses etc. are used for analysis and comparison of data. The collected data has been processed and presented as described above for analysis and interpretation purpose.

1.6.6 Limitations of the Study:

The present study is a sample study. Therefore 100 percent accuracy cannot be expected. However, due care has been taken to reduce sampling error by way of selecting a representative sample. The study is confined to FMCG sector. We tried to cover all the facets of the function.

In certain cases, it is felt that employees, who are working in the areas of supply chain management, need to understand the professional terminology and modern concept, its execution and long term impact on function. Such employees
are more of experience in the field of supply chain segments. Care has been taken by
briefing and explaining meaning of terminology used in questionnaire.

Our cultural aspect, behavior, approach to work, commitments reflect in
planning of task and delay actually may lead to additional cost to organization which
is difficult to capture in responses. Due to work pressure, response to survey got
delayed but appropriate care has been taken in getting responses of survey as close
as desired.

The information requested was mainly sensitive and confidential in nature. It
is noted resilience in sharing the same, was a concern. After continuous follow up
and assurance of usage of such data only for academic and analysis purposes, non-
disclosure as individual entity, we could succeed in getting the same to the best of
our ability and knowledge.

1.7 Chapterisation:

The chapters are drafted as per guidelines of research work requirement. However special attention has paid to maintain flow of study and proper
connectivity at broad perspectives. The complete study is divided into seven
chapters. The chapter scheme is designed keeping in view the objectives of the
study.

Chapter I - Introduction, Objectives & Research Methodology:

Chapter 1 contains introduction of the subject by presenting a brief overview
of Supply Chain Management. It describes the need of the study in the existing
economic scenario. In the current industrial system, it is acknowledged that SCM is
a key function which leads to contribution to profit in an organization. To establish
the same and understand its leverage, specific objectives and hypotheses are set forth
for testing.

It is quite imperative to understand genesis of supply chain management. With
the help of available literature, the study started from understanding of industrial
revolution till emergence of supply chain as a business function which is an
objective of the study. This chapter contains specific objectives and hypotheses as described for better clarity.

Supply chain is defined with its performance parameters and strategies impacting on profitability. This factor thoroughly taken care while designing hypotheses. Research methodology applied right from design of questionnaire, selection of samples, data collection and analysis, techniques used and drafting of research study is described in this chapter. We have undertaken research study in FMCG industries in India and especially in Maharashtra which is also been discussed in details in this chapter.

Chapter II - Review of literature:

Chapter 2 deals with review of literature. We started review of literature in line with defined objectives. It is started with human development process with rise of civilization. Subsequently industrial revolution started during early eighteen century and continued till now. It is said that we are at verge of third industrial revolution. Industrial revolution has further given birth to management systems. Supply chain management is being emerged recently since past 10 to 15 year in Indian industry.

Numerous articles have been published in the research journals illustrating the principles of supply chain management. Many case studies have been published, evidencing the benefits of supply chain management. SCM has been considered as one of important functions in an organization which drives and contributes to its profitability. The question arises as how many SCM professionals understand, recognize and strive for it so that overall profitability can be optimized. The research described in this study is carried out to ascertain SCM enablers for its efficiency leading to enhancement of profitability in organization in FMCG sector. Various literatures have been reviewed according to their applicability in the present study.
Chapter III - Industrial Evolution Process:

In chapter 3, the process of industrial evolution is described in details. Prior to the Industrial Revolution, which began in Britain in the late 1700s, manufacturing was often done in people’s homes, using hand tools or basic machines. The Industrial Revolution, which took place from the 18th to 19th centuries, was a period during which predominantly agrarian, rural societies in Europe and America became industrial and urban. Industrialization marked a shift to powered, special-purpose machinery, factories and mass production. The iron and textile industries, along with the development of the steam engine, played a central role in the Industrial Revolution, which also saw improved systems of transportation, communication and banking.

While industrialization brought about an increased volume and variety of manufactured goods and an improved standard of living for some, it also resulted in often grim employment and living conditions for the poor and working classes.

Industrial revolution has further given birth to management systems which evolved in various phases as activity based management, scientific management, functional management, multi skilled functional management etc. Supply chain started emerging out by encompassing areas like Store, purchase, logistics in the late 20th century to early 21st century in industry.

Chapter IV - Supply Chain Management in FMCG Industries:

Chapter 4 deals with Supply chain function as one of the organization element. Supply chain management was a term invented by Keith Oliver, a consultant belonging to the firm Booz Allen Hamilton, in the year 1982, to describe the overall process of planning, implementing and controlling what goes on at the supply chain in order to satisfy customer’s needs in a quick, efficient manner. Supply management is evolved through various phases in industry starting from traditional store keeping, purchasing, logistic, materials management, and integrated materials management to supply chain management.
Supply chain performance is measured through parameters and attributes like reliability, responsiveness, flexibility, cost and asset managements for better clarity and understanding of the function. Each of the parameters has its own attributes which are part and parcel of supply chain activities. The function is supported with resources like hardware, software, assets and manpower. An organization invests in assets for getting the return on the assets. In supply chain too, assets are engaged for proper utilization which becomes one of the measurement yard stick.

There are various strategies are used for optimizing the output of the function in supply chain. Supply chain being strategic function and it is believed that it plays pivotal role in maximizing profitability of an organization. In this chapter all the facts and facets of the supply chain management as a function is described with details.

SCM professionals are one of the important resources to drive the system. Their understanding of supply chain concepts, behavior, approach to define and drive strategies and system impacts the results. As a result, today’s supply chain manager owes his success or failure purely to the possession or lack of certain key skills.

From the findings of the survey, it is revealed that Supply chain holds 46 percent of turnover as wealth in the forms of inventories, for most of supply chain performance indicators has scope for improvement by 6 percent which is to be explored further. This shown how important and significant this function and its activity in the organization from profitability point of view.

**Chapter V - Impact of Supply Chain Management on profitability:**

Basic purpose of any industrial organization is to earn reasonable profit. It has its own objective, plan, strategies and ways to realize the same. In this chapter how and to what extent supply chain management and its strategies impact on profitability are discussed with reference to observations made in the study in FMCG in India. The key strategies and its impacts with pivotal role played by employees have given special attention in this chapter.
From the survey, it is concluded that Supply chain is a major custodian of wealth. Most of cost avenues and allied activities has its roots at SCM or routed through SCM. Hence it leads to financial impact on organization, without saying it also impacts on the profitability.

The professionals say SCM activities influence and impact to the extents of 13 percent on the profitability. The current level of efficiency of supply chain function is at 82 percent in FMCG industry. Importantly, an unit increment in supply chain efficiency leads to enhance profitability by 6 percent in an fast moving consumer goods organization. Therefore it is of strategic focus function.

Chapter VI - Efficient Supply Chain Model:

Chapter 6 describes Key performance parameters of efficient supply chains, key strategies to be adopted, softer aspects with qualities of supply chain professional and review mechanism leading to optimization of profitability. Direct observations made in study and data collected in industrial survey by way of field visit and internet responses are described in this chapter. Efficiency of function would definitely add value to profitability.

By way of survey, it is attempted to ascertain present efficiency level of SCM in FMCG industry in India. It is observed that the present efficiency of SCM is at a level of around 82 percent and there is scope for improvement. Importantly, professionals feel that an unit increment in efficiency will add to profitability by 6 percent. Therefore, SCM performance indicators are top level, short frequency monitoring parameter.

Through review of literature, result of survey, data analysis and personal interaction with supply experts and business leader, the strength and weakness of present supply chain system is evaluated. To improve efficiency of supply chain system, a robust and effective model is proposed which works on ground reality. This model contains three levels. Level one starts with top management, we have termed it as “Commitment: Top Down”, second level demand integrated approach
from middle management which is called as “Concept operationalization” and the last level is defined as “Counting on results: bottom up” to be executed at operational team in an organization. Implementation of this model will improve efficiency and fetch profit to organization which is elaborated in this chapter.

Chapter VII - Conclusion and Suggestion:

Based on the field survey, direct observations, primary and secondary data collected, conclusions reached about enhancing profitability through efficient supply chain management in FMCG industry in India are described in this chapter.

On the basis of the findings, suggestions are also given which are helpful for those who are engaged in the field of supply chain function, research scholars, private and public organizations, entrepreneurs and policy makers.