

**K.L.E.Society's**  
**BASAVPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,**  
CHIKKODI – 591201 District – Belagavi (Karnataka state, India)  
(ACCREDITED AT 'A+' GRADE BY NAAC WITH CGPA OF 3.42 IN THE FOURTH CYCLE)  
WEBSITE: [www.klebkcollegechikkodi.edu.in](http://www.klebkcollegechikkodi.edu.in)  
e-mail: [kles\\_bkcc@rediffmail.com](mailto:kles_bkcc@rediffmail.com) Phone: 08338-272176

---

### **1.3.3 Project Report**

<b>Sl.No</b>	<b>Course</b>	<b>Page No</b>
<b>01</b>	<b>M.Com Commerce</b>	<b>1-499</b>
<b>02</b>	<b>M.Sc Botany</b>	<b>500-591</b>

**K. L. E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591 201  
PG DEPARTMENT OF COMMERCE**



**PROJECT REPORT ENTITLED  
A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH  
REFERENCE TO  
M/S. SHREE RENUKA MOTORS, CHIKODI.**

**Submitted to  
RANI CHANNAMMA UNIVERSITY, BELAGAVI**



**FOR THE PARTIAL FULFILMENT OF DEGREE IN MASTER OF COMMERCE  
DURING THE ACADEMIC YEAR 2022-2023**

**SUBMITTED BY  
Miss. ARCHANA R BHOSALE  
M.COM-IV SEMESTER  
REGISTER NO: P15DM21C0002**

**UNDER THE GUIDANCE OF  
Shri. V. S. KHOT**

**K.L.E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591201**

**PG DEPARTMENT OF COMMERCE**



## **CERTIFICATE**

This is to certify that Miss. ARCHANA R BHOSALE has satisfactorily completed the Project Report Entitled A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI for the partial fulfillment of Degree in Master of Commerce in Rani Channamma University, Belagavi during the academic year 2022-2023.

Shri. V. S. KHOT  
PROJECT GUIDE

Dr. LAXMI KANTHA NAYAKA T O  
HOD  
HEAD  
Department of Commerce

Shri. UDAYSINGH RAJPUT  
PRINCIPAL  
KLES'S Basavaprabhu Kore  
Arts, Science and Commerce College  
CHIKODI - 591 201



## CERTIFICATE

This is to certify that Ms. **ARCHANA R.BHOSALE**

M.COM IV th Semester student of K.L.E.Society's Basavaprabhu Kore Arts, Science, and Commerce College, Chikodi has successfully completed her project on "**Customer Relationship Management**" towards Hero Motocorp with special reference to **M/S Shree Renuka Motors Chikodi**" in our organization from **15 June 2023** to **20 September 2023**.

During this project, she was found sincere and hardworking. We wish her all the success in future and best of luck.

Managing Director





# **DECLARATION**

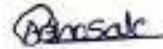
I declare that the project report entitled **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI** is a record of independent research work carried out by me and submitted in partial fulfilment of the Degree in "**Master of Commerce**" as prescribed by the Rani Channamma University, Belagavi for the academic year **2022-23**.

It has been prepared under the guidance and supervision of **Shri. V. S. Khot**, Lecturer in PG Department of Commerce, K.L.E. Society's Basavaprabhu Kore Arts, Science and Commerce College, Chikodi.

The Thesis or a part thereof has not been previously submitted for the award of any other degree or diploma.

**Date:** 22-09-2023

**Place:** Chikodi



**Miss. Archana R Bhosale**

**Register No:P15DM21C0002**

# Acknowledgement

The success of any project is incomplete without mentioning the names of the people who made it possible.

I am conscious of my indebtedness to each and every individual, who has helped me in many ways in the preparation of this project work. It would be great privileged to express words of gratitude and respect to all those who guided and inspired me throughout the completion of this project.

I sincerely express my deep sense of gratitude and appreciation to Internal Guide **Shri. V. S. Khot**, for his careful and valuable guidance, never ending patience and constant encouragement throughout the project.

I am beholden to **Dr. Laxmikantha Nayaka T O** Head of Department of Commerce for constant interest evidenced by him in my academic pursuits.

I express my deep intelligence of appreciation to **Shri. Udaysingh Rajput**, Principal of our college for his valuable suggestions and encouragement.

I express my sincere gratitude to **Shri. Arun Mali** Manager, M/S Shree Renuka Motors, Chikodi for providing me an opportunity to do a project in their organization.

At the outset, I would like to thank all the teaching faculty of PG Department of Commerce for their valuable suggestions during project work.

My thanks are also to library staff for their co-operation during the course of project work and I am also thankful to Printers for their skillful printing of this project.

Finally, I owe my deep sense of gratitude to my parents, friends and relatives for their constant encouragement and support.

**Miss. Archana R Bhosale**

# INDEX

<b>SL NO.</b>	<b>CONTENTS</b>	<b>PAGE NO.</b>
1	INTRODUCTION AND RESEARCH DESIGN	1-7
2	CONCEPTUAL FRAMEWORK	8-31
3	COMPANY PROFILE	32-44
4	DATA ANALYSIS AND INTERPRETATION	45-57
5	FINDINGS, SUGGESTIONS AND CONCLUSION	58-60
	BIBLIOGRAPHY	
	ANNEXURE	

**CHAPTER-1**

**INTRODUCTION AND RESEARCH DESIGN**

- 1.1 Introduction
- 1.2 Review of Literature
- 1.3 Statement of Problem
- 1.4 Need for the Study
- 1.5 Objectives of the Study
- 1.6 Scope of the Study
- 1.7 Research Methodology
- 1.8 Limitations of Study
- 1.9 Chapter Scheme



# **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

## **1.1 INTRODUCTION**

The biggest management challenges in liberalization and globalization for a business is to serve and maintain good relationship with customer. In the past procedures took their customer for granted. Because that time the customers were not demanding nor had alternative source of supply or suppliers, but today there is a radical transformation. The changing business environment is characterized by economic liberalization increasing competition, high consumer choice, demanding customer, more emphasis on quality and value of purchase etc.

All these changes have made today's producer shift from traditional marketing to modern marketing calls for more than developing a product, pricing it, promoting it and marketing it accessible to target customer. It demands building trust, a binding force and value-added relationship with the customers. The process of developing a co-operative and collaboration relationship between buyers.

## **1.2 REVIEW OF LITERATURE**

### **Lehmkuhl Tobias & Jung Reinhard (2013)**

Stated in their study that the triggers of SCRM are technological advancements and societal changes leading to a web user. Persons are engaged in a public and direct dialogue with organization and their peers in order to drive personal utilitarian and effective value. SCRM added to that point by facilitating customer engagement as a means to establish mutually beneficial relationships.

### **Andzulis, Panagopoulos & Rapp (2012)**

Explained in his study that all customers are now customers Benefits & that every interaction is an integral part of new media collaboration between the company and the customer about such topics as product & company reputation.

### **Manish Parihar I (Jan 2012)**

Founded that although the traditional touch points with the customer are to stay but the new generation online tools have radically changed in the way that companies connect

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

of and relate to their customers the concept of customer extension experience management has been an of the new age customer relationship management.

### **Greenberg (2009)**

Started in this study that term “social media” has been used in several contexts related to different technologies and what they can accomplish, social media may be defined as the production, consumption and exchange of information across platforms for social interaction. Using a similar approach but without explicitly defining social media.

### **Mangold & Foulds (2007)**

Stated that before the development of social network, companies retained control over the message that they defused and the time in which customer would have access to them companies loss control once a message is broadcast as it is recovered by customers who will comment on, share or question it. The customer can talk directly with the brand and other customers.

### **Gordon Fullerton (2006)**

Gordon says in his paper that “Building CRM Relationship”. CRM program is currently in trend. If the CRM program are effective offers profits the Company in relation to customer retention. As in periods of rapid development of new products and services it is generally easier for a company with more than one customer to sell these products to customers who have already purchased on existing product rather than another. Previously the products of the company.

### **Chen & Popovich (2003)**

Argued that CRM is a complicated application which mines customer data, which has been retrieved from all the touch points of the customer, which than creates and enable the organization to have complete view of customers and predicting trend of their future purchases, CRM is also defined as an all-embracing approach that seam Lesly integrates sales, customer service, marketing, field support and other functions that touch customers. They further stated that CRM is a notion regarding how an organization can

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

keep their most profitable customers and at the same time reduce cost, increase in values of interaction which then leads to high profits and seller is called customer relationship management shortly called CRM.

### **Bose (2002)**

Noted that CRM was invented because the customers differ in their preference and purchasing habits. If all customers were alike, will be little noted for CRM as a result, understanding customer drives and customer profitability, firm can better tailor their offerings to maximize the overall value of their customer portfolio. The attention CRM is currently receiving across businesses is due to the fact that the marketing environment of today is highly and more competitive.

### **1.3 STATEMENT OF THE PROBLEM**

This research brings together the fields of relationship between customers and the company. The methods used by the company to retain their valuable customers. CRM plays vital role in boosting sales, retaining existing customer, etc. in the competitive business environment. The role of CRM has further intensified due to price competition, hence the present study under taken.

### **1.4 NEED FOR THE STUDY**

Customer Relationship Management plays a major role for the growth of the company in modern scenario. Due to different network service provides there is huge competition to relations plays a major role for any company. The purpose of Customer relation is not only for retaining the customers but also attracting new customers and increasing the sales and also creating and maintenance of brand awareness.

### **1.5 OBJECTIVES OF STUDY**

- 1) To understand the concept of customer relationship management.
- 2) To investigate the CRM practices adopted by company.
- 3) To assess customer feedback about CRM practices adopted by company.

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

4) To offer suggestions for better customer relationship management.

### **1.6 SCOPE OF THE STUDY**

The present study is limited to M/S. Shree Renuka Motors Chikodi, covers the study on “Customer Relationship Management”. The study based on primary data. The source for the data collection is questionnaire the target population of study is customers of the M/S. Shree Renuka Motors. The sample size 50.

### **1.7 RESEARCH METHODOLOGY**

#### **Source of Data**

The data required for this project has been collected from both primary as secondary resources.

**Primary Data:** As the name itself suggests these data are first-hand information.

For this study the primary data has been collected from respondents by personal visit and interview using structured questionnaire, personal survey and sampling.

#### **Sampling Unit:**

Customer of the M/S. Shree Renuka Motors.

#### **Population:**

In this study population used are the existing customers of the M/S. Shree Renuka Motors.

#### **Sample Size:**

A sample of 50 respondents has taken to undertake the study.

#### **Sampling Method:**



## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

A stratified random sample is one where the population is divided into mutually exhaustive strata or sub-group and then a simple random is selected within each of strata on age group, occupation etc. it may be noted that stratification does not means absence of randomness. I used a Random Sampling Method.

**Secondary Data:** The data that has previously been gathered and can be accessed by researcher

The data related to company profile and conceptual framework has been collected from secondary sources such as websites, books and annual reports.

### **1.8 LIMITATION OF THE STUDY**

- During Survey some respondents may not give proper answer.
- The study is only based on Hero Motors.
- There may be biased customer response while answering to the questionnaire.
- Study is limited to a sample size 50 customer of the company. Therefore, the study validity is relied on generalization.

# **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

## **1.9 CHAPTER SCHEME**

### **Chapter 1: Introduction and Research Design**

This chapter gives details on Introduction, Review of Literature, Need of the study, Objectives of the study, Scope of the Study, Research methodology and Limitation of the study.

### **Chapter 2: Conceptual Framework**

In this chapter is viewed on various concepts related to the study which are: introduction, meaning and definition of customer Relationship Management, key concept, Characteristics, Objectives, four steps in CRM, Who and Why need CRM system, Benefits & Problems, Implementation, Factor affecting the implementation, Models, Types, Components, Techniques.

### **Chapter 3: Company Profile**

This chapter deals with the company profile which include company profile, about company, organizational structure, vision mission and objectives, competitors, departments, product and service profile, SWOT analysis.

### **Chapter 4: Data Analysis and Interpretation**

In this chapter data has been analyzed as per the information available through questionnaire in the forms of tables and graphs.

### **Chapter 5: Findings, Suggestions and Conclusion**

This chapter concluded the project it comprises findings, suggestions and conclusion.

**CHAPTER – 2  
CONCEPTUAL FRAMEWORK**

2.1 Introduction

2.2 Meaning and definition of Customer Relationship Management

2.3 Key concept in CRM

2.4 Characteristics of CRM

2.5 Objectives of CRM

2.6 Four steps in CRM

2.7 Who need a CRM system?

2.8 Why do you need CRM?

2.9 Benefits & Problems of CRM.

2.10 Implementation of CRM.

2.11 Factors affecting the implementation of CRM.

2.12 Ways to maintain a good customer relationship.

2.13 Customer Relationship Management Model.

2.14 Types of CRM.

2.15 Components of CRM.

2.16 CRM Techniques.

# **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

## **2.1 INTRODUCTION**

The industry persons were taking place using the word CRM while in the on 1990once the thought of industry on-going to transform from being transactional to being relational. CRM maintain the relationship with the customer for the purpose of the customer profit and the growth of businesses. Information technology will play a very important function in identify, acquire, and retain the customers, and to maintain the strong relationship with customers.

The term CRM acronym as customer relationship management which consists of three words such as customer, relationship, and management? The first component is the customer or a potential buyer; the second one the relationship means the connection or association between customer and firm, and finally, the management which is concerned about identifying, creating, attracting, developing and retaining the customers. So, the customer relationship management means an integrated strategic decision process which is concerned about identifying the target customers, developing strategies for attracting the customers, and retaining the existing customers by creating and delivering value to the customer with long term relationship.

## **2.2 MEANING &DEFINITION OF CRM**

### **Meaning of CRM:**

Customer relationship management is an approach to manage the organization's communication with present and outlook customers that try for the purpose of analyses the information about customer's the past with a company and to get better the business relationships along with the customers, mostly focusing on customer retention and finally driving sales growth.

Customer relationship management is a technology for managing all company's relationships and interaction with customer and potential customer.



# **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

## **Definitions of CRM:**

“CRM is an integrated cross-functional focus on improving customer retention, maintaining relationship with customers and profitability for the company.”

“CRM is process of creating and maintaining relationships with business customer or customers.”

**Customer:** The customer is the only source of the companies present profit and future growth. However, a good customer, who provides more profit with less resource, is always scarce because customers are knowledgeable and competition is fierce.

**Relationship:** The relationship between a company and company involves continuous bi-directional communication and interaction. CRM involves managing this relationship so it profitable and mutually beneficial.

**Management:** CRM is not an activity only within a marketing department. It involves continuous corporate changes in culture and strategies. CRM requires a comprehensive change in the organization and people.

CRM used in business for identifying the new selling opportunities. Also it deliver instant company wide access to customer histories. CRM has emerged as a popular business strategy in today’s competitive environment. It is disciplines that enable the companies to identify and target their most profitable customer. Its involved new and advance marketing strategies that not only retain the existing customers but also acquire new customer. There are three key elements to successful CRM initiatives people business process and technology.

## **2.3 KEY CONCEPTS IN CUSTOMER RELATIONSHIP MANAGEMENT**

**Customer satisfaction:** The Modern markets key ambitious task is to attract the customers by using strategic sales promotion techniques, customer satisfaction means a positive feeling by potential buyers towards any product or service. It is an act of gratifying the desire or need or expectations of the final user.

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

Customer loyalty: The key objective of customer relationship management in every organization is creating loyalty. It means the fidelity of the activities by the seller in the consumer mind through customer loyalty programs there by motivating the customer for a repeat purchase.

Relationship marketing: The marketing functionalism aims at identifying creating developing and managing long term relationships with target customers. It is concerned about maintain the customer for a repeat purchase.

Electronic customer relationship management: The term eCRM acronym as electronic customer relationship management is a process of integrating CRM functions with the use of the information and communication technology.

Mobile CRM: The term acronym as mobile customer relationship management which enables the marketers to provide services such as identifying, creating, building and maintaining customer relationship by using wireless networks.

Virtual CRM: The term vCRM acronym as virtual customer relationship management refers to the process virtual communication of marketing product or service by using digital channels.

Social CRM: The term of social customer relationship management is relationship marketing techniques by using social media as a technique which enables the business firm to create. develop and build a relationship with its customer.

Automation: the operational CRM consist of three different automations, such as: -

- Sales automation
- Market automation
- Service automation

Sales automation helps automate sales function, market automation helps to find a track to approach the customers and service automation which deals with retention of existing customer.

**Challenges:** Successful development, implantation, use and support of customer relationship management system can provide significant advantages to the user, but often there are obstacles that obstruct the user from using the system to its full potential.

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

Instances of CRM attempting to contain a large, complex group of data can become cumbersome and difficult to understand for ill-trained users. The lack of Senior management sponsorship can also hinder the success of a new CRM system. Stakeholders must be identified early in the process and a full commitment is needed from all executives before beginning the conversion. But the challenges faced by the company will last longer for the convenience of the customers.

Additionally, an interface that is difficult to navigate or understand can hinder the CRM's effectiveness, causing users to pick and choose which areas of the system is to be used. While other may be pushed aside. This fragmented implementation can cause inherent challenges, as only certain parts are used and the system is not fully functional. The increased use of customer relationship management software has also led to an industry wide shift in evaluating the role of the developer in designing and maintaining its software. Companies are urged to consider the overall impact a of a viable CRM software suite and potential for good or bad in its use.

### **2.4 CHARACTERISTICS OF CRM**

Well-designed CRM includes the following characteristics:

**1. Customer-Oriented:** Relationship management is a customer-oriented feature with service response based on customer input, one-to-one solutions to customers' requirements, direct online communications with customer and customer service centers that help customers solve their questions.

**2. Sales force automation:** This function can implement sales promotion analysis, automate tracking of a client's account history for repeated sales or future sales, and also coordinate sales, marketing, call centers, and retail outlets in order to realize the sales force automation.

**3. Use of technology:** This feature is about following the technology trend and skills of value delivering using technology to make "up-to-the-second" customer data available. It applies data warehouse technology in order to aggregate transaction information, to merge the information with CRM solutions, and to provide KPI (key performance indicators).

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

**4. Opportunity management:** This feature helps the company to manage unpredictable growth and demand and implement a good forecasting model to integrate sales history with sales projections.

### **2.5 OBJECTIVES OF CRM**

- To simplify marketing and sales process
- To make call centers more efficient
- To provide better customer service
- To discover new customers and increase customer revenue
- To cross sell products more effectively

The CRM processes should fully support the basic steps of customer life cycle. The basic steps are:

- Attracting present and new customers
- Acquiring new customers
- Serving the customers
- Finally, retaining the customer

### **2.6 THE FOUR STEPS TO KEEP THE GOOD CRM**

#### **Step 1: Identifying the customers**

To be able to participate in a coordinated activity, the association must have the ability to contact a reasonable number of customers or to locate critical elements of a major customer. It is very important to know where your customers are interested as much as possible. In recent years, rather than the address of a name, their propensity and value are important.

#### **Step 2: Differentiating customers**

The client varies mainly in to ways. They have different degrees of inclination and have unique necessities. Once the association distinguishes the client, the separation of the

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

client will help the association to choose the one with the most profitable clients and the most favored view.

### **Step3: Interaction with customer**

The association is also an important part of customer relationship management activities. Remember that connections occur through the customer interface in many aspects of the advertising and trading channels, in the areas and viewpoints of the organization, in order to foster relationships that should be available to customers. Customers in all areas of the association.

### **Step 4: Customize your enterprise behavior**

Finally, in order to connect the customer, we have to adjust certain actions to address the customer individually in order to express the customer's problem. This can mean a change in mass in the element or involve adjusting part of the management containing the element.

Customer Relationship Management includes the followings: -

#### **Marketing**

- Run campaigns
- Generate leads
- Form database

#### **Sales**

- Assign leads
- Quality leads
- Convert leads
- Track opportunities

#### **Orders**

- Deliver products
- Produce invoice

#### **Support**

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

Manage cases

- Conduct training
- Provide service
- Develop knowledge base

### **2.7 WHO NEED A CRM SYSTEM?**

A CRM system gives everyone, from sales, customer service, business department, recruitment, marketing, or any other line of business. A better way to manage the external interactions and relationships that drive success. CRM software lets you store customer and prospect contact information, identify sales opportunities, record service issues, and manage marketing campaigns, all in one central location and make information about every customer interaction available to anyone at your company who might need it.

With visibility and easy access to data, it's easier to collaborate and increase productivity. Everyone in your company can see how customers have been communicated with, what they've bought, when they last purchased, what they paid and so much more. CRM solution can help companies of all sizes drive business growth, and it can be especially beneficial to a small business, where teams often need to find ways to do more with less. Our CRM handbook explains how and why small to medium sized businesses should consider utilizing CRM software, plus advice and first step for getting started.

The benefits of CRM are immense such that it is suitable for businesses of all sizes and types.

#### **Small Business:**

CRM technology helps organize the scattered customer data, which helps in easy accessibility and customized services. It improves the quality of customer service and supports cost-effective business growth.

#### **Mid-sized Enterprises:**

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

The automation component of CRM enables streamlined processes and promotes collaboration. CRM provides data – driven insights for targeted marketing and informed decisions.

### **Large multinational organization:**

CRM application integrates with other enterprise systems for efficient business operations. For large businesses, CRMs helps enhance workflow and boost customer retention.

## **2.8 WHY DO YOU NEED CRM?**

Implementation of a CRM system will help solve of the most important business problems, such as:

- ❖ Collect and create customer profiles to make it easier to track buying habits and customer behavior, as well as be able to assemble a customer group and direct the right marketing campaign at the right time.
- ❖ Create an effective and personalized interaction with your client. since all the data is collected and located in one place, there Is no need to request the same information from the client several times.
- ❖ Reduce misunderstandings and ensure transparency of information your organization by sharing data assigned tasks, analytics, strategy, effectiveness, etc. thus, everyone in the company gets the opportunity to see all business processes.

### **Best practice CRM**

- ✓ Integration of specialist resources
- ✓ Joint customer plans
- ✓ Senior management involvement
- ✓ Best practices product and services
- ✓ Company wide application of priority service standards
- ✓ Optimization of relationship manager productivity
- ✓ Customer management system



## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

- ✓ Accessibility & Responsiveness Optimization of people skills
- ✓ Joint business reviews
- ✓ Dedicated relationship managers
- ✓ Proactive implementation of value added.

### **2.9 BENEFITS PROBLEMS OF CUSTOMER RELATIONSHIP MANAGEMENT**

#### Benefits of CRM

- Connect with customer
- Cost reduction in marketing & sale
- Increased customer retention & loyalty
- Increase in employee efficiency & satisfaction
- Increased revenue
- Customer orientation product development
- Enable provisions of better customer service and support across all the touch points, whichever the customer uses.
- Support Multichannel integration
- Price Improvement
- Improved Customer Service efficiency

#### Problems of CRM

- Lack of using CRM system
- Lack of project team
- Employee 's resistance to CRM system
- Lack of internal communication across department
- Belief the CRM only in IT system

### **2.10 IMPLEMENTATION OF CRM**

To implement CRM, following factors need to be given due consideration

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

- Easy interaction between customer and company.
- Easy access to information about company content of customization, advantages of the company, benefits to the customers.
- Abundant supply of customer.
- Customer's information should be updated.
- Have a cordial relationship with other companies targeting the same customer segment.

### **A CRM software system performs the following activities:**

- ❖ Collects customer data from multiple sources and applications and stores it in a centralized location.
- ❖ Automates repetitive sales, marketing, and customer service process.
- ❖ Tracks prospects and customers through their purchase journey.
- ❖ Identifies up selling and cross-selling opportunities.
- ❖ Promotes interdepartmental collaboration.

### **Purpose of CRM**

The overall purpose of CRM is to improve marketing productivity and enhance mutual value for the parties involved in the relationship. CRM has the potential to improve marketing productivity and create mutual values by increasing marketing efficiencies and/or enhancing marketing effectiveness (Sheth and Parvatiyar 1995a; Sheth and Sisodia 1995). By seeking and achieving operational goals, such as lower distribution costs, streamlining order processing and inventory management, reducing the burden of excessive customer acquisition costs, and through customer retention economics, firms could achieve greater marketing efficiencies. They can enhance marketing effectiveness by carefully selecting customers for its various programs, individualizing and personalizing their market offerings to anticipate and serve the emerging needs of individual customer, building customer loyalty and commitment; partnering to enter new markets and develop new products, and redefining the competitive playing field for their company (Sheth and Parvatiyar 1995a). Thus, stating objectives and defining

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

the purpose of CRM in a company helps clarify the nature of CRM programs and activities that ought to be performed by the partners. Defining the purpose would also help in identifying suitable relationship partners who have the necessary expectations and capabilities to fulfill mutual goals. It will further help in evaluating CRM performance by comparing results achieved against objectives. These objectives could be specified as financial goals, marketing goals, strategic goals, operational goals, and general goals. Similarly, in the mass-market context, consumers expect to fulfill their goals related to efficiencies and effectiveness in their purchase and consumption behavior. Sheth and Parvatiyar (1995a) contend that consumers are motivated to engage in relational behavior because of the psychological and sociological benefits associated with reduction in choice decisions. In addition, to their natural inclination of reducing choices, consumers are motivated to seek the rewards and associated benefits offered by CRM programs.

### **2.11 FACTORS AFFECTING THE IMPLEMENTATION OF CRM**

#### **Internal Factors**

- a) Management commitment: The top management is required to effectively communicate that CRM is not a threatening source for employees and that it will merely optimize the work process. Such support will make the internal environment acknowledge CRM as an important element of business strategy by involving in activities that demonstrate the commitment to CRM implementation.
- b) Organizational Culture: the staff is required to be familiar with and comprehend the CRM and organizational strategies behind it. The new system is tightly connected to cooperative work culture and will require employees to change attitudes towards integrative cooperation, communication, and participation of personnel at all levels to deliver a unified view of the company and its products to customer.
- c) Financing Resources: the implementation, continuous monitoring, and upgrade of the CRM system, would always require solid financial support from the

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

company. This requires analyzing the economics situation and deciding whether the organization will be able to finance the system in the long term.

- d) **System Development:** a CRM system is not the same in every organization by way of companies require different features, different levels of automation, and different uses. CRM is a tool to achieve an organization's strategy, so

Management must think through every detail of the system and avoid including all available functions' otherwise, CRM will become dispersed, complex' and add cost due to unnecessary function.

### **External Factors**

- a) **Data privacy regulation:** Requires firms to protect the personal information of consumers, however, sometimes companies are not allowed to even keep that data. For example, marketers that collect EU customer data are not able to collect and use cookie data, impression data, or personal data without express consent under GDPR. Customers are required to affirmatively consent to the collection of their data and each intended use.
- b) **Security breach from hackers:** this factor is directly affecting the customers trust and might prevent gathering data from the target market in future. Also, the data leakage can harm not only the reputation of the company externally, but also doom its internal operations.
- c) **Technology changes:** every year new technologies emerge that can complement CRM software, but they will also require an organization's operating structure.

### **2.12 WAYS TO MAINTAIN A GOOD CUSTOMER RELATIONSHIP**

**Treat your customers genuinely:** Customer become happy only if all their issues are resolved correctly. Being a representative of your business address your customers by their name at the very beginning of the conversation to let them know that you know their name and try to interact with them genuinely to know their problems and to fix them all.

**Be a good listener:** Always try to hear your customer that what they saying. Truly listening to you to your customers is very important not only helps to resolve issues

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

rather it is one the customer relationship building processes. They will get the satisfaction after talking to you.

**Try to build trust:** It needs 10 positive experiences to cover up the dissatisfaction of single negative experiences of a customer. In customer relationship building process it is essential to build trust among your customers. Let your products or services. Be honest as well as transparent because these are the crucial factors in customer relationship building.

**Prove your customer always right:** Whatever is the situation that should always be right. It always makes all the customers happy and calm.

**Try to ask more questions:** you make a good connection with your customers by asking them for more questions. With the help of this strategy, you can get the thoughts of the customer which can be beneficial for your business.let them also understand that you are interested in listening them.

### **Positioning**

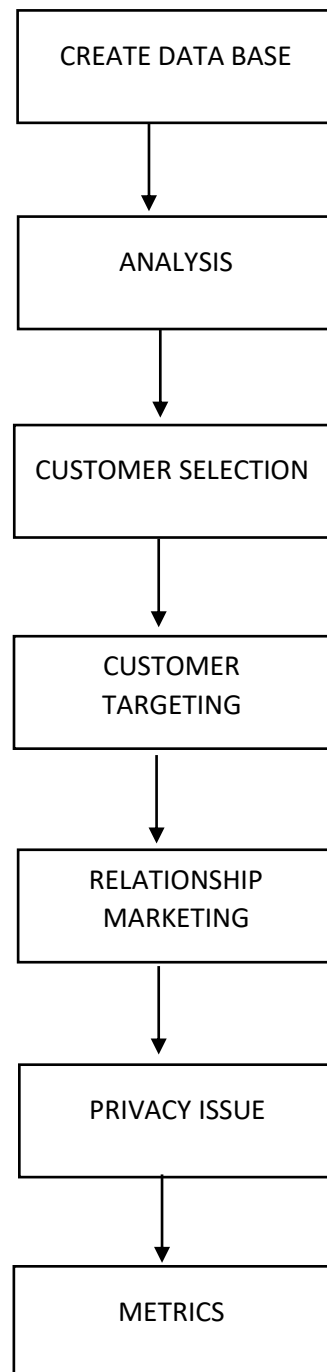
The success of a target marketing strategy hinges on marketer's abilities to identify and select an appropriate market segment. Then marketers must devise a marketing mix that will effectively target the segments member by positioning their products to appeal to that segment. this is done by two steps:

- Analyze competitors positioning in market place.
- Offer a product with a competitive advantage to provide a reason why consumer provide the product as better than competition. Positioning can be based on competitive advantages along the lines of product services, distribution channel, people, image and value.

### **Repositioning**

Using the marketing mix approach to change present consumer perception of a firm's product and service

**2.13 CUSTOMER RELATIONSHIP MANAGEMENT MODEL**



## **2.14 TYPES OF CRM**

### **1) Operational CRM:**

It provides support to front-office business processes that involves direct interaction with customers through any communication channel, such as phone, email etc. the details of every interaction with customer, including their requirement's, preferences, topic of discussions etc., are stored in the customers contact history and can be retrieved by the organization staff whenever required. operational CRM helps to align your teams across marketing, customer service and sales via automation. In doing so, it allows these functions to work together using one customer or lead view and, ultimately, offer a smooth and positive experience while ushering leads from awareness to conversion and beyond. Its automation capabilities free up your team members to ditch repetitive, tedious tasks, so they can focus on tasks only humans can do.

Marketing tasks that operational CRMs help to automate include designing, distributing and tracking email campaigns and sequences. Customer service and sales automation examples include sales forecasting, tracking customer conversations, ticketing systems that assign complaints to experienced reps, task assigning, chatbots that receive complaints and the automated delivery of helpful content to answer customer questions.

As an example, a customer might interact with a website chatbot to complain about a product defect. From there, a ticket is created and routed to a sales rep who specializes in resolving the issue. After the assigned sales rep resolves the issue, the conversation with the rep triggers a follow-up email with a survey to ensure the issue has been resolved satisfactorily, along with a coupon code to entice the customer to buy again.

This includes direct contact with the customer. These connections are called customer contact points. This point of contact

- Face to face contact points
- Contact points based on a database
- Mass media

The operational CRM relies mainly on three mechanisms.



## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

- Sales automation
- Marketing automation
- Automation of services

### **Benefits of Operational CRM**

- Delivers personalized and efficient marketing, sales, and services through multi-channel collaboration.
- Enables a 369-degree view of your customer while you are interacting with them.
- The operational part of CRM typically involves three general areas of business:
  - Sales force automation
  - Customer service and support
  - Enterprise marketing automation

### **2) Collaborative CRM:**

It improves and improves the quality of customer interaction by enabling two-way conversations between an organization and its customers through a combination of channels with specific features. The main goal of collaborative CRM is to consider external stakeholders, such as distributors, suppliers and vendors For ex: Feedbacks can be collected through the telephone calls and E-mail, which improves the direction for proper selling of products and services in future.

Collaborative CRMs allow teams in and around your company to work together more seamlessly to create better customer experiences across customer touch points with your brand. Such teams include internal teams like your sales, customer service, technical support and marketing teams. It also often streamlines communication across your company's vendors, technical support reps, suppliers and distributors.

To help companies manage interactions, a collaborative CRM stores all interactions between customers or leads and your company. It does so by sourcing data from all channels, including website, email, phone, social media and even face-to-face interactions. From there, the data is analyzed to tell your team how and where to best interact with customers and leads for the best customer experience.

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

For example, your sales representative sold a customer a hot tub. In that interaction, your team member learned that the customer prefers to interact with your company via text and notes this in your CRM. So, when it comes time to upsell a new accessory or schedule a regular maintenance visit, your marketing or technical support rep will know to also reach out via text to interact with your customer over their preferred channel.

### **Benefits of collaborative CRM**

- Enable efficient productive customer interactions across all communication channels.
- Enables web collaboration to reduce customer service costs
- Integrates call centers enabling multi-channel personal customer interaction
- Integrates view of the customer while interaction at the transaction value.

### **3) Analytical CRM**

It is to understand the behavior of the customer that has happened in the front office. This includes the use of data mining and other methods to analyze large amounts of cross- functional information and deliver results to operational CRM. The mission of CRM is to analyze buyer data gathered from various sources to enable business leaders to make informed decisions. Analytical CRM system uses processes as data mining, correlation, and pattern recognition to examine customer records. This analysis provides better customer service without detecting very few.

Analytical CRMs focus on data. It gathers data about each customer or lead, then offers an analysis of that data so marketers, sales reps and other functional members of your company can better serve your leads or customers. Example data includes Customer and lead contact information, preferences, behaviors and interaction history with your brand. More specifically, analytical CRMs first gather customer or lead data, then store that data in one place where all internal stakeholders can view it. Finally, Analysis dashboards highlight data trends like how customers interact with your website or where they are located. This data is available on a customer-by-customer basis or as an overview of a large customer base. It reveals patterns your internal teams can use to improve the customer journey. For example, your data may show that 25% of your customers in Florida searched for a particular product during beach season. They even

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

put it into their online carts. However, 50% of those searchers did not buy but, instead, abandoned their carts. This insight can help you know how to offer them personalized marketing campaigns that convert, such as flash sales delivered via a triggered email when a cart is abandoned.

### **Problems that can be solved by marketing different parts of the audience differently.**

- Acquisition: Cross-sell, up-sell
- Retention: Retention customers who leave due to maturity or attribution.
- Information: providing timely and regular information to customer.
- Modification: altering details of transactional nature of the customer relationship.
- Analysis typically covers but it is not limited to:
  - Decision support: Dashboard, reporting, metrics, performance etc.
  - Predictive modeling of customer attributes
  - Strategy and research analysis of customer data may relate to one or more of the following analyses:
    - Contact channel optimization
    - Contact optimization
    - Customer acquisition /reactivation / retention
    - Customer segmentation
    - Customer satisfaction measurement/ increase
    - Sales coverage optimization
    - Fraud detection and analysis
    - Financial forecasting
    - Pricing optimization
    - Product development
    - Program evaluation
    - Risk Assessment and Management

### **2.15 COMPONENTS OF CRM**

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

**1. Time management:** in addition to single user and group calendar scheduling. the time management component also includes the creation and management of task list as well as e-mail.

**2. Sales/Sales Management:** This component includes management of contact profiles and history, management of account information including activities and order entry. Increasingly this category includes proposal generators, which permit sales personal to easily and quickly create a comprehensive and good-looking proposal.

**3. Telemarketing:** This component includes classical functionality such as call list assembling, auto dialing scripting call tracking and order taking. While traditionally this had been an out bound function increasingly telemarketing handles inbound.

**4. Customer Contact Center:** This component includes service function such as intend assignment, escalation, tracking, reporting, problem management, resolution, order management, promising and warrant, contact management. Increasingly customer service and support software include web based self service capability that customers can easily access using a browser.

**5. E-Marketing:** The marketing component continues to receive considerable attention within the CRM software industry, increased customer attention continues to be given to web centric encyclopedias and knowledge management to market segmentation complemented by comprehensive campaign management life cycle tool, to lead generation, enhancement, tracking increasingly to partner relationship management. E-marketing facilities one to one permission-based marketing efforts, these marketing components often depend on customer data received from websites and/or from a data warehouse enhanced by data warehousing tools such as data mining engines.

**6. Business Intelligence:** This component includes extensive and easy to use reporting capabilities, fixed reports are the norms, and to ensure the highest quality of reporting functionality many CRM software vendors are opting to integrate with leading third-party report writing tools. e.g., crystal report, actual which providing comprehensive report writing and graphical tool increasingly CRM software vendor are also offering executive dashboards and personalized portals to facilities and enhanced the business intelligence components within CRM automation.

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

**7. Field Service Support:** While field service support has not received a lot of attention in the past increasingly CRM vendor acknowledge that this is a large and growing market segment, the field service support components include work order dispatching, part order/reservation, preventative maintenance schedules and real time information transfer via mobile technologies. These first components constitute what is commonly referred to as front office or customer- facing function. The remaining three components comprise both business and technology issues. They deserve close attention given their impact on tomorrow's CRM industry.

**8. E-Business:** This component which is primarily focused for exchange of products and service via the web has become increasingly important given the growth of web-based business-to-business and business-to-consumers application. It is unlikely that CRM software will include every e-commerce application. What has become clear, however is that customer software will include web-based, front-end interface into commercially third-party e-commerce engines, which include shopping carts and storefront application, this front-end interface will in turn support increasingly complex b2b and b2c e-business application leveraging new technology advances in such areas as intelligence routing /click stream monitoring, content management, personalized, customer self-service and cross selling/up selling.

**9. Multimodal Access:** This component allows customer to reach your contacts via mail, phone and web. This means that your CRM system must support multiple modes of access from customer while simultaneously giving the impression that regardless of which mode or modes a customer use, you maintain holistic view of your customer at all time.

**10. Data Sharing Tool:** Although integration to legacy system, the web and the third-party external information sources has become increasingly important an effective CRM system, this component is somewhat of a technical component. Sales personnel, customer service personnel maybe even customer, may want to know the status of their order, or whether an invoice has been received.

Production line and inventory manager want to know latest sales forecast. CRM software automation vendors either build native ERP hooks directly into their

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

software's or seamlessly integrates into ERP system via third party "hook" software companies like cross worlds, web method and others, at synchronization is also very important for data sharing.

This includes mobile data synchronization from multiple fields as well as enterprise synchronization with multiple database/application serves. Many CRM software vendors have built their data synchronization functionality, although we also see integration with third party synchronization engines such as synchro logic.

### **2.16 CRM TECHNIQUES**

Some techniques which CRM aid in customer retention are as follows

**Builds up a Comprehensive Viewing of Customer Journey map:** Mapping the customer journey helps in jotting down focal points of customers experience, from initial contact, through the process of engagement and into a long-term relationship. this will help to assess the strengths and weakness of marketing strategy and also provide guidelines to re-engage the customer, if the rate of engagement has been less.

**Targets customer through Tailor made offers:** Identifying ways to convert customer interest to into actual purchase is the main point here, which can be achieved through providing discounts and offer to add value to the experience.

**Helps to create loyalty programs:** Information gathered in CRM software can bring out the varied levels of engagement by the customers, revealing which of the accounts are responsible for the most revenue. This information helps to create loyalty programs for those valued customers.

**Personalizing the interactions:** CRM software helps to see customer beyond the rotes of revenue. The effect of personalization is of great impact to not only purchase relationship, where it is equally essential.

**Help Asses Performance:** CRM can be utilized through dashboards to review service execution and pinpoint areas for improvement. It assesses to develop incentive schemes that reward staff for outstanding performance.

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

Pitfalls to Avoid:

Many CRM programs fail for two reasons:

**1) Lack of supportive business processes:**

Because business processes and organization goals are not part of a strategic CRM plan tied to organization goals and objectives.

**2) Lack of an enterprise prospective:**

For Relationship marketing to be effective, it requires that the organization creates a seamless enterprise view. A lot of CRM programs fails because they are assembled with disparate components that aren't designed to work together as part of a complete CRM system designed to meet organizational objectives.

**A good CRM program of the firm can improve its customer service by facilitating communication in followings ways:**

(1) Offering product information, product usage information and technical support through the web and offer means round the clock.

(2) Offering services in keeping with the requirement and expectations of each individual customer.

(3) Providing a speedy mechanism for the purpose of managing and scheduling follow up sales and calls in order to analyze the post purchase cognitive dissonance, the probability of repurchase, number of times of repurchases and frequency of repurchases.

(4) Developing and effective system to track all possible points of contact between the firm and the customer in an integrated manner.

(5) Locating the potential problems well in advance even before such problems arise.



**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

(6) Facilitating the adoption of a user-friendly mechanism for registering the complaints for the customers to prevent customer dissatisfaction.

(7) Suggesting a speedy mechanism for correcting services deficiencies, which may lead to higher customer dissatisfaction

(8) Ensuring the maximum utilization of IT-enabled services for offering customers the best and timely services.

(9) Providing a mechanism for improving efficiency and effectiveness in customer service, and for managing and scheduling maintenance.

## **CHAPTER-3**

### **COMPANY PROFILE**

3.1 Company Profile

3.2 About Company

3.3 Organizational Chart

3.4 Department

3.5 Competitors

3.6 Product and Services

3.7 Vision, Mission & Values

3.8 SOWT Analysis

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH  
SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

**3.1 COMPANY PROFILLE**



**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

**3.2 ABOUT COMPANY**

Name	M/S Shree Renuka Motors
Establishment	April 24,2014
Location	Chikodi
Owner and M. D	Chidanand Hiremath
Sales manager	Arun Mali
Dealer Sales Executive	Vinayak Desai
Target	Per year 500 bikes has been selling
Head Office	Chikodi
Address	Shree Renuka Motors, Sangali Road, Chikodi - 591201
E-mail	Srmgerockd@gmail.com
Dealer Code	11625
Phone number	9289922884
Employees	55
Organization set up	Land 7000sq.ft
Capital	2.0 Crore (Including Working Capital)

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

### **Company Overview**

Renuka motors started its sales service in chikodi town/city on 24/04/2014 it is one of private and partnership firm Mr. Chidanand Durdundyya Hiremath and Mr. Shivaprakash Veerbhadrappa Hiremath both are partners of a company.

Company had a 4s dealership to customer to done her works. 4s means

- 1) Sales
- 2) Service
- 3) Spares
- 4) Safety.

Company had a good infrastructure to looking and providing good facility to the customer.

Company had 1.20 crore rupee sales per month and 10-20 lakh rupees from spares and service. 100cc bikes a are highest sold in this showroom. E.g., Hero splendor plus, Hero HF Deluxe, Hero Splendor I-smart, Hero passion pro etc. And the Hero Pleasure and Maestro both are two ladies segment bikes.

Company provides some consumer helpful schemes that are as follows:

Hero We-care....

Hero Consumer service feedback system.

Hero tips for rides safety.

Get the best out of your Hero.

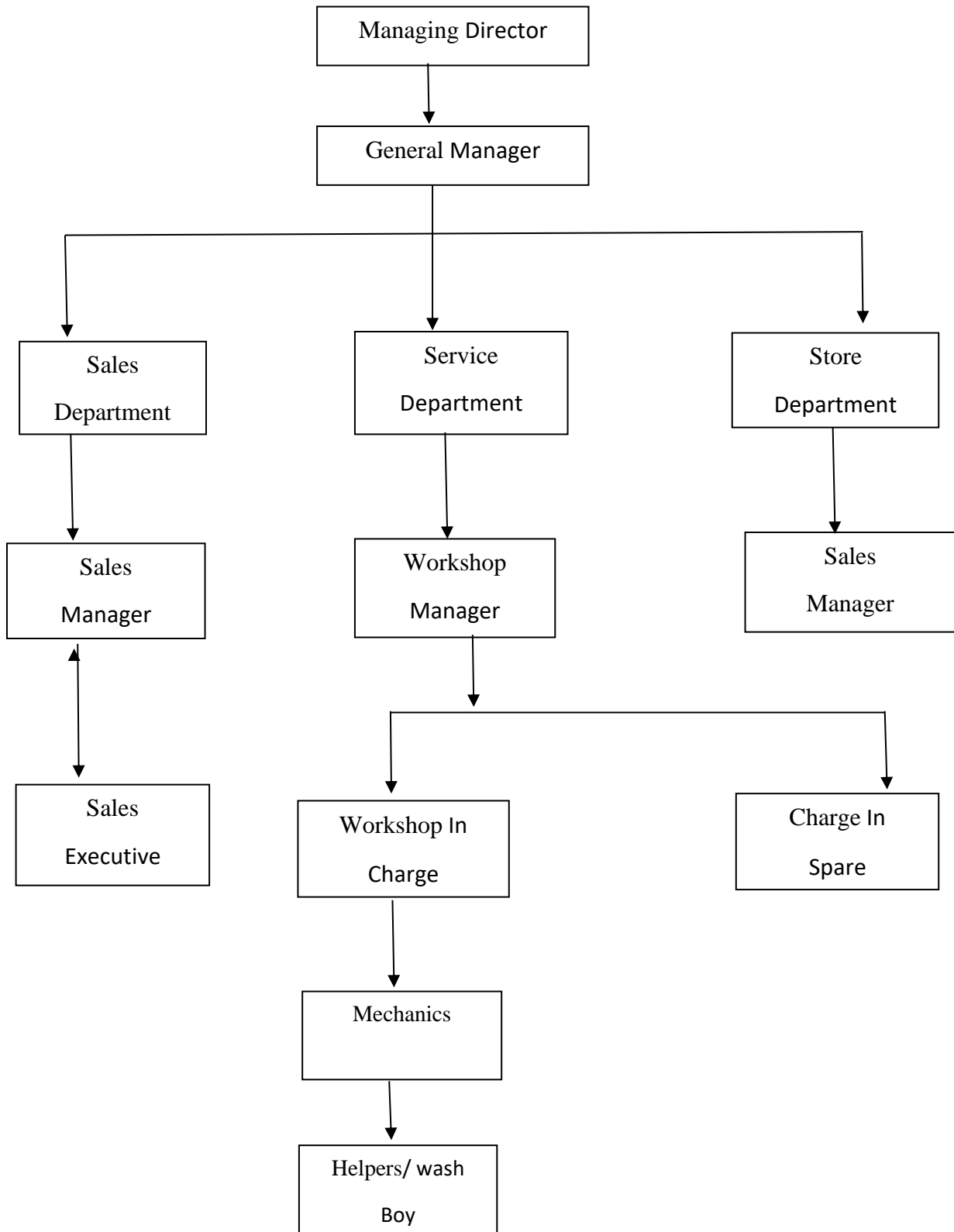
Hero Finance Corporation (provide finance system)

Finally, company had good quality service and service and availability. It is very helpful to the consumer.

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

**3.3 ORGANIZATIONAL CHART**



## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

### **3.4 DEPARTMENTS**

- Sales Department
- Service Department
- Store Department
- Finance Department
- Purchase Department
- Administrative Department
- Insurance Department
- Bill Counter Department

### **3.5 COMPETITORS**

- Vibhashree Honda
- Mahalaxmi Suzuki
- TVS Motors
- Jagajampi Bajaj
- Nagashanti Hyundai
- Ola Scooter Showroom



**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH  
SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

**3.6 PRODUCTS AND SERVICES**



Name	XPULSE 200 4V
Price	1,35,978
On Road Price	1,78,225



Name	HF DLX 100
Price	49,999
On Road Price	67,496

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---



Name	Passion Pro 110
Price	72,420
On Road Price	94,042



Name	XTREAM 160R
Price	1,13,958
On Road Price	1,51,381

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---



Name	Maestro Edge 110
Price	70,698
On Road Price	93,892



Name	Destiny 125
Price	82,950
On Road Price	1,08,001

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---



Name	Glamour
Price	86,270
On Road Price	1,10,422



Name	Super Splendor
Price	78,650
On Road Price	1,01,653

### **3.7 VISION, MISSION & VALUES**

#### **VISION: -**

The story began with a simple vision – the vision of a mobile and an empowered India, powered by its bikes. M/S Shree Renuka Motors, company's new identity, reflects its commitment towards providing high class mobility solutions with renewed focus on expanding company's footprint.

#### **MISSION: -**

Shree Renuka Motors mission is to become a global enterprise fulfilling its customers' needs and aspirations for mobility, setting benchmarks in technology, styling and quality so that it converts its customers into its brand advocates. Provide an engaging environment for its people to perform to their true potential. It will continue its focus on value creation and enduring relationships with its partners.

#### **VALUES: -**

- Honesty –in what we say and what we do we strive to be candid and sincere. Always do right things.
- Gratitude – we focus on the good in our lives and acknowledge that life, while not perfect, is good.
- Humility – we never assume that we know everything. We ask questions and listen to others.
- Passion – we are excited about bikes, our work, and sharing what we do.
- Safety- both on the road and in our shop we want people to be comfortable riding their bikes and accessing our programs.

#### **STRATEGY: -**

Shree Renuka Motors key strategies are to be build a robust service portfolio across categories, explore growth opportunities, continuously improve its operational efficiency, aggressively expand its reach to customers, continue to invest brand building activities and ensure customer delight.

#### **DISTRIBUTION: -**

The Company's growth in the two-wheeler market in District the level the result an intrinsic ability to increase reach in geographies and growth markets. Shree Renuka Motors extensive sales and service network now.

# **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

## **TEAM WORK: -**

We work cohesively with our colleagues as a multi-cultural team built on trust, respect, understanding, & mutual co-operation. Everyone's contribution is equally important for our success.

## **3.8 SOWT ANALYSIS**

### **1. Strengths:**

Following are the strengths of this which has helped them gain a strong position in the Indian automobile industry.

**Many sub-brands:** Offers motorcycle, mopeds, scooters, two-Wheelers and features popular brands across all categories. Motorcycles, for example: include well-known brands such as Apache RTR and Star city.

**Strong Financial Performance:** In recent years, Shree Renuka Motors has had a strong financial performance. It recorded growth in revenue (12.3%) and operating margin (4.8%) in 2016. As a result, the company has improved its financial conditions, increased shareholders value, and supported its growth plan.

**Excellent Research & Development Skills:** Shree Renuka Hero Motors strength lies in its extensive research and development process, creating products that lead the industry in innovation HERO established a strong research and development department that enables continuous innovation in the design of its products and the inclusion of the latest technology in its products.

- Renuka hero motors has huge brand equity and one of the players in two wheelers brand of other local market.
- Good working conditions with healthy environment.
- Participative management and teamwork.

### **2. Weakness**

Following are the weaknesses of the Shree Renuka Hero Motor they need to work on

**Lack of scale-** Although HERO has had a recent increase in revenue, it still doesn't stand out from big players like other companies have a big advantage over HERO.

- Most of the products have similar feature and low on design and innovation, of bikes.
- High imports for its spare parts.
- Absence in the premium bike segment.

### **3. Opportunities:**

Following are some of the opportunities the Shree Renuka Hero Motor company can benefit from

**Growing Market-** India has experienced rapid growth in the 2-wheeler market, it is also expected that it will continue in the near term. India is the world's second-fastest-growing two-wheeler market. Hero will be able to capture the demand generated in the process of this.

- Export of bikes is limited untapped local market.
- Two Wheelers segment is one of the most growing showrooms.

### **4. Threats:**

There is a lot of the Shree Renuka Hero motor company as well they are as follow

**Intense competition-** Two-wheeler business is fiercely competition. Hero Obeing subjected to such competition must constantly innovate to thrive in such a fiercely competitive atmosphere.

**Environment Regulation-** The Company is subject to several strict environmental standards that are constantly updated, leading to rising compliance expenses. Improvement in Public Transport- In India, public transportation is improving, posing a challenge to the passenger automobile industry as a whole.

- Strong Competition from other as well as local level of brands.
- Dependence on government policies and rising fuel prices can affects business margin for Renuka Hero Motors.
- Better public transport will affect two- wheeler sales.
- Low cost of bikes.

**CHAPTER – 4**

**DATA ANALYSIS AND INTERPRETATION**

Table 4.1 Shows Age of Respondent.

Table 4.2 Shows Occupation of the Consumer.

Table 4.3 Shows Income wise Classification of Consumers.

Table 4.4 Shows Does Seller is touch with Customer Regular.

Table 4.5 Shows Opinion on Behavior of Service Staff.

Table 4.6 Shows Opinion about Quality Service Offered by Company.

Table 4.7 Shows Service Rating of Company.

Table 4.8 Shows Source of Motivation to Purchase the Bike.

Table 4.9 Shows the Source of Finance for Purchase of Hero Bikes.

Table 4.10 Shows the Specific Occasion Consumer Purchase Hero Bikes.

Table 4.11 Shows the Marketing Scheme that Attracts the Consumer Most.

Table 4.12 Shows the Greetings on the Occasion of Birthday & Festival.



**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

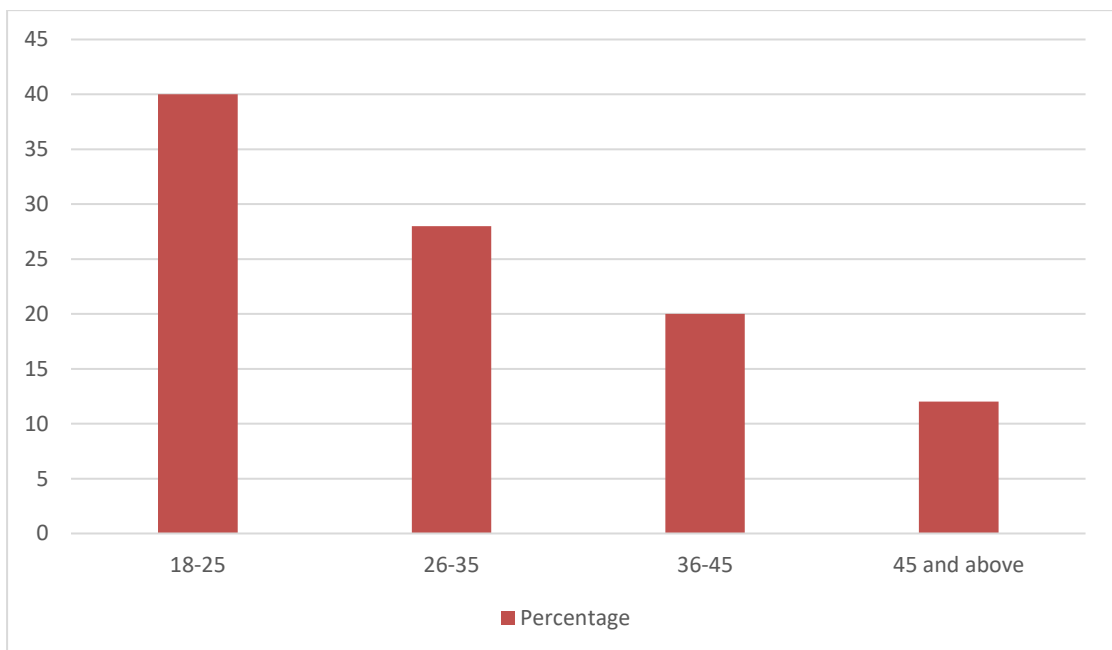
---

**Table: 4.1 Shows Age of Respondents.**

Age limit	No of Respondents	Percentage
18-25	20	40
26-35	14	28
36-45	10	20
45 and above	06	12
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.1 Shows Age of Respondents.**



**INTERPRETATION:**

The above table shows age group of respondents. Out of 50 respondents, 40% of respondents belongs to age group 18-25, 28% of the respondents are belongs to age group of 26-35, 20% of respondents are belongs to age group of 36-45, 12% of respondents are belongs age group and 12% of 45 and above. The majority of the respondents i.e., 40% of respondents belongs to age group of 18-25.

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

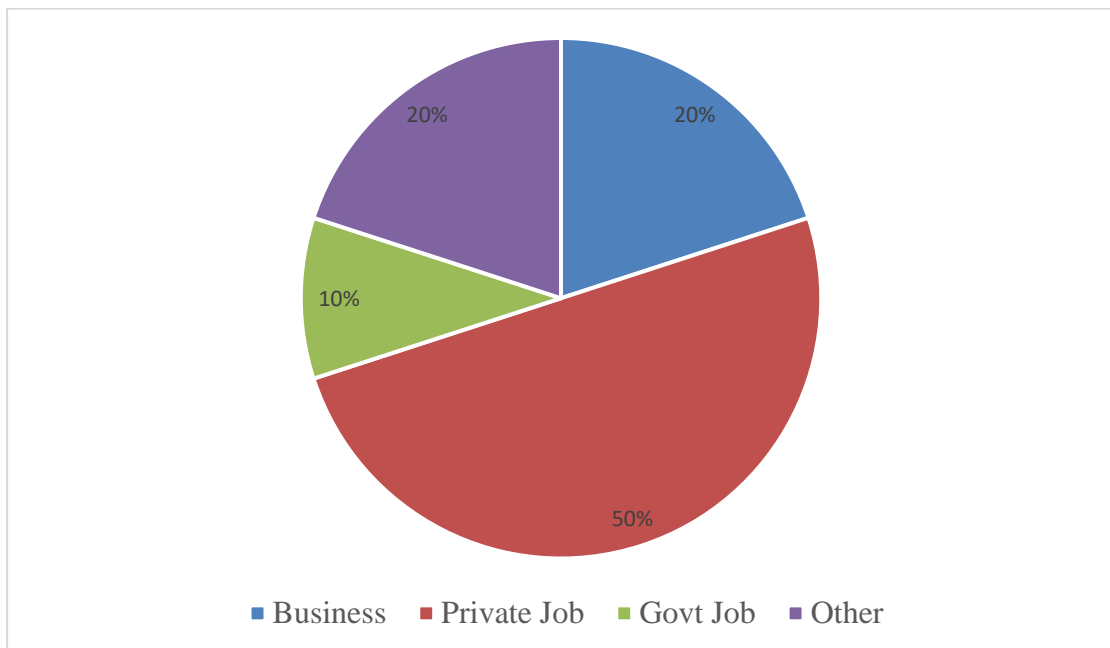
---

**Table: 4.2 Shows Occupation of The Consumer.**

<b>Profession</b>	<b>No of Respondents</b>	<b>Percentage</b>
Businessman	10	20
Private Job	25	50
Govt Job	05	10
Others	10	20
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.2 Shows Occupation of The Consumer.**



**INTERPRETATION:**

The above table shows occupation of respondents. Out of 50 respondents, 20% of respondents own a business, 50% of the respondents are private job holders, 10% of the respondents are government job holders and 20% of the respondents are from the others occupation. Majority of the respondents i.e., 50% of respondents are doing private job holders.

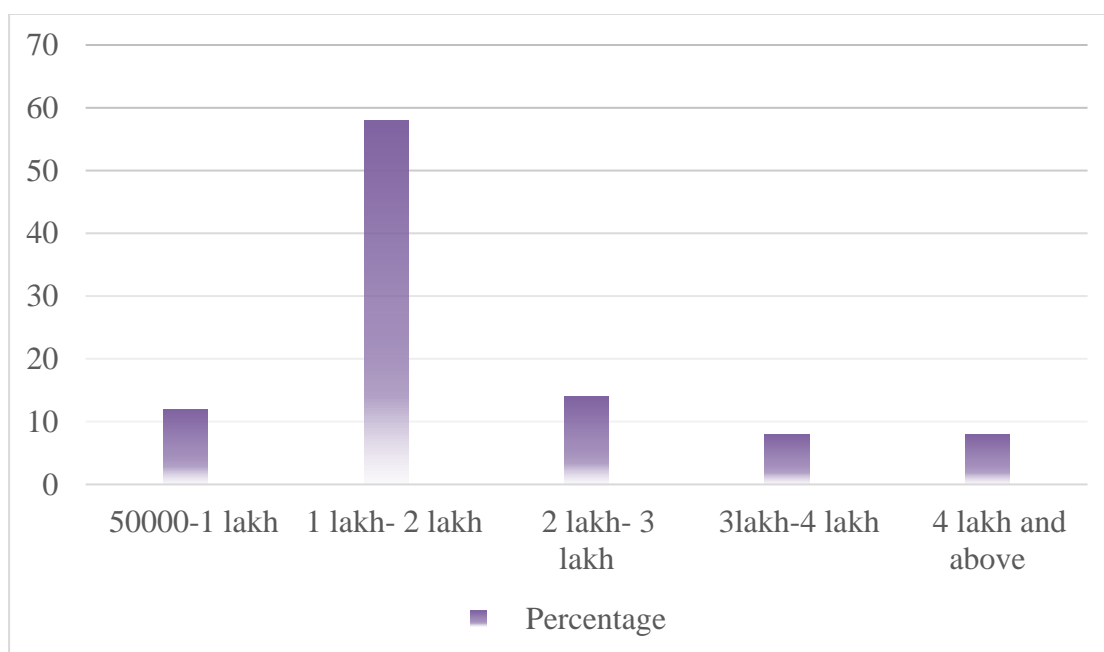
## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

**Table: 4.3 Shows Income Wise Classification of Consumer.**

<b>Annual Income</b>	<b>No of Respondent</b>	<b>Percentage</b>
50000 -1 lakh	06	12
1 lakh - 2 lakh	29	58
2 lakh - 3 lakh	07	14
3lakh - 4 lakh	04	08
4 lakh and above	04	08
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph:4.3 Shows Income Wise Classification of Consumer.**



### **INTERPRETATION:**

The above table shows income of consumer. Out of 50 respondents, 16% of the respondents are having income in between 50000 to 1lakh, 58%of the respondents are having income in between 1lakh to 2lakh, 14% of the respondents having income in between 2lakh - 3lakh, 8% of the respondents having income in between 3lakh - 4lakh. 8% of the respondents having income in 4lakh and above. Majority of the respondents i.e., 58% of the respondents having income in between Rs 1lakh-2lakh.

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

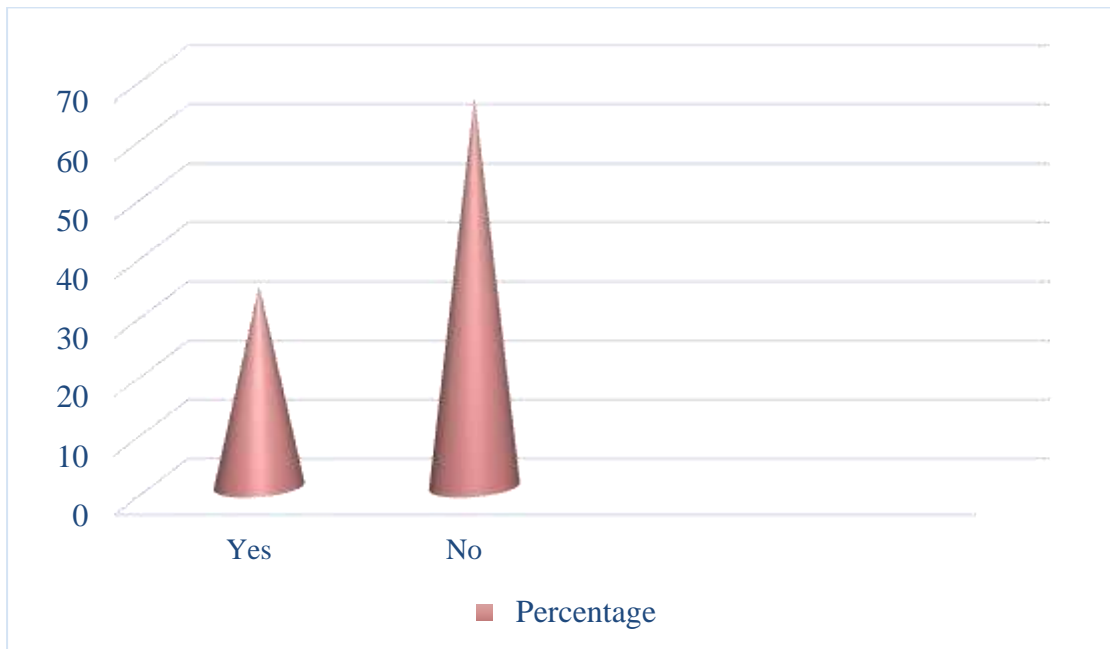
---

**Table: 4.4 Shows Seller is Touch with Customer Regularly.**

Feedback	No of Respondent	Percentage
Yes	17	34
No	33	66
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.4 Shows Seller is Touch with Customer Regularly.**



**INTERPRETATION:**

The above table shows seller is touch with customer regular. Out of 50 respondents, 34% of the respondents opined that seller are in touch with them regularly and 66% of the respondents opined that seller was not touch with them during post sales period. The majority of the respondents i.e., 66% of the respondents opined that seller was not in touch with them during post sales period.

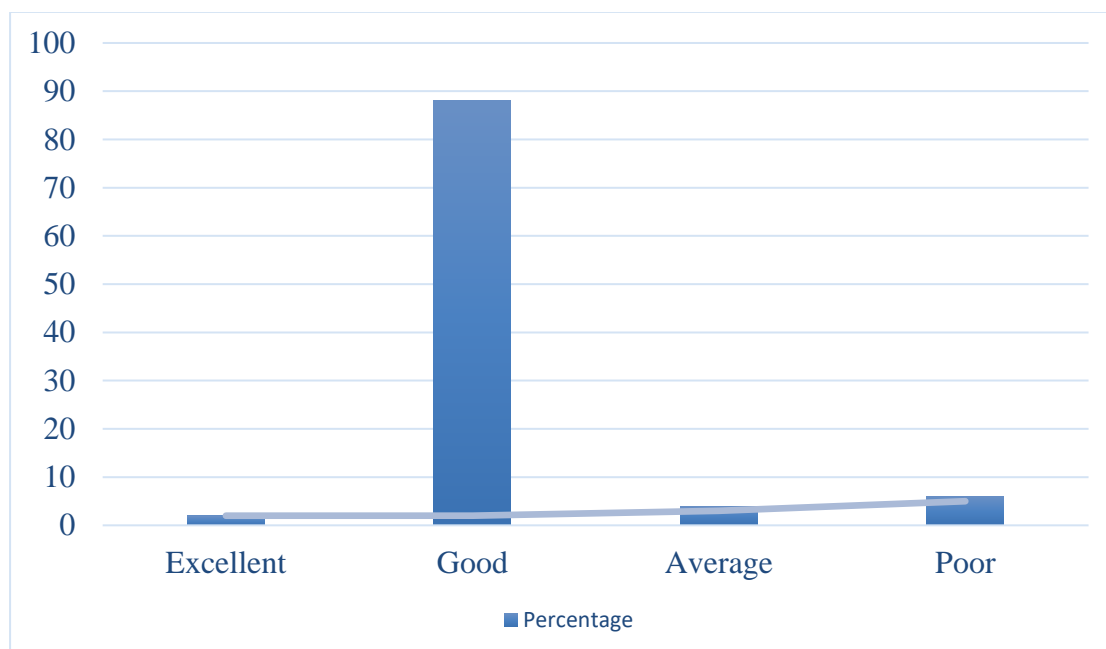
## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

**Table: 4.5 Shows Opinion on Behavior of Service Staff.**

<b>Opinion</b>	<b>No of Respondent</b>	<b>Percentage</b>
Excellent	1	2
Good	44	88
Average	2	4
Poor	3	6
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.5 Shows Opinion on Behavior of Service Staff.**



### **INTERPRETATION:**

The above table shows opinion on behavior of service staff. out of 50 respondents, 2% of the respondents opined that the behavior of service staff is excellent, 88% of the respondents opined that the behavior of service staff is good, 4% of the respondents opined that the behavior of service staff is average, 6% of the respondents opined that the behavior of service staff is poor. Majority of the respondents i.e., 88 % of respondents opined that the behavior of service staff good.

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

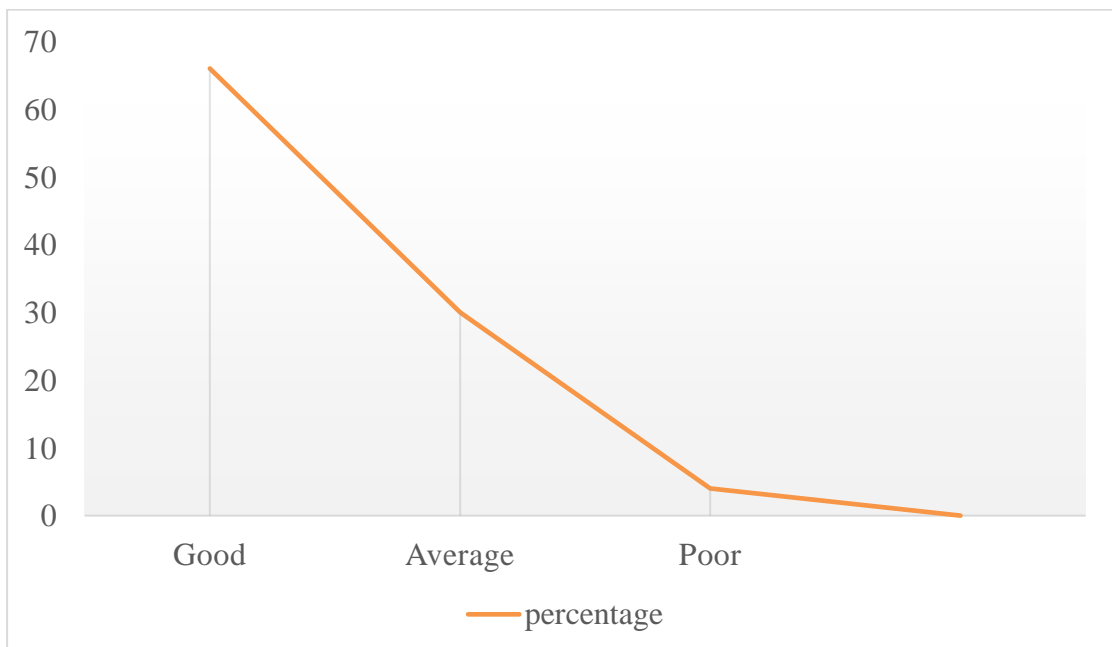
---

**Table: 4.6 Shows Opinion about Quality Service Offered by Company.**

<b>Opinion</b>	<b>No of Respondent</b>	<b>Percentage</b>
Good	33	66
Average	15	30
Poor	2	4
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.6 Shows Opinion about Quality Service Offered by Company.**



**INTERPRETATION:**

The above table shows opinion about quality service offered by company. Out of 50 respondents, 66% of respondents opined that quality service offered by company is good, 30% of respondents opined that quality service offered by company is average, 4% of respondents opined that quality service offered by company is poor. Majority of the respondents i.e., 66% of respondents opined that quality service offered by company is good.

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

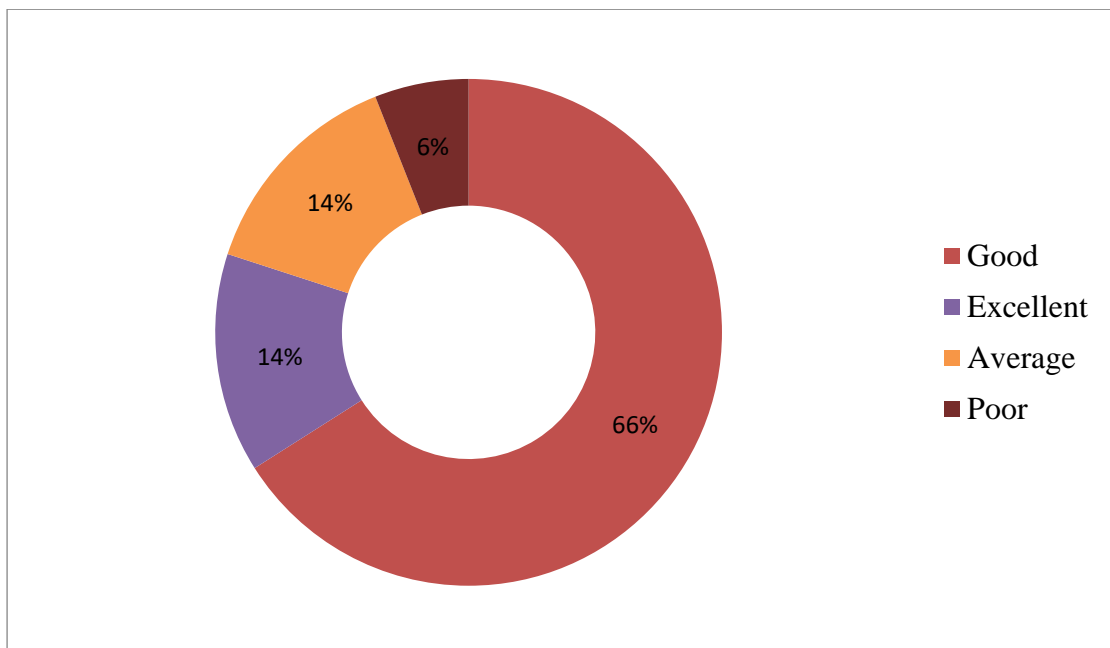
---

**Table: 4.7 Shows Service Rating of Company.**

<b>Service Rate Given by Company</b>	<b>No of Respondent</b>	<b>Percentage</b>
Excellent	7	14
Good	33	66
Average	7	14
Poor	3	6
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.7 Shows Service Rating of Company.**



**INTERPRETATION:**

The above table shows service rating of the company. Out of 50 respondents, 14% respondents opined that service rating of the company is excellent, 66% of respondents opined that service rating of the company is good, 14% of respondent opined that service rating of the company is average, 6% of respondents opined that service rating of the company is poor. Majority of the respondents i.e., 66% of the respondents opined that service rating of the company is good.

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

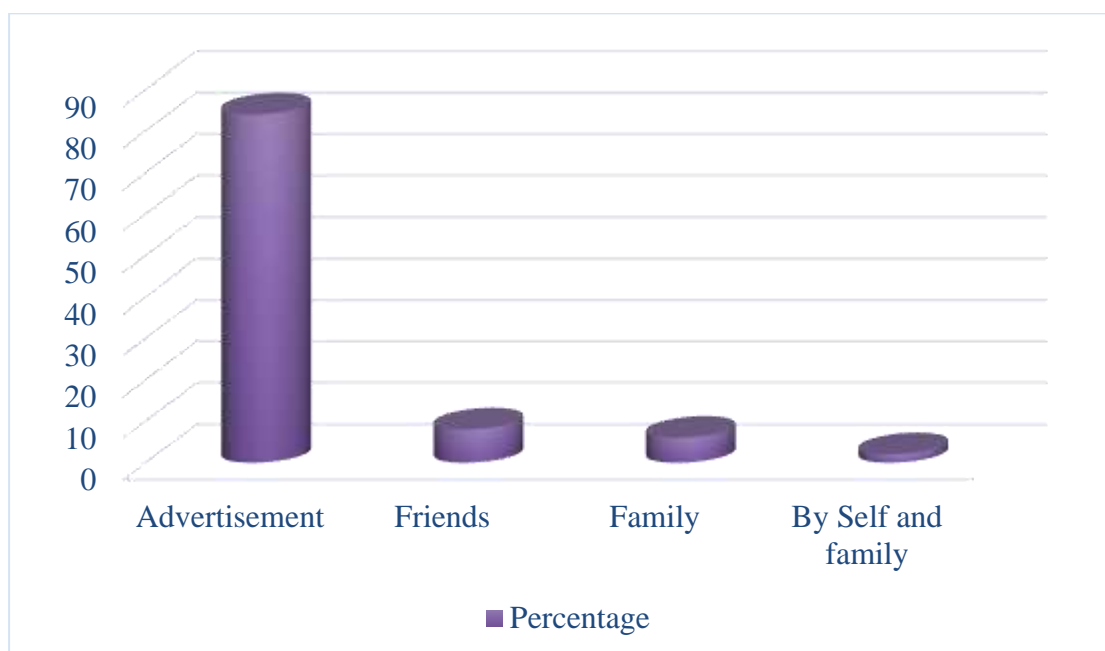
---

**Table: 4.8 Shows Source of Motivation to Purchase the Bike.**

Source of Motivation	No of Respondent	Percentage
Advertisement	42	84
Friends	4	8
Family	3	6
By Self and family	1	2
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.8 Shows Source of Motivation to Purchase the Bike.**



**INTERPRETATION:**

The above table shows source of motivation to purchase the bike. Out of 50 respondents, 84 % of the respondents motivated from advertisement, 8% of the respondents motivated from friends, 6% of the respondents motivated from family, 2% of the respondents motivated from by self and family. Majority of the respondents i.e., 84% of respondents motivated from advertisement.



**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

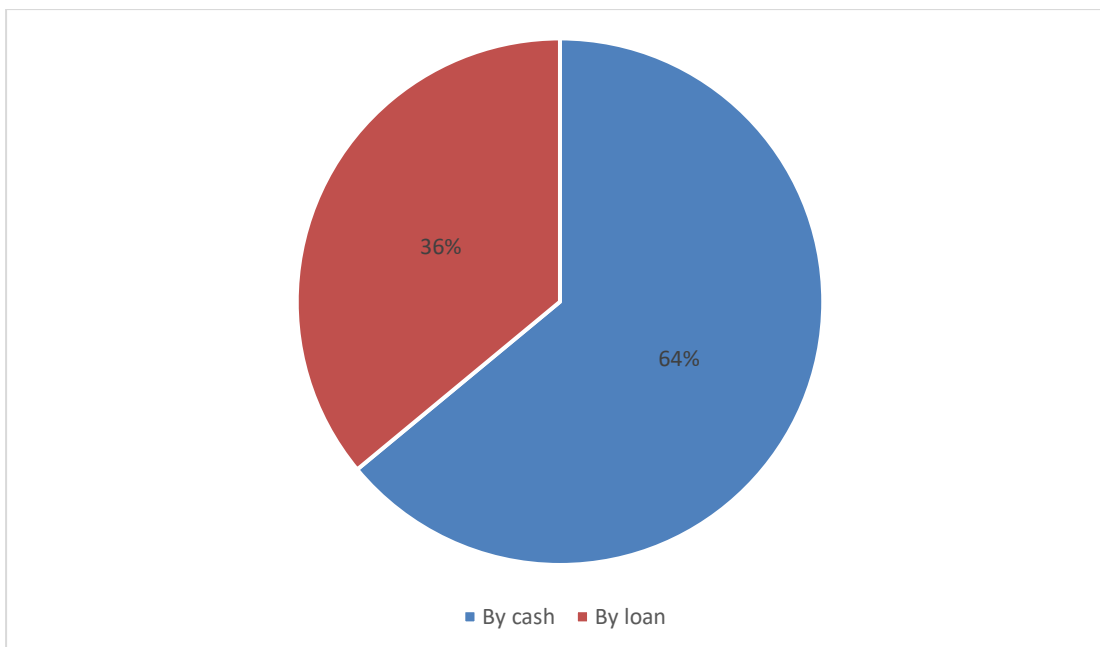
---

**Table: 4.9 Show the Source of Finance for Purchase of Hero Bikes.**

<b>Particulars</b>	<b>No of Respondents</b>	<b>Percentage</b>
By cash	32	64
By loan	18	36
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.9 Show the Source of Finance for Purchase of Hero Bikes.**



**INTERPRETATION:**

The above table shows source of finance for purchase of Hero bikes. Out of 50 respondents, here 64% of respondents are purchased the Hero bikes by paying cash and 34% of respondents are purchased the hero bikes by loan. Majority of the respondents i.e., 64% of respondents are purchased hero bikes by paying cash.

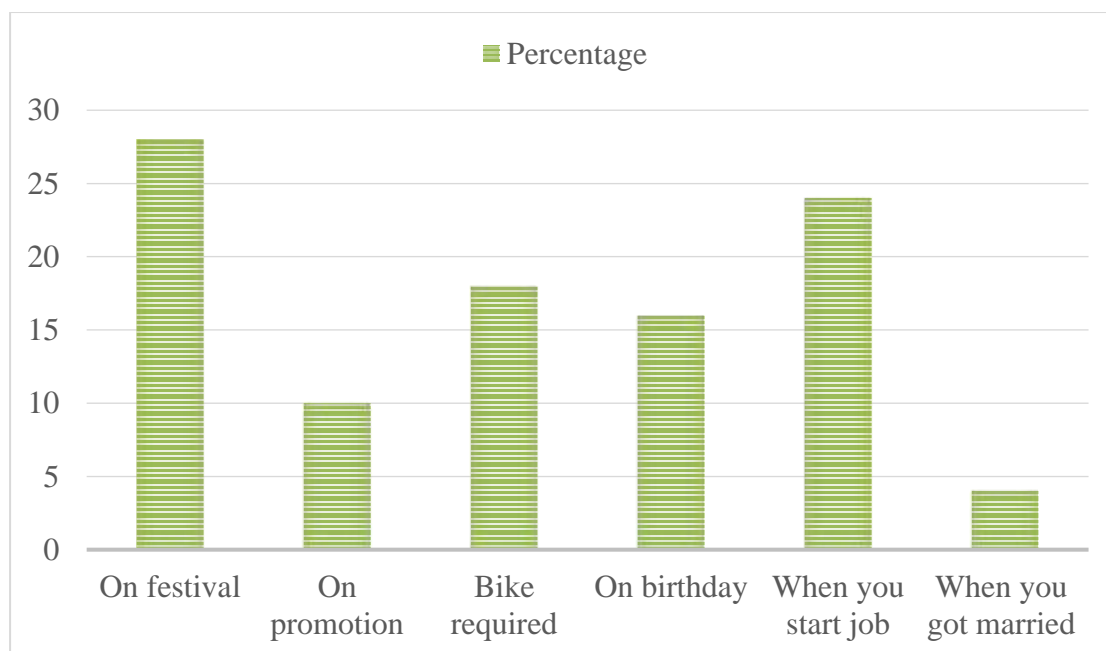
## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

**Table: 4.10 Shows the Specific Occasion Consumer Purchase Hero Bikes.**

<b>Occasion</b>	<b>No of respondents</b>	<b>Percentage</b>
On festival	14	28
On promotion	05	10
Bike required	09	18
On birthday	08	16
When you start job	12	24
When you got married	02	04
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.10 Shows the Specific Occasion Consumer Purchase Hero Bikes.**



### **INTERPRETATION:**

The above table shows the specific occasion on that consumers purchase hero bikes. out of 50 respondents 28% of people are purchasing bikes on festival season, 10% of respondents were purchased when they get promotion in their job, 18% of respondents were purchased as and when they require the bike, 16% of respondents are purchased on their birthday, 24% of respondents were purchased when they start their job and remaining 4% respondents were purchased when they got married. Majority of the respondents i.e., 28% of respondents buy the bike on festival season.

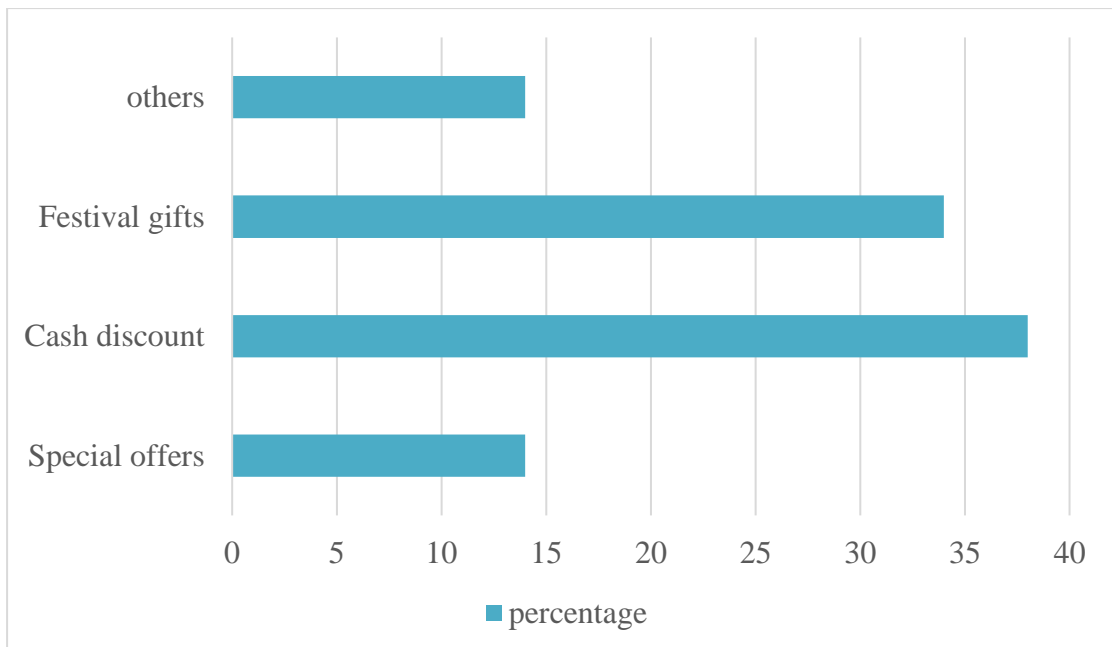
**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

**Table: 4.11 Show which Marketing Scheme Attracts the Consumer Most.**

Marketing Offers	No Of Respondents	Percentage
Special Offers	07	14
Cash Discount	19	38
Festival Gifts	17	34
Others	07	14
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.11 Show which Marketing Scheme Attracts the Consumer Most.**



**INTERPRETATION:**

The above table shows marketing schemes which attracts the consumer most. out of 50 respondents, 14% of respondents were attracted by special offers which are given by the dealers, 38% of people were attracted by cash discount, 34% of people were attracted by festival gifts and remaining 14% of respondents were attracted by others. majority of the respondents i.e., 38% of respondents were attracted by cash discount.

**A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

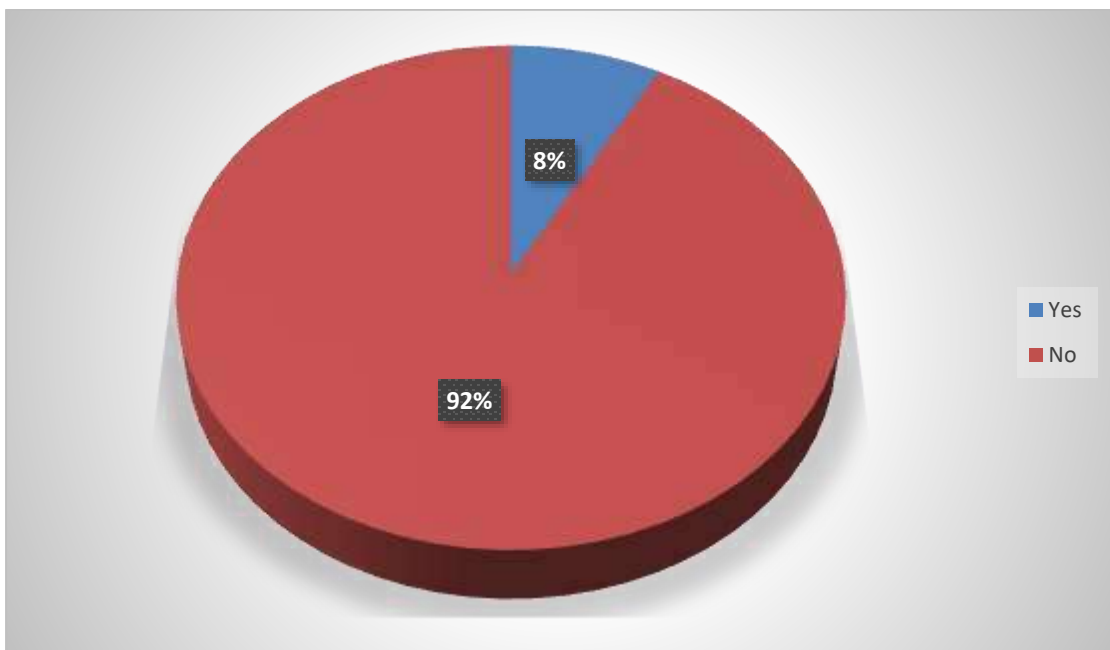
---

**Table: 4.12 Show the Greetings on the Occasion of Birthday & Festival.**

Yes/ No	No Of Respondents	Percentage
Yes	4	8
No	46	92
<b>Total</b>	<b>50</b>	<b>100</b>

(Source: Questionnaires)

**Graph: 4.12 Show the Greetings on the Occasion of Birthday & Festival.**



**INTERPRETATION:**

The above table shows greetings on the occasion on birthday & festival. Out of 50 of respondents, 8% of respondents opined that they will receive the greetings occasion of birthday / festival, 92% of respondents opined that they will not receive the greeting occasion of birthday/ festival. Majority of the respondents i.e., 92% of respondents opined that they will not receive the greetings occasion of birthday/ festival.

**CHAPTER-5  
FINDINGS, SUGGESTION AND CONCLUSION**

5.1 Findings

5.2 Suggestion

5.3 Conclusion

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

### **5.1 FINDINGS**

- ❖ From the above study we can see that out of 50 respondents maximum i.e. 40% of the respondents are belongs to the age group of 18-25.
- ❖ The study reveals that out of 50 respondents maximum i.e.50% of the respondents are doing private jobs.
- ❖ It can be observed from the study that out of 50 respondents maximum i.e.58% of the respondents having income in between 1lakh - 2 lakh.
- ❖ From the above study we can see that out of 50 respondents maximum i.e. 66% of the respondents opined that seller was not in touch with them.
- ❖ The study reveals that out of 50 respondents maximum i.e. 88% of the respondents opined that behavior of service staff is good.
- ❖ It can be observed from the study that out of 50 respondents maximum i.e.66% of the respondents opined that quality service offered by company.
- ❖ From the study we can see that out of 50 respondents maximum i.e. 66% of the respondents opined that service rating of the company is good.
- ❖ The study reveals that out of 50 respondents maximum i.e.84% of respondents motivated from advertisement.
- ❖ It can be observed from the study that out of 50 respondents maximum i.e. 64% of respondents are purchased hero bikes by paying cash.
- ❖ From the study we can see that out of 50 respondents maximum i.e. 28% of respondents buy bike on festival season.
- ❖ The study reveals that out of 50 respondents maximum i.e. 38% were attracted by cash discount.
- ❖ It can be observed from the study that out 50 respondents maximum i.e., 92% of respondents opined that they will not receive the greetings occasion on birthday / festival.

## **A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT WITH SPECIAL REFERENCE TO M/S. SHREE RENUKA MOTORS, CHIKODI.**

---

### **5.2 SUGGESTIONS:**

The study has conducted Customer Relationship Management in M/S Shree Renuka Motors Chikodi. based on the observation and personal discussion with employees and management, as researcher I would like to give some suggestions for better customer Relationship Management.

- ❖ Company should customize relationship management strategy for various customer segments.
- ❖ Company should send greeting or wishes on all occasions which may help them to attract customers.
- ❖ To arrange the get together of existing customer on arrivals of new product this may help the customer to know the new arrival.
- ❖ Company may send reminder SMS about post sales services.

### **5.3 CONCLUSION:**

The success of the company depends on relationship with its customers. Customer Relationship Management helps you to maintain your core customer.

CRM is a management approach to business interactions with current and potential customers. In collaboration with the company, we analyze customer record data and improve business relationships with customers, with a focus on customer loyalty and ultimately, revenue growth.

Renuka Hero Motors committed to better relations with its customer by proposing a friendly policy. Renuka Hero Motors provides its customers with unique products and helps them in return to maintain them for a long time.

Renuka Hero Motors business model is designed to withstand time and environmental issues and to learn more. Through diversification, the company has been successfully recreated at the turn of each business and economic cycle.

## **BIBLIOGRAPHY**

### **BOOKS:**

- Philip Kotler - “Marketing Management” – 1959.
- Jyotirana - “Marketing Management”

### **WEBSITES:**

**dealers.heromotocorp.com**

**www.researchgate.net**

**www.scribd.com**

**[www.slideshare.net](http://www.slideshare.net)**

**[www.studocu.com](http://www.studocu.com)**



## ANNEXURE

### Questionaries

Dear sir/madam,

It is matter of great pleasure to introduce myself **Miss. Archana. R. Bhosale** studying in M.com in **KLE's Basavprabhu Kore College Chikodi**, as per the course requirement we need to undergo a major concurrent project entitled **"A Study on Customer Relationship Management with special Reference to M/S. Shree Renuka Motors, Chikodi."**

I am requesting you to please share your time to provide valuable information and opinion by filling these questionaries. Your co-operation will be highly appreciated and also this will helpful to us to serve you better in future.

(NOTE): The information provided by you will be strictly kept confidential and used for academic purpose only.

1. What is your age group?

- |           |                 |
|-----------|-----------------|
| a) 18- 25 | c) 36- 45       |
| b) 26- 35 | d) 45 and above |

2. What is your Occupation?

- |                |             |
|----------------|-------------|
| a) Businessman | c) Govt job |
| b) Private job | d) Others   |

3. How much is your annual income?

- |                     |                    |
|---------------------|--------------------|
| a) 50,000 - 1lakh   | c) 2 lakh - 3 lakh |
| b) 1 lakh- 2 lakh   | d) 3lakh - 4 lakh  |
| e) 4 lakh and above |                    |

4. Does seller is in touch with you?

- |        |       |
|--------|-------|
| a) Yes | b) No |
|--------|-------|

5. How the behavior of service staff during the service?
- a) Excellent
  - b) Good
  - c) Average
  - d) Poor
6. Did you get quality service from from service provider?
- a) Good
  - b) Average
  - c) poor
7. How do rate the service given by company?
- a) Excellent
  - b) Good
  - c) Average
  - d) Poor
8. Who were affected for your purchase decision?
- a) Advertisement
  - b) Friends
  - c) Family
  - d) By self and Family
9. Which source of finance you are using for purchase Hero Bikes?
- a) By cash
  - b) By loan
10. When you purchase Hero Bikes?
- a) On festival
  - b) On promotion
  - c) Bike required
  - d) On birthday
  - e) When you start job
  - f) When you got married
11. Which marketing scheme that attracts you most for purchase of bike?
- a) Special offer
  - b) Cash Discount
  - c) Festival Gifts
  - d) Others
12. Does seller send you birthday / festival wish to you?
- a) Yes
  - b) No

If any of your suggestions, please mention here

---

---

Signature

**K. L. E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591 201  
PG DEPARTMENT OF COMMERCE**



**PROJECT REPORT ENTITLED  
A STUDY ON COMPARATIVE MUTUAL FUND SCHEMES OF SELECTED  
AMC'S IN INDIA**

**Submitted to  
RANI CHANNAMMA UNIVERSITY, BELAGAVI**



**FOR THE PARTIAL FULFILMENT OF DEGREE IN MASTER OF COMMERCE  
DURING THE ACADEMIC YEAR 2022-2023**

**SUBMITTED BY  
Miss. BHARATI S DATTAWADE**

**M.COM-IV SEMESTER  
REGISTER NO: P15DM21C0023**

**UNDER THE GUIDANCE OF  
Shri. V. S. KHOT**

K.L.E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591201  
PG DEPARTMENT OF COMMERCE



## CERTIFICATE

This is to certify that Miss. BHARATI S DATTAWADE has satisfactorily completed the Project Report Entitled **A STUDY ON COMPARATIVE MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA** for the partial fulfillment of Degree in Master of Commerce in Rani Channamma University, Belagavi during the academic year 2022-2023.

Shri. V. S. KHOT  
PROJECT GUIDE

Dr. LAXMIKANTHA NAYAKA T O  
HOD  
HEAD  
Department of Commerce

Shri. UDAYSINGH RAJPUT  
PRINCIPAL  
KLES'S Basavaprabhu Kore  
Arts, Science and Commerce College  
CHIKODI - 591 201





## DECLARATION

I declare that the project report entitled **A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA** is a record of independent research work carried out by me and submitted in partial fulfilment of the Degree in "**Master of Commerce**" as prescribed by the Rani Channamma University, Belagavi for the academic year **2022-23**.

It has been prepared under the guidance and supervision of **Shri. V. S. Khot**, Lecturer in PG Department of Commerce K.L.E. Society's Basavaprabhu Kore Arts, Science and Commerce College, Chikodi.

The Thesis or a part thereof has not been previously submitted for the award of any other degree or diploma.

Date: 24-09-2023

Place: Chikodi



Miss. Bharati S Dattawade

Register No: P15DM21C0023

## Acknowledgement

The success of any project is incomplete without mentioning the names of the people who made it possible.

I am conscious of my indebtedness to each and every individual, who has helped me in many ways in the preparation of this project work. It would be great privileged to express words of gratitude and respect to all those who guided and inspired me throughout the completion of this project.

I sincerely express my deep sense of gratitude and appreciation to Internal Guide **Shri. V. S. Khot** for his careful and valuable guidance, never ending patience and constant encouragement throughout the project.

I am beholden to **Dr. Laxmikantha Nayaka T O** Head of Department of Commerce for constant interest evidenced by him in my academic pursuits.

I express my deep intelligence of appreciation to **Shri. Udaysingh Rajput**, Principal of our college for his valuable suggestions and encouragement.

At the outset, I would like to thank all the teaching faculty of PG Department of Commerce for their valuable suggestions during project work.

My thanks are also to library staff for their co-operation during the course of project work and I am also thankful to Printers for their skillful printing of this project.

Finally, I owe my deep sense of gratitude to my parents, friends and relatives for their constant encouragement and support.

**Miss. Bharati S Dattawade**

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## CHAPTER-1

### INTRODUCTION AND RESEARCH DESIGN

1.1 Introduction

1.2 Review of Literature

1.3 Statement of the problem

1.4 Need for the study

1.5 Objectives of the study

1.6 Scope of the study

1.7 Research Methodology

1.8 Limitations of the study

1.9 Chapter scheme



# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## CHAPTER-1

### INTRODUCTION AND RESEARCH DESIGN

#### 1.1 INTRODUCTION:

A Mutual Fund is a form of collective investment. It is a pool of Money collected from various investor which is invested According to the stated investment objective. The fund Manager is the person who invests the money in different types of securities according to the predetermined objective.

Investment companies can be classified into closed end and open-end investment companies. Closed end is when it is readily transferable in the market. Open end funds sell their own shares to investors & ready to back their old shares. If we talk about the investment options today in india we have so many investment companies like ICICI Prudential mutual fund, HDFC mutual fund, Aditya birla sun life mutual fund, UTI mutual fund, SBI Mutual fund. All have their own special ways of servicing the customers. The investors also feel that they are worth to be the part of that company.

.Diversification reduces the risk because all stocks may not move in the same direction at the same time. Various fund houses issue units to the investors in accordance with the quantum of money invested by them. Investors of mutual funds known as unit holders.

In India a mutual fund is required to be registered with Securities Exchange Board of India [SEBI] which regulates the securities market.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 1.2 REVIEW OF LITERATURE:

1. DR.K.M.Sudha, (2020) Conducted research on “Comparative study on selected mutual fund”. The objective of the study is to comparative performance analysis fir selected mutual funds for five years and also risks and returns of mutual funds. This study evaluates the analysis of returns that takes place for five years and their volatility based on investment. The sources of data are secondary data. The tools used for analysis are simple average method and standard deviation method and simple comparative analysis method and making method.

2. Shivam tripathi, Dr. Gurudutta P. japee,( March 2020) Conducted research on ‘Performance Evaluation of selected equity mutual funds in India’. The objective of the study to know whether mutual funds give reward to changeability and unpredictability and also identify security market return with fund return. The data are secondary data is gathered from different sources like factsheets of different AMC’s and historical NAV And yearly return. The statistical tools jenson’s alpha, beta, standard deviation and sharpe ratio. The performance analysis of the selected 15 equity funds and clearly indentified that the 10 funds are performed well and 5 are not during the study. The findings of the study the volatility in the market are changes.

3. Anuja Magdum,( March 2019) Conducted research on “A Comparative study on mutual fund Schemes of selected AMC’s in india”, The objective of this research is that to provide better returns for the schemes promised by AMC’s and compare the mutual fund schemes of selected public and private sector AMC’s in india. The data collected for the study is to consider the 5 years and for comparison 4 AMC’s with each other. For a risk free return fixed deposit rate are used and the data are collected from the yahoo finance, AMFI website and value research website.The methodology used in this research is beta and CAGR.

4. Dr. Nidhi Sharma, (Feb, 2019) Conducted research on “Performance analysis of mutual funds; A Comparative study of the selected Hybrid mutual fund schemes in india”. The objective of the study is to measure and compare the performance of the select hybrid mutual

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

fund schemes in india. The selection of hybrid schemes is based on top ranking given by CRISIL and that rank based on the NAVs of the schemes. The data are used is primary data and tools used in this study are NAV. Average return, beta, R-SQUARE and standard deviation.

5. Manisha Raj, (Oct.2018) Conducted research on “Performance of Mutual funds in india; A Comparative analysis of SBI Mutual funds and HDFC mutual fund.” The objective of the study is to analyze and compare the performance of SBI and HDFC Mutual fund with special reference to equity and balanced mutual fund. The study is based on the analysis of secondary data which is collected from reviewing different research papers and published by different authors. method for study is use standard deviation, beta, alpha, Sharpe ratio, correlation- coefficient. The research was found that the rate of return of HDFC is higher than the SBI.

6. Anil Kumar Goyal, (June 2018) Conducted research on “A Comparative study of return of selected mutual fund schemes with nifty50”. The objective of the study is to compare average long run mutual fund of each selected company and also compare with the nifty50 with mutual fund. Research methodology is based on secondary data of NAVs and nifty50 collected online for the period of one year. The nifty50 price was collected from yahoo finance. Findings for this study is the selected schemes is compared with the monthly average of long return of benchmark nifty50 and find that SBI is better in terms of volatility and returns.

**Purpose:** This study examines the effect of business Cycle. Market return Mutual funds. Using data from two complete business cycles as defined by the national Bureau of economic Research .

### **Design Methodology Approach:**

A “Fund of Funds” Approach is used to identify the extent to which SRI financial performance is affected by the microeconomic climate. The Fama-French three factor model

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

& the Carport Four factor model are used to bring the results into alignment with commonly used finance methodologies.

## **Findings :**

Results indicate that SRI tends to preserve value during economic more that it adds value economic expansion. Market Return is important during both expansion & Contraction.

## **1.3 STATEMENT OF THE PROBLEM:**

Mutual funds are one of the Favorable investment methods Available to investors. The statement in question mainly identifies higher performing mutual funds in three different categories & Considers the various other parameters Such as returns. NAV, risk. Analysis & individual investor perceptions of investing in mutual funds to do.

## **1.4 NEED FOR THE STUDY**

The main purpose of doing this project was to know about mutual fund and its functioning. To, study about Comparative analysis of selective mutual funds to know about sources. history of the mutual funds. To study about performance of mutual funds. It also helps in understanding different Schemes of mutual funds.

## **1.5 OBJECTIVES OF THE STUDY:**

1. To analyze the risk & return Analysis of selected ICICI Prudential mutual fund, HDFC Mutual fund, ABSL Mutual fund, Nippon india mutual fund, SBI Mutual fund with equity market index Nifty.
2. To study the wide range of investment options Available in mutual funds by explaining its Various Schemes.
3. To understand the trends in Mutual funds India.
4. To Analyze returns & show which Scheme is best for the investor based on his risk.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **1.6 SCOPE OF THE STUDY:**

The study here has been limited to Analyze open ended equity schemes of different Asset Management Companies namely ICICI Prudential mutual fund, HDFC mutual fund, Aditya birla sun life mutual fund, SBI Mutual fund, Nippon india mutual fund,. Each Scheme is Analyzed. According to its performance Against the other based on factors like rate of return and risk .the statement of the problem of the study is the mutual fund market fund market in INDIA is still in a growth stage .it is necessary to study “ Comparative Analysis of Mutual funds.”

## **1.7 RESEARCH METHODOLOGY :**

The Methodology involves randomly Selecting open-ended equity Schemes of different fund houses of the Country. The data Collected for this project is basically from They are,

### **1] Secondary Sources:-**

Secondary data refers to data that was collected by Someone Collection of data from internet. Books & google journal websits for mutual funds prices.

## **1.8 LIMITATIONS OF THE STUDY:**

1. The time is the important Constraint So limited period of time is Spent on this study.
2. The study is restricted to Secondary data's only.
3. Not possible to get full information be cause of they Are business Secret.
4. Comparative analysis of mutual fund is restricted only to the selected companies..

## **1.9 CHAPTER SCHEME**

### **Chapter 1: Introduction and Research Design**

This chapter gives on introduction, Review of Literature, Need of the study, Objectives of the study, Scope of the study, Research methodology and Limitation of the study.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **Chapter 2: Conceptual Framework**

In this chapter is viewed on various concepts related to the study which are:

Introduction, meaning and definition of mutual fund schemes of selected in AMC's in india. Advantages & Disadvantages of mutual funds, Fundamental attributes of quality mutual funds, Types of mutual funds.

## **Chapter 3: Study area Profile**

This chapter deals with the study area profile, company profile, about company organizational structure, vision mission and objectives, The mutual funds industry selected Asset management company's in India.

## **Chapter 4: Data Analysis and Interpretation**

In this chapter data has been analyzed as per the information available through in the forms of tables and graphs.

## **Chapter 5: Findings, Suggestions and Conclusion**

This chapter concluded the project it comprises findings, suggestions and conclusion.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## CHAPTER -2 CONCEPTUAL FRAMEWORK

- 2.1 Introduction
- 2.2 Meaning of mutual fund
- 2.3 Definition of mutual fund
- 2.4 Advantages & Disadvantages of Mutual funds
- 2.5 Fundamental attributes of quality mutual funds
- 2.6 Types of Mutual funds

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **2.1 Introduction:-**

A mutual fund is a professionally investment fund that pools money from many investors to purchase securities. Mutual funds have advantages and disadvantages compared to direct investing in individual securities. The primary advantages of mutual funds are that they provide a higher level of diversification, they provide liquidity, and they are managed by professional investors. On the negative side, investors in a mutual fund must pay various fees and expenses. Primary structures of mutual funds include open-end funds. Unit investment trusts, and closed-end funds. Exchange-traded funds[ETFs] are open-end funds or unit investment trusts, and that trade on an exchange. Mutual funds are also classified by their principal investments as money market funds, bond or fixed income funds, stock or equity funds, hybrid funds or other funds may also be categorized as index funds. Which are passively managed funds are not mutual funds. Hedge performance of an index. Or activity managed funds. Hedge funds are not mutual funds; hedge funds cannot be sold to the general public and are subject to different government regulations.

## **2.2 Meaning:**

A mutual fund is a financial vehicle that pools assets from shareholders to invest in securities like stocks, bonds, money market instruments, and other assets. Mutual funds are operated by professional money managers, A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

## **2.3 Definition:**

“Mutual funds are collective savings and investment vehicles where savings of small investors are pooled together to invest for their mutual benefit and returns distributed proportionately”. “ A mutual fund is an investment that pools your money with the money of an unlimited number of other investors.



# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **2:4 ADVANTAGES OF MUTUAL FUNDS:-**

**1. Diversification:** Mutual funds spread their holdings across a number of different investment vehicles., which reduces the effect any single security or class of securities will have on the overall portfolio. Because mutual funds can contain hundreds or thousands of securities.

Fund Investors aren't likely to be fazed if one of the securities doesn't do well.

**2. Expert Management:** Many investors lack the financial know-how to manage their own portfolio. However, non-index mutual funds are managed by professionals who dedicate their careers to helping investors receive the best risk-return trade-off according to their objectives.

**3. Liquidity:** Mutual funds, unlike some of the individual investments they may hold. Can be traded daily.

### **4. Convenience.**

If you were investing on your own, you would ideally spend time researching securities. You'd also have to purchase a huge range of securities to acquire holdings comparable to most mutual funds. Then, You'd have to monitor all those securities. Choosing a mutual fund is ideal for people who don't have the time to micromanage their portfolios.

### **5. Reinvestment of Income:**

Another benefit of mutual funds is that they allow you to reinvestment your dividends and interest in additional funds shares. In effect this allows you to take advantage of the opportunity to grow your portfolio without paying regular transaction fees for purchasing additional mutual fund shares.

### **6. Range of Investment Options and Objectives:**

There are funds for the highly aggressive investor, the risk averse, and the middle-of-the-road investor – for example, emerging markets funds, investment-grade bond funds, and balanced funds.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## DISADVANTAGES OF MUTUAL FUNDS:

**1. No Control Over Portfolio:** If you invest in a fund, you give up all control of your portfolio to the mutual fund money managers who run it.

**2. Capital Gains:** Anytime you sell stock. You're taxed on your gains. However, in a mutual fund, you're taxed when the fund distributes gains selling individual holdings-even if you haven't sold your shares.

**3. Fees and Expenses:** Some mutual funds may assess a sales charge on all purchases, also known as a "load"-this is what it costs to get into the fund.

**4. Over diversification:** Although there

There are pitfalls of being over-diversified. Think of it like a sliding scale: The more securities you hold, the less likely you are to feel their individual returns on your overall portfolio.

**Cash Drag.** Mutual funds need to maintain assets in cash to satisfy investor redemptions and to maintain liquidity for purchases. However, investors still pay to have funds sitting in cash because annual expenses are assessed on all fund assets. Regardless of whether they're invested or not. According to a study by William O'Reilly, CFA and Michael Preisano, CFA, maintaining this liquidity costs investors 0.83% of their portfolio value on an annual basis.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

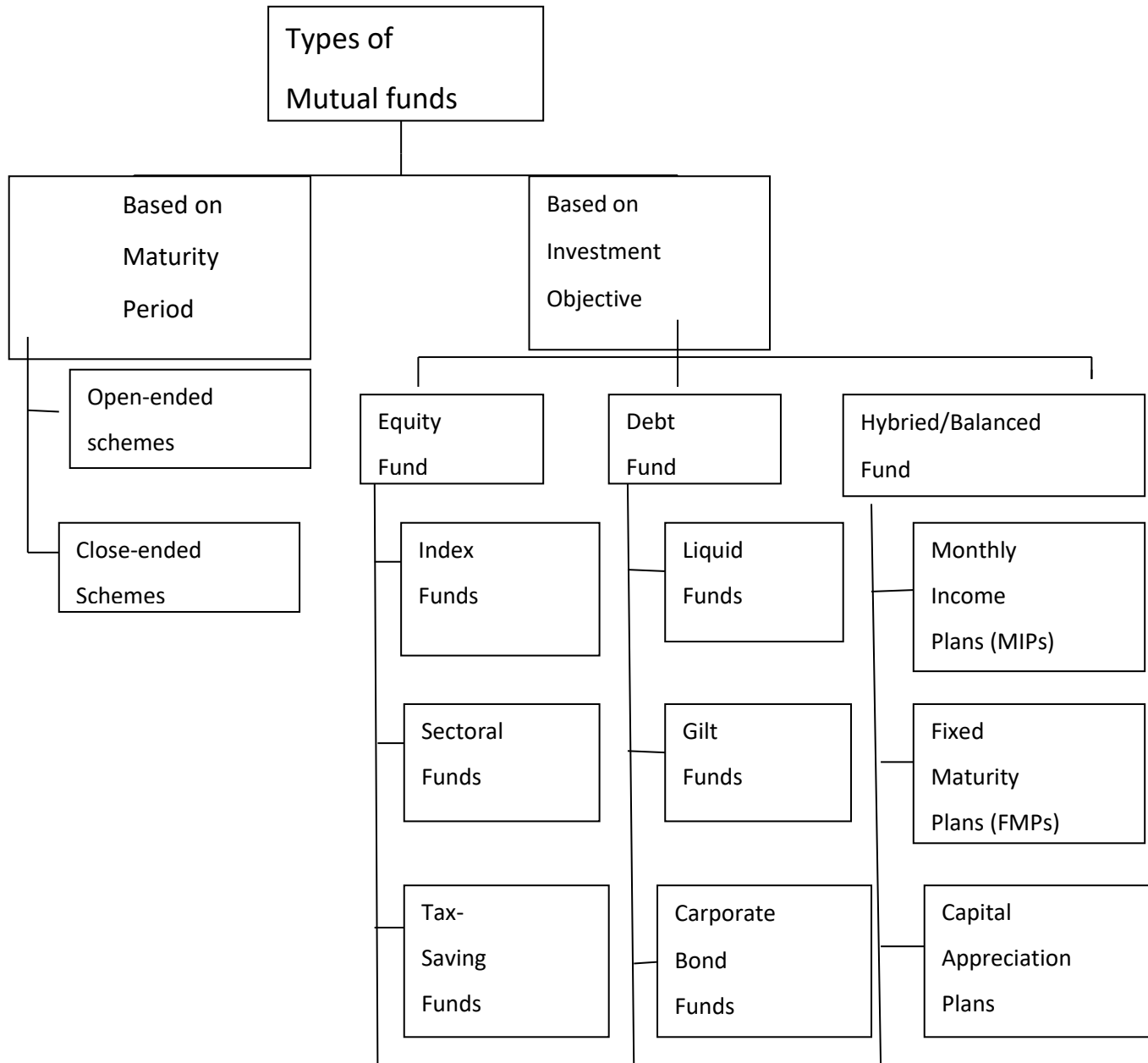
### **2.5 FUNDAMENTAL ATTRIBUTES OF QUALITY MUTUAL FUNDS:**

1. An outstanding long term return for the past 5, 10, and 20 years. We are investing for the long term, or you should be if you are considering mutual funds. So look at a fund's long term record.
2. Low Expenses. A fund that buys and sells the stocks rapidly racks up brokerage commissions just like we would when we buy individual stocks. All of those \$7 per trade commissions add up for us, just imagine selling millions of shares everyday.
3. A specific and published investment strategy. Mutual funds and their managers have a specific game plan when it comes to their investing style and strategy. They should always state what that plan is and stick to it.
4. No Loads. In most cases, you should stick to no load mutual funds. Unless the mutual fund is simply outstanding, fees paid to the mutual fund company that runs the fund, either up front or in the end when you sell your shares, will just eat into your profits.
5. Fund managers with outstanding record. When you find a good mutual fund with an excellent 10 and 20 year historic returns, you want to make sure that the current fund managers are the ones who were actually responsible for those great returns and not just a new guy taking over where a great manager left off.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## Types of Mutual Funds:



# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 2.6 Types of Mutual funds:

**1.Open Ended Funds:** These are funds in which units are open for purchase or redemption through the year. All purchases/redemption of these fund units are done at prevailing NAVs. Basically these funds will allow investors to keep invest as long as they want. There are no limits on how much can be invested in the fund.

**2.Close-Ended Funds:** These are funds in which units can be purchased only during the initial offer period. Units can be redeemed at a specified maturity date. To provide for liquidity , these schemes are often listed for trade on a stock exchange. Unlike open ended mutual funds, once the units or stocks are brought, they cannot be sold back to the mutual fund, instead they need to be sold through the stock market at the prevailing price of the shares.

**3.Interval Funds:** These are funds that have the features of open-ended and close-ended funds in that they are opened for repurchase of shares at different intervals during the fund tenure.

### Types of Mutual Funds based on asset class

**\*Equity Funds:** These are funds that invest in equity stock/shares of companies. These are considered high-risk funds but also tend to provide high returns. Equity funds can include specialty funds like infrastructure, fast moving consumer goods and banking to name a few.

**\*Debt Funds:** These are funds that invest in debt instruments e.g. company debentures, government bonds and other fixed income assets. They are considered safe investments and provide fixed returns. These funds do not deduct tax at source so if the earning from the investment is more than Rs.10,000 then the investor is liable to pay the on it himself.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

**\*Money Market Funds:** These are funds that invest in liquid instruments e.g. T-Bills, CPs etc. They are considered safe investments for those looking to park surplus funds for immediate but moderate returns.

**\*Balanced or Hybrid Funds:** These are funds that invest in a mix of asset classes. In some cases, the proportion of equity is higher than debt while in others it is the other way round. Risk and returns are balanced out this way. An example of a hybrid fund would be Franklin India Balanced Fund-DP(G) because in this fund, 65% to 80% of the investment is made in equities and the remaining 20% to 35% is invested in the debt market.

### **Types of Mutual Funds based on investment objective:**

**\*Growth funds:** Under these schemes, money is invested primary in equity stocks with the purpose of providing capital appreciation. They are considered to be risky funds ideal for investors with a long-term investment timeline.

**\*Income funds:** Under these schemes, money is invested primarily in fixed-income instruments e.g. bonds, debentures etc. with the purpose of providing capital protection and regular income to investors.

**\*Liquid funds:** Under these schemes, money is invested primarily in short-term or very short-term instruments e.g. T-Bills, CPs etc. With the purpose of providing liquidity. They are considered to be low on risk with moderate returns and are ideal for investors short term

**\*Capital Protection Funds:** These are funds where funds are split between investment in fixed income instruments and equity markets. This is done to ensure protection of the principal that has been invested.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

**\*Fixed Maturity Funds:** Fixed Maturity Funds are those in which the assets are invested in debt and money market instruments where the maturity date is either the same as that of the fund or earlier than it.

**\*Pension Funds:** Pension funds are mutual funds that are invested in with a really long term goal in mind. They are primarily meant to provide regular returns around the time that the investor is ready to retire. The investments in such a fund may be split between equities and debt markets where equities act as the risky part of the investment providing higher return and debt markets balance the risk and provide lower but steady returns

### **Types of Mutual Funds based on speciality:**

**\*Sector Funds:** These are funds that invest in a particular sector of the market e.g. Infrastructure funds invest only in those instruments or companies that relate to the infrastructure sector.

**\*Index Funds:** These are funds that invest in instruments that represent a particular index on an exchange so as to mirror the movement and returns of the index e.g. buying shares representative of the BSE Sensex.

**\*Fund of funds:** These are funds that invest in other mutual funds and returns depend on the performance of the target fund. These funds can also be referred to as multi manager funds. These investments can be considered relatively safe because the funds that investors invest in actually hold other funds under them thereby adjusting for risk from any one fund.

**\*Emerging market funds:** These are funds where instruments are made in developing countries that show good prospects for the future. They do come with higher risks as a result of the dynamic political and economic situations prevailing in the country.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

**\*Market neutral funds:** The reason that these funds are called market neutral is that they don't invest in the markets directly. They invest in treasury bills, ETFs and securities and try to target a fixed and steady growth.

**\*Inverse/leveraged funds:** These are funds that operate unlike traditional mutual funds. The earnings from these funds happen when the markets fall and when markets do well these funds tend to go into l

**\*Asset allocation funds:** The asset allocation fund comes in two variants, the target date fund and the target allocation funds. In these funds, the portfolio managers can adjust the allocation assets to achieve results.

**\*Gift Funds:** Gift funds are mutual funds where the funds are invested in government securities for a long term. Since they are invested in government securities, they are virtually risk free and can be the ideal investment to those who don't want to take risks.

**\*Exchange traded funds:** These are funds that are a mix of both open and close ended mutual funds and are traded on the stock markets. These funds are not actively managed. They are managed passively and can offer a lot of liquidity.

### **Types of Mutual Funds based on risk:**

**\*Low risk:** These are the mutual funds where the investments made are by those who do not want to take a risk with their money. The investment in such cases are made in places like the debt tend to be long term investments.

**\*Medium risk:** These are the investments that come with a medium amount of risk to the investor. They are ideal for those who are willing to take some risk with the investment and tends to offer higher returns.



## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

**\*High risk:** These are those mutual funds that are ideal for those who are willing to take higher risks with their money and are looking to build their wealth. One example of high risk funds would be inverse mutual funds. Even though the risks are high with these funds, they also offer higher returns.

### **3. Hybrid Funds:**

\* These invest in both Equities and Fixed Income, thus offering the best of both, Growth Potential as well as Income Generation.

\* Examples would be Aggressive Balanced Funds, Conservative Balanced Funds, Pension Plans, Child Plans and Monthly Income Plans, et

**CHAPTER-3**  
**STUDY AREA PROFILE**

- 3.1 History
- 3.2 Company profile
- 3.3 About industry
- 3.4 Structure Of Mutual funds

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 3.1 STUDY AREA PROFILE

### 3.1 HISTORY

Stock Broking business of the group was started in 1995, promoted by professional entrepreneurs and incubated by the Shriram Group through its entity, Shriram Insight share Brokers Ltd. Stock Broking business commenced operations with a corporate membership in NSE in the cash segment in 1996. Membership in the derivatives segment in the NSE was acquired in 2003. The business has expanded into the commodities market with a trading-cum-clearing membership in the Multi commodity Exchange {MCX} and the National Commodities and Derivatives Exchange {NCDEX} through a 100% subsidiary, stock broking business is firmly focused in the rapidly growing High Networth Individual {HNI} and Retail space. Member: National Stock NSE SEBI Reg. No. NSE-CM[INB 230947033] BSE-CM [INB 010947035] NSE-F&O [INF 230947033],DP [IN-DP-CDSL-293-2005] ,MCX [Membership No: 10115] The business has an active client base of over 1,50,000. The business operates through 1000 branches with equal no. of trading terminals. The business model of stock Broking largely focused on owned branches in the initial years and has now graduated into the franchisee made of expansion that will cater to PAN India target market. Rapid expansion has been made possible in this two-pronged strategy of owned and franchised outlets and is expected to have an end-state distribution. Networking over 3000 branches. As the business starts targeting the next level of mass affluent customers, expanding into wealth management and advisory space, same would also become a key thrust area that can potentially enhance profitability and shareholders value in the medium term.

A Mutual fund is a trust that pools the savings of the number of investors who share a common financial goals and investment may be in shares, debt, equity, money market securities or a combination of these. Those securities are professionally managed on behalf of the unit holders and each investor holds a pro-rata share of the portfolio, that is, entitled to profits as well as losses. Income earned through these investment and the capital appreciation realized is shared by its unit holders in proportion to the number of unit owned by them. A mutual funds is the most suitable investment scope for common

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

people as it offers an opportunity to invest in a diversified, professionally managed of securities as a relatively lower cost.

Mutual funds has emerged as a tool for ensuring one's financial well being. Mutual funds have not only contributed to the india's growth story, but also helped the families tap into the success of the Indian story. The main reason the number of mutual funds retails investor remain small is that nine out of 10 people with incomes in india do not know the mutual funds are still exists. Although one people are aware of mutual funds investment opportunities, the number who decided to invest in mutual funds in the transformation of Indian economy has made it critical to view their services not only as a financial intermediary but also plays an significant role in spreading equity culture.

This relation between risk returns determine the performance of the mutual funds schemes. As risk in commensurate with return, therefor, providing maximum returns on the investment made within the acceptable associated risk levels helps in demarcating the better performance from the laggards.

### **Vision**

To be the premier organization operating locally & internationality that provides the complete range of financial services to all segments under one roof.

### **Mission:**

To develop & deliver the most innovative products, manage customer experience, deliver quality services that contributes to brand strength, establishes a competitive advantage and enhances profitability, thus providing value to the stakeholders of the bank.

### **Objective:**

Shriram Group's businesses strive to serve the largest number of common people. Consider these: Commercial Vehicle Financing, Consumer & Enterprise Finance, Retail Stock Broking,

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

Life Insurance, Chit Funds and Distribution of Investment & Insurance Products, Our foray into

### **Milestones:**

<b>Year</b>	<b>Milestone</b>
1974	Commencement of Business- Shriram Chits
1979	Commencement of Business- Shriram Transport Finance Co [STFC]
1982	Commencement of Business- Shriram Investments Ltd
1984	IPO OF STFC
1986	Commencement of Business-Shriram City Union Finance Co [SCUF]
1988	IPO of SCUF
1989	Commencement of business- Shriram Overseas Finance Ltd
1995	Commencement of business- Shriram Properties Pvt Ltd
1999	Commencement of business- Shriram Insight Share Brokers Ltd
1999	Citicorp CV financing tie up with STFC
2000	Commencement of Business- Shriram EPC ltd
2000	Commencement of business –TAKE Solutions Ltd
2004	Commencement of Business- Shriram Capital Ltd
2005	Entry of Chryscapital as Partner with STFC & EPC
2006	Merger of shriram Investment Ltd & Shriram Overseas Finance Ltd with STFC
2006	Commencement of Business- Shriram Fortune Solutions Ltd
2006	Commencement of Business- Shriram value services
2006	Entry of TPG as STFC's partner
2008	Commencement of Business-Shriram General Insurance Ltd
2009	NCD Placement of Rs 10 Bin by STFC
2010	IPO Of Orient Green power
2011	Jusdail IPO
2012	Currency Derivative trading Terminal Introduce
2014	Exchange trading Terminal Introduce
2015	International Mutual funds launched

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

### **Industrial Investments:**

The Group also made investments in Manufacturing, Value Added Services, Project Development, Engineering Services, Pharmaceuticals, Machined & Auto Components, Press Dies & Sheet Metal Stamping, Packaging, Information Technology , Property Development etc. .

### **Non- Financial service:**

Sriram Group has always encouraged entrepreneurship by demonstrating continuous appetite for investing in start-up manufacturing business.

### **Our Investment:**

The group has also made investments in Manufacturing , Value Added Services, Project Development, Engineering Services, Pharmaceuticals, Machined & Auto Components, Press Dies & Sheet Metal Stamping, Packaging, Information Technology, Property Development etc .

### **About Founder**

#### **Mr.R Thyagarajan, Founder**

Chairman of the Shriram Group of companies- Promoted the shriram Group Companies in 1974, Today the Group has over 15,000 employees and operating through 700 locations and manage funds of over 15,000 Crores in the business of financial services including life insurance and general insurance.

\* Masters in Mathematics

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

- \* Masters in Mathematics Statistics from Indian Statistical Institute
- \* Associate of Chartered Insurance Institute [A.C.I.1], London
- \* Visiting faculty of Asian Institute of Insurance, Philippines on Consequential Loss

- Commercial Vehicle Finance
- Life Insurance
- General Insurance
- Consumer & Enterprise Finance
- Financial Product Distribution
- Retail Stock Broking
- Chit Funds

**Non-Financial Services:-** Shriram group has always encouraged entrepreneurship by demonstrating continuous appetite for investing in start-up manufacturing business.

## **Our Investment**

The Group has also made investments in Manufacturing, Value Added Services, Project Development, Engineering Services, Pharmaceuticals, Machined & Auto Components, Press Dies & sheet metal Stamping, Packaging, Information Technology, Property Development etc.

## **Corporate management**

### **: Board of Directors**

The Board Directors of the Shriram Asset Management Company Limited consists of the following eminent persons:

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **Mr. P. D. KARANDIKAR**

### **Chairman**

Mr. Prabhakar D. Karandikar is a M.A. DBM from Pune and M.Sc. [London School of Economics]. He joined the Indian Administrative Service in the year 1973 and retired voluntarily in the year 2007. He has overall experience of 39 years in his extensive career in Maharashtra State Government, Govt. of India, Public Sector Management, Investment Banking , finance and financial field.

Mr. Prabhakar D. Karandikar has been Awarded as-President's Medal- 1982 by Government of India, National Citizen's Award-1992 by National Citizens' Committee, New Delhi, Udyog Ratna Award- 1993 by Institute of Economic studies, New Delhi, Special Award 2004-2005  
And 2005-2006 by NABARD Maharashtra Region, Pune and Life time Achievement- Top Management Consortium, Pune.

### **Managing Director**

## **Mr. R. SUNDARARAJAN**

### **Director**

Mr. R. Sundara Rajan is associated with the Company from 1<sup>st</sup> April, 2007. He is a Mechanical Engineer, PGDM {IIM Ahmadabad} and AllI {Insurance Institute of India}. He has overall experience of 25 years in his extensive career.

He has experience in various fields like Pharmaceutical, Consumer Product Marketing etc. He had served as Executive VP & Executive Director with Matrix Laboratories Ltd.. as Managing Director in Medicorp Technologies Ltd, and also as Managing Director in Medispan Ltd, Presently he is working as Consultant to Shriram Conglomerate, Chennai, Manipal.



# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **Mrs. JAYASHREE MAHESH**

### **Director**

A management professional with over 25 years of rich experience in the areas of financial Modeling, Project and Corporate Finance, She was associated with ICICI Limited from 1991 to 2001. Thereafter, she worked with ICICI Bank Limited as Chief Manager from the year 2001 to 2006, Currently she is working with Proactive Solutech {India} Private Limited as a

## **Mr. DHRUV MEHTA**

### **Director**

Mr. Dhruv Mehta is an A.C.A from the Institute of Chartered Accountants of India and AICWA from The Institute of Cost and Works Accountants of India. He has overall experience of 25 years in the field of finance and financial services and an independent financial advisor for over 10 years.

## **Mr. ARINDOM MUKHERJEE**

**Director** Mr. Arindom Mukherjee is a B. Tech. {Hons.}- Mechanical {IIT. Kharagpur} and Post Graduate

In Business Administration- Finance and Quantitative Area [IIM, Ahmedabad]. He had been on the Board of many companies like Andrew Yule & Co, ltd., Water Oil Co. [India] Ltd., Phoenix Yule Ltd., Hoogly Printing Co, Ltd., Webfil Ltd. Etc.

## **Key Personnel**

### **Mr. Partha Ray**

Mr. Partha Ray serves as Fund Manager of shriram Asset Management Company. Mr. Ray has been in the Banking & Finance sector for over 22 years and joins us from The Royal Bank of Scotland N. V where he held several key positions in the Corporate Banking department since 1998 including that of a Regional Head in the Bank's Wholesale banking division. He

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

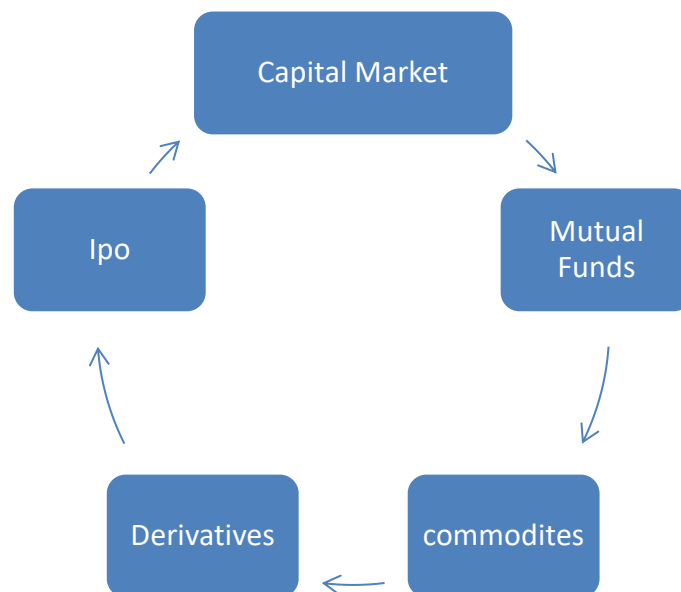
has extensive and wide ranging functional experience in managing portfolios of corporate relationships. Mr. partha Ray received his B. Tech [Hons,] From the Indian Institute of Technology [Kharagpur] and a PGDM {MBA} from the Indian Institute of Management [Bangalore].

### **Mrs. Chandana Dutt**

Mr. Chandana Dutt serves as the Chief Financial Officer [CFO] of Shriram Asset Management

Company Limited having an overall experience of 17 years in her professional career. Ms. Chandana is an ACA from the Institute of Chartered Accountants of India and has also obtained diploma in Business Finance [ICFAI].

### **Services offered from Shriram Insight:**



# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 3.2 ABOUT INDUSTRY

### HISTORY:

Unit Trust of India was the first Mutual Fund set up in India in the year 1963. In early 1990s, Government allowed public sector banks and institutions to set up Mutual Funds. In the year 1992, Securities and exchange Board of India [SEBI] Act was passed. The objectives of SEBI are to protect the interest of investors in securities and to promote the development of and to regulate the securities market. As far as Mutual Funds are concerned, SEBI Formulates policies and regulates the Mutual funds to protect the interest of the investors .

The risks associated with the schemes launched by the mutual Funds sponsored by these entities are of similar type. It may be mentioned here that Unit Trust of India [UTI] is not registered with SEBI as a Mutual fund [as on January 15, 2002]

The first modern investment funds [the precursor of today's mutual Funds] were established in the Dutch Republic. In response to the financial crisis of 1772-1773, Amsterdam-based In The United States, Closed-end funds remained more popular than open-end funds throughout the 1920s, In 1929, open-end funds accounted for only 5% of the industry's \$27 billion in total assets.

After the Wall Street Crash of 1929, the U.S. Congress passed a series of acts regulating the securities markets in general and mutual funds in particular. The Securities Act of 1933 requires that all investments sold to the public, including mutual funds, be registered with the SEC and that they provide prospective investors with a prospectus that discloses essential facts about the investment.

The Securities and Exchange Act of 1934 requires that issuers of securities, including mutual funds, report regularly to their investors: this act also created the Securities and Exchange Commission, which is the principal regulator of mutual funds.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **THE MUTUAL FUND INDUSTRY IN INDIA:**

The mutual fund industry in India started in 1963 with the formation of Unit Trust of India [UTI] at the initiative of the Reserve Bank of India (RBI) and the Government of India. The objective then was to attract small investors and introduce them to market investments. Since then the history of mutual funds in India can be broadly divided into six distinct phases.

### **Phase 1 [1964]: Growth of UTI:**

In 1963, UTI was established by an Act of Parliament. As it was the only entity offering mutual funds in India. It had a monopoly. Operationally, UTI was set up by the reserve bank of India [RBI], but was later delinked from the RBI. The first scheme, and for long one of the largest launched by UTI, was Unit Scheme 1964. Later in the 1970s and 80s, the investible funds corpus of UTI was about Rs 600 crores in 1984, by 1987-88. The assets under management (AUM) of UTI had grown 10 times to Rs 6.700 crores.

### **Phase 2 (1987-93): Entry of public Sector funds**

The year 1987 marked the entry of other public sector mutual funds with the opening up of the economy. Many public sector banks and institutions were allowed to establish mutual funds. The state bank of india established the first non-UTI Mutual fund.

### **Phase 3 (1993-96): Emergence of Private funds:**

A new era in the Mutual fund industry began in 1993 with the permission granted for the entry of private sector funds. The private funds have brought in with them latest product innovations investment management techniques and investor servicing technologies. During the year 1993-94.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

### **Phase 4 (1996-99): Growth And SEBI Regulation:**

Since 1996, the mutual fund industry scaled newer heights in terms of mobilization of funds and number of players. 1996. These regulations set uniform standards for all funds. Erstwhile UTI voluntarily adopted SEBI guidelines for its new schemes.

### **Phase 5 (1999-2004): Emergence of a Large and Uniform Industry:**

The year 1999 marked the beginning of a new phase in the history of the mutual funds industry in India, a phase of significant growth in terms of both amount mobilized from investors and assets under management , In February 2003, the UTI Act was repealed.

### **Phase 6 (From 2004 Onwards): consolidation and Growth:**

The industry has lately witnessed a spate of mergers and acquisitions, most recent ones being the acquisition of schemes of Allianz Mutual funds by Birla sun Life, PNB mutual fund by principal, among others, At the same time.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## The Selected AMC's In India

### 1.ICICI Prudential asset management company

ICICI Prudential mutual fund is the second largest asset management company in india. ICICI prudential mutual fund was established in1993.



Type	Public
Industry	Mutual fund
Founded	1993
Headquarters	Mumbai, India
Area served	India
Key people	Mr. Nimesh Shsh (MD & CEO) Mr. S. Naren (Chief Investment Officer) Mr. Rahul Goswami (Chief Investment Officer-Fixed Income)
Products	Mutual fund, Portfolio Management Services, Advisory services, Real Estate Investment
AUM	Increase 305,739 Crore (US\$43 billion)(31 march 2018)

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

No. employees	2000-2500
---------------	-----------

ICICI Prudential Mutual Fund's corporate headquarters are in the Bkc in Mumbai. It has grown from two locations and six employees across 120 locations and more than 1.9 million investors in 216.

### **Products and services**

The AMC manages significant Assets under Management in the Mutual fund segment across asset classes. The AMC also caters to portfolio Management services and real Estate division for investors, spread across the country, along with international advisory mandates for clients across international markets.

### **Mutual Fund**

The Mutual fund primarily targets retail investors.

### **Portfolio Management Services**

The Portfolio management services allows high net worth investors to invest in a more concentrated portfolio aiming at higher returns. In the year 2000, ICICI Prudential AMC was the first institutional participant to offer the service.

### **Real Estate Business**

The Real Estate division targets high net worth investors and domestic institutional investors, with ICICI Prudential AMC starting the real Estate investment series portfolio in the year 2007.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## **2.HDFC Asset Management company**



It was founded in 1977 with the support from india's business community, as the first specialized mortgage company in india and main company among HDFC group of companies. HDFC was promoted by the industrial credit and investment corporation of india(ICICI). Hasmukhbhai parekh played a key role in the foundation of this company which started with the main aim of solving the housing shortage in india and started rising steadily thereafter.

In 2000, HDFC asset Management Company launched its mutual fund schemes. In the same year, HDFC provides mutual funds services through its subsidiary HDFC asset management accounting limited. The average assets Under management (AUM) Of HDFC Mutual fund for quarter Jul-13 to sep-13 was INR 1.03 Trilion.

### **OPERATIONS**

HDFC's distribution network spans 396 outlets (Including 109 offices of HDFC's Distribution company HDFC sales private limited) Which cater to approx. 2,400 towns and cities spread across india. To cater to Non-Resident Indians, HDFC has offices in London, Singapore and Dubai and service associates in Middle east countries.



## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

In addition, HDFC covers over 90 locations through its outreach programmer . HDFC's marketing efforts continue to be concentrated on developing a stronger distribution network. Home loans are also sourced through HDFC sales, HDFC bank limited owners and shareholders filing through 13D/G or 13f forms with the securities exchange commission.

Products and services:

### **Life Insurance**

The company has been providing life insurance since the year 2000, through its subsidiary HDFC standard life insurance company limited. It offers 33 individual products and 8 group products. It uses the HDFC group network to cross sell by offering customized products.

### **Mutual funds**

HDFC provides mutual fund services through its subsidiary HDFC asset management accounting limited. The average assets under management of HDFC Mutual fund for the quarter jul-13 to sep-13 was INR 1.03 trillion.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 3. Aditya Birla Sun Life AMC limited



Formely known as birla sun life Asset Management Company, thisfund house is the 3<sup>rd</sup> largest in terms of the AUM size.

Presently it is known as Aditya Birla Sun Life (ABSL) Asset management company ltd. It is a joint venture between the Aditya Birla group in india and sun life financial Inc if Canada. It was ser up as a joint venture in1994.

Aditya Birla Sun life AMC limited (ABSLAMC) is co-owned and backed by aditya birla capital limited and sun life AMC Investments Inc. ABSLAMC is primarily the investment manager of Aditya Birla sun life mutual fund, a registered trust under the Indian trusts Act, 1882. ABSLAMC also operates multiple alternate strategies including poerfolio management services, Real Estate investments and Alternative investment funds. ABSLAMC is one of the leading asset managers in india, servicing around 7.91 million investor folis with a pan india presence across 290 plus locations and a total AUM of Rs. 3,084 Billion for the quarter

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

ending june 30,2023 under its suite of mutual fund , Portfolio management services, offshore and real estate offerings.

### **ABOUT ADITYA BIRLA CAPITAL FUND:**

Aditya birla capital limited (ABCL) Is the holding company for the financial services businesses of the Aditya birla Group.with subsidiaries /JVs that have a strong presence across protecting, Investing and financing solutions, ABCL is a financial solutions group that caters to the diverse needs of its. Customers across their life cycle. Powered by more than 34,000 employees, the businesses of ABCL have'a nationwide reach with over. 1,295 branches, more than 2,00,000 agents/channel partners and various bank partners.

As of march 31, 2023, Aditya Birla capital limited manages aggregate assets under management of about Rs. 3600 billion with a consolidated lending book of approx. Rs.943 billion, and an active customer base of approx. 38 million, through its subsidiaries and joint ventures. Aditya birla capital limited is a part of the global conglomerate aditya birla group, which is in the league of fortune 500. Anchored by an extraordinary force of over 185,000 employees belonging to 100 nationalities, the group is built on a strong foundation of stakeholder value creation and operates in 36 countries in north and south America, Africa, asia, and Europe.

### **ABOUT SUN LIFE:**

Sun life is a leading international financial services organization providing asset management, wealth, insurance and health solutions to individual and institutional clients. Sun life has operations in a number of markets worldwide, including Canada, the united states, the united kingdom, Ireland, hong kong, the Philippines, japan, Indonesia, india, china, Australia, Singapore, Malaysia and Bermuda.as on march 31, 2023, sun life had total assets under management of \$1.36 trillion.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 4. Nippon Life Asset Management



With Assets under management of approximately Rs 2.5 Lakh crore, Reliance Mutual fund is one of India's leading mutual fund companies.

A part of reliance Anil Dhiribhai Ambani (ADA) group, Reliance mutual fund is one of the fastest growing AMC's In india.

Reliance capital limited (RCL) Is the sponsor and reliance capital trustee Co.limited is the trustee of reliance Mutual fund (RMF).

Nippon Life India asset management limited (NAM India) is the best asset manager of Nippon India mutual funds(NIMF). The name of our company was changed from 'Reliance Nippon life asset management limited' to 'Nippon life india asset management limited' and a fresh certificate of incorporation was issued by the Registrar of companies, Mumbai on January 13.2020. Nippon life insurance company is the promoter of NAM india and currently holds 73.64% (as on june30, 2023) of its total issued and paid-up equity share capital. Equity shares of NAM india are listed on BSE limited and National stock exchange of india limited.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 5. SBI Fund Management Pvt.Ltd



SBI Funds Management pvt. Limited is a joint venture between the state bank of india(SBI) and financial services company Amundi, a European Asset management company in france. It was launched in 1987.

Mr. Anuradha Rao is the managing Director and CEO

In 2013, SBI fund guru, an investor education initiative was launched.

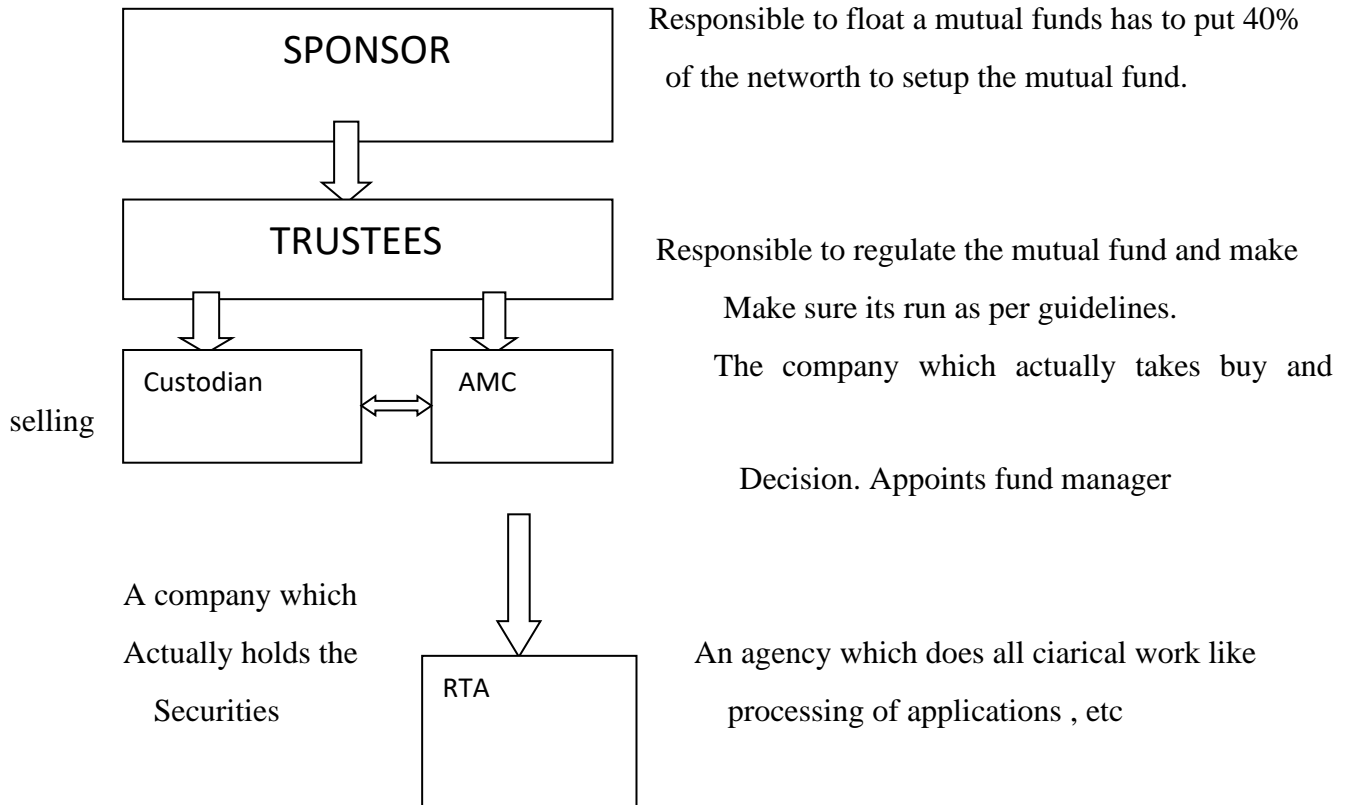
SBI Mutual fund is an asset management company introduced by the state bank of india and incorporated in1987 with its corporate head office located in Mumbai, india. SBIFMPL is a joint venture between the state bank of india, an Indian public sector bank, and Amundi,a European asset management company.

A shareholder agreement in this regard has been entered on april 13,2011,between SBI & AMUNDI Asset Management . Accordingly, SBI currently holds 63% stake in SBIFMPL and the 37% stake is held by AMUNDI asset management through a wholly owned subsidiary, Amundi india holding. SBI & AMUNDI Asset management shall jointly develop the company as an asset management company of international repute by adopting global best practices and maintaining international standard

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## Structure of Mutual funds In India:



Over The last couple of months we have been looking at various aspects mutual funds, whether it is about portfolio or performance or how to compare them. We however did not discuss some fundamentals- on how a mutual fund house is structured.

These regulations stipulate that a mutual fund must be a three-tired structure consisting of:

1. A Sponsor
2. A Trustee
3. An asset Management company (AMC)

fund Sponsor- The Sponsor is the main body that establishes the Mutual fund. The Sponsor can be compared to a promoter of a company. The responsibility of the sponsor includes appointing the trustees with the approval of SEBI and setting up an AMC under the Companies act 1956. While getting the trust registered with SEBI. Since the Sponsors play

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

the most important role in the functioning of a mutual fund. SEBI has a set of strict guidelines for the eligibility of a sponsor.

Trustee- The main role of a trustee is to ensure that the interest of the unit holders is protected while making sure that the mutual fund complies with all the regulations of SEBI. Either. The sponsor should appoint four trustees or establish a trustee company with at least four independent not associated with the sponsor in any way.

Asset Management Company (AMC)- The AMC is the investment manager of the trust. It takes care of the day today operation of the mutual fund and managing the investors money as well. Asset .

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## CHAPTER-4

### DATA ANALYSIS AND INTERPRETATION

- 4.1 (A) Table shows large cap fund.  
(B) Table shows mid cap fund  
(C) Table shows small cap fund  
(D) Table shows multi cap fund  
(E) Table shows equity linked saving schemes.
- 4.2 (A) Table show low duration fund.  
(B) Table show short duration fund  
(C) Table show ultra short duration fund  
(D) Table show medium to long term duration fund  
(E) Table show money market fund.  
(F) Table show liquid fund.



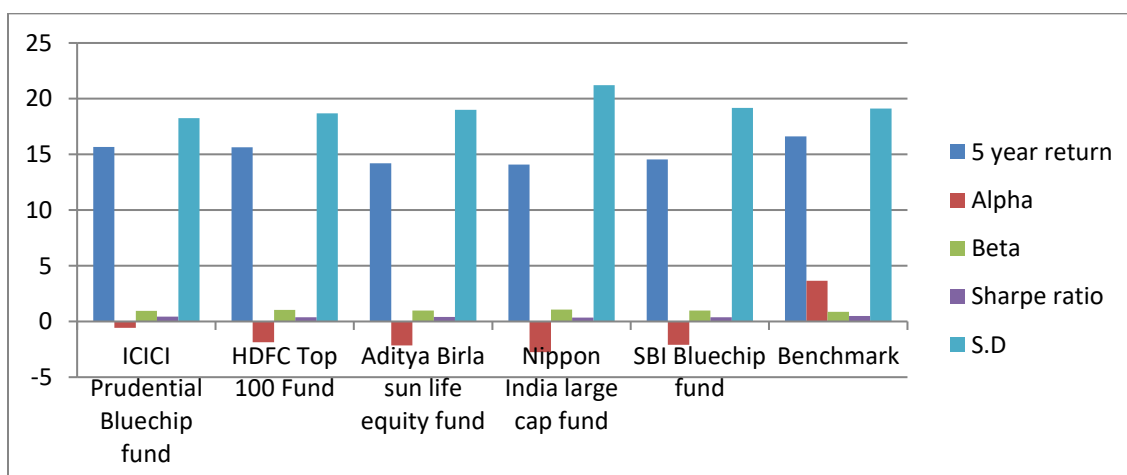
# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

## DATA ANALYSIS AND INTERPRETATION

### A. Equity Funds

#### 4.1 (A) Shows large cap fund for the selected 5 asset management company's

LARGE CAP FUND	ICICI Prudential Bluechip fund	HDFC Top 100 Fund Alpha	Aditya Birla sun life equity fund	Nippon India large cap fund Sharpe ratio	SBI Bluechip FUND	Benchmark
5 Year return	15.67	15.65	14.21	14.1	14.55	16.62
Alpha	-0.56	-1.86	-2.15	-2.75	-2.08	3.65
Beta	0.94	1.05	0.99	1.07	0.99	0.86
Sharpe Ratio	0.45	0.38	0.42	0.34	0.37	0.48
S.D	18.24	18.68	19.01	21.21	19.18	19.12
NAV	49.97	529.27	280.52	37.18	50.82	-
AUM (In Rs.Cr)	25513	18614	18652	9773	24854	-



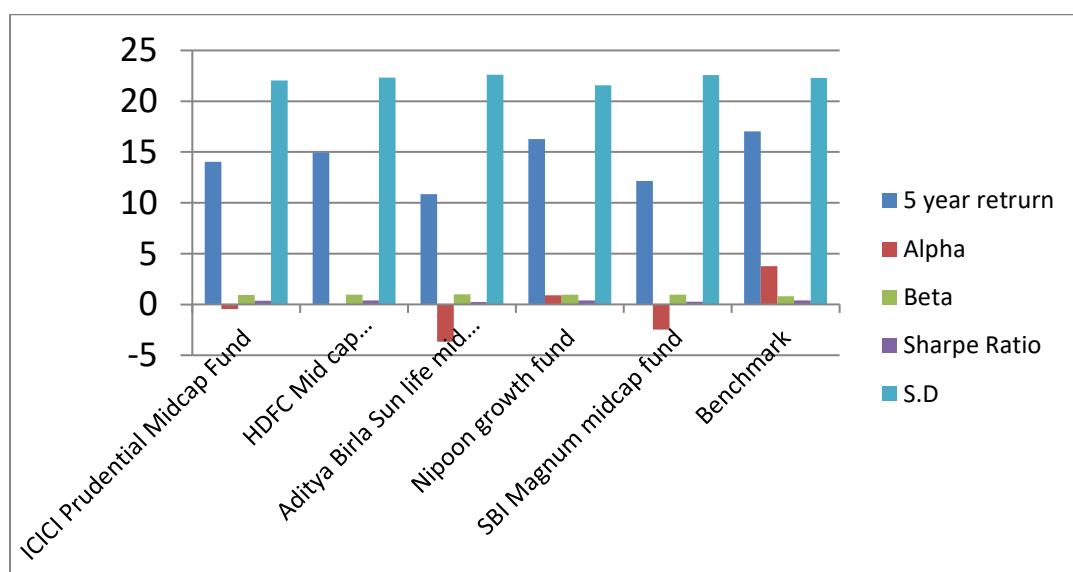
The table and chart are representing the large cap fund 5 year return Alpha, Beta, Sharpe Ratio and SD Of the all 5 selected AMC's. The all AMC provide less return compare to the benchmark but compare to all AMC's the ICICI prudential blue chip fund provide better return. If the beta value is far from the benchmark that funds have not highly affected to the market. The Alpha value is depended on the prediction of the beta value.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.1(B) Shows mid cap fund for the selected 5 Asset management company's

MID CAP FUND	ICICI Prudential Midcap Fund	HDFC Mid cap opportunituies Fund	Aditya Birla Sun life mid cap fund	Nippon growth fund	SBI Magnum midcap fund	Benchmark
5 Year return	14.05	14.94	10.86	16.27	12.16	17.03
Alpha	-0.47	0.04	-3.68	0.91	-2.48	3.77
Beta	0.94	0.97	0.98	0.95	0.97	0.81
Sharpe ratio	0.37	0.39	0.23	0.39	0.28	0.4
S.D	22.03	22.32	22.61	21.58	22.59	22.58
NAV	112.90	64.972	336.90	1407.39	100.28	-
AUM (In Rs. Cr.)	2093	25052	2470	8154	4205	-

MID CAP FUND



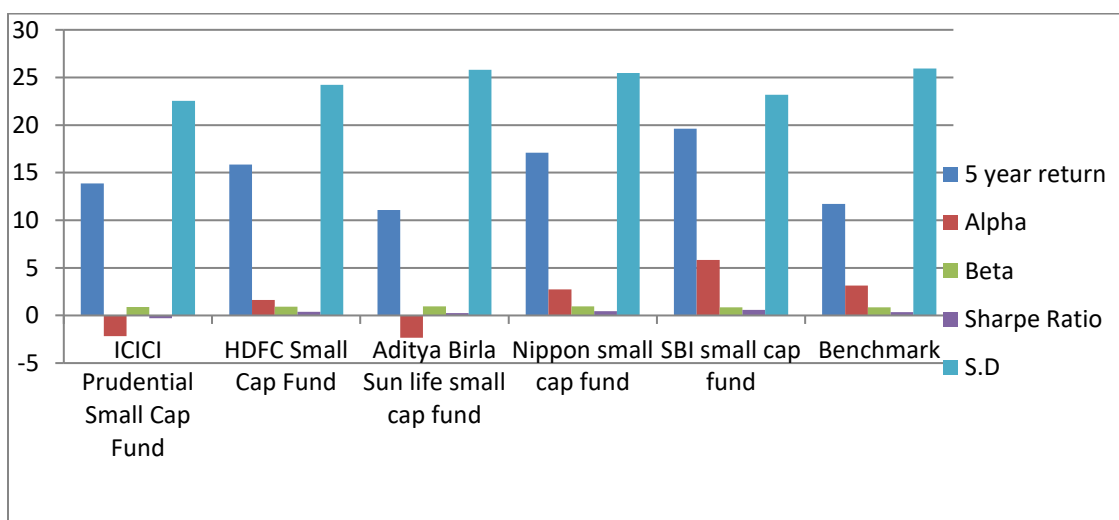
The Nippon mid cap fund is providing better return from the last 5 years but compare to the benchmark its return is less. The Nippon fund alpha is better then the others. The all AMC beta is changing up and down on the basis of their benchmark or market value. The HDFC and Nippon are having Sharpe ratio is higher so that is the better performance fund or scheme.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.1(C) Shows Small Cap Fund for the selected 5 asset management company's

Small cap fund	ICICI Prudential Small Cap Fund	HDFC Small Cap Fund	Aditya Birla Sun life small cap fund	Nippon small cap fund	SBI small cap fund	Benchmark
<b>5 year return</b>	13.88	15.85	11.06	17.11	19.6	11.73
<b>Alpha</b>	-2.18	1.63	-2.34	2.74	5.82	3.15
<b>Beta</b>	0.9	0.91	0.97	0.97	0.86	0.86
<b>Sharpe ratio</b>	-0.29	0.39	0.24	0.44	0.57	0.34
<b>S.D</b>	22.55	24.22	25.81	25.46	23.19	25.92
<b>NAV</b>	32.06	46.43	39.68	50.03	77.85	-
<b>AUM (In Rs. Cr.)</b>	1760	9543	2309	10637	6593	-

SMALL CAP FUND



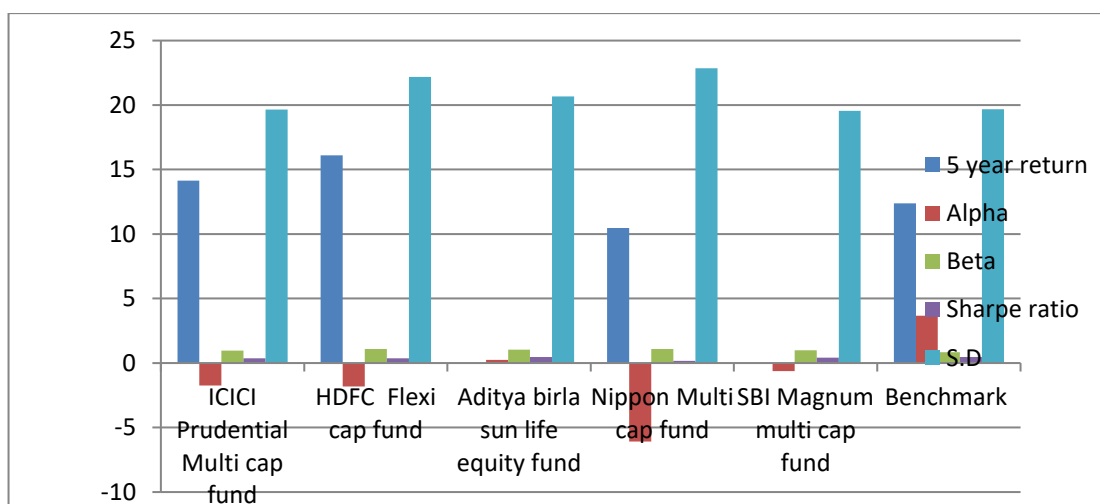
According to the table no. 3 and graph are represent that the better return is provided by the SBI and at the same time the risk is less. The higher the risk of ABSL and that fund provide less return compare to the other funds. The ABSL and Nippon are having same beta value is greater than the benchmark beta value and it is good for the funds. The higher the Sharpe ratio is preferable so the SBI is having the higher Sharpe ratio it is above 0.5 so it is a market beating performance achieves by the SBI fund.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.1(D) Shows Multi Cap Fund for the selected 5 asset management company's

MULTI CAP FUND	ICICI Prudential Multi cap fund	HDFC Flexi cap fund	Aditya birla sun life equity fund	Nippon Multi cap fund	SBI Magnum multi cap fund	Benchmark
<b>5 year return</b>	14.14	16.1	-	10.48	-	12.38
<b>Alpha</b>	-1.74	-1.81	0.24	-6.08	-0.63	3.68
<b>Beta</b>	0.96	1.08	1.03	1.1	0.98	0.85
<b>Sharpe Ratio</b>	0.36	0.37	0.47	0.18	0.43	0.47
<b>S.D</b>	19.66	22.18	20.67	22.85	19.56	19.68
<b>NAV</b>	326.04	718.92	936.54	97.01	62.43	-
<b>AUM (In Rs.Cr.)</b>	5586	22227	12130	8068	10424	-

#### MULTI CAP FUND



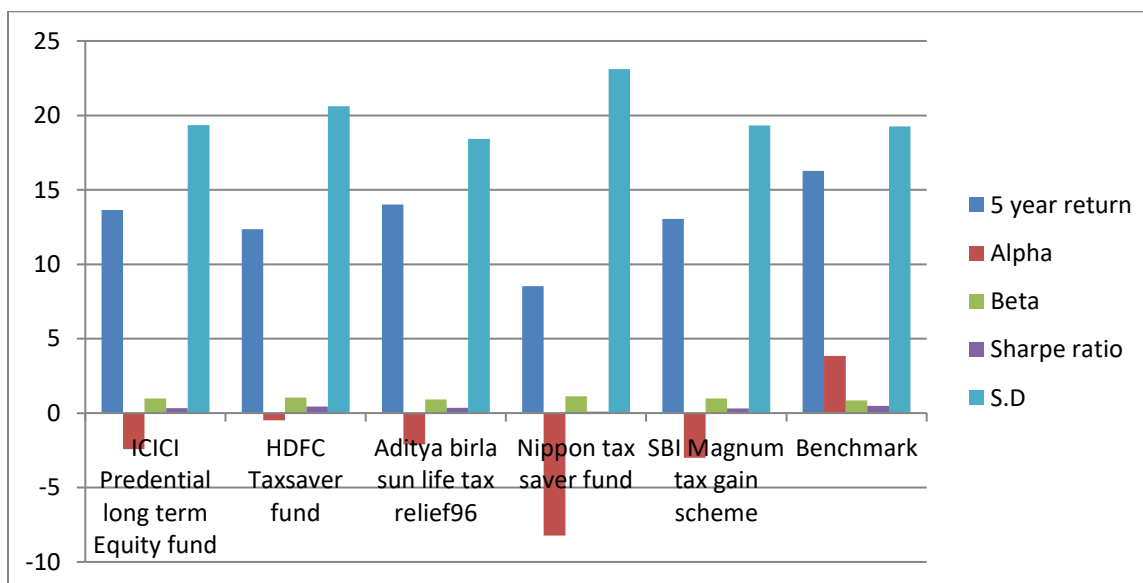
The Chart are prescribing the 5 years return and their alpha, beta, SD, Sharpe ratio. The highest return provided by the HDFC with less risk. The higher risk is in the Nippon Multicap fund. The ABSL Sharpe ratio is similar to the benchmark and also the risk return adjustment is better comparing the others. The NAV and AUM are higher in ABSL and HDFC respectively.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.1(E) Shows ELSS(Equity Linked Saving Schemes) for the selected 5 asset management company's

ELSS	ICICI Predential long term Equity fund	HDFC Tax saver fund	Aditya birla sun life tax relief96	Nippon tax saver fund	SBI Magnum tax gain scheme	Benchmark
<b>5 year Return</b>	13.65	12.35	14.02	8.52	13.05	16.28
<b>Alpha</b>	-2.42	-0.49	-2.09	-8.23	-2.99	3.83
<b>Beta</b>	0.97	1.05	0.91	1.14	0.99	0.85
<b>Sharpe ratio</b>	0.34	0.45	0.35	0.1	0.32	0.48
<b>S.D</b>	19.34	20.61	18.42	23.11	19.32	19.27
<b>NAV</b>	439.51	544.50	38.68	54.92	179.19	-
<b>AUM (In Rs.Cr.)</b>	7597	75580	12595	10245	8728	-

### EQUITY LINKED SAVING SCHEMES



According to the Equity linked saving scheme that provide better return Is provided by the ABSL but the ABSL Return is less compare to the benchmark or the market return. The HDFC having NAV and AUM is highest or better than the other funds. The Nippon tax saver fund beta value is higher than the others and bigger than the Benchmark value. The Sharpe ratio is providing risk adjusted return and that is HDFC tax saver fund is preferable.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

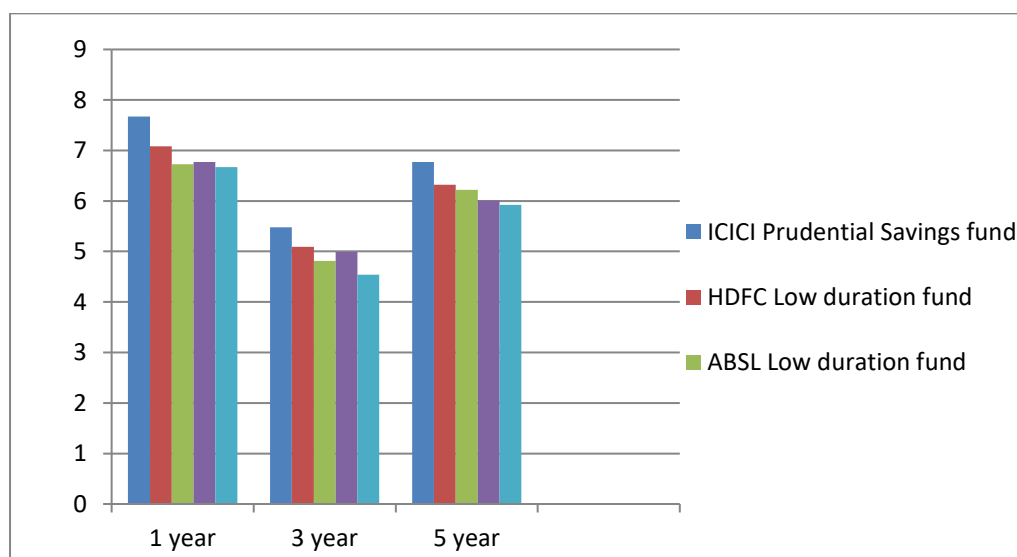
---

## B. Debt Fund

### 4.2 (A) Shows Low Duration Fund for the selected 5 AMC's

FUND NAME	AUM(In Rs.Cr.)	RETURN (%)AS ON 2022			
		NAV	1 YEAR	3YEAR	5 YEAR
<b>ICICI Prudential Savings fund</b>	26706	475.91	7.67	5.48	6.77
<b>HDFC Low duration fund</b>	26099	50.91	7.08	5.09	6.32
<b>ABSL Low duration fund</b>	15504	581.03	6.73	4.81	6.22
<b>Nippon low duration fund</b>	8698.75	3299.67	6.77	4.99	6.01
<b>GSBI magnum low duration fund</b>	15616	3082.43	6.76	4.54	5.92

### LOW DURATION FUND

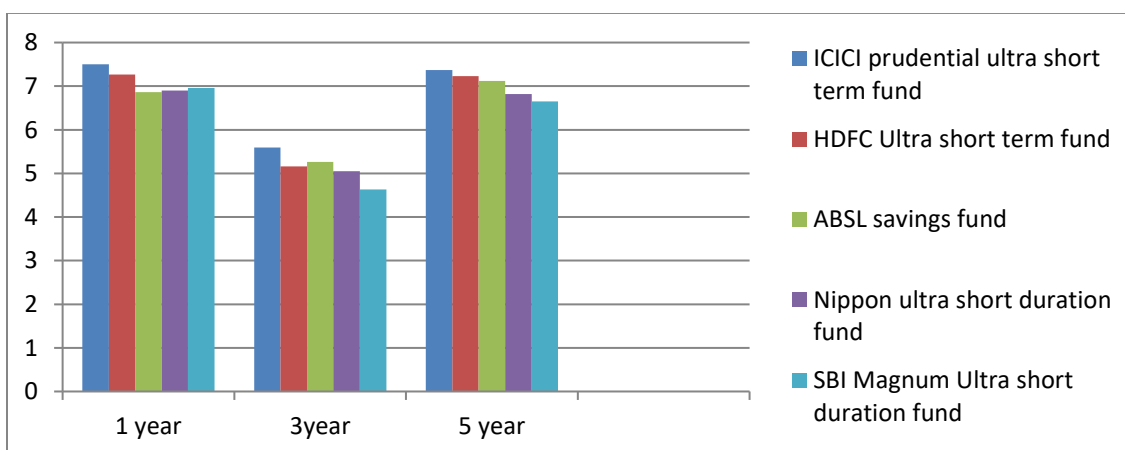


The graph are representing that the continuously giving highly return from the last five year provide through through ICICI Prudentail savings fund. The low duration fund provides the return in 6 to 12 months and the ICICI provide better return compare to the other AMC's. A per unit highest NAV is Nippon low duration fund.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.2(B)Shows Short Duration Fund for the selected 5 AMC's

FUND NAME	AUM(In Rs. Cr.)	NAV	Return(%) as on 2022		
			1 YEAR	3 YEAR	5YEAR
ICICI Prudential short term fund	24170	52.46	7.50	5.59	7.37
HDFC Short term debt fund	18613	27.81	7.27	5.16	7.23
ABSL Short term opportunities fund	8370	41.49	6.86	5.26	7.12
Nippon short term fund	8987	45.91	6.90	5.05	6.82
SBI Short term debt fund	26484	28.06	6.96	4.63	6.65

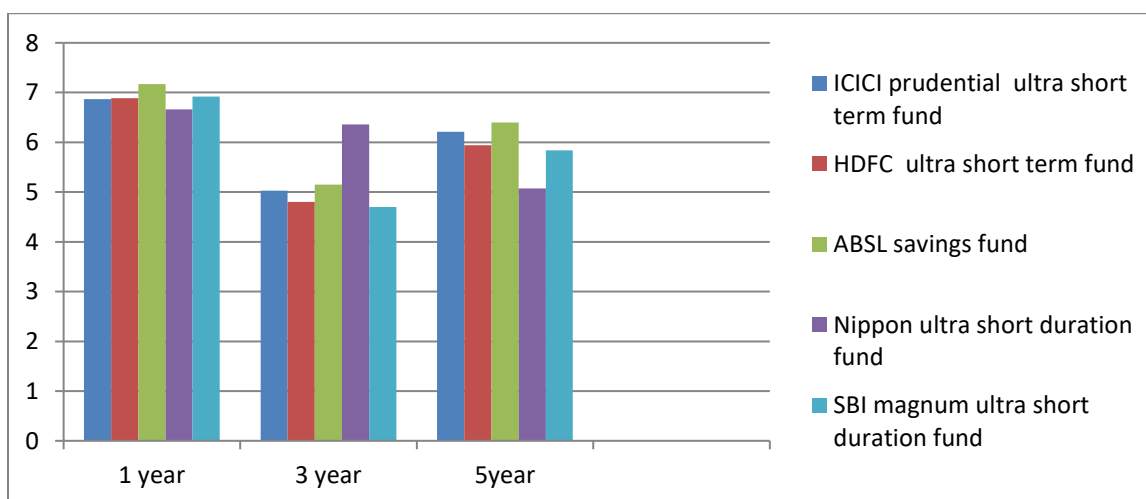


The graph are representing the short term debt fund AUM, NAV and returns for the 1 year, 3 & 5 years. The SBI short term fund has the largest amount of asset under management. The value of the net asset is ICICI short term is the high level of the value of the fund. The highest return provide by the ICICI since last 5 years.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.2(C) Shows Ultra Short duration fund for the selected 5 AMC's

			Return(%) as on 27 sep 2022		
FUND NAME	AUM(In Rs. Cr.)	NAV	1 YEAR	3YEAR	5YEAR
<b>ICICI prudential ultra short term fund</b>	8495	24.41	6.87	5.03	6.21
<b>HDFC ultra short term fund</b>	18023	13.36	6.89	4.80	5.94
<b>ABSL savings fund</b>	16118	465.16	7.17	5.15	6.40
<b>Nippon ultra short duration fund</b>	724	3565.25	6.66	6.36	5.07
<b>SBI magnum ultra short duration fund</b>	11019	5269.23	6.92	4.70	5.84



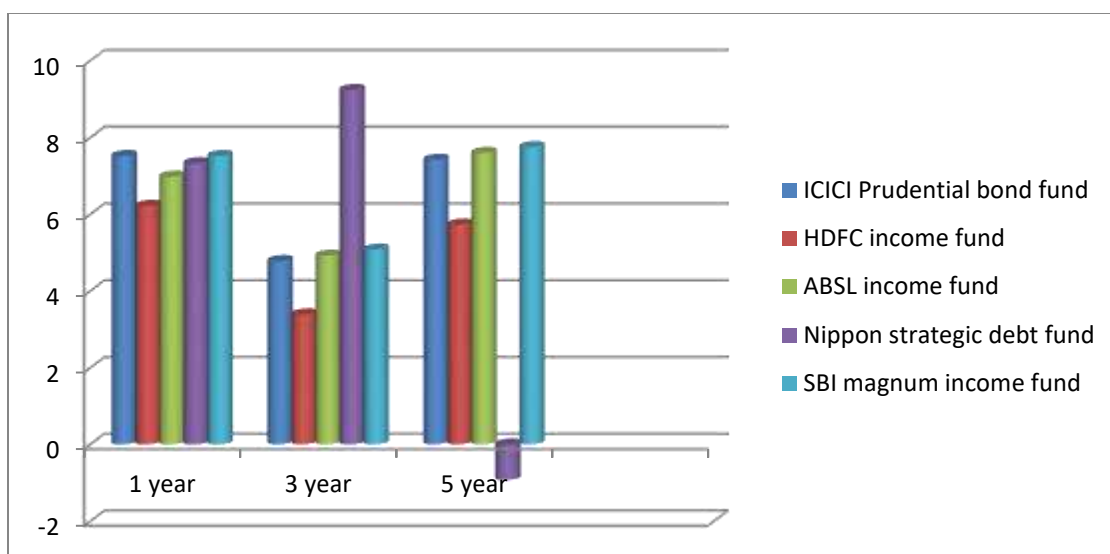
The Graph are representing the returns of the ultra short duration fund. The highest AUM is having by the HDFC ultra short term fund and the highest per unit price or value of NAV is having by the SBI magnum ultra short duration fund. The all funds are open ended and also they are given the return on the basis of the growth in the fund



## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.2(D) Shows Medium to long term duration for the selected 5 AMC's

FUND NAME	AUM(In Rs.Cr.)	Return(%)As on 2022			
		NAV	1 YEAR	3YEARS	5YEARS
ICICI Prudential bond fund	3792	34.72	7.52	4.78	7.42
HDFC income fund	696	50.46	6.22	3.39	5.73
ABSL income fund	1805	109.63	6.98	4.92	7.60
Nippon strategic debt fund	416.67	13.48	7.33	9.24	-0.93
SBI magnum income fund	1772	61.75	7.52	5.08	7.75



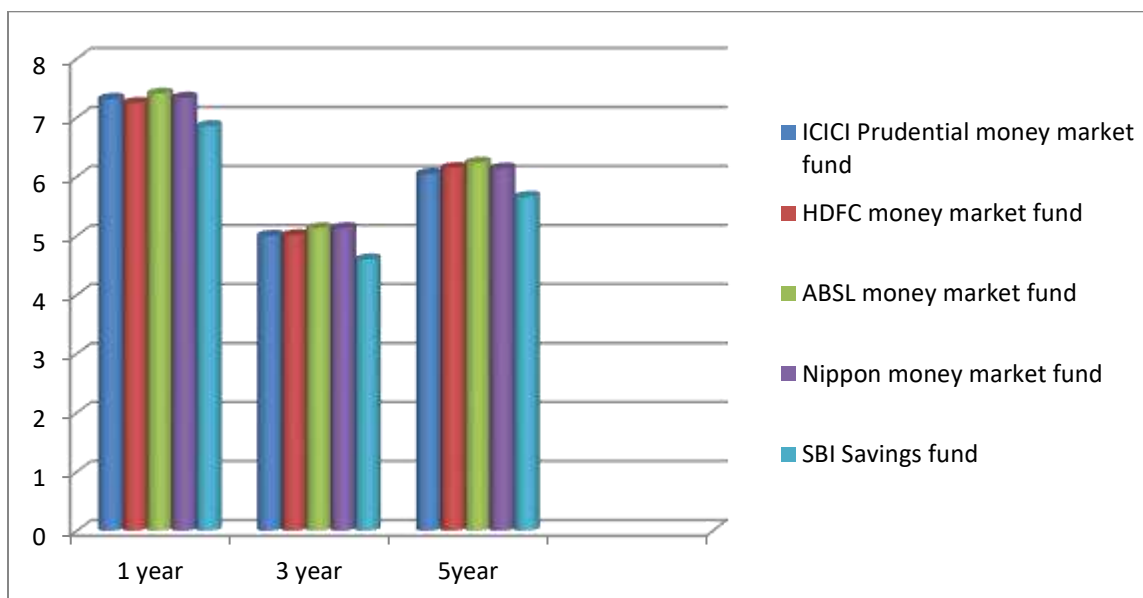
The medium to long term fund having different AMC's schemes and in which the SBI Magnum income fund are provide the better return from the current year and also the last five years. The highest fund having by the ABSL income fund is 1772cr and their net asset value is 109.63

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.2(E) Show Money Market Fund for the selected 5 AMC's

			RETURN(%)AS ON 27 Sep 2022		
FUND NAME	AUM(In Rs. Cr.)	NAV	1YEAR	3YEARS	5 YEARS
<b>ICICI Prudential money market fund</b>	10.335	332.77	7.32	5.00	6.05
<b>HDFC money market fund</b>	11451	5016.99	7.25	5.01	6.15
<b>ABSL money market fund</b>	10188	324.37	7.41	5.13	6.24
<b>Nippon money market fund</b>	6571	3638.61	7.34	5.13	6.14
<b>SBI Savings fund</b>	21462	36.60	6.86	4.60	5.66

Money market fund

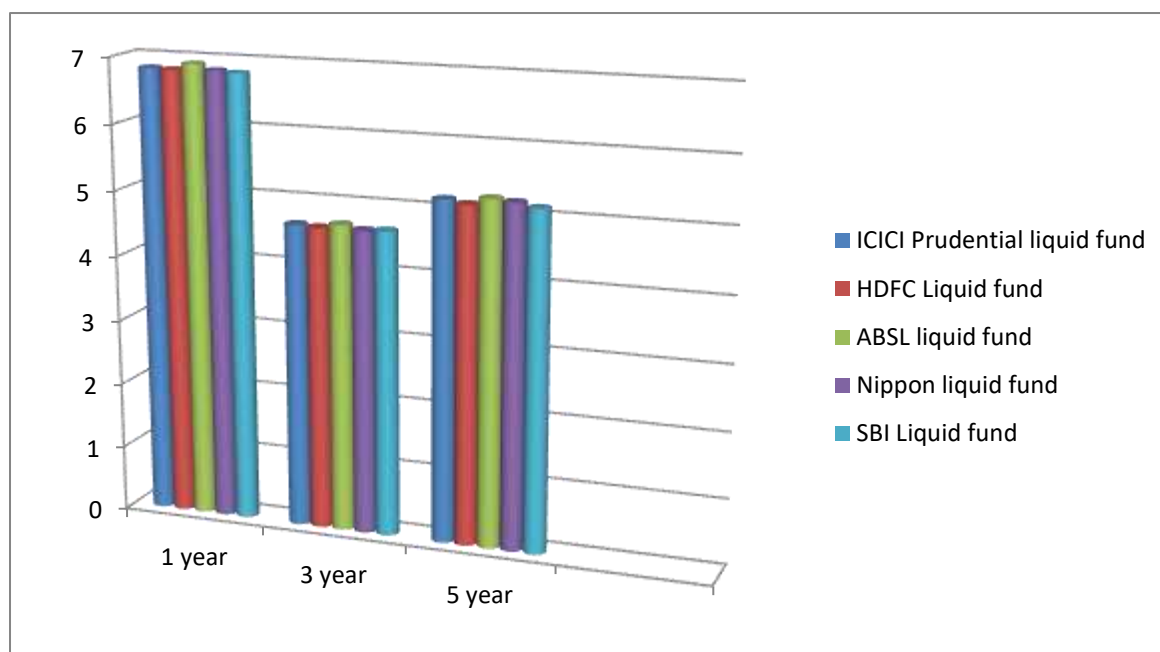


The graph represents that the highest return given by the HDFC for the last one year and the continuously giving a return from the last five years is the ABSL money market fund 7.30%. The SBI having the large no. of amount of AUM and the HDFC money market current value is bigger compare to the other AMC's.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

### 4.2 (F) Shows Liquid Fund for the selected 5 AMC's

FUND NAME	AUM (In Rs. Cr)	NAV	RETURN(%)AS ON 28 Sep 2022		
			1 YEAR	3YEARS	5 YEARS
<b>ICICI Prudential liquid fund</b>	39319	341.80	6.83	4.64	5.18
<b>HDFC Liquid fund</b>	68865	4531.47	6.82	4.62	5.13
<b>ABSL liquid fund</b>	31305	372.00	6.92	4.69	5.24
<b>Nippon liquid fund</b>	19338	5636.68	6.84	4.63	5.21
<b>SBI Liquid fund</b>	42224	3613.53	6.82	4.65	5.15



According to the table no.11 it represents the liquid fund in which the highest return given by the ABSL and Nippon liquid fund is 6.92% & 6.84 % respectively for the last one year. The HDFC liquid fund has the highest AUM for this scheme..Nippon liquid fund having a current highest NAV Price or value compare to other AMC's liquid schemes.

**CHAPTER-5**  
**FINDINGS SUGGESTION AND CONCLUSION**

5.1 Findings

5.2 suggestions

5.3 Conclusion

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 5.1 Findings

- The all AMC's provide less return compare to the benchmark but compare to all AMC's the ICICI prudential blue chip fund provide better return.If the beta Value is far from benchmark that funds have not highly affected to the market.
- The all AMC beta is changing up and down on the basis of their benchmark or maeket value. The HDFC and Nippon are having Sharpe ratio is higher so that is the better performance fund or scheme.
- The ABSL and Nippon are having same beta value is greater than the benchmark beta value and it is good for the funds.
- The ABSL Sharpe ratio is similar to the benchmark and also the risk return adjustment is better comparing the others. The NAV and AUM are higher in ABSL And HDFC respectively.
- The HDFC having NAV and AUM is higher or better than the other funds. The Nippon tax saver fund beta value is higher than the others and bigger than the benchmark value. The Sharpe ratio is providing risk adjusted return and that is HDFC tax saver fund is preferable.
- The low duration fund provides the return in 6 to 12 months and the ICICI provide better return compare to the other AMC's A per unit highest NAV is Nippon low duration fund.
- The value of the net asset is ICICI short term is the high level of the value of the fund. The highest return provide by the ICICI since last 5 years.
- The highest AUM is having by the HDFC ultra short term fund. The all funds are open ended and also they are given the return on the basis of the growth in the fund.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

- The highest fund having by the ABSL income fund is 1772cr and their net asset value is 109.63
- The ABSL money market fund 7.30% the SBI having the large no. of amount of AUM and the HDFC money market current value is bigger compare to the other AMC's.
- The HDFC liquid fund has the highest AUM for this scheme. Nippon liquid fund having a current highest NAV price or value compare to other AMC's liquid schemes.

## A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

### **5.2 Suggestion.**

The study has conducted Mutual fund schemes of selected AMC's in india. Based on after going through the whole research many things become clear. The study can easily help an investor in many ways. Some of the suggestions on the basis of research can be listed as under:

- If investors want to invest their money with less risk they can invest in mutual fund with proper knowledge about various funds and schemes are available in mutual fund .
- To earn maximum returns from mutual fund, the investors must have clear financial goals and decide your risk tolerance capacity.
- Today investor is having enough funds to invest in a number of schemes. He is always in search of such tool which can provide him maximum return with low risk. In this regard Mutual fund is the best choice.
- One of the very important information that an investor can seek from the study is that he can easily make diversification in choosing the fund. It is suggested that while choosing to funds their co-relation can be kept in mind. It is advised to choose two negative co- related funds to minimize the risk.

# A COMPARATIVE STUDY ON MUTUAL FUND SCHEMES OF SELECTED AMC'S IN INDIA.

---

## 5.3 Conclusion.

The conclusion of the study that the mutual funds as an investment option have displayed growth potential market and performed much better than the traditional market options in the long term helps investor to think about that investment. It is the importance that investors do not make a rash decision simply by looking at the return figures generated by an individual fund, they should compare funds based on the risk and return analysis and find out which fund is giving better returns equivalent to the risk taken. Statistical analysis helps investors make a correct decision looking at facts based on numbers instead of just going by their gut feeling. Also compared to the traditional options, mutual funds provide a more professional approach towards investment and some amount of diversification.

A thorough analysis clubbed with timely investments might prove mutual funds to be an excellent form of investment. The analysis is based on not only the return but also their other instruments like standard deviation, Sharpe ratio, beta and alpha. The difference between the fund actual return and its expected return is its alpha. The comparisons of all equity and debt fund schemes the all schemes are having their own perspective.

The all equity schemes are provide better return but the return is less compare to the benchmark return except small cap and multi cap fund. In the debt schemes the ABSL are provide better return in all schemes expects medium to long term duration fund. The net asset value is higher in the HDFC asset management fund. The highest asset under management is having ABSL fund management. The investor who thinks about the return without risk so they can invest in debt schemes in different duration or period of time. The investor who think about the more gain from the market and also they have taken risk for the highly or better return in future. The risk and return are on the basis of their AUM and NAV value of the particular schemes.



**K. L. E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591 201**

**PG DEPARTMENT OF COMMERCE**



**PROJECT REPORT ENTITLED  
A STUDY ON HR POLICIES AND ITS IMPLEMENTATION WITH  
REFERENCE TO  
SHRI CHIDANAND BASAVAPRABHU KORE SAHAKARI  
SAKKARE KARKHANE NIYAMIT, CHIKODI**

**Submitted to**

**RANI CHANNAMMA UNIVERSITY, BELAGAVI**



**FOR THE PARTIAL FULFILMENT OF DEGREE IN MASTER OF COMMERCE  
DURING THE ACADEMIC YEAR 2022-2023**

**SUBMITTED BY**

**Miss. DIPIKA G JHUTALE**

**M.COM-IV SEMESTER**

**REGISTER NO: P15DM21C0004**

**UNDER THE GUIDANCE OF**

**Shri. V. S. KHOT**

K.L.E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591201

PG DEPARTMENT OF COMMERCE



## CERTIFICATE

This is to certify that Miss. **DIPIKA G JHUTALE** has satisfactorily completed the Project Report Entitled **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH REFERENCE TO "SHRI CHIDANAND BASAVAPRABHU KORE SAHAKARI SAKKARE KARKHANE NIYAMIT CHIKODI"** for the partial fulfillment of Degree in Master of Commerce in Rani Channamma University, Belagavi during the academic year 2022-2023.

Shri. V. S. KHOT

PROJECT GUIDE

Dr. LAXMIKANTHA NAYAKA TO

HEAD  
Department of Commerce

Shri. UDAYSINGH RAJPUT

PRINCIPAL  
KLES'S Basavaprabhu Kore  
Arts, Science and Commerce College  
CHIKODI - 591 201





ಚಿದಾನಂದ ಬಸಪ್ರಭು ಕೋರೆ ಸಹಕಾರಿ ಸಕ್ಕರೆ ಕಾರ್ಖಾನೆ ನಿಯಮಿತ,  
ಚಿಕ್ಕೋಡಿ

CHIDANAND BASAPRABHU KORE SAHAKARI SAKKARE  
KARKHANE NIYAMIT, CHIKODI

(Formerly : S.D.K.S.S.K.N., Chikodi. ಈ ಮೊದಲು : ಶ್ರೀ ಡಿ.ಕೆ.ಎಸ್.ಎಸ್.ಕೆ.ಎನ್. ಚಿಕ್ಕೋಡಿ) GST No.  
29AAAA51328L1ZC

No.DKSSK/LWO/Trg.Crt./2023-24

Date: 03/10/2023

## C E R T I F I C A T E

This is to certify that **Miss. Dipika G Jhutale** M.Com IV<sup>th</sup> sem student of K L E Society's B K Arts, Science & Commerce College Chikodi has successfully Project work study titled "**A Study on HR Policies and Its Implementation**" in our organisation from **01/06/2023 to 20/09/2023**. During the period she found sincere and hard working.

We wish her all the success for her bright future.

  
Managing Director  
C.B.K.S.S.K.N. Chikodi

Copy to  
Miss. Dipika G Jhutale





## DECLARATION

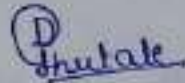
I declare that the project report entitled **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH REFERENCE TO "SHRI CHIDANAND BASAVAPRABHU KORE SAHAKARI SAKKARE KARKHANE NIYAMIT CHIKODI"** is a record of independent research work carried out by me and submitted in partial fulfilment of the Degree in **"Master of Commerce"** as prescribed by the Rani Channamma University, Belagavi for the academic year **2022-23**.

It has been prepared under the guidance and supervision of **Shri. V. S. Khot**, Lecturer in PG Department of Commerce K.L.E. Society's Basavaprabhu Kore Arts, Science and Commerce College, Chikodi.

The Thesis or a part thereof has not been previously submitted for the award of any other degree or diploma.

Date: 24/09/2023

Place: Chikodi



Miss. Dipika G Jhutale

Register No: P15DM21C0004

## Acknowledgement

The success of any project is incomplete without mentioning the names of the people who made it possible.

I am conscious of my indebtedness to each and every individual, who has helped me in many ways in the preparation of this project work. It would be great privileged to express words of gratitude and respect to all those who guided and inspired me throughout the completion of this project.

I sincerely express my deep sense of gratitude and appreciation to Internal Guide **Shri. V. S. Khot**, for his careful and valuable guidance, never ending patience and constant encouragement throughout the project.

I am beholden to **Dr. Laxmikantha Nayaka TO** Head of Department of Commerce for constant interest evidenced by him in my academic pursuits.

I express my deep intelligence of appreciation to **Shri. Udaysingh Rajput**, Principal of our college for his valuable suggestions and encouragement.

I express my sincere gratitude to **Shri. R.T. Desai** Manager, CBKSSKN Chikodi, for providing me an opportunity to do a project in their organization.

At the outset, I would like to thank all the teaching faculty of PG Department of Commerce for their valuable suggestions during project work.

My thanks are also to library staff for their co-operation during the course of project work and I am also thankful to Printers for their skillful printing of this project.

Finally, I owe my deep sense of gratitude to my parents, friends and relatives for their constant encouragement and support.

**Miss. Dipika G Jhutale**

# **INDEX**

<b>SL NO</b>	<b>CONTENTS</b>	<b>PAGE NO.</b>
1.	INTRODUCTION AND RESEARCH DESIGN	1-8
2.	CONCEPTUAL FRAMEWORK	9-29
3.	INDUSTRY PROFILE	30-50
4.	DATA ANALYSIS AND INTERPRETATION	51-61
5.	FINDINGS, SUGGESTION AND CONCLUSION	62-64
	BIBILOGRAPHY	
	ANNEXURE	

**CHAPTER – 1**

**INTRODUCTION AND RESEARCH DESIGN**

- 1.1 Introduction
- 1.2 Review of Literature
- 1.3 Statement of the Problem
- 1.4 Need for the Study
- 1.5 Objectives of the Study
- 1.6 Scope of the Study
- 1.7 Research Methodology
- 1.8 Limitations of the Study
- 1.9 Chapter Scheme

## **1.1 INTRODUCTION**

This study is conducted to measure the effect of human resource policies (Planning, recruitment & selection, training & development, job analysis & design, motivation, performance appraisal and employee participation in decision making) on organizational performance, to if there is a positive & significant relationship between human resource policies and organizational performance & to measure the scope of application of human resource policies. These guidelines identify the organizations intention in matters of recruitment, selection, promotion, development, compensation, motivation & otherwise leading and directing employees in the working organization. HR policies serve as a road map for the manager. HR policies are also defined as that body of principles & rules of conduct which govern the enterprise in its relationship with employees. Such a policy statement provides guidelines for a wide variety of employment relationships in the organization. The purpose & significance of the HR policies hardly need any elaboration. Every organization needs policies to ensure consistency in action & equity in its relation with employees. Policies serve the purpose of achieving organizational goals in an effective manner. HR policies constitute the basis for sound HRM practices. Moreover, policies are the yardstick by which accomplishment of programs can be measured.



## **1.2 REVIEW OF LITERATURE**

KARLSHAUS, A., [2020]: paper discusses the suitability of part-time leadership as an instrument for a sustainable Human Resources Management (HRM) policy. The thought of part-time leadership is introduced and mentioned supported by a meta-analysis of existing studies and the latest analysis that has been dead on, at typical working time arrangements in leadership positions. The article discusses the intersection of part-time leadership with the 3 subject areas (economic, social, and ecological) of the Triple Bottom Line and tries to indicate additionally specifically how part-time leadership models will serve the fulfillment of elite property Development Goals (SDGs), particularly in Western countries. Finally, stipulations and customary barriers for a roaring implementation of part-time leadership as a company Social Responsibility (CSR) instrument of organizations area unit undraped, and suggestions for mitigating those challenges area unit given from a macro, small, and method perspective leadership as company Social Responsibility (CSR) instrument of organizations area unit undraped, and suggestions for mitigating those challenges area unit given from a macro, small and method perspective.

MALATHI.T, [2019]: paper is aimed at discovering how employees' motivation and satisfaction relate to their learning behaviors while doing certain tasks. The study explored employee motivation and satisfaction among unskilled and skilled employees in the Automobile industries in India. With expanding and increasing technology and globalization, many organizations, especially in developing countries, have problems keeping their employees motivated and satisfied. Hence, it's vital to explore motivation and satisfaction to hunt out good solutions for human resource management, managers, policymakers, practitioners, etc.

DAVID. E [2017] The Author suggests that HRM should advantage both individuals and organizations. Although the dominant models within HRM theory and research still focus largely on ways to enhance performance, employee concerns are considered a secondary consideration. Furthermore, pressures at work and in society large area

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

are creating an increasing threat to employee well-being. If employee concerns and therefore the threats to well-being are to be taken seriously, a special analytic framework for HRM is required. The study sets out an alternate approach to HRM that provides priority to practice designed to reinforce well-being and a positive employment relationship, proposing that both elements are important.

BULBUL KAR, DR. BISWADEEP MISHRA (2016): Set of planned and intended strategies, policies and practices for managing people in an organization; and HRM practices as the activities actually implemented and experienced by employees, and that can be objectively verified.

V. SIVA KUMAR (2015): This study describes that the high level of policies increases the organization and acts as a retention strategy. From this study it is observed that employees relationship.

SINGH S. K (2008): In this study he explained that for a good organizational growth employee should maintain their involvement to yield high productivity, Employees dedication helps him to achieve his target, and increase his equality of work. Organization should also help the employee in training him to develop his interpersonal skills. Both employer and employee should equally contribute each for individual's growth.

PATIL KALINATH S. (2007) in this study he has researched about the development of facility management industry has an important place in the growth of the country. Life Insurance Corporation is one of the major service provide the best service.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

HEMANT RAO (2007) in this research study he explained the changes in the role human resources. There was an extraordinary change in the role of the Human Resources Department. He found that each individual should work in the organization such that they should treat the employees irrespective to cast, religion, gender etc.

### **1.3 STATEMENT OF THE PROBLEM**

This study is conducted to count the effect of human resources policies (planning, recruitment & selection, training & development, job analysis and design, motivation, performance appraisal, and employee participation in decision making) on organizational performance, to check if there is a positive and significant relationship between human resource policies and organizational performance, and to compute the scope of application of human resource. An HR function managed is very essential because it implements company rules, Employees Training, compensation, Attribution, & Employee Retention. Policies are fundamental for finding the activities and provide a general plan to decision- makers on how to handle issues as they arise. This is achieved by providing the reader with limits and a choice of alternatives that can be used to 'guide' their decision making process as they attempt to overcome problems.

### **1.4 NEED OF THE STUDY**

Policies guide the employees to take action for achieving the objectives of the organization, management & workers. HR policies provide guidance to management in relation to the HR problems. It furnishes the general standard on which decisions are taken. HR policies decide how to get the work done by the people or how to behave with them.

# **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

## **1.5 OBJECTIVES OF THE STUDY**

- To study the amendments in the base policy & prepare a final policy.
- To understand the HR policies maintaining the sound relation among employer & employee.
- To find out the employees satisfaction towards satisfied with the implementation of policy in organization.

## **1.6 SCOPE OF THE STUDY**

The present study is limited to "CBKSSKN CHIKODI" covers the study on "HR Policies & its implementation." The study is based on primary data collection is Questionnaire. The target population for the study is employees of "CBKSSKN CHIKODI."

## **1.7 RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the research problem. A study on "HR policies and its implementation" is based on two types of data collection.

1. Primary Data Collection
2. Secondary Data Collection

### **1. Primary Data Collection :-**

The researcher collected primary data through structured questionnaire & interview.

### **2. Secondary Data Collection :-**

When the investigator does not collect data originally for the research enquiry, but use data already existed available in published or unpublished form is called secondary data.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

Different sources used for collecting secondary data were as follows

- Brochure
- Internet
- News Paper
- Journals and Articles

Structure of questionnaire:-

In this study, the primary data is collected through questionnaire from the respondents directly. Here, open ended, close ended questions, rank order, rating scale are used in the questionnaire.

Sample size:-

The sample size of the study is 25 respondents. The respondents are employees of the "CBKSSKN."

### **1.8 LIMITATIONS OF THE STUDY**

- This research is restricted to "CBKSSKN" Chikodi. Hence the result cannot be extrapolated to other places.
- The responses given by the respondents may be careless in responding to the questionnaire.
- The sample employees selected for the present day is limited to 25 workers, because of limited time.
- The time limit was very short to prepare all the project report.

## **1.9 CHAPTER SCHEME**

### **Chapter 1: Introduction and Research Design**

This chapter deals with the introduction, review of literature, objectives of the study, research methodology, scope of the study, limitations of the study, chapter scheme.

### **Chapter 2: Conceptual Framework**

In this chapter is revived on various concepts related to the study which are: Introduction of HR Policies, Definition of HR Policies, Meaning of HR Policies, Types of HR policies, Advantages & Disadvantages of HR Policies, Process of Developing Human Resource Policies, Factors and their effects on the HR Policies, Principles of HR Policies, How to implement HR Policies, Essential HR Policies, Right way to write HR Policies.

### **Chapter3: Industry Profile**

This chapter deals with the industry profile which include Organization profile, Organization history, Board of directors, Organization chart, Aim and objectives of organization, license & permission, Nature of business, Product and service profile, Competitors information, Awards & achievements, Role of industry & economic development, Infrastructure facilities, Future outlook, Functional department, Mission & Vision, SWOT Analysis.

### **Chapter 4: Data Analysis and Interpretation**

In this chapter data has been analyzed as per the information available through the questionnaire in the forms of tables and graphs.

### **Chapter 5: Findings, Suggestions& Conclusion**

In this chapter findings suggestion and conclusion are presented and also this chapter includes bibliography and annexure.

## **CHAPTER - 2**

### **CONCEPTUAL FRAMEWORK**

- 2.1 Introduction of HR Policies
- 2.2 Definition of HR Policies
- 2.3 Meaning of HR Policies
- 2.4 Types of HR policies
- 2.5 Advantages & Disadvantages of HR Policies
- 2.6 Process of Developing Human Resource Policies
- 2.7 Factors and their effects on the HR Policies
- 2.8 Principles of HR Policies
- 2.9 How to implement HR Policies
- 2.10 Essential HR Policies
- 2.11 Right way to write HR Policies

# **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

## **2.1 INTRODUCTION**

Human Resource Policies are continuing guidelines on the approach the organization intends to adopt in managing its people. It represents specific guidelines to HR manager various matters concerning employments. It states the indented of the organization about different aspects of Human Resource Management such as Recruitment, Promotion, Compensation, Training, Selections etc. They define the conception and value of the organization on how people and things should be treated. Therefore, it serves as a reference point when human resources management practices are being developed or when decisions are being made about people. A good HR policy could provide generalized guidance on the approach adopted by the organization, and therefore its employees, concerning various aspects of employments. A procedure spells out precisely what action should be taken in line with the policy. However, each company has a different set of circumstances, and so develops an individual set of human resource policies.

## **2.2 MEANING OF HR POLICIES**

Human Resource Policies are formal rule and procedures that dictate how certain matters should be addressed in the workplace, including employee rights and duties. HR policies are tied to employment law. To avoid non-compliance and penalties from the government, employees must adhere to HR policies.

## **2.3 DEFINITION OF HR POLICIES**

According to CALHOON, Personnel policies constitute guides to action. They furnish the general standards or bases on which discussions are reached. Their genesis lies in an organizations values, philosophy, concepts and principles.

Thus, an HR policy will also be helpful in making decisions routine on frequently occurring HR problems.



## **2.4 TYPES OF HR POLICIES**

### **I. On the basis of source**

On the basis of their source, human resource policies could be classified into

1. **Originated Policies** – These are the policies usually established by the senior managers in order to guide their subordinates.
2. **Implicit Policies** - These are the policies which are not formally expressed; they are inferred from the behavior of managers. They are also known as **Implied Policies**.
3. **Imposed Policies** - Policies are sometimes imposed on the business by external agencies such as government, trade associations and trade unions.
4. **Appealed Policies** - Appealed policies arise because the particular case is not covered by the earlier policies. In order to know how to handle some situations, subordinates may request or appeal for the formulation of specific policies.

### **II. On the basis of description**

On the basis of description, policies may be general or specific.

1. **General Policies** - These policies do not relate to any specific issue in particular. General policies are formulated by an organization's leadership team. This kind of policies is called 'general' because they do not relate to any specific issue in particular.
2. **Specific Policies** - These policies are related to specific issues like staffing, compensation, collective bargaining etc. Specific policies must confirm to the pattern laid down by the general policies.

## **2.5 ADVANTAGES OF HR POLICIES**

### **1. Recruitment and employment**

Hiring employees is an essential HR function. So, as per Oracle Net Suite, recruitment is the first advantage of HR policies. The policies involving recruitment and selection procedures inform employees what the company expects and what its requirements are. It is vital if an employee is seeking to find a job.

### **2. Rehiring and promotions**

HR policies explain the process of rehiring and promotion. It involves the conditions for rehiring a terminated employee and the company's promotion process. Usually, employees who leave the company have a higher chance of rehire, and employees performing satisfactorily or higher than expected has an opportunity for promotion. HR policies include what employees should do in these situations.

### **3. Compensations and evaluations**

Human resources staffers combine several job evaluation technologies and market reports to know the amount to compensate a worker while staying competitive in the workforce. Also, the department sets policies that access and manages employee performance. While policies don't specify the amount the employee will receive, they mention that employees are compensated according to their skills, responsibilities, and effort.

### **4. HR development policies**

The Virginia Department of Human Resource Management states that HR policies involve training and professional development provisions. This way, employee knows the resources they have in hand. The human resource management and development policies assure old and new employees of their responsibilities and the help available.

### **5. Employee issues and responsibility**

The list of HR Policies informs employees on how to deal with problems at work. Whether it includes co-workers, management, or work, employees should have someone to share their concerns with in secrecy.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

The applicable law mentions the chain of command handling the problem, such as employees speaking to their supervisors, managers, or HR.

### **6. Company ethics and rules**

HR policies also describe internal regulations and the company's code of conduct and ethics. It involves things like dress code, personal and sick leaves, holidays, working environment, workplace safety, equality, inclusiveness, diversity, and professionalism.

By outlining the regulations that add to good company behavior, employees know what employers expect of them.

### **7. Labor law application**

Labor laws are extensive. A list of HR rules in a company includes applicable laws for employees. The rules deal with overtime, minimum wage, and employee benefits and ensure on-time paychecks and record-keeping.

### **8. Termination grounds**

HR policies state the termination grounds for an employee. The grounds help protect the company from retribution if they were fired for violating regulations stated in the company's manual.

## **Disadvantages of HR Policies**

### **1. Rigidity to business operations**

Policies are consistently used plans bringing rigidity to business operations and offering no space for new initiatives.

### **2. Limited coverage**

HR policies may not cover all the issues. There may be unforeseen situations that are not covered in the current HR policies.

Ensuring compliance is not simple. It takes time, patience, and guidance. The more subtle and reliable your policies are, the better your workforce and working culture will be.

## **2.6 PROCESS OF DEVELOPING HUMAN RESOURCE POLICIES**

Specifically, the development of HR policies depends upon the day to on the other hand day problems arising in an organization and their proper solutions. The prime aim of formulating the HR policy is to provide assistance to the top executives in reaching the decision in a given situation.

### **1. Identifying the Need:**

In case, an organization has no appropriate HR policy, the HR manager should convince the Chief Executive of the need of a HR policy. Policies are required in various areas of human resource management since areas are hiring, training, compensation, industrial relations, etc. A staff expert, a union leader, a first-line supervisor, or a rank-and-file employee may voice the need for revision of an existing policy.

### **2. Accumulating Information:**

After the need for a policy has been accepted, the ensuring step is to collect requisite facts for its formulation. A committee or a specialist may be assigned the task of collecting the required information from inside and outside the organization.

#### **Facts may be gathered from any of the following sources:**

- (i) Earlier practice in the organization.
- (ii) Current practice among the companies in the community and throughout the nation in the same industry.
- (iii) The attitudes and philosophy of the role management.
- (iv) The attitudes and philosophy of middle and lower management.
- (v) The knowledge and experience gained from handling countless problems on a day-to-day basis.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

The HR department is expected to make study of the existing documents, survey industry and community practices and interview the people within the organization to gather appropriate information.

Special attention should be paid to attitudes and philosophy of top management, social customs and values, aspirations of employees, labor legislation, etc. Extensive consultations and discussions at this stage prove to be great help later on, when it is required to Use the policies.

### **3. Examining Policy Alternatives:**

On the basis of data collected, alternatives are evaluated in view of their contributions to organizational objectives. It is important to secure active participation of those who are to use and live with the policies.

### **4. Putting the Policy in Writing:**

After the requisite information has been gathered and the alternatives examined, the HR department begins with the priority of formulating the written expressions of the company's HR policy. While writing the policy it is worthwhile to avoid emotional phrases.

### **5. Getting Approval:**

To seek approval the HR department should send the policy draft to the top management. The reason is the top management is authorized to take the final decision whether a policy is adequately represented the organizations objectives or not.

### **6. Communicating the Policy:**

Once the policy has got the final approval from the top management, it should be communicated throughout the organization. To teach people how to handle various personnel problems a real education program should be set-up in the light of this newly formulated policy.

### **7. Evaluating the Policy:**

Evaluation of the policy is needed by the passage of time, on the basis practical experience of those who use it and of those who are affected by it. There may be situations when an organization is not getting the expected output. This requires the needed modifications in die policies.

For serious difficulty or hindrance with policy along with suggestions should be reported to the top management. Such knowledge will help the management to decide whether there is a need to re-state or re-formulate the policy.

## **2.7 FACTORS AND THEIR EFFECTS ON THE HR POLICIES**

### **1. Company Business Policy:**

After having designed a business policy, a company would want to ensure that it has the right number of employees with the right type of skills and commitments to carry out the policy. It would also like to close the gap between the required number and the qualities of employees and the available number and qualities at the shortest possible time.

In other words, a company's human resource policy is designed with the objective to execute its business policy irrespective of whether it is market driven or resource driven. It should be kept in mind that the execution of a business policy becomes easy when at the first place it is formulated taking into account the company's internal human resource environment, its strengths and weaknesses adequately.

In the absence of such integration of human resource assessment with the business policy design, an organization may find that despite a very well-designed business policy the business outcome of the organization is far from satisfactory.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

The problem with such business policies is that because the company did not consider the internal organizational structure, employee competencies, their culture and beliefs adequately, the post-facto alignment of human organization with its business goals becomes very difficult if not impossible. The more is the number and variety of employees in an organization, the more would be the level of difficulties that the organization is likely to face in shaping its human organization to meet its strategic requirements.

### **2. Social Forces:**

Social forces and their effects on the supply of educated and experienced manpower in the economy are important considerations that a company has to take care while formulating HR policies and strategies. A policy which may appear very appropriate from the business point of view may be non-executable because the manpower supply position of the market is quite inadequate.

Similarly, certain types of rewards and incentive policies which may appear very attractive because they have been tested in organizations in other countries may turn out to be quite inappropriate in one's organization because they are not well aligned with the cultural beliefs and values of the employees. A workforce with varied ethnic background poses another challenge and obstacle in implementing a very individual- oriented performance management system.

### **3. Regulatory Forces:**

The HR managers when designing HR policies should be fully conversant with the existing labor regulations. A good number of regulations aim at protecting the workers from undue hardship and strain.

It is important that the strategic design of a HR policy takes the extant of labor regulations into account lest unwarranted labor query and interventions from labor commissioner and/or judiciary come in the way which may not only delay the implementation of certain HR policies but in a worst case scenario damage a company's reputation very severely.

#### **4. Technological Forces:**

Due to availability of information technology and communication system, new types of HR Policies and practices are emerging. When others are already using a new technology and are executing employment contracts with the new technology, its non-use in a company is likely to make the operating cost higher than those of its competitors.

As such when strategically designing the HR policy, the company should consider the emerging technological scenario and opportunities that such change may provide in all important areas of HR functions.

#### **5. Competition and Competitor Behavior:**

While designing HR policies, labor market conditions and employment practices of competitors are important considerations to be taken care of. Under conditions of tight labor market, a company may have to adopt a very flexible approach. It must be willing to spend more for maintaining a stable workforce and motivating the employees for higher work effort. On the other hand, workers of an organization may show higher receptivity to tough employment condition when overall labor demand is low and not much new business investments and opportunities are coming in the neighborhood.

The presence of a good number of strong competitors for manpower could be a threat to one's own policy as well as opportunity to experiment with new types of employment practices. A company could learn from the successes and failures of new HR initiatives and experiences of others. It could even use others' practices as a justification and selling point for a new policy.

#### **6. Internal HR Environment:**

The external human resource environment is an important factor that helps in shaping the human resource policies of a company. However, an HR policy shaped entirely by considering the characteristics of the present external human



## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

resource environment and company business goals may not yield much worthwhile business result for a company that has been working for a good many years with a completely different HR system.

When designing any new HR policy an assessment should be done of the internal HR environment of the company including the expectations, beliefs, and values of the employees who got used to certain kind of HR services from their managers.

The areas of internal HR environment critical to the success of any new HR policy are – employee number and their competencies, organizational structure and power relations between different groups, employee belief, value and organizational culture, managerial experience, expertise and philosophy on the use and role of HR.

### **2.8 PRINCIPLES OF HR POLICIES**

#### **1. Common Interest:**

The principle of common interest must be given due recognition in designing HR policies. Factors like economic success of the enterprises, the interest of the employer and the employees should all be taken into account. It should benefit all the concerned parties' employees, employer and the government.

Employees must have a chance for a better standard of living, better security and opportunity for living a fuller and better life. In return, the employer must be able to get the maximum possible regain. A successful business enterprise contributes substantially to the national exchequer and creates propriety all around.

#### **2. Development:**

The organization must provide ample opportunities for the growth of employee's personality. People want to improve their status, to earn more, and to shoulder higher responsibility. HR Policies should lay down rules for the opportunities for

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

development to those who are willing to contribute something to the prosperity of the organization and to sacrifice their time and efforts for undergoing training to improve themselves on the job.

### **3. Recognition of Work and Accomplishment:**

There must be a direct relationship between work and accomplishment. A job should provide for sufficient wages and benefits that will enable an employee to lead a comfortable life. The HR policies should take into consideration the employee's expectations such as reasonable security on the job against accidents, sickness and old age.

### **4. Recognition of Trade Unions:**

As the trade unions play an important role in the development of industrial relations, therefore, the management must recognize them. The HR policies should incorporate the clause for amicable settlement of disputes with the trade unions through negotiations and collective bargaining.

### **5. Participation in Management:**

Employees' representatives should be given participation in decision-making bodies of the organization so that they may realize their responsibilities towards the management and workers. The success of any program or policy depends considerably upon its willful acceptance by the employees. If the decisions regarding HR affairs are taken in the presence of workers' representatives, there shall be better employees' satisfaction and morale. It will also minimize resistance to change.

### **6. Facing the Changes:**

Employees always resist changes that may seem inconvenient or unpleasant to them. Changes may relate to loss of income, loss of status, transfers, reassignment or retraining activities and broken friendships. Therefore, the employees should be prepared by the management well in advance to face the change as and when

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

warranted. This may be done through bulletin boards, company magazines and newspapers, committee meetings, union-management meetings, broadcasting system and so forth. In this regard management's viewpoints should be reflected in HR policies.

### **2.9 HOW TO IMPLEMENT HUMAN RESOURCE POLICIES**

Here are some guidelines for setting up HR policies:

1. Establish an HR department or governing party
2. Determine the needs of your employees
3. Check all local, state, federal and industry-related laws and regulations
4. Communicate policies to your employees

#### **1. Establish an HR department or governing party**

For smaller companies, an HR department may not be required or practical, in which case, a governing party should be named. It's important that employees and management are clear on policies and the individuals responsible for managing them. You can also outsource HR functions to a third party if you're not quite ready to create an in-house human resources team.

#### **2. Determine the needs of your employees**

Are your employees salaried, part-time, seasonal or contingent? Many businesses employ a mix of worker types. Consider the roles and responsibilities of the various types of employees. While it's a good idea for all employees to understand safety and health regulations, a warehouse worker, for example, may require more safety training than employees who work in a call center.

### **3. Check all local, state, federal and industry-related laws and regulations**

Ensure you understand and have addressed applicable laws and regulations in your HR policies. If not, you may face noncompliance penalties, which vary depending on which laws you break. Keep current with the relevant laws and regulations as they can change at any time.

### **4. Communicate policies to your employees**

Announce all HR policies to your employees and provide a handbook or create a policy website. If you're establishing an entirely new set of policies, an information session can be helpful. Any changes or updates to policies should be announced as you implement them. Many companies require employees to sign documents stating that they've read and understood HR policies.

## **2.10 ESSENTIAL HR POLICIES**

Here's a look at some of the most important human resource policies:

### **1. Employee punctuality and attendance policy**

Attendance policies clearly state the expectation that employees should be on time and ready to work for their scheduled shifts. It also outlines the procedures for informing management of late arrival or unexpected absence. Companies often detail how many violations of this policy an employee can have until they can expect discipline.

### **2. Health and safety policy**

The Occupational Safety and Health Act requires employers with certain workplace hazards to have specific safety regulations in place. Aside from these legal requirements, it's a good idea to include emergency and safety procedures in your employee handbook. You might also detail the steps that employees must

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

take if a workplace injury occurs and mention the expectation that all work-related accidents be reported.

### **3. Pay and timekeeping policy**

A timekeeping policy goes over the importance of accurately tracking work hours and the proper procedures for recording them. You can also include a payday policy that informs employees about important details regarding their compensation, such as the:

- Proper protocol for when a payday occurs on a holiday
- Pay methods
- Frequency of paydays

### **4. Meal and break policy**

According to local, state and federal laws, organizations must provide employees with breaks for meals, rest and lactation. Establishing a policy for these needs allows you to state the restrictions and rules regarding these break periods, including the duration and frequency. For example, companies may require employees to take an hour lunch break daily.

### **5. Leave and time off work policy**

Local and state laws have specific requirements for leave that you must include in your organization's employee handbook, such as voting leave. You might also review the organization's policies regarding employee time off benefits. There are many different types of leave policies, including:

- Leave of absence
- Bereavement leave
- Parental leave
- Family leave
- Sick leave

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

- Vacation
- Statutory holidays

### **6. Employment classifications policy**

There are several classifications for employees that can influence their eligibility for employee benefits. For example, part-time employees are often ineligible for healthcare benefits through their employer. You can clearly define these classifications in your employee handbook for every employee type.

### **7. Non-discrimination and anti-harassment policy**

You can ensure that your workplace remains safe for all employees by establishing policies that clearly prohibit discrimination and harassment. Consider checking the local, state and federal regulations so that you can appropriately and comprehensively address this policy. This helps protect employees from any issues that may arise from other employees.

### **8. At-will employment policy**

An at-will employment policy reiterates that the employee or organization can dissolve their working relationship for any lawful reason and at any time. Most states recognize at-will employment, and organizations typically consider it an essential policy. Because of this, you can place this statement at the beginning of the employee handbook and again on the handbook's acknowledgment form.

### **9. Social media policy**

Many organizations have begun including a social media policy in employee handbooks so that they can protect the company's online reputation. You can detail the topics or information that employees are unable to post about on social media, and describe the disciplinary action taken if they violate one of these rules. This ensures employees represent the company in a way that matches the company's mission.

### **10. Telecommuting policy**

The development of technology has enabled many employees to work remotely instead of in a main office. Explain your organization's stance on remote work, and then list the policies for telecommuting. These can include things like:

- Positions that are eligible for working remotely
- Any limitations for remote roles
- How you monitor remote employees
- Pay and time policies
- The organization's right to terminate telecommuting at any time

### **11. Weapons in the workplace policy**

Employers are responsible for the health and safety of their employees. You can either address violence and weapons policies in a more generalized safety policy or address them on their own. Either way, consider explaining the kinds of weapons you consider weapons, prohibited behavior and any disciplinary measures.

### **12. Alcohol and drug policy**

While keeping in mind the state laws regarding certain substances, draft a policy that outlines the organization's stance on the use of drugs and alcohol. Mention which substances you prohibit, any testing procedures you use and the disciplinary action for violations of this policy. This can be especially important in industries like construction where drug and alcohol use can create safety issues.

### **13. Confidentiality policy**

Confidentiality policies communicate the specific topics that employees must keep private. Consider providing examples of confidential information, the obligations of employees and the consequences for violating the organization's

confidentiality policy. You can also share how employees might discuss unethical practices with HR teams to protect them from backlash.

#### **14. Personal device policy**

Many employees prefer using their own devices like laptops and phones, for company business.

### **2.11 THE RIGHT WAY TO WRITE HR POLICIES**

If your HR team has to draft an HR policy, certain precautions have to be taken. Why? Because the last thing you want is a botched official document of your organization that lays down important rules, regulations and procedures for everyone.

Needless to say, an unclear document riddled with errors will eventually make your HR team look bad in front of all the employees, especially the leadership team. So, how do you get it right? Here's how you should go about it.

#### **1. Get the HR policy title spot on**

Every HR policy document has a title that summarizes the contents of the document in the simplest manner. Before your HR team even begins drafting the contents of the policy, they should find a suitable title because it will set the tone and the context for the rest of the HR processes and procedures. Since your HR policy ties several processes together, an apt policy title will assist employees in identifying and referring to particular processes.

Generally speaking, your policy title must be able to answer some basic questions. For instance, the user-friendliness of the policy, whether the title describes the entire policy, how much it can assist the reader, and if employees, old or new, can comprehend the title.



## **2. Know why you need HR policies**

Understanding the real motive behind creating HR policies is important. In other words, what is it that you want to achieve when writing HR policies?

Addressing the questions and doubts of employees without any hassles. They should be able to look up the policy document and specific points mentioned within. In this regard, it's crucial to outline the intentions of the company and the HR.

## **3. Keep it crisp and clear**

When creating the HR policy document, you should be absolutely clear about the language. Do you think whatever you've mentioned in the document can be understood clearly by the reader? Can they comprehend the message you want to convey?

IF not, then your team has to go back to the drawing board and simplify the language. It should be clear, concise, and simple. Every procedure or process must be explained in elementary fashion. As a rule of thumb, you should stay away from using industry jargon. While there may be times where you cannot avoid jargon, you should try your best to spell every word, process, or procedure in the simplest manner.

## **4. Sound the alarm in your HR policy wordings**

Your HR policies should apply to all employees, even for the leadership team. And that is why your policy statement must underline all the rules and regulations. Not just that, you should follow them up with repercussions, in case rules aren't obeyed or employees try to circumvent the same.

While you may not need to define the exact actions that will be taken in the event of HR policy terms and conditions not being followed, you can definitely throw in reminders at intervals about the idea of reward and punishment.

### **5. Chalk out the outline**

HR policies for your company must be clearly outlined. And what this means is that the specific guidelines and procedures should be broken down into steps so that all employees can follow and understand them.

Your HR team must also look into explaining the effect an HR policy has on the brand's reputation, and how it aligns with the work culture and the organizational goals and objectives.

### **6. Uncomplicated the complicated**

HR policies can be downright confusing and difficult to follow. This is why your team should be absolutely sure that the policy is written well. And every little policy and rule contained within the policy must be clearly defined.

For instance, you must provide references for policies that aren't clear. Your readers will try to understand the true meaning behind every small detail in the HR policy.

Save them the trouble. Make your intentions loud and clear from the get-go. While you're doing that, ensure that the tone and voice you adopt for the HR policy suits the organization's environment and work culture.

### **7. The final few steps**

Now that your HR policy has finally taken shape, you shouldn't pull the trigger and finalize it no matter how desperately you need it.

Since this is the final draft, you should read your policy, and then re-read it to catch and rectify any errors. You need to provide clarity on every little detail and take care of any omissions before the final draft is finalized.

### **8. Get additional help**

The HR policy written by you or by the HR team under your supervision might still have many errors that may go unnoticed. While it may look good to you, don't jump the gun and have it finalized.

Get help someone within the organization, preferably from the leadership team, who has vast amounts of experience may still have something to say. Share your HR policy with such professionals for additional feedback and comments.

This step will help you fine-tune your HR policy. They can help you illustrate the HR policy better. What's more, if there's anything important you've missed out, they'll be quick to let you know.

### **9. Testing it on others**

You need to build confidence before submitting the final HR policy for your organizations. That is why it's a great idea to share it with other members of the HR team and senior executives from other departments.

They'll be able to tell you if they have any reservations about the HR policy. Send in an official request, perhaps via mail, asking them for their inputs.

### **10. The policy must adapt**

The underlying fact about an official document such as the HR policy is that they're bound to change. Business decisions, crises such as the ongoing pandemic, market and work trends will all influence the policies and procedures to some degree.

What this essentially means is that your HR policy must not be set in stone. Keep some room for the policy to change and adapt. In fact, you should slip in a disclaimer, clearly announcing that the HR policy is subject to change as per organizational needs.

## **CHAPTER -3**

### **INDUSTRY PROFILE**

3.1 Organization Profile

3.2 Organization History

3.3 Board of Directors

3.4 Organization Chart

3.5 Aim and Objective of Organization

3.6 license & Permission

3.7 Nature of Business

3.8 Product & Service Profile

3.9 Competitor's Information

3.10 Awards & Achievements

3.11 Role of industry and economic development

3.12 Infrastructure Facilities

3.13 Future Outlooks

3.14 Functional Departments

3.15 Mission & Vision

3.16 SWOT Analysis

# **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO “CBKSSKN” CHIKODI.**

---

## **3.1 ORGANIZATION PROFILE**

CHIDANAND BASAVAPRABHU KORE SAHAKARI SAKKARE  
KARKHANE NIYAMIT CHIKODI



**About organization:** Sugar sector is one of the large scale industries in manufacture sector. Now a day the competition in sugar sector is very high Shree Doodhganga Krishna Sahakari Sakkare Karakhane Niyamit Chikodi is a co-operative society registered under Karnataka co-operative society's Act in 1969. Also converted and registered into multistate co-operative act,2002(39 of 2002) with registration no .MSCS/CR/240/2005, the object of business is to encourage proper development of agricultural industrial amongst members on co-operative lives by promotions of co-operative and joint forming methods so as to secure best merits of modern large scale agriculture production to the owners of the lands. The nature of business is to encourages self help thrift and co-operate amongst members.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

### Methodology:

Our factory is situated in the R. S. No. 184, 185, 186 of village Nandi. At times the surrounding land was purchased in phases. Now different activities of the factory are going on in 159 acres of land. The road from Chikodi Examba and from Chikodi, Ankali has been tarred. The facilities of Govt bus schedules have been developed. Due to such facilities now the 5500 TCD power sugar factory with 20.7 Mega watt power unit and 30KLPD power discovery components are in operation. Aryak sabatting machine alignment is in its last phase. These are facilities like 200 hostel buildings and granted primary schools one none granted convent school and high school. There is one social hall, one dining hall, Telephone both. The sight of factory has developed into a town. To express their gratitude to the man, Shri Chidanand Kore the Board of Directors and the workers of the factory have established his status in front of the office and have facilitated the workers the people to express their gratitude to him.

Location - Nandi Village

Tal-Chikodi, Dist - Belgaum Karnataka - 591247.

Reg. Office: Chikodi.

Ph.No: 08338-257200

Fax: 08338 – 276105

E-Mail: [cbksugar1@gmail.com](mailto:cbksugar1@gmail.com)

## A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.

---

### 3.2 ORGANIZATION HISTORY:



CHIDANAND BASAPRABHU KORE SAHAKARI SAKKARE KARKHANE NIYAMIT, CHIKODI is a co-operative society registered under Karnataka co-operative Society's Act in 1969. The industrial license number of the factory is L-25/N-250/-LC dated 16/10/1970. Also converted and registered into Multi state Co-operative Act, 2002 (39 of 2002) with registration No. MSCS/CR/240/2005. Shree C.B.K.S.S.K.N. Chikodi is a Multistate Cooperative unit. It is a situated near Nandi village, at a distance of about 13Km from Chikodi town .and the factory at present has an attractive campus with magnificent buildings over it.

Agriculture was continues to be an extremely important sector in our country and cooperative system, as one of its main pillars providing vital support services, is crucial for the transformation of agriculture. It is how inspired our founder Late Sri. Chidanand B Kore, an agriculturist and a co-operator, to establish this factory during 1972-73 with the financial support from cane growers of this area and the State Government. With an initial crushing capacity 1250 TCD and as a standalone sugar industry, our factory had faced a lot of problems all these years in coming out as available unit. Though this factory had emerged in this area with a meager beginning,



## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

it had not only provided a source of income for forming community but also created a sustainable employment opportunity in this rural area.

After a lot of dispute on location of plant, near Nandi village, the construction work started in year 1971 and comp elected in the year 1974. The factory was inaugurated by Vice-president Shri B.D Jatti on 6<sup>th</sup> November 1974. The regular production has been started from December 1974. The factory started on 5/3/1969 with initial Crushing capacity to the extent of 1250 TCD per day began during the year 1974 with total expenditure of Rs.337 lakhs.

The area of operation covered 111 villages of which 102 villages are from Chikodi taluka, 5 villages are from Raibag taluka and 4 villages are from Athani taluka.

At present total sugar cane supplied to this sugar industry is from 20,000 acres with average yield per acre of 25 MT.

The entire plant and Machinery has been supplied by m/s National Heavy Engineering Co-operative Ltd. Pune, A co-operative institution has also been installed to meet the present requirement of the Crushing capacity. The DKSSK, at present is equipped with modern machines and skilled personals. Rs.325 lakhs long term loan was borrowed from IFC, LIC and IDBI for original plant and first phase expansion. The crushing capacity was enhanced from 1250 TDC to 2000 in 1984-85 and from 2000 TCD to 3000 IN 1993-94. The factory house hold expenses of factory from 3500 to 5500 TCD. Every expansion was not easy and had created a financial setback due to the lack of professionalism both in technical and financial managements. Thus over the period of two and half decades, the factory had grown only in sizes but not adopted the range of different bi-product activities and had suffered due to a weak governance on efficiency, effectiveness, adaptability and internal and external accountability in the management. These things have brought the factory almost to the brink of sickness. Besides resulting a huge negative net worth and ever-high accumulated losses.



**A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

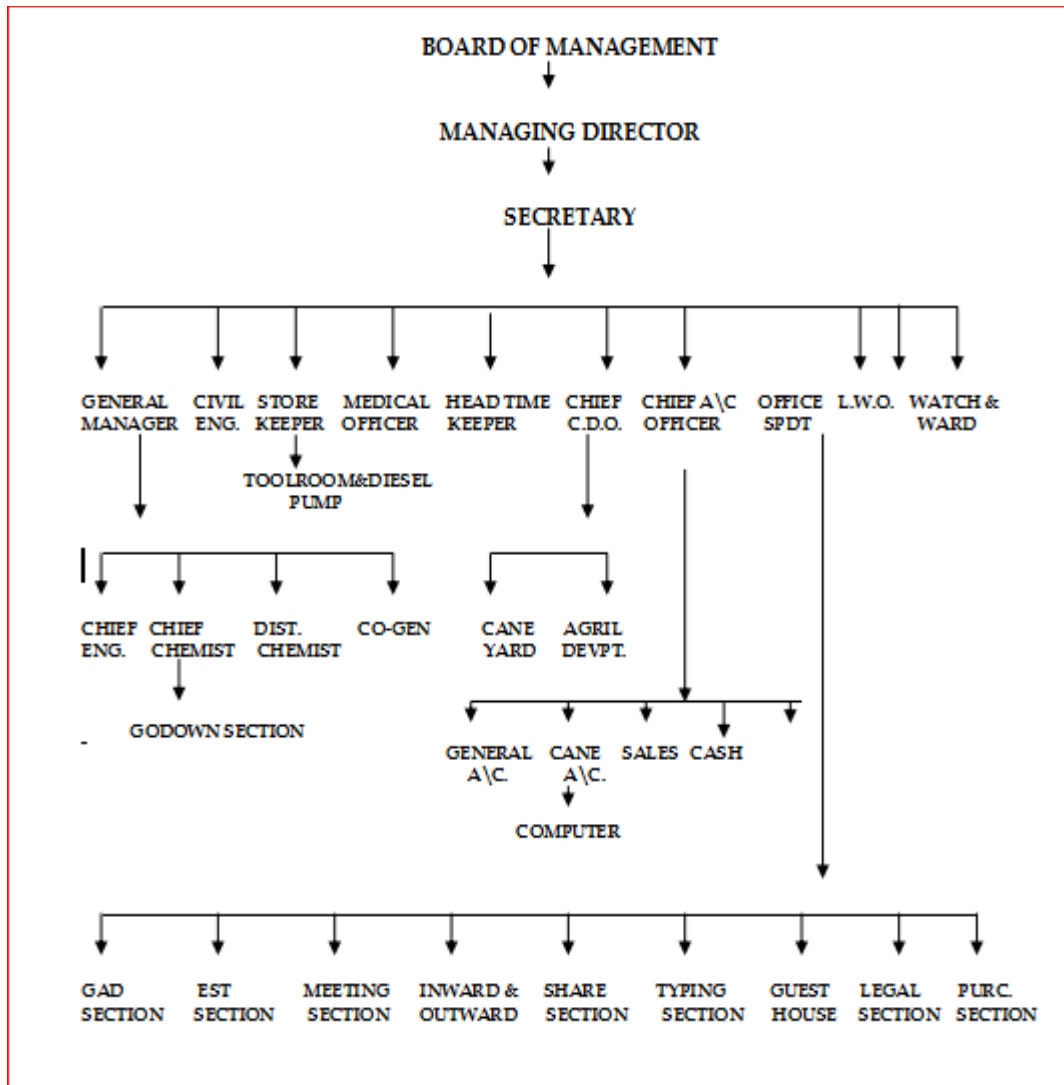
---

**3.3 BOARD OF DIRECTOR**

S. NO.	NAME	DESIGNATION
1	Sri Mallikarjun G Kore	Chairman
2	Sri Tatyasaheb D. Kate	Vice-Chairman
3	Sri Amit Kore	director
4	Sri Mahantesh M kavatagimath	director
5	Sri Annasaheb S Jolle	director
6	Sri Ajit S Desai	director
7	Sri Parasagouda I Patil	director
8	Sri Tatyasaheb D Kate	director
9	Sri Sandeep A Patil	director
10	Sri Mahaveer Y Mirje	director
11	Sri Balagouda S Rendale	director
12	Sri R M Nishandar	director
13	Sri Mallappa Shankar Maishale	director
14	Sri Chetan Patil	director
15	Sri Nandakumar M Nashipudi	director
16	Sri R T Desai	director

# A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.

## 3.4 ORGANIZATION CHART:



### Board of management:

The member of the board of management bear joint responsibility for running the business as a whole .Many boards creates an executive compensation committee to set compensation.

### Managing of director:

A managing director is on the other hand among the highest leader at an organization and usually functions under the CEO. They might also be part of the board of

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

directors. The managing director is responsible for the day today functioning of the organization.

### **Secretary:**

A secretary is an administrative professional who plays an integral role in business and other organizational environments. Secretaries are typically the individuals who maintain and organize office tasks, implement procedures and carry out additional administrative duties, depending on the nature of their employment secretary.

### **3.5 AIM AND OBJECTIVE OF ORGANIZATION**

The object of the society is to encourage proper development of Agricultural Industrial amongst members on Co-operative lives by promotions of principal and methods of Co-operative and joint forming methods so as to secure best merits of modern large scale agriculture production to the owners of lands and for this purpose.

- To encourage self-help, thrift and co-operate amongst members.
- To acquire lands either by way of purchase or otherwise for cultivation of sugar cane and other cost and for erection of building. Godown staff quarters etc and for installations of machineries.
- To manufacture sugar jogger and their byproducts out of sugar-cane grown and supplied by members of the society and other and to sell the same to the best advantage. To acquire and install machinery for the utilization of the product and buy raw material and sell finished product is the course of utilizing and marketing the byproduct.

### **3.6 LICENSE & PERMISSION**

A factory obtained all the license & permission required from various government and semi government in India.

- Letter of intent from government of India.
- Certificate of incorporation.
- Certificate of commencement of business.
- Registration certificate regarding KST, CST professional tax & KTEG from government of Karnataka.
- Excise registration certificate.
- Sugar cane crushing license.
- Permission from pollution control board.
- Single window clearance from Karnataka udyogmitra.
- Income tax registration certificate.
- Allotment of cane areas reservation certificate.
- New unit certificate from joint director of industries.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

### **3.7 NATURE OF BUSINESS:**

Sugar sector is one of the large scale industries in manufacturing sector. Now a day the competition in sugar industry is very high. SHREE CHIDANAND BASAVAPRABHU KORE SAHAKARI SAKKARE KARKHANE NIYAMIT, CHIKODI is a co-operative society registered under Karnataka co-operative society's Act, 1969. The object of business is to encourage proper development of agricultural industrial amongst members on co-operative lives by promotions of co-operative and joint forming methods so as to secure best merits of modern large scale agriculture production to the owners of the lands. The nature of business is to encourage self help, thrift and Cooperate amongst member

#### **Infrastructural Facilities**

- 1) Near to raw material.
- 2) Good transportation facilities.
- 3) Nearer to rivers place (Krishna river).
- 4) Good networking.
- 5) Proper accommodation for its employees.

### **3.8 PRODUCT AND SERVICE PROFILE:**

Production	:	Raw materials
Production of sugar	:	sugar cane
Large	-	30
Medium	-	30
Small	-	30
Production of alcohol	:	Molasses
Production of compost	:	Press mud and spent wash

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

### ➤ Procurement

The factory obtained the sugarcane, which is required from more than 1000 farmers and by the company farms and others raw materials which are required for the operation is taken from the basis of price and quality and then the required raw materials will be taken for the efficient vendors.

The transport of sugar cane from the farmers to the factory will be engaged through Lorries who will be taken through bidding at the time of harvesting and also farmers themselves supply by their own bullock carts or by tractors

### ➤ Cane weight men

There are 12 out laying weigh bridges situated round about Chikodi for delivering the sugarcane from the farmers. Double check has been provided over the weight men of cane transported them out station.

### ➤ Operation

The Sugarcane, which is carried by Lorries or other, will be directly fed to the machine when the initial process starts. At the starting point these are knives which cuts sugar cane bunches to individual sugar cane.

After this in the next steps there are sharp cutter which cuts the sugarcane bunches into very small pieces. Then it will go to trade marbs (a series of roller used for crushing purpose) for crushing. Then the juice produced will go for further processing and the Biogases will be lift out their self. Then they add flocculent (used for mud setting) milk sanitation etc and then after it will go through pans and mesquite for this mesquite they will add Sodium Hydro Sulphite (to bleach the mesquite) and it will be separated out and the molasses will be send to distillery and they white sugar will be bagged.

### ➤ By products of Sugar manufacturing:

The chief by product of sugar manufacturing are,

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

a) Bagasse:

Bagasse is the by-product of sugar left behind after crushing of sugar cane. It is used as a fuel in the sugar factory boiler. Excess bagasse finds use as raw materials in paper manufacturing industry.

b) Molasses:

Molasses is a by-product of sugar refining chiefly used for alcohol production. The molasses output is routed to the distillers unit which is maintained by the organization.

c) Press mud:

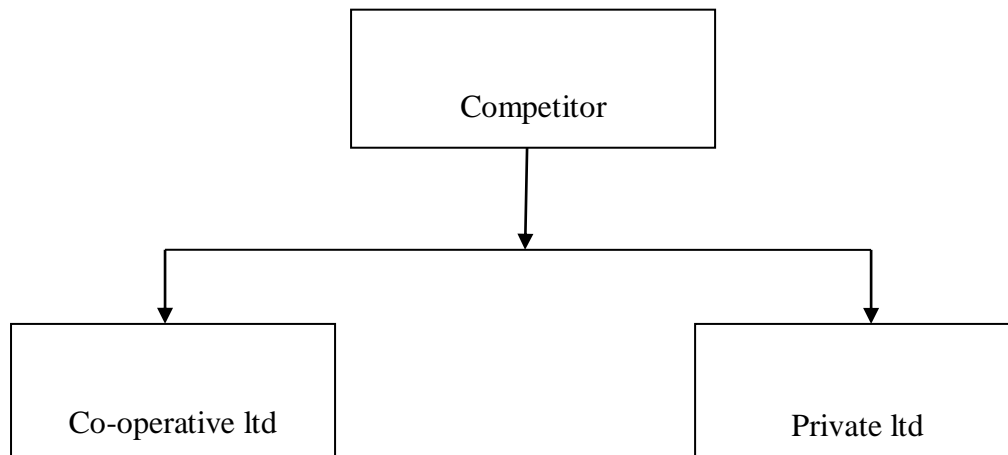
Press mud is the by-products generated by cane juice filtration during sugar manufacture currently mud is used as a fertilizer in sugarcane cultivation.

### **Area of operation**

The area of operation of the society shall be confined to the following village of Chikodi, Athani, Raibag, taluka of Belgaum District & jamkhandi taluka of Bagalkot District of Karnataka State and villages of shirol, Kagal taluka of Jodhpur District, Maharashtra State only.

### **3.9 COMPETITOR'S INFORMATION**

The Competitors for this industry is other located nearby sugar industry named as under:



## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

- |   |   |
|---|---|
| 1. Hira Sugars,<br>Sankeshwar (Karnataka) Munnoli (Karnataka) | 1. Renuka Sugars,                         |
| 1. Prabha Sugars,<br>Gokak (Karnataka) Bagewadi (Karnataka)   | 2. Vishwas Sugars                         |
| 2. Ajay Factory,<br>Ajarai (Maharashtra)                      | 3. Ugarkurd Sugars,<br>Athani (Karnataka) |

### **3.10 AWARDS AND ACHIEVEMENT**



The Karnataka State Cooperative Sugar Factories Federation Ltd., Bangalore had honored the company with the following awards for the:-

- Highest sugar recovery in South India during 2001-02.
- The "Best Administration Award" to the Managing Director with a cash prize of Rs .10.000/- and a certificate.



**A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

- The Best chief Chemist Award with Rs. 5,000/- Cash prize and a Certificate.
- Best chief engineer with award worth of Rs.5,000/- cash prize and Certificate.
- Best efficiency Co-gen plant awarded by SISSTA for successive 3years from 2008-09, 2009-10 & 2010-11.
- STAI, SISSTA & DSTA in their recent 8th annual convention at Hyderabad held on 13-08-2005 have honored with the most prestigious award as the "THE BEST EFFICIENCY & PERFORMANCESUGAR FACTORY" in the country for the year 2004-05. The award was given by Hon'ble Union Minister for agricultural, food & Civil Supplies in presence of Hon'ble Chief Minister of Andhra Pradesh.
- The Karnataka State Co-op Federation Ltd. had adjudged as "The Best Co-operative Sugar Factory in the State" and AWARD had been given to us through Hon'ble Chief Minister of Karnataka, on14/11/2004.
- Energy Department of Government of Karnataka and KREDL have awarded us he "excellence Award" through Deputy Chief Minister of Karnataka for having developed efficiently 20.7 MW Co-gen Power Project on the occasion of "RAJIV GANDHI AKSAYA URJA DIWAS" on 20/8/2004.
- The companies have the Honour of achieving the Highest Sugar Recovery @ 11.80% in Southern part of India for the year 2001-02and 11.90% for 2002-03, 12% for 2010-11 also.

### **3.11 ROLE OF INDUSTRY IN SOCIO ECONOMIC DEVELOPMENT**

The sugar industry is basically an agro based industry playing an important role in achieving socio- economic development of the rural community in particular and of the region in general. It not only occupies a prominent role in the economy of the rural but at the same time it contributes to the economic development of the nation. Sugar industry holds second rank next to cotton textiles in the country and it shows its importance. It generates employment nearly to 5 lakhs of people directly and indirectly.

### **3.12 INFRASTRUCTURE FACILITIES:**

- Profile of employees.
- Of conveyance is good.
- Ambulance & medical facilities provided for the employee.

### **3.13 FUTURE OUTLOOK:**

- ❖ The installation & commissioning of Co-generation project is completed. The power generation will start during the ensuing crushing season i.e. October - 2012
- ❖ The company has taken up expansion of its distillery from present 30 KLPD to 40 KLPD. The preliminary work of preparation of Detailed Project Report, appointment of consultants, etc has been completed and placement of orders for plant and machinery is in final stage.
- ❖ Considering the socio-economic development of the operational area of the industry, the industry has taken up five lift irrigation schemes covering area of 1000 acres, out of which, two schemes in the village Madbhavi have been completed.

Further, Industry has decided to take up ten lift irrigation schemes which will cover additional 2000 acres of land. All the schemes will be owned and managed by the industry this will help both the farmers and industry. The farmer's will benefit by

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

converting their dry land into irrigated land which will result in improvement in standard of living of farmers and thereby entire region. This will also get assured good quality cane from nearer distance.

- ❖ The Industry proposes to start its own infrastructure civil construction division. Necessary changes in the objects clause have been proposed in the notice of the annual general meeting.

### **3.14 FUNCTIONAL DEPARTMENTS:**

#### 1) Administration department:-

- All departments and it manages all activities of the organization. It includes chairman and it is the department works as a head of the board of directors
- It maintains all type of works like income tax, purchase goods through purchase department and deciding payment of workers & also types of staff payments. Meeting is conducted once in a month. Chairman checks daily reports it is prepared by chief chemist.
- By seeing report management will get daily performances. If performance low in any department chairman visit particular department & officers meet to chairman daily to show present working condition.
- The company is being managed by the board of directors consisting of fifteen directors. The day today affairs of the company are being looking after by Mr. Amit Prabhakar Kore chairman & managing director.

#### **Functions:-**

- ✓ The main function of chairman is checking daily reports.
- ✓ Visiting other departments according problem arising.
- ✓ Analyzing market conditions.
- ✓ Taking decisions according to change in corporate world.

#### 2) Purchase and store department:-

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

Purchase department purchases material whatever factory required. It purchase,

- Electronic goods.
- Machinery spare parts.
- Building materials.
- General materials.

Method of purchasing:

Method of purchasing varies according to nature of the demand in the plant and conditions in the market in which materials are to be bought. Following are the methods used generally-

- ✓ Purchase for a specified period.
- ✓ Negotiations.
- ✓ Contract purchasing.
- ✓ Telephonic quotations.

3) Store department:-

Store means a building constructed for purchasing the materials, proper storage of goods is very essential for effective production. Materials when received are to be properly tested & kept proper place known as store. In CBK Sugar Factory, Store department works in three shifts.

Store keeper: -

The store is under the one person called store keeper.

- Maintaining stock.
- Overall supervision.
- Sends material what required.

4) Civil department-

It is one of the department in CBKSSKN Sugar Factory, this department maintains infrastructure. It includes civil engineer as head of the department have 20 regular workers. Here number of workers depends on work.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

### **Functions:-**

- Construction of building.
- Create new projects.
- Water supply.
- Building and gardening maintenance
  - Internal water supply
  - Colony water supply
  - process water supply.

### 5) Distillery department-

Distillery plant uses by-products of sugar mill viz. molasses as raw material for production of alcohol, rectified spirit (Rs), ethanol & extra neutral alcohol (ENA). It is registered under excise commissioner of Karnataka.

Products are supplied to Bangalore, Kerala, Tamilnadu and Goa for sales.

### Functions of distillery manager:-

- ★ Production of alcohol, rectified spirit (Rs), ethanol & extra neutral alcohol.
- ★ Maximum quality in products.
- ★ Maintaining quality.
- ★ Marketing of alcohol.
- ★ To avoid the losses.

### ★ Engineering department:-

Engineering department maintains machinery & all technical works. This department starts from unloading the sugar cane vehicles up to juice is extracted from sugar cane and whenever machines are working. In ATHANI FARMERS SUGAR FACTORY LTD has 4 sectors are there in engineering department with the head of engineers and factory managers.\

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

### **i) Assistant engineer:-**

In this section 4 engineers are there to maintain mill, boiler, boiling house & centrifugal. In this section includes 8 persons in 3 shifts. In 8 persons 4 shifts are called as fitter-A and fitter-B class persons Remaining is called as helpers.

### **ii) Electrical engineer:-**

In this section electrical engineer maintains all electrical works. Main function is providing current to all works & avoids accidents from electricity.

#### **★ safety officer:-**

In AFSF LTD one safety officer is there. He always takes predetermined action to avoid accidents. The main function is prevention of accidents & safety from fire.

#### **★ .mechanical draftsman:-**

In AFSF LTD one mechanical draftsman is there with helper.

### **★ GODOWN DEPARTMENT:-**

It is one of the department in Athani Farmers Sugar Factory, it maintain final stock of finished products i.e. sugar bags.

In Athani farmers sugar factory 8 godowns are there, with a capacity of one lakh k.w daily production of factory is 600 k.w and every day's 25000 k.w is delivered for sale. One watchman is there for security.

### **Functions of godown keeper**

- ★ Maintaining of stock.
- ★ Recording of stock whatever deliver and received.
- ★ He/she stores stock according grade

### **Types of grades**

S-30                      S1-30

M-30                      L-30

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

### ★ Security department:-

It one of the departments gives security to the organization. It is required to every organization or business.

Objective of this department:

- Providing security to the organization.
- Checking every person who enter & exit from organization.
- Checking of every vehicle.

### **3.15 ORGANIZATION MISSION & VISION**

Organization Mission:

- Encourage agro-based co-operative industry,
- To develop co-operative movement in rural sector.
- To encourage the farmers to grow sugar cane for production of sugar and it's by-products.

Organization Vision:

- To achieve international standards of excellence in all aspects of
- Sugar manufacture and diversified business with focus on customer.
- Total customer satisfaction.

### **3.16 SWOT ANALYSIS:**

#### **Strengths:**

- Well established since longtime.
- Strong network from all aspects location, transports, and infrastructure.
- Good Financial Supports whenever needed are provided by both sale and control governments.
- Located in the heart of city.

## **A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

---

- Concept of multipoint product.
- New power plant, which is constructing now is needed for future goal.

### **Weakness:**

- Absent of motivating incentives.
- Lot of training required for all levels of employees.
- Improper planning for investment for future growth.

### **Opportunities:**

- Can implement change in technology.
- Frame proper policies and procedures.
- Restructuring of manpower.
- Re-engineering.

### **Threats:**

- Other units.
- Competition.
- Decrease in sugar growth.
- Diversified resources such as raw material due to many sub units initialization.



**CHAPTER – 4**

**DATA ANALYSIS AND INTERPRETTION**

- 4.1 shows the gender of the respondents
- 4.2 shows the age group of the respondents
- 4.3 shows sources of recruitment
- 4.4 shows the appointment letter received from the Company
- 4.5 shows the type of induction program conducted by the recruitment
- 4.6 shows the training areas where the respondents are interested
- 4.7 shows the opinion of the respondents on final decision taker
- 4.8 shows the awareness of the respondents towards leave policy
- 4.9 shows that who will approve the leave letter
- 4.10 shows the reason for quieting the job

**A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

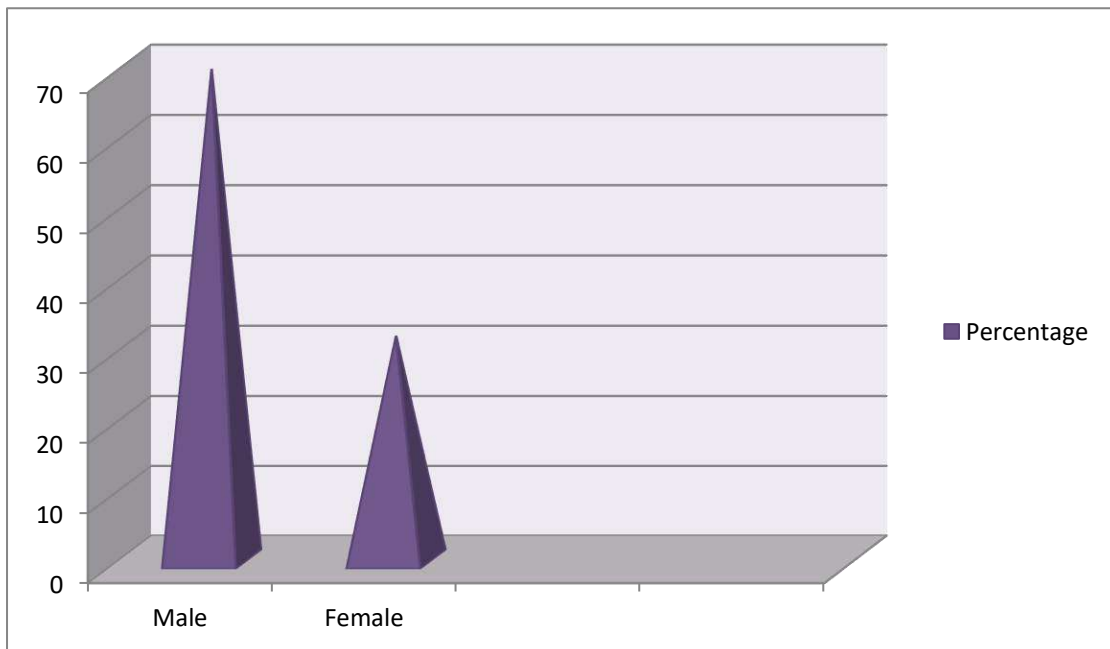
---

**Table 4.1 shows the gender of the respondents**

Particulars	No of Respondents	Percentage
Male	17	68
Female	8	32
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.1 showing the gender of the respondents**



**INTERPETATION:**

The above table shows gender of the respondents. Out of the 25 respondents, 68% of the respondents are male & 32% of the respondents are to female. The majority of the respondent's i.e., 68% of respondents are male.

## A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.

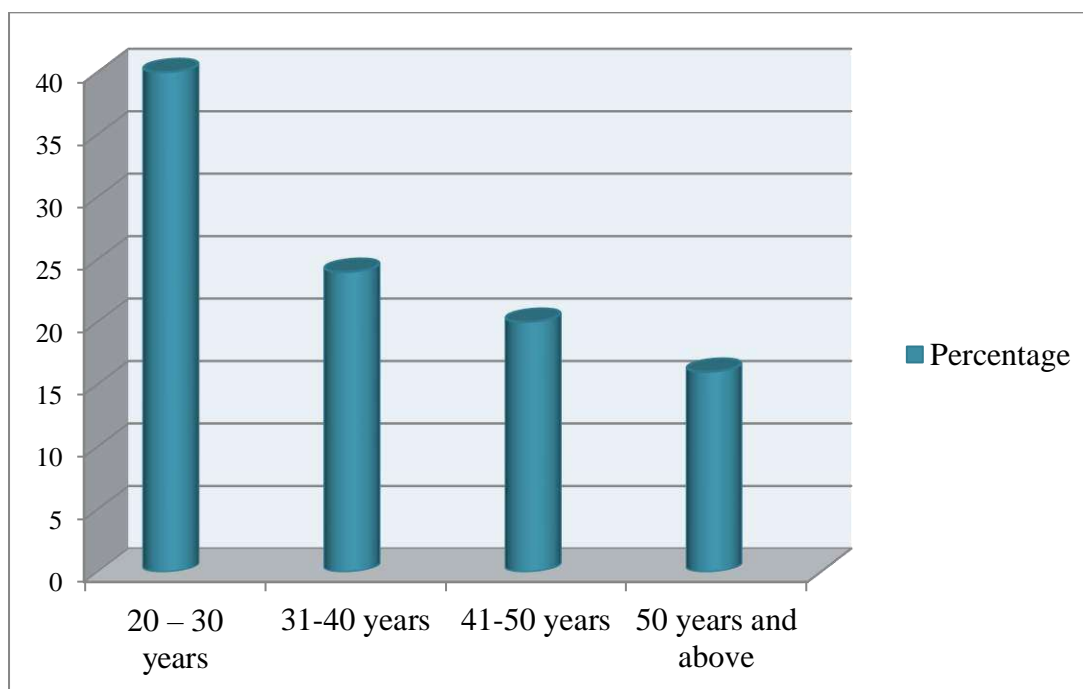
---

**Table 4.2 shows the age group of the respondents**

Particulars	No. of Respondents	Percentage
20 – 30 years	10	40
31-40 years	6	24
41-50 years	5	20
50 years and above	4	16
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.2 shows the age group of the respondents**



### **INTERPRETATION:**

The above table shows the age group of the respondents. Out of the 25 respondents, 40% of respondents belong to age group 20-30 years, 24% of respondents belong to age group of 31-40 years, 20% of the respondents belong to 41-50 years, and 16% of the respondents belong to 50 years and above. The majority of the respondent's i.e. 40% of respondents belongs to age group 20-30 years.

## A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.

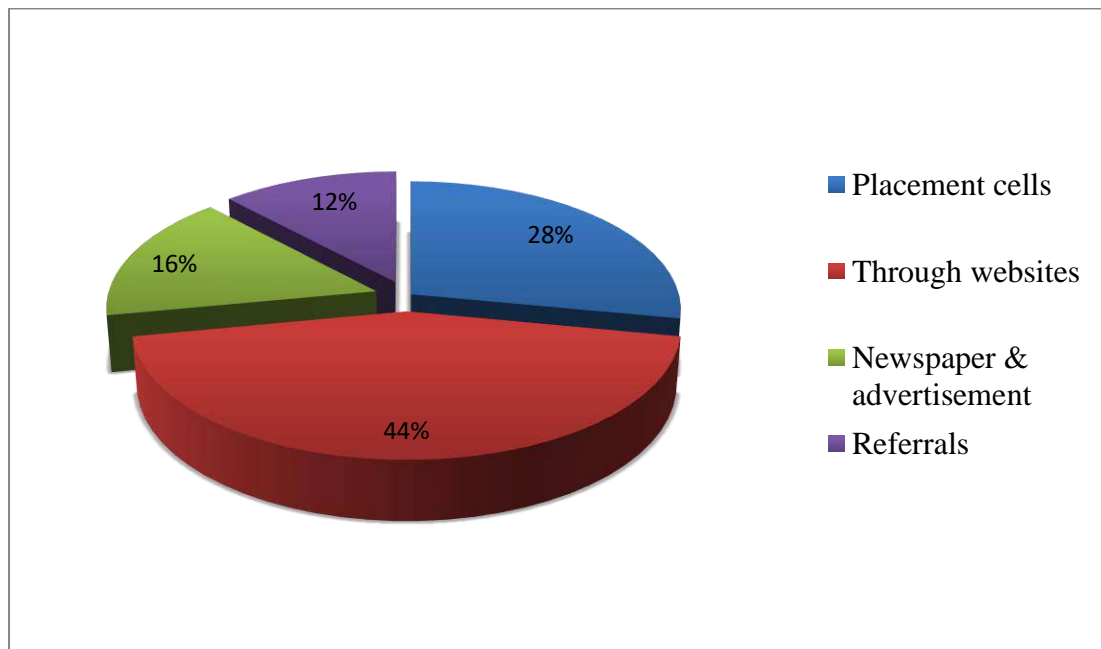
---

**Table 4.3 shows source of recruitment**

Particulars	No of Respondents	Percentage
Placement cells	7	28
Through websites	11	44
Newspaper & advertisement	4	16
Referrals	3	12
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.3 shows source of recruitment**



### **INTERPRETATION:**

The above table shows the got recruitment of the respondents. Out of the 25 respondents, 28% of the respondents recruited through placement cells, 44% respondents through websites, 16% of the respondents through newspaper and advertisement, and 12% of the respondents through referrals. The majority of the respondents i.e., 44% respondents are recruited through websites.

**A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

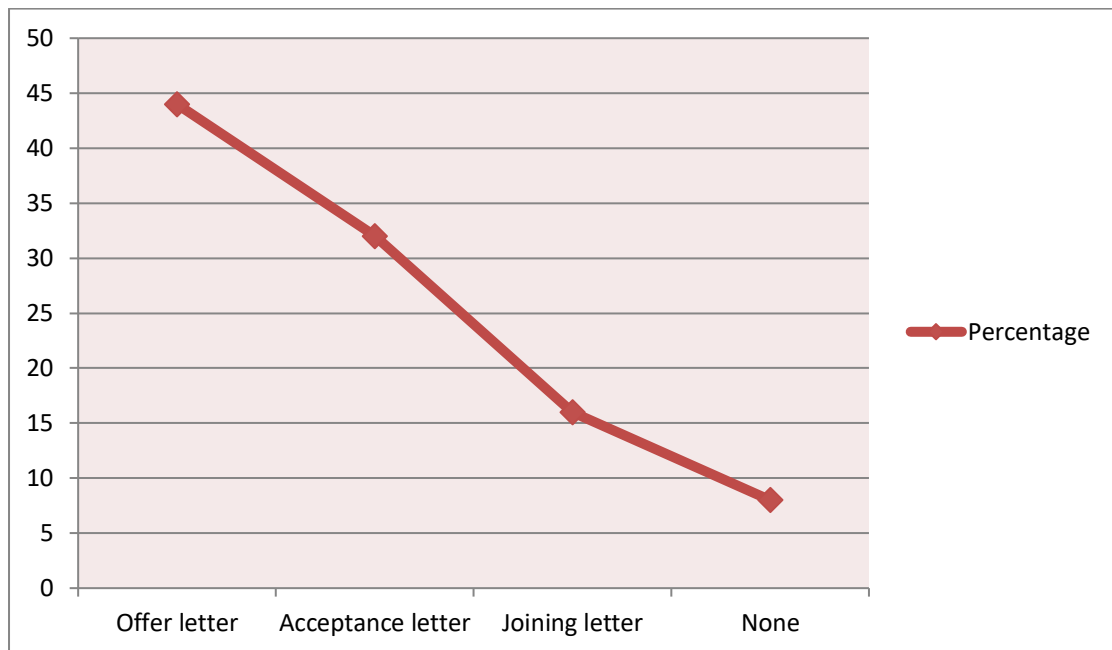
---

**Table 4.4 shows the appointment letter received from the company.**

<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Offer letter	11	44
Acceptance letter	8	32
Joining letter	4	16
None	2	8
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.4 shows the appointment letter received from the company.**



**INTERPRETATION:**

The above table shows appointment letter received from the company. Out of the 25 respondents, 44% of respondents received Offer letter, 32% respondents received Acceptance letter and 16% of the respondents received Joining letter and 8% respondents not received all of the above. The majority of the respondents i.e., 44% of respondents received Offer letter.

**A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

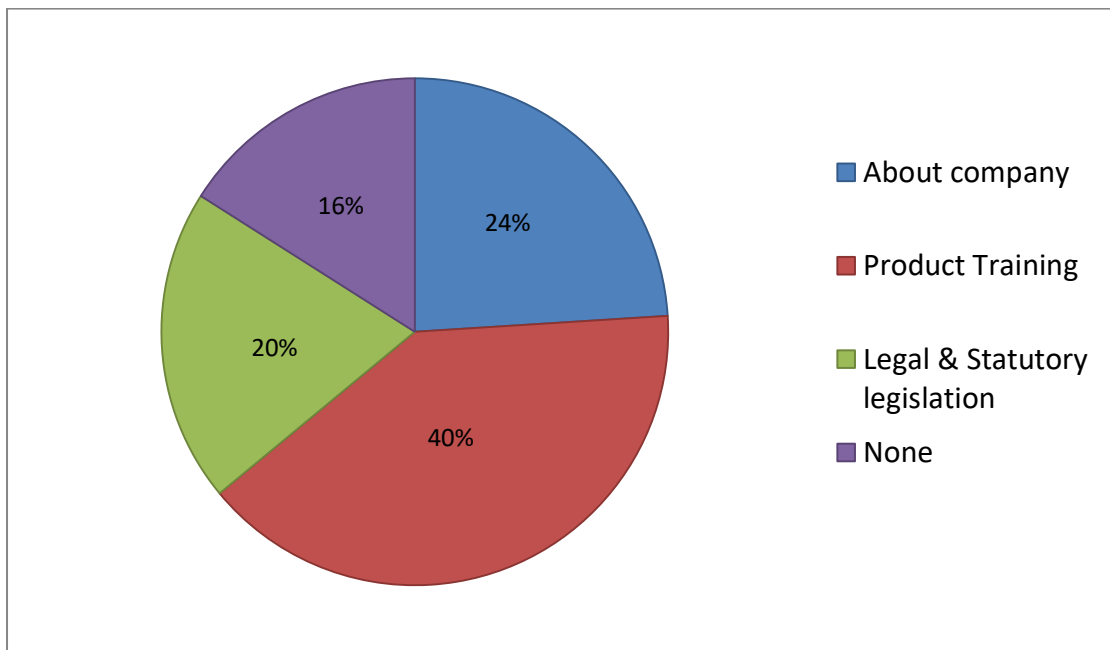
---

**Table 4.5 shows the type of induction program conducted by the recruitment**

<b>Particulars</b>	<b>No of Respondents</b>	<b>Percentage</b>
About company	6	24
Product Training	10	40
Legal & Statutory legislation	5	20
None	4	16
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.5 shows the type of induction program conducted by the recruitment**



**INTERPRETATION:**

The above table shows the type of induction program conducted by the recruitment. Out of the 25 respondents, 24% of the respondents went for training About Company, 40% respondents went for Product Training, 20% of the respondents went for Legal & Statutory legislation & 16% of the respondents are none. The majority of the respondents i.e., 40% respondents went for Product Training.

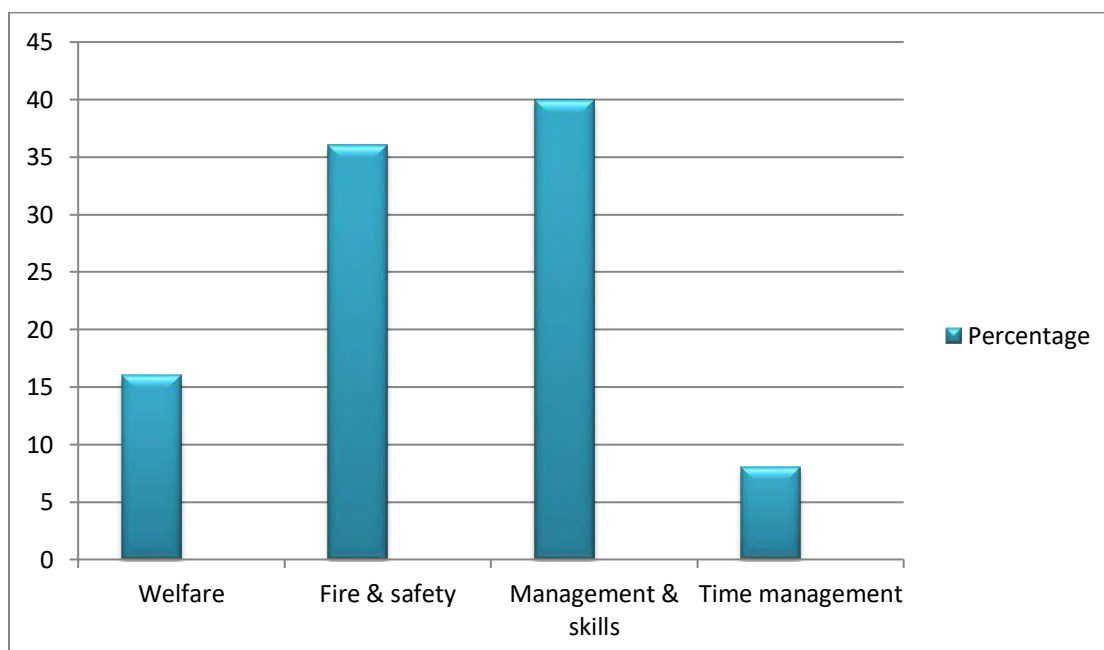
## A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.

Table 4.6 shows the training areas where the respondents are interested.

Particulars	No. of Respondents	Percentage
Welfare	4	16
Fire & safety	9	36
Management & skills	10	40
Time management	2	8
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

Graph 4.6 shows the training areas where the respondents are interested.



### INTERPRETATION:

The above table shows the training areas where the respondents are interested. Out of the 25 respondents, 16% of the respondents are interested in Welfare, 36% of the respondents are interested in Fire & safety, 40% of the respondents are interested in Management and skills & 8% of the respondents are interested in Time management. The majority of the respondents i.e., 40% of the respondents are interested in Management & skills.

**A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

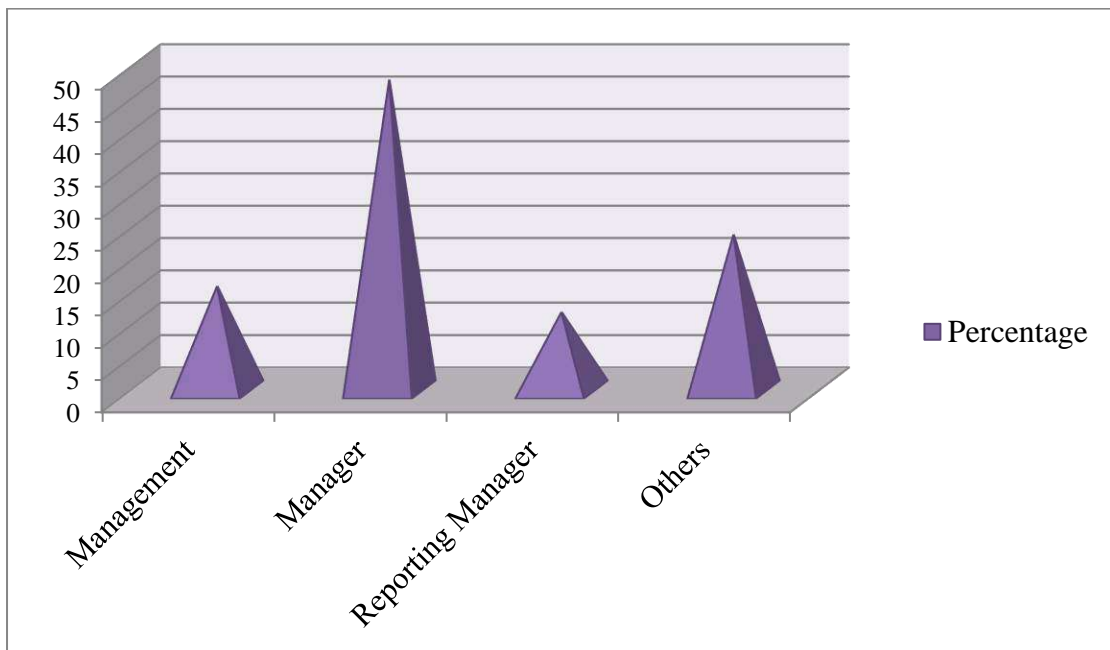
---

**Table 4.7 shows the opinion of the respondents on final decision taker.**

Particulars	No. of Respondents	Percentage
Management	4	16
Manager	12	48
Reporting Manager	3	12
Others	6	24
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.7 shows the opinion of the respondents on final decision taker.**



**INTERPRETATION:**

The above table shows the opinion of the respondents on final decision taker. Out of 25 respondents, 16% of the respondents are opined to Management, 48% of the respondents are opined to Manager, 12 % of the respondents are opined to Reporting Manager & 24% of the respondents opined with others. The majority of the respondents i.e., 48% of the respondents opined final decision takers are Managers.



**A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.**

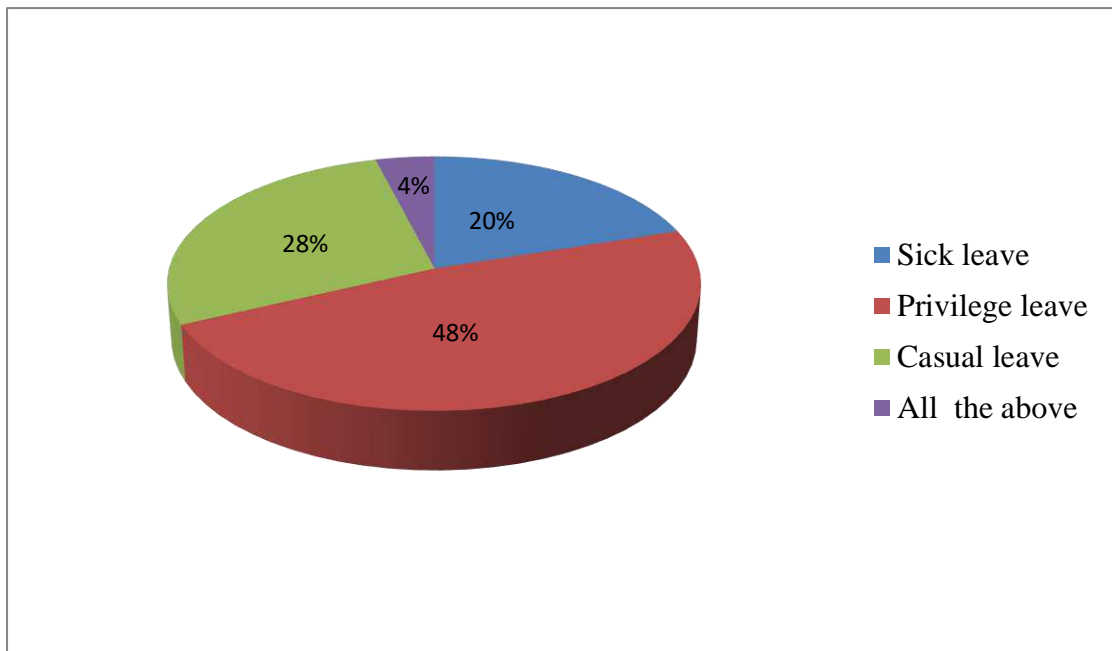
---

**Table 4.8 shows awareness of the respondents towards leave policy.**

Particulars	No of Respondents	Percentage
Sick leave	5	20
Privilege leave	12	48
Casual leave	7	28
All the above	1	4
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.8 shows awareness of the respondents towards leave policy.**



**INTERPRETATION**

The above table shows awareness of the respondents towards leave policy. Out of 25 respondents, 20 % of respondents are aware about Sick Leave, 48% respondents are aware about Privilege Leave, 28% of the respondents are aware about Casual leave & 4% of the respondents are aware about all of the above. The majority of the respondents i.e., 48% respondents are aware about Privilege Leave.

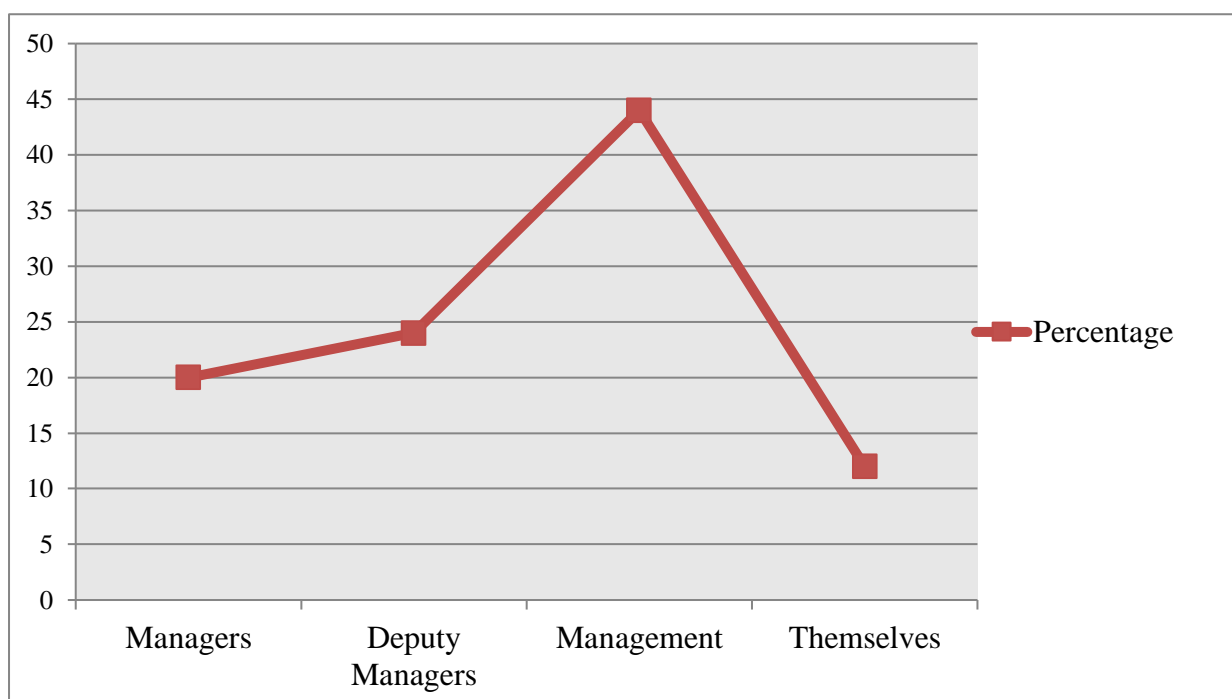
## A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.

Table 4.9 shows who will approve the leave letter.

Particulars	No. of Respondents	Percentage
Managers	5	20
Deputy Managers	6	24
Management	11	44
Themselves	3	12
Total	25	100

(Survey: Questionnaire)

Graph 4.9 shows who will approve the leave letter.



### INTERPRETATION:

The above table shows that who will approve the leave letter. Out of the 25 respondents, 20% of leave letter approved by Managers, 24% of leave letters are approved by Deputy Managers, 44% of leave letters are approved by Management, 12% of leave letters approved by them. The majority of the respondents i.e., 44% of leave letters are approved by Managers.

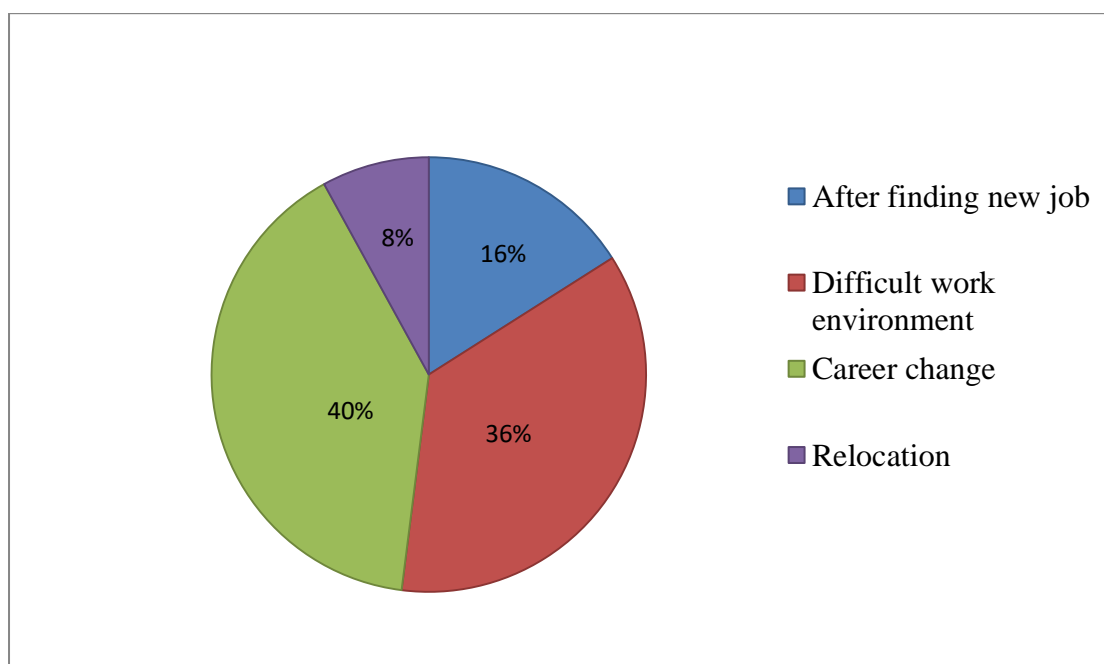
## A STUDY ON HR POLICIES AND IT'S IMPLEMENTATION WITH SPECIAL REFERENCE TO "CBKSSKN" CHIKODI.

**Table 4.10 shows the reason for quieting the job**

Particulars	No. of Respondents	Percentage
After finding new job	4	16
Difficult work environment	9	36
Career change	10	40
Relocation	2	8
<b>Total</b>	<b>25</b>	<b>100</b>

(Source: Questionnaire)

**Graph 4.10 shows the reason for quieting the job**



### INTERPRETATION:

The above table shows the reason for quieting the job. Out of 25 respondents, 16% of the respondents are quitting the jobs after finding new job, 36% of the respondents are quitting job because of Difficult Work Environment, 40% of the respondents are quitting job for Career Change, 8% of the respondents are quitting job because of Relocation. The majority of the respondents i.e., 40% of the respondents quitting job for Career Change.

**CHAPTER – 5**

**FINDINGS SUGGETIONS AND CONCLUSIONS**

5.1 Findings

5.2 Suggestions

5.3 Conclusion

### **5.1 FINDINGS**

- ❖ From the study we can see that out of 25 respondents maximum 68% of the respondents are male.
- ❖ From the study we can see that out of 25 respondents maximum 40% of the respondents are belongs to age group of 20-30 years.
- ❖ From the study we can see that out of 25 respondents maximum 44% of the respondents are recruited through websites.
- ❖ From the study we can see that out of 25 respondents maximum 44% of the respondents are received Offer letter.
- ❖ From the study we can see that out of 25 respondents maximum 40% of the respondents went for Product Training.
- ❖ From the study we can see that out of 25 respondents maximum 40% of the respondents are interested in Management and skills.
- ❖ From the study we can see that out of 25 respondents maximum 48% of the respondents are opined to final decision takers are Manager.
- ❖ From the study we can see that out of 25 respondents maximum 48% of the respondents are aware about Privilege Leave.
- ❖ From the study we can see that out of 25 respondents maximum 44% of the leave letters are approved by Management.
- ❖ From the study we can see that out of 25 respondents maximum 40% of the respondents quitting job for Career Change.

## **5.2 SUGGESTIONS**

The study has conducted on HR Policies & Its Implementation in CBKSSKN factory. Based on the observation and personal discussion with employee and management of factory, as researcher I would like to give some suggestions for better HR policies.

- The training should be mandatory for all levels of employees.
- The organization should conduct psychometric tests for employees.
- A flexible reward system should be adopted by organization to improve employee motivation.
- The departments should develop constructive attitude towards each other.

## **5.3 CONCLUSION**

The study concluded that the most influencing factor in ensuring effective management of HR policies is the culture of the organization. The policy recognizes worth contributions in time and approximately, So as to maintain high level of employee motivation morale. Company inspires the employees to do their work goals related to company goals. The employees feel that they are not paid fairly for the contributions they make to company's success. The study also concluded that the major challenges encountered in managing policies are lack of co-operation from the parties involved.

## BIBLIOGRAPHY

### **WEBSITES:**

[www.Scribd.com](http://www.Scribd.com)

[www.slideshare.net](http://www.slideshare.net)

[www.studocu.com](http://www.studocu.com)

[www.betterplace.co.in](http://www.betterplace.co.in)

[www.indeed.com](http://www.indeed.com)

## **ANNEXURE**

### **QUESTIONNAIRES**

Dear Sir/Madam

It is matter of great pleasure to introduce myself Ms. Dipika G Jhutale studying M.com in KLE's Basavaprabhu Kore College Chikodi, as per the course requirement we need to undergo a major concurrent project entitled "A Study on HR Policies and its Implementation with Special Reference to CBKSSKN Chikodi".

I am requesting you to please share your valuable time provide in information and opinion by filling this questionnaire. Your co-operation will be highly appreciated and also this will helpful to us to serve you better in future.

(NOTE: The information provided by you will be strictly kept confidential and used for academic purpose only.)

1. Gender of the respondents

- a) Male                      b) Female

2. Age of the respondents

- a) 20 – 30 years              b) 31 – 40 years  
c) 41 – 50 years              d) 50 years and above

3. How do you search the jobs and get placement?

- a) Placement cells              b) Through websites  
c) Newspaper advertisement      d) Referrals



4. Which one of the letters you received from the company after your name shortlisted?

- a) Offer letter
- b) Acceptance letter
- c) Joining letter
- d) None

5. Whether the recruitment team conducted an induction at the time of joining if which one of the following

- a) About Company
- b) Product Training
- c) Legal & Statutory legislation
- d) None

6. 4. If you want to attend further training what would be the areas you are interested?

- a) Welfare
- b) Fire and Safety
- c) Management & Skills
- d) Time Management

7. 4. Who will be the final decision for the performance Appraisal made by the Superiors?

- a) Management
- b) Manager
- c) Reporting Manager
- d) Others

8. Do you aware about the leave policy in your company

- a) Sick Leave
- b) Privilege Leave
- C) Casual Leave
- d) All the above

9. Whether your leave application shall be approved by whom

- a) Managers
- b) Deputy Managers
- c) Management
- d) Themselves

10. What is the reason for Quieting the Job?

- a) After finding new job      b) Difficult work environment
- c) Career change              d) Relocation

Any other comments / suggestions .....

.....  
.....

Signature

**K. L. E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591 201  
PG DEPARTMENT OF COMMERCE**



**PROJECT REPORT ENTITLED  
A STUDY ON ANNALYSIS OF POST OFFICES SAVING SCHEMES**

**Submitted to  
RANI CHANNAMMA UNIVERSITY, BELAGAVI**



**FOR THE PARTIAL FULFILMENT OF DEGREE IN MASTER OF COMMERCE  
DURING THE ACADEMIC YEAR 2022-2023**

**SUBMITTED BY  
Mr. MAHESH BHAVI  
M.COM-IV SEMESTER  
REGISTER NO: P15DM21C0006**

**UNDER THE GUIDANCE OF  
Shri. V. S. KHOT**

K.L.E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591201

PG DEPARTMENT OF COMMERCE



## CERTIFICATE

This is to certify that Mr. Mahesh Bhavi has satisfactorily completed the Project Report Entitled **A STUDY ON ANALYSIS OF POST OFFICE SAVING SCHEMES** for the partial fulfillment of Degree in Master of Commerce in Rani Channamma University, Belagavi during the academic year 2022-2023.

Shri. V. S. KHOT  
PROJECT GUIDE

Dr. LAXMIKANTHA NAYAKA T O  
**HEAD**  
Department of Commerce

Shri. D. SINGH RAJPUT  
**PRINCIPAL**  
KLES'S Basavaprabhu Kore  
Arts, Science and Commerce College  
CHIKODI - 591 201



## DECLARATION

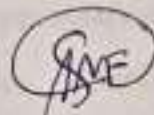
I declare that the project report entitled **A STUDY ON ANALYSIS OF POST OFFICE SAVING SCHEMES** is a record of independent research work carried out by me and submitted in partial fulfilment of the Degree in "**Master of Commerce**" as prescribed by the Rani Channamma University, Belagavi for the academic year **2022-23**.

It has been prepared under the guidance and supervision of **Shri. V. S. Khot**, Lecturer in PG Department of Commerce K.L.E. Society's Basavaprabhu Kore Arts, Science and Commerce College, Chikodi.

The Thesis or a part thereof has not been previously submitted for the award of any other degree or diploma.

Date: **26-09-2023**

Place: Chikodi



Mr. Mahesh Bhavi

Register No: P15DM21C0006



## Acknowledgement

The success of any project is incomplete without mentioning the names of the people who made it possible.

I am conscious of my indebtedness to each and every individual, who has helped me in many ways in the preparation of this project work. It would be great privileged to express words of gratitude and respect to all those who guided and inspired me throughout the completion of this project.

I sincerely express my deep sense of gratitude and appreciation to Internal Guide **Shri. V. S. Khot**, for his careful and valuable guidance, never ending patience and constant encouragement throughout the project.

I am beholden to **Dr. Laxmikantha Nayaka T O** Head of Department of Commerce for constant interest evidenced by him in my academic pursuits.

I express my deep intelligence of appreciation to **Shri. Udaysingh Rajput**, Principal of our college for his valuable suggestions and encouragement.

At the outset, I would like to thank all the teaching faculty of PG Department of Commerce for their valuable suggestions during project work.

My thanks are also to library staff for their co-operation during the course of project work and I am also thankful to Printers for their skillful printing of this project.

Finally, I owe my deep sense of gratitude to my parents, friends and relatives for their constant encouragement and support.

**Mr.Mahesh Bhavi**

## INDEX

SL NO.	CONTENTS	PAGE NO.
1	INTRODUCTION AND RESEARCH DESIGN	1-8
2	CONCEPTUAL FRAMEWORK	9-27
3	STUDY AREA PROFILE	28-45
4	DATA ANALYSIES AND INTERPRETATION	46-55
5	FINDINGS, SUGGESTIONS AND CONCLUSION	56-59
	BIBLIOGRAPHY	

**CHAPTER 1**

**INTRODUCTION AND RESEARCH DESIGN**

- 1.1 Introduction
- 1.2 Review of literature
- 1.3 Statement of the Problem
- 1.4 Need for the Study
- 1.5 objectives of the Study
- 1.6 Scope of the study
- 1.7 Research methodology
- 1.8 Limitations of the study
- 1.9 Chapter Scheme



## CHAPTER 1

### INTRODUCTION AND RESEARCH DESIGN

#### 1.1 INTRODUCTION:

The post office savings bank is now the largest savings institution in the country with a network of about 1,50,000 post offices since Independence and particularly during the last decade so post office savings bank has emerged from its limited role of providing the poor people with safe means of securing their savings to a major instruments for mobilizing savings for meeting development expenditure of the nation, it has grown tremendously in all directions and the net collection of all the savings schemes is between 3 and 4 thousand corers in a year.

The government has introducing various schemes from time to time to suit the varying requirements of individuals' institutions and groups. The postal banking system is now having more savings schemes than the commercial banks. The department is trying its best to provide better facilities to the depositors and investors. For this purpose, departmental procedures have been simplified and savings banks rules revised from time to time.

The post office savings bank scheme is an agency function like savings bank payment of pension, sale of cash certificate, performed on behalf of other minster / finance departments of the government of India and other organizations function of the study. The post office provides postal and non-postal services. For more than 150 years post office has been the key element of developing the economy of providing various services to all the customers. It serves to both as well as urban clientele.

A post office saving account is similar in many ways to a regular savings account. It is considered to be a highly secure instrument to deposit funds into and offers the option of full or partial liquidation of funds at very short notice in case the need arises. These accounts generally offer a guaranteed return on investment and are ideal for senior citizens and people who are looking to earn a regular income without exposure to risk.

Post offices saving accounts are also best suited for those individuals living in rural and semi-rural areas, which have limited exposure to banking. Due to the large network of post offices in India, the government introduced the concept of opening savings accounts through post offices, especially since the country wide reach of the post offices is far greater than Banks.

### **1.2 REVIEW OF LITERATURE:**

The views expressed by various authors have been reviewed in a broad sense to confine itself for reference.

**Jain & Kothari, (2012):** identified the awareness, preferences, problems and attitude of investors towards various deposit schemes offered by the post office. They observed that demographic factors have no significant influence over the opinion towards post Office Deposits Schemes except monthly in and educational qualification.

**Dr.R.Ganapathi, (2010):** Studied that various Small Saving Schemes were mainly meant to help the small investors and also those who are in high tax brackets. The study concluded that proper advertisements must be made for Post Office Saving Schemes, so that even a layman could know about these Schemes and deposits can be increased. They stated that investing their amount in Post Office deposits provides safety and security for the amount invested.

**Dr.R Gnapathi (2010):** Identified that various Small savings Schemes were mainly meant to help at one hand the small investors and at the other hand also those who are in high tax brackets. The study concluded that advertisements must be made for Post Office Savings Schemes, so that even a layman could know about these schemes and deposits can be increased. They stated that investing their amount in Post Office Saving Schemes provides safety and security for the amount invested it a sheltered option for investment.

**Richa (2004):** in her study argued that the Post office continues to be a major attraction for savers. Finance Ministry officials say that the attraction for the Post office deposit schemes stems from the higher interest rate they offer vis-à-vis what banks give.

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Preeti Singh, (2002):** stated that Post office schemes are generally like the Commercial Bank schemes. They have a saving account, a Recurring Deposit account, Time Deposit account which is also recurring in nature. The savings account operates in the same way as commercial Banks through Cheques and there is no restriction on withdrawals.

**Karthikeyan, (2001):** Has conducted research on Small Investors Perception on Post Office Saving Schemes and found that there was significant difference among the four age groups, in the level of awareness for Kisan Vikas Patra (KVP), National Savings Schemes (NSS), and Deposit Scheme for Retired Employees (DSRE), and the overall score confirmed that the level of awareness among investors in the old age group was higher than in those of the young age group. No difference was observed between male and female investors except for the NSS and KVP.

**Gavini and Athma, (1999):** found that social considerations, tax benefits, and provision for old age were the reasons cited for saving in urban areas, whereas to provide for old age was the main reason in rural areas. Among the post office schemes, Indira Vikas Patra (IVP), KVP and Post Office Recurring Deposit Account (PORD) were the most popular, in both urban and rural areas.

**Somasundaram, (1998):** has found that bank deposits and chit funds were the best known modes of savings among investors and the least known modes were Unit Trust of India (UTI) schemes and plantation schemes. Attitudes of investors were highly positive and showed their intention to save for better future. Nearly two-thirds of the investors were satisfied with their savings. Both income and expenses of a family influenced the level of satisfaction over savings.

**Arangasami, (1992):** has observed that more and more dependence on mobilization of resources through small savings will ensure and promote self-reliance. He concluded that the Central government should give proper assistance and encouragement to the small savings agencies, which will be useful not only in mobilization of funds but also for the economic development.

**Mukhi, (1989):** has revealed that NSC has been one of the most popular tax savings instruments in this country. He has stated those contractors and others who have to

provide security while bidding for contracts finds it extremely convenient to buy NSC and pledge these to the appropriate authorities while earning 12 per cent per annum on the pledged securities. He also stated that the major attraction of NSC is its simplicity. Even the average investor does not have to scratch his head to understand the scheme.

**Jayaraman, (1987):** has stated that instead of issuing special bonds for unearthing black money the Government of India can encourage investment of black money in various small savings schemes. He further stressed the need to draft the assistance of voluntary agencies at the school and college level for further mobilization of savings.

### **1.3 STATEMENT OF THE PROBLEM:**

The post offices main aim is to provide better services to the public with following the changing rules and regulations of government. Mainly this project is to study the small savings schemes and their facilities by studying this it helps to know about the performance of post offices in the society.

In these modern days post offices are performing very well. That's why it has adopted the latest technology. It helps to do the work easier and fast, not only this it also helps to know the relationship between the post offices and customer (society) how it is provide the services, facilities and benefits for the customers.

### **1.4 NEED OF THE STUDY:**

There is a need to study to know the small saving schemes that the department of post offices is implementing. The facilities provided to the depositors and investors by the post offices. Along with there is a need to study the performance of post offices saving schemes in Head Post Office

### **1.5 OBJECTIVE OF THE STUDY:**

- To Study the different type of Savings Schemes & its nature and facilities.
- To evaluate the performance of postal Schemes
- To know the interest rates of the deposits for the selected period.
- To suggest measures for the improvement of post office Saving Schemes on the basis of the findings of the study

### **1.6 SCOPE OF THE STUDY:**

The Scope of the Study is to get clear view about the various Saving Schemes offered by post offices to its customers

The study aims to create awareness among the Investors about various post office saving Scheme. It helps working people to invest in various Post of Saving Scheme and the national Savings organization & the post office to know the problem faced by investors in while investing in post office Saving Schemes.

### **1.7 RESERCH METHODOLOGY OF THE STUDY:**

#### **RESEARCH PROCESS**

##### **Method of data collection**

- 1) **Primary data**
- 2) **Secondary data**

##### **1) Primary Data:**

The data which is directly collected by the researcher and was not available before is called as "primary data". The sources o of primary data are very useful in finding the real facts about the incidents or events. It includes the personal observation of the researcher and respondent. Primary data are the freshly collected data that provide information about a particular problem. These data can be gathered using techniques like, interview, observation, and mailing. Counseling, etc.

##### **2) Secondary data:**

Secondary data means the data which have already been collected and presented earlier by any agency may be used for the purpose investigation. In other words, data which are available, secondary source which already been collected and analyzed by someone else.

The present study is based on the secondary data. The data used in the analysis or collected from the published statements of postal books, and accounts maintained by the post office. It helps to verify the performance of post office. Primary data is

collected to know the post office efforts have been made on get detail information and to know the working of the post office better personal visit and discussions with the post master have been conducted.

- Journals
- Web sites
- Reference books
- Internet

### **1.8 LIMITATION OF THE STUDY:**

- This study is confined to the post office saving schemes only
- The findings of the study are not applicable to any other area & other scheme
- Time is the major constraint.

**1.9 CHAPTER SCHEME:**

**Chapter 1 –introduction and research design**

This Chapter gives detail on Introduction, Review of Literature, and Statement of the Problem, Need of the Stud, Objectives of the Study, Scope of the Study, Research Methodology and Limitations of the Study.

**Chapter 2 – conceptual framework:**

In this chapter is viewed on various concepts related to the study which are. Introduction, role, various savings schemes, maintenance of accounts, internal checks of organization, types of saving schemes and difficulties.

**Chapter 3 – study area profile**

This chapter deals with post office profile which includes about the Indian post, post office history, post office pin codes, digital codes, organization chart, functional departments, vision mission and objectives of post office and services of post office.

**Chapter 4 Data analysis and interpretation:**

This chapter gives details regarding the analysis and interpretation of data it also consist of the tables, charts and its interpretation.

**Chapter 5- Findings, Suggestion and Conclusion:**

This chapter concludes the project, it comprises findings, suggestions and conclusion .

**CHAPTER -2**

**CONCEPTUAL FRAMEWORK**

- 2.1 Introduction to savings scheme
- 2.2 Role of national saving institute
- 2.3 Various saving schemes
- 2.4 Operations of schemes
- 2.5 Maintenance of control accounts
- 2.6 Internal check organization (SB)
- 2.7 Various types of savings schemes
- 2.8 Power to remove difficulties



## CHAPTER -2

### CONCEPTUAL FRAMEWORK

#### 2.1 INTRODUCTION TO SAVINGS SCHEME

The post office savings bank is the oldest and largest banking institution in the country. It operates 140 million savings accounts. The post office savings bank serving the smallest man in the country and truly be called the peoples bank. It has a network of about 1,54,000 branches doing savings bank work throughout India out of which about 1,30,000 are in rural sector serving the simple banking needs of the public to deposit their small savings.

Performance of the post office savings bank have gone up very much, it has also been established that approximately 30% of the total collections on small savings in the country are drawn from the rural population.

#### **AGENCY FUNCTIONS:**

The post office savings bank is an agency function performed by the department of posts on behalf of ministry of finance, government of India. The ministry of finance is paying remuneration for this work to the department of posts for every savings bank account and savings certificate transaction at a rate fixed from time to time. The department earned approximately 17000 million as ration.

#### 2.2 ROLE OF NATIONAL SAVINGS INSTITUTE:

The rules of savings schemes are framed by the ministry of finance in consultation with the director, this institute solely responsible for the publicity of the various savings schemes and works for the promotion of the ideal of thrift as a way of life among the people and for the mobilization of their house hold savings for the national development.

#### **ROLE OF DEPARTMENT OF POSTS:**

The department of posts runs the savings bank as an agent of the ministry of finance. Most of the national savings schemes are operated and serviced through a vast

network of 1.54 lakh post offices spread over throughout the country. It playing an increasingly effective role for the promotion of the movement in the rural areas.

### **2.3 VARIOUS SAVING SCHEMES:**

The post office savings bank offers various savings to suit different pockets, for the poor and wage earner, a scheme like recurring deposits where investment can be made as low as Rs.10 per month for those who want to save or reduce the income the schemes like public provident fund and 6 years NSC and for those who want monthly interest on their sum invested the scheme like 6 year monthly

Income account scheme it offers good rate of interest public provident fund is exempt from income tax. For senior citizens schemes like senior citizens savings scheme which offers a higher rate of interest 9% per annum payable quarterly.

### **2.4 OPERATIONS OF SCHEMES:**

The various savings schemes are operated through the head, sub, and branch post offices for the convenience of the public. In head post offices there is a separate savings bank and savings certificate branch which are looked after and supervised by the deputy post masters. There are separate counter for this work in these offices.

### **2.5 MAINTENANCE OF CONTROL ACCOUNTS:**

The savings bank control organization has been set up in each head post office to maintain control accounts of savings bank work and carryout day to day checks of the work done by the SB brunch.

### **FUNCTIONS:**

- To maintain and control accounts of all the savings schemes.
- To carryout percentage checks of vouchers and other items of works.
- To verify the binder balances periodically.
- To keep in its safe custody important records such as vouchers, undelivered pass book, lists of transactions.
- Preparation of annual SB/PPF/NSS interest statement

**2.6 INTERNAL CHECK ORGANIZATION (SB):**

The internal check organization (SB) is an effective inspection expiration for the inspection of the SB branch of Head post offices and control organization ( has been setup in each post circle it is under the administrative control of the post master general/regional director an under the charge of an account officer.

→ **FUNCTIONS**

- To see that the staff of the head posts office and the cost organization carryout there functions as prescribed by rules.
- To see that the prescribed checks by the control organization on the day to day functioning of the head office are carried out properly
- To register of hinder balance are maintained property
- To see various register and documents
- To see annual interest calculation work and preparation of interest statement for savings/PPF/NSS accounts.

**PAIRING ORGANIZATION:**

A pairing unit in each circle and one central pairing office has been setup in New Delhi. It is responsible for pairing the credits and debits of Home transfer (transfer of accounts from one head offices from to another in the same postal circle) and the central pairing office for pairing the credit debit of foreign transfer (transfer of accounts from one head office to another in different postal circles).

The staff of the circle pairing unit and central pairing office consists of supervisor and postal assistants the main function of pairing unit/ office is to complete the debtor and credit items of transfer from one head office to another.

**2.7 VARIOUS TYPES OF SAVING SCHEME:**

- 1) Savings accounts
- 2) Recurring deposits
- 3) Monthly income scheme
- 4) Senior citizens savings scheme
- 5) Time deposits 1-year, 2-year, 3-year 5-year
- 6) Public provident fund
- 7) Kisan vikas Patras (KVP)
- 8) Indira vikas Patras

**❖ SAVINGS ACCOUNT:**

- **INDIVIDUAL ACCOUNT** a) A single adult b) Two or three adults in joint names c) A minor who has attained the age of ten years. d) A guardian on behalf of a minor or person of unsound mind.
- Any member of account's (single joint) can be opened but not more than one account in one post office.
- A new savings account shall be opened with at least Rs.50 in case of ordinary account and Rs.500 in cheque account.
- The deposit or withdrawal by cheque can be made in the cheque account without the production of the passbook
- The savings account in the case of individual account (single/joint/pension account) shall be opened after proper introduction of the depositor. The introduction can be given by a respectable person known to post office or by account holder.
- A person can be common member in two joint accounts opened in the same post office.

Ex-If A, B & C open a joint account in one post office 'A' can also open a separate joint account with B & C respectively in the same post office A&B, A&C.

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

---

- A joint account cannot be open by an adult and the minor, similarly two or three minors cannot open a joint account, a joint account should be open by two or three months only.
- Only one account can be opened either by a father or mother on behalf of a minor both father and mother cannot open one account, each on behalf of same minor.
- An illiterate, blind or otherwise physically handicap adult may operate on his account through a literate agent nominated by him for the purpose.
- Not more than one withdrawal shall be allowed in a day from an account standing at an extra department (EDSO) sub office or branch office.
- No interest shall be allowed in the account for any year in which the amount of interest for the year less than one rupee.
- No interest shall be allowed on any sum in excess of the maximum balance prescribed for the account.
- If the account is closed in the course of the year interest shall be allowed up to the end of the month presiding the month in which the account is closed.
- A saving account cannot be transferred from one head office to another between 16" march and 311 march this restriction will not apply to local transfer from sub another sub office under same head office.
- A Cheque account can be opened by depositor who is literate and able to sign in office to Tanning hand. An illiterate depositor cannot open a cheque account.
- The application for withdrawal and the warrant of payment of illiterate depositor should be examined to see the mark or thumb impression of the deposited has been ingested by a responsible witness known to the post office.
- An account cannot be transferred from one post office to another after the death of depositor or after the account has been ordered to be closed.
- A deposit can change his name i.e. an adoption or otherwise or in the case of female depositor on marriage after following the prescribed procedure
- An account opened on behalf of minor who has attained majority can be transferred from one post office another after the x minor has furnished a revised application from (SB-3) for further continuation of the account by him.

- The deposit can withdraw money for interim withdrawal or in closer through a messenger or a bank.

### **POST OFFICE SAVINGS ACCOUNT BENEFITS:**

Customers who wish to open these accounts have access to cheque and ATM facilities. Some attractive benefits of post Office Savings Accounts have been listed below.

- **Cheque facility:** Cheque facility is available and can be request for existing account as well
- **ATM/Debit card:** For these scot holders who have maintained the prescribed minimum balance on the day of insurance of the debit card, CBS Post office can grant ATM/Debit cards.
- **Minor Accounts:** Post Office Savings Account is available to minors. For minors below the age of 10, an account can be opened in their name, but the part or guardian will be given rights to operate the account on their behalf. Minors of 10 years and above can operate the account on their own.
- **Portability:** If you shift your residence or are not happy with the services of the post office beach or for any other reason, you can shift your Post Office Savings Account to a branch of your choice. Only one account can be opened in one post office.
- **Nomination:** The facility to nominate someone is made available under these accounts at the time of opening the account. The account holder can also choose to nominate a person to receive the proceeds of this account after their demise at any time.
- **Joint Holdings:** Two or three adults are allowed to hold an account together under the joint account facility. A single account can be converted to a joint account and vice versa.
- **Tax Exemptions:** Two or three adults are allowed to hold an account together under the joint account facility. A single account can be converted to a joint account and vice versa.
- **Electronic Facilities:** Customers can make withdrawals and deposits through any electronic mode in CBS Post offices.

- **Long period for Inactivity:** In order to keep the account active you only need to carry out one transaction of a deposit or withdrawal in 3 financial years. The account will not be deemed inactive unless there are no transactions for 3 financial years
- ❖ **RECURRING DEPOSITS:**
  - The scheme is meant for those investors who want to deposit a fixed amount regularly on monthly basis in order to get a tidy Sam after 5 years on the maturity of the account in his name.
  - The account can be opened by a) a single adult b) two adult jointly c) a guardian on behalf of the minor or person of unsound mind.
  - The maturity period of the account is 5 years but the amount payable on maturity can be retained for a further period up to 5 years without any monthly deposits or the account can be continued for a further period up to 5 years with regular monthly deposits.
  - A deposit can have more than one account in his name or jointly with another in the some post office or in different post office.
  - If there are not more than four defaults in monthly deposit at his options extend the maturity period of the account.
  - If there are more than four defaults the account shall be treated as discontinued.
  - Interest at the rate of 10 paisa for every five rupees of the defaulted installment for each month of default shall also be paid along with such deposit and an account in which defaulted installments are deposited will be treated as discontinued.
  - The advance deposits for six months or more will be inclusive of the month in which they are made.
  - The RD account can be transfer from one head office another any time during the year free of charge. A discontinued and mature RD account also.
  - Where deposit is made by cheque or demand draft or pay order, the date of presentation of the cheque etc. to the post office shall be deemed to be the date of deposit.

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

---

- The matured value of the account will be paid after the period of five years from the date of first deposit or after the extended period of maturity as the case may be.
- In case the date of maturity falls Sunday or a postal holiday the payment shall be made to be due on the business day immediately preceding the of maturity.

Is the case of account having permissible defaults? If the depositor pays all the defaulted installments with interest on maturity or during the extended period of maturity he can receive the maturity value including interest immediately without waiting for the expiry of extended period of maturity.

- In the case of account having permissible defaults where the original date of maturity is extended at the request of the depositor. The maturity date will stand revised but the maturity value will be paid according to the original date of maturity.
- The interest on defaulted installments should be changed up to the original date of maturity and not up to the actual date of acceptance of defaulted installments during the extended period.
- The holder of the account may prematurely close the account after three years from the date of opening the account provided that interest at the rate applicable to the post office savings account shall be payable on such premature closure of account.
- The withdrawal is not permissible from a discontinued account
- The deposits in the RD account can be accepted in absence of pass book. When the depositor has lost the pass book and is waiting for the issue of duplicate passbook. When the pass book is with the post office for any other purpose.
- The deposits in the RD accounts can be made through an authorized agency appointed under "MAHILA PRADHANA KSHETRIYA BUDGET YOJANA.
- The minor who have opened the account directly cannot appoint an agent or messenger to act for him and must attend the post office in person to withdraw money. However the guardian operating the account on behalf of the minor



can appoint messenger to receive money on his behalf if he not in a position to attend the post office.

### ❖ MONTHLY INCOME SCHEME:

- The scheme is meant for those investors who want to invest a lump sum and can interest persons monthly basis for their lively hood. The scheme is a boon for retired persons.
- This scheme will be operated through all the head post offices and departmental on sub post office only.
- This account can also opened by a) A single adult b) two or three adults jointly guardian on behalf of a minor or unsound mind.
- A depositor(s) may open more than one account either in the same post office or in different post offices.
- The maximum deposits in all the accounts taken together should not exceed Rs.4.5 lakh in a single account and 9 lakh in a joint account.
- The deposit can be made by cash or cheque or demand draft.
- No final withdrawal will be permitted in the account before expiry of six years from the date of opening of account.
- Only one deposit can be made on one account in multiple of Rs.1000/- no subsequent deposit should be accepted in the same account.
- If the account is close on or before expiry of three years of opening of such account. An amount equal to 2% of the deposit should be deducted and reminder paid to him.
- Account is closed nomination facility is available the nomination can be made either at the time of opening the account or at any time. After the opening of the account.
- The interest will be payable monthly to the depositor on completion of a month from the date of deposit.
- If interest payable every month is not claimed by depositor such interest will not car my additional interest.
- In case of death of the depositor any single account, before maturity the account may be dosed and deposit refunded along with interest up to he month presiding the month in which the refund is made.

- The account under scheme can be opened through authorized agents appointed under the standardized agency system.
- In case the date of payment of monthly interest falls on Sunday or postal holiday payment may be deemed to be due. On the business day immediately presiding.
- When the deposit is made on 29, 30 and 31 and if these dates do not come following month the payment monthly interest will be made on the last day of the following month and if such last day is Sunday or holiday, monthly interest will be deemed to be due on the presiding day.
- At the request of the depositor, the postdated cheque of monthly interest can be issued to him so that he may not attend the post office for this purpose every month.
- The amount deposited in the account in excess of the prescribed limit will be refunded with interest at the rate applicable to savings accounts.

### ❖ SENIOR CITIZENS SAVING SCHEME:

- The scheme will be operated through post office in India doing monthly income scheme work
- An individual who has attained the age of 60 years on the date of opening of the account can open the account.
- The joint account can be opened with spouse only and not with any other person.
- In case of joint account there is no age bar or limit of the joint holder.
- The whole amount of investment in case of joint account will belong to the first applicant or depositor only.
- Both the spouses can open individual and or joint account with each other with the maximum deposit up to Rs.15 lakh each provided both are senior citizens i.e, have attained the age of 60 years or above i.e. A&B can open account (S) up to Rs.15.00 lakh and B&A can also open account (S) up to Rs.15.00 lakh (Joint A/B type).
- The deposit may operate more than one account subject to the conditions that the deposits in all the accounts taken together shall exceed the maximum limit of Rs.15.00 lakh

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

---

- More than one account shall not be opened in the same deposit office during calendar month. However another account can be opened in another deposit office in the same calendar month.
- Depositor may open the account in individual capacity or jointly with the spouse.
- There shall be only one deposit in the account in multiple of Rs.1000/- not exceeding
- Rs15.00 lakh. The minimum limit of deposit is Rs.1000 and the maximum limit is Rs15.00 lakh Except as provided in rule & nox, withdrawal shall the permitted before expiry of a period of 5 years from the date of opening of an account.
- The deposit can be made in cash if the amount of deposit less than Rs.1.00 lakh and by cheque or demand draft drawn in favor of the depositor and endured in favor of deposit office or drawn in favor of the deposit office.
- When the deposit is made by cheque or draft. The date of deposit shall be the date of encashment of the cheque or draft on opening of an account, the depositor shall be given a pass book. The pass book will bear number of account, date of opening of account, the amount deposited, the amount of quarterly interest payable, photographs of the depositor etc. if the amount is deposited by cheque draft the pass book will be given to the deposit after the encashment of the investment.
- The depositor availing of the facility of credit of interest in savings account shall present the pass book to the deposit office at least once in year for completion of entries
- The depositor not availing of the facility of credit of interest in savings account shall present the pass book to the deposit office at the time of collecting interest every quarter.
- Nomination facility in both the single as well as in joint account is available. If the  
Nomination is not made at the time of opening the account, it can be made by the depositor at any time after the opening of the account but before it closer. The seminarian is made by the depositor may be canceled or revised by fresh nomination at any time.

- In case of joint holder, the joint holder will be the first person receive the amount payable in the event of the death of the first deposited and the nominees claim shall wise only after the death of both depositor and the joint depositor.
- Every nomination and every collection of nomination will be registered by the depots office and shall be valid from the date of registration. The particulars of which shall be entered in the pass book.
- No fees are to be charged for nomination and for change collection of nomination.
- A depositor can apply for transfer of his account from one deposit to another provided that where the deposit is Rs.1.00 lakh or above a transfer fee of Rs 5th of the deposit for first transfer and Rs.10 lakh of deposit for the second and subsequently transfers shall be payable.

The Hindu undivided family is also not eligible to open an account under these rules. The deposit can be made through the authorized agents appointed under standardized Agencies assistant.

### ❖ **TIME DEPOSITS**

- The scheme is meant for those investors who want to deposit a lump sum for a fixed period and earn interest on it on yearly basis.
- There are four types of accounts, namely 1-year account, 2-year account, 3-year account, and 5-year account. The account can be opened by a) A single adult b) Two adults jointly
- A guardian on behalf of minor or a person of unsound mind.
- If the deposit is made by cheque, demand draft etc. the date of credit of he Instrument shall be the date of its encashment and not the date of its presentation.
- There is no maximum limit of deposit in an account.
- The deposit shall be repayable only after the expiry of the period for which it is made.
- The deposit shall carry interest at the rite prescribed from time to time and sch interest shall be payable to the depositor at the end of each year during the period of deposit.
- Rs 200/- no subsequent deposit should be accepted in the same account.

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

---

- In case the date of maturity of the deposit or the date of payment of annual interest falls on Sunday or postal holiday. The payment shall be deemed to be due on the business day immediately preceding the date of maturity or the date of payment of annual interest.
- The deposit on maturity may be redeposited in a new account to be opened and the date of redeposit will be the date of withdrawal of the original deposit.
- In case of 2-year, 3-year, and 5-year accounts the depositor can request the post office to credit the annual interest in his savings accounts if it stands in the same post office. The facility will be available for accounts standing at head and office and for account which stand at extra deposit, sub office and branch offices.
- When the repayment of the deposit has become due but has not been taken post maturity interest shall be allowed on the amount due (principal interest) for maximum period of 2 years from the date of maturity to the date of repayment deposit subject to the following conditions.
- The interest shall be simple and shall be calculated at the rate applicable from time to time to single/joint savings accounts.
- No interest shall be allowed for any part of the period which is less than one month. Interest should be calculated from date to date and not taken as calendar month.
- If a time deposit is wrongly paid before the due date by period less than a month. The interest paid excess shall be recovered from the depositor on the amount paid before the due date for the period by which the amount has been paid early. The amount of interest to be recovered should be calculated at the rate at which the concerned time deposit was earning and after recovering it should be credited to the concerned account.
- The deposits in time deposit accounts can be accepted through authorized agents appointed under standardized agency system.
- The departmental sub offices are authorized to close the accounts without obtaining prior sanction of the head office.
- A certificate of balance in time deposit account and certificate of annual interest paid to the depositors may be issued to them on request by the post offices without charging any fee for the purpose of filing income tax returns.

- Post maturity simple interest for a deposit not withdrawn on maturity is admissible at the rate applicable to savings accounts for a maximum period of 2 years freedom the date of maturity.

### ❖ **PUBLIC PROVIDENT FUND (PPE):**

An act to make provisions for institution of PF for the general public.

Fund-Means the public provident fund established under the scheme.

Scheme-Means the PPF scheme framed under sub sec (1) of sec 3

Subscriber-Means an individual who makes subscription to the fund under sec 4 and where such subscription is made by an individual on behalf of a minor of who be is the guardian of such minor.

#### a) PPF SCHEME

The central government may by notification in the official gazette frame a scheme to be called the PPF scheme for the establishment of a provident fund for the general pic and there shall be established as soon as may be after the framing of the she's. A fund in accordance with the provisions of this act and the scheme Subject to the provisions of this act. The scheme may provide for all or any of the mater specified in the schedule.

The central government may from time to time by notification in the official Gazette, Add to amend or very the scheme.

#### b) SUBSCRIPTIONS TO FUND

Any individual may on his own behalf or on behalf of a minor of whom he is the guardian. Subscribe to the fund in such manner and subject to such maximum and minimum limits as may be specified in the scheme.

#### c) INTEREST

All subscription made under sec 4 shall bear interest at such rate as may be notified by the central government in the official gazette from time to time. And the interest shall be calculated in such manner as may be specified in the scheme.

### d) WITHDRAWALS

A subscriber shall be entitled to make withdrawals from the amount standing to his credit in the fund (including interest)

### e) GRANT OF LOANS

A subscriber may be granted loans out of the amount standing to his credit in the fund on such terms and conditions as may be specified in the scheme and where the subscriber is minor. Such loans shall be granted to his guardian only for the use of minor.

### ❖ KISAN VIKAS PATRA (KVP)

Kisan Vikas Patra (KVP) doubles your money in 7 years and 3 months with the advantage of premature withdrawal. KVP is sold through all Head Post Offices and other authorized post offices throughout India. The rate of return is 9.75 per cent, compounded annually.

KVP accumulates money at a fixed rate, and your money doubles in 7 years and 3 months. But KVP is not meant for regular income. It is for those looking for a safe avenue of investment without the pressing need for a regular source of income.

### Features:

- The minimum investment in KVP is Rs 100. Certificates are available in denominations of Rs 100, Rs 500, Rs 1,000, Rs 5,000, Rs 10,000 and Rs 50,000. The denomination of Rs 50,000 is sold through head post offices only. There is no limit on holding of these certificates. Any number of certificates can be purchased. A KVP is sold at face value; the maturity value is printed on the Certificate.
- It is a good option if you are looking for hassle-free investment as it assures a certain sum of money at the expiry of the duration of your investment.
- With a fixed rate of return, KVP does not provide safeguards against the perils of high inflation rates.
- Depending on whether the finance company or the bank from where you are raising the loan accepts it or not. Some banks accept it for raising house loans.

- Income is assured at the prescribed rate of interest. As mentioned, this is a risk-free investment channel as the KVP comes with the backing of the Government of India.
- Since the KVP has the backing of the Government of India and is, therefore, extremely safe, it does not require any commercial rating.
- KVP is not a bearer certificate, and is not easily transferable. Permission of the post master is required for any transfer. These cannot be traded in the secondary market.
- KVP cannot be traded in the secondary market and, hence, the question of its market value does not arise.
- KVP is held physically in the form of certificates that are issued to the investors by the post office. The option of holding KVP in demat form is not available.
- Although no TDS is applicable on the interest income from KVP, there are no tax incentives as per the provisions of the Income Tax Act, 1961.
- Maturity on providing proper identity and by simple discharge of the certificate on the reverse.

### **Returns:**

KVP Scheme doubles money in seven years and three months.

### **What is the liquidity of KVP?**

If the premature encashment takes place within a period of one year from the date of purchase of the certificate, only the face value of the certificate shall be payable. No interest is payable in this case.

After the expiry of one year, but before two years and six months from the date of the issue of the certificate, the face value of the certificate together with simple interest at the specified rate for the completed months for which the certificate has been held, shall be payable.

If a certificate is encashed any time after expiry of two-and-a-half years, the amount payable is as specified by the government from time to time.



### ❖ **INDIRA VIKAS PATRAS:**

These instruments are available at post offices and can be purchased by any person. Minimum investment in Indira Vikas Patras is Rs. 100 and there is no maximum limit.

These are available in the maturity denominations of Rs. 200, 500, 1000 and Rs. 5000 and the investor has to pay half the face value. The initial amount is doubled in 5 years and these: Patras cannot be encased premature.

The interest on Indira Vikas Patras is compounded annually, is payable on maturity only and is taxable. These instruments are like bearer-bonds and hence have to be carefully preserved.

### **PAYMENT ON DEATH OF SUBSCRIBER**

If a subscriber dies and there is in force at the time of his death a nomination in favor of any person all amounts standing to his credit in the fund shall be payable to the nominee. Where there is no nomination in force at the time of the death of the subscriber the amounts referred to in sub-sec (1) shall be payable to his legal heirs.

### **2.8 POWER TO REMOVE DIFFICULTIES:**

If any difficulties arise the central government may by order published in the official Gazette. Make such provisions for the removal of the difficulty.

#### **THE SCHEDULE SEC 3(2)**

- Matters for which provisions may be made in the scheme.
- The manner in which subscription to the fund may be made and the maximum and minimum limits of such subscriptions.
- The manner in which interest on subscription to the fund may be calculated.
- The documents to be issued to subscribers as evidence of the subscriptions made by them to the fund.
- The authority or authorities by or through whom subscriptions to the fund may be collected or withdrawals there from may be made.

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

- The accounts to be maintained with respect to subscriptions to the fund and withdrawals and final payments made and loans granted there from and the authority or authorities by whom such accounts shall be maintained.
- The nomination of any person to receive the amount standing to the credit of a subscriber in the fund in the event of his death and the cancellation or change of such nomination
- The issue of duplicate of any document issued or evidence of any subscription to the fund in the event of damage, loss or destruction of original and the fee on payment of which such duplicate may be issued.
- Any other matter which is to be provided for in the scheme or which may be necessary or proper for the purpose of implementing the scheme

**CHAPTER 3**

**STUDY AREA PROFILE**

3.1 Post office profile

3.2 About Indian post

3.3 History of post office

3.4 Pin of post office

3.5 Eligibility to Open Post Office Savings Account

3.6 Digital address code

3.7 Organizational chart

3.8 Functional departments

3.9 Vision, mission and objectives of post office

3.10 Services of post office

## CHAPTER 3

### STUDY AREA PROFILE

#### 3.1 POST OFFICE PROFILE:

India Post is a government-operated postal system in India, and is the trade name of the Department of Post under the Ministry of Communications. Generally known as the Post Office, it is the most widely distributed postal system in the world. Warren Hastings had taken initiative under East India Company to start the Postal Service in the country in 1766. It was initially established under the name "Company Mail". It was later modified into a service under the Crown in 1854 by Lord Dalhousie. Dalhousie introduced uniform postage rates (universal service) and helped to pass the India Post Office Act 1854 which significantly improved upon 1837 Post Office act which had introduced regular post offices in India. It created the position Director General of Post for the whole country.



It is involved in delivering mail (post), remitting money by money orders, accepting deposits under Small Savings Schemes, providing life insurance coverage under Postal Life Insurance (PLI) and Rural Postal Life Insurance (RPLI) and providing retail services like bill collection, sale of forms, etc. The DoP also acts as an agent for the Indian government in discharging other services for citizens such as old age pension payments and Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) wage disbursement. With 154,965 post offices (as on March 2017), India Post is the widest postal network in the world.

The country has been divided into 23 postal circles, each circle headed by a Chief Postmaster General. Each circle is divided into regions, headed by a Postmaster

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

---

General and comprising field units known as Divisions. These divisions are further divided into subdivisions. In addition to the 23 circles, there is a base circle to provide postal services to the Armed Forces of India headed by a Director General. One of the highest post offices in the world is in Hikkim, At 4,400m above sea level in northern India's remote Spiti Valley, the Hikkim post office is a vital connection to the outside world.

### 3.2 ABOUT INDIAN POST:

Department overview	
<b>Formed</b>	1 October 1854; 168 years ago
<b>Headquarters</b>	Dak Bhawan, Sansad Marg, New Delhi
<b>Employees</b>	416,083 (March 2021)[3]
<b>Annual budget</b>	₹20,820.02 crore (US\$2.6 billion) (2022–23)[4]
<b>Minister responsible</b>	Ashwini Vishnu, (Minister of State for Communications)
<b>Department executives</b>	<ul style="list-style-type: none"><li>Vineet Pandey, Secretary, Department of Posts, IPods</li><li>Alok Sharma, Director General (Posts), IPods[5]</li></ul>
<b>Parent Department</b>	Department of Post, Ministry of Communication, Government of India
<b>Child Department</b>	<ul style="list-style-type: none"><li>India Post Payments Bank</li></ul>
<b>Key document</b>	<ul style="list-style-type: none"><li>The Indian Post Office Act, 1898</li></ul>
<b>Website</b>	<a href="http://www.indiapost.gov.in">www.indiapost.gov.in</a>

**3.3 HISTORY OF POST OFFICE:**



Indian postal service Educational card, late 19th or early 20th century



1850s Scinde Dawk stamp



A modern Indian post office near Udagamandalam

### **Posts and the British Raj (1858–1947)**

The British Raj was instituted in 1858, when the rule of the East India Company was transferred to the Crown.



British-era letter box in Shimla, India.

A number of acts were enacted during the British Raj to expand and regulate posts and telegraphs service:

- The Government Savings Bank Act, 1873 (5 of 1873), passed by the legislature 28 January 1873, was enacted in 1881. On 1 April 1882, Post Office Savings Banks opened throughout India (except in the Bombay Presidency). In Madras Presidency, it was limited; in the Bengal Presidency, no POSBs were established in Calcutta or Howrah.
- Postal life insurance began on 1 February 1884 as a welfare measure for the employees of the Posts & Telegraphs Department as Government of India dispatch No. 299 dated 18 October 1882 to the Secretary of State.
- The Indian Telegraph Act, 1885
- The Indian Post Office Act, 1898, passed by the legislature on 22 March 1898, became effective on 1 July 1898 regulating postal service. It was preceded by Act III of 1882 and Act XVI of 1896.
- The Indian Wireless Telegraphy Act, 1933

The world's first official airmail flight took place in India on 18 February 1911, a journey of 18 kilometres (11 mi) lasting 27 minutes. Henri Pequet, a French pilot, carried about 15 kilograms (33 lb) of mail (approximately 6,000 letters and cards) across

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

the Ganges from Allahabad to Naini; included in the airmail was a letter to King George V of the United Kingdom. India Post inaugurated a floating post office in August 2011 at Dal Lake in Srinagar, Kashmir. Telegraphy and telephony made their appearance as part of the postal service before becoming separate departments. One unique telegraph office was established and operated in the capital of Lhasa until the People's Republic of China's annexation of Tibet. The Posts and Telegraphs departments merged in 1914, later separated again on 1 January 1985.

### **After independence in 1947:**

Since India became independent in 1947, the postal service continues to function on a nationwide basis, providing a variety of services. The structure of the organization has the directorate at its apex; below it are circle offices, regional offices, the superintendent's offices, head post offices, sub-post offices and branch offices. In April 1959, the Indian Postal Department adopted the motto "Service before help"; it revised its logo in September 2008.



**Yogayog Bhawan (head office of the West Bengal wing of India Post), at Chittaranjan Avenue, Bowbazar, Kolkata.**

The number of post offices was 23,344 when India became independent in 1947 and these were primarily in urban areas. The number increased to 155,015 in 2016 and 90% of these were in rural areas.



### Postage-stamp history:



**Six-anna provisional stamp, 1866**

The first adhesive postage stamps in Asia were issued in the Indian district of Scinde in July 1852 by Bartle Frere, chief commissioner of the region.<sup>[24]</sup> Frere was an admirer of Rowland Hill, the English postal reformer who had introduced the Penny Post. The Scinde stamps became known as Scinde Dawk, Dawk is the Anglicised spelling of the Hindustani word *Dak* or (post). These stamps, with a value of ½-anna, were in use until June 1866. The first all-India stamps were issued on 1 October 1854.

### Post-independence stamps:



**Brown-and-pink stamp depicting a temple**

India attained independence on 15 August 1947. Thereafter, the Indian Posts and Telegraph Department embarked on a broad-based policy for the issuance of stamps. On 21 November 1947 the first new stamp was issued by independent India. It depicts the Indian flag with the patriots' slogan, Jai Hind ("long live India"), at the top right-hand corner. The stamp was valued at three and one-half annals. A memorial

## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

to Mahatma Gandhi was issued 15 August 1948 on the first anniversary of independence. One year later a definitive series appeared, depicting India's broad cultural heritage (primarily Hindu, Buddhist, Muslim, Sikh and Jain temples, sculptures, monuments and fortresses). A subsequent issue commemorated the beginning of the Republic of India on 26 January 1950. Definitive included a technology-and-development theme in 1955, a series depicting a map of India in 1957 and a 1965 series with a wide variety of images. The old inscription "India Postage" was replaced in 1962 with although three stamps (issued from December 1962 to January 1963) carried the earlier inscription. India has printed stamps and postal stationery for other countries, mostly neighbors. Countries which have had stamps printed in India include Burma, Nepal, Bangladesh, Bhutan, Portugal and Ethiopia. The country has issued definitive and commemorative stamps. Six definitive series on India's heritage and progress in a number of fields have been issued. The seventh series, with a theme of science and technology, began in 1986. Between independence and 1983, 770 stamps were issued.

### **3.4 PIN OF POST OFFICE:**



**A Post Box of India Post**



**A special stamp released on India Post Payments Bank in 2017.**

The Postal Index Number (PIN, or sometimes redundantly PIN code) is a six-digit postal code. The PIN system was made by Shriram Bhikaji Velankar when he was at service in Kolkata. It was introduced on 15 August 1972 by former Prime Minister Indira Gandhi. There are nine postal zones in the country; the first eight are geographical regions, and the ninth is reserved for the Army Postal Service (APS905898).

The PIN system is organized in the following way:

- The first digit indicates the zone\
- The first two digits indicate the sub-zone (or postal circle).
- The first three digits indicate a sorting district.
- The first four digits indicate a service route.
- The last two digits indicate the delivery post office.

The PIN for an address may be found on the Postal Service website.[41] There are total of 19,101 PINs covering 154,725 post offices in India, with the exception of the Army Postal Service, as of 2014.

### **3.5 ELIGIBILITY TO OPEN POST OFFICE SAVINGS ACCOUNT:**

The following individuals are eligible to open a Post Office savings account

- Minors with a minimum age of ten years.
- A guardian on behalf of a minor.
- Nomination facility is available at the time of opening the account and after opening the account.
- Interest earned is tax free up to Rs 10,000 per year.
- Income tax relief is available on the amount of interest under the provisions of section 80L of the Income Tax Act.
- The account can be transferred from one post office to another.
- Single accounts can be converted to joint accounts and vice versa.
- Deposits and withdrawals can be done through any electronic mode in CBS Post offices.
- Transactions can be done via ATMs.

### **3.6 DIGITAL ADDRESS CODE:**

Indian post proposed a 12 digit unique identification number to each and every address in India based on geo coordinates. Draft approach paper on Digital Address Code was issued by Indian Post for public comments.

### **3.7 ORGANIZATIONAL CHART:**

- **Organization Overview**

The Department of Posts comes under the Ministry of Communications. The Postal Service Board, the apex management body of the Department, comprises the Chairman and six Members. The six members of the Board hold portfolios of Personnel, Operations, Technology, Postal Life Insurance, Banking & DBT and Planning respectively. The Additional Secretary and Financial Advisor to the Department is a permanent invitee to the Board. The Board is assisted by a senior staff officer of the Directorate as Secretary to the Board. Deputy Directors General, Directors and Assistant Directors General provide the necessary functional support for the Board at the Headquarters.

- **Governance System**

For providing postal services, the whole country has been divided into 23 postal circles. Each Circle is co-terminus with a State except for Gujarat Circle (which also administers the Union Territories of Daman & Diu and Dadra & Nagar Haveli), Kerala Circle (which includes the Union Territory of Lakshadweep), Maharashtra Circle (which has within its jurisdiction the State of Goa), North East Circle (which comprises six North Eastern States - Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura), Punjab Circle (which has within its administrative jurisdiction, the Union Territory of Chandigarh), Tamil Nadu Circle (which also administers the Union Territory of Pondicherry) and West Bengal Circle (which also administers the state of Sikkim and the Union Territory of Andaman and Nicobar Islands). Each of these Circles is headed by a Chief Postmaster General. Each Circle is further divided into Regions comprising field units, called Divisions (Postal / RMS Divisions). Each Region is headed by a Postmaster General. In the Circles and Regions there are other functional units like Circle Stamp Depots, Postal Stores Depots and Mail Motor Service etc. Besides these 23 Circles, there is another Circle, called Base Circle, to cater to the postal communication needs of the Armed Forces. The Base Circle is headed by an Additional Director General, Army Postal Service in the rank of a Major General. The officer cadre of the Army Postal Service comprises officers on deputation from the Civil Posts. Seventy five percent of the other ranks of the Army Postal Service are also drawn from the Department of Posts and the remaining personnel are recruited by the Army.

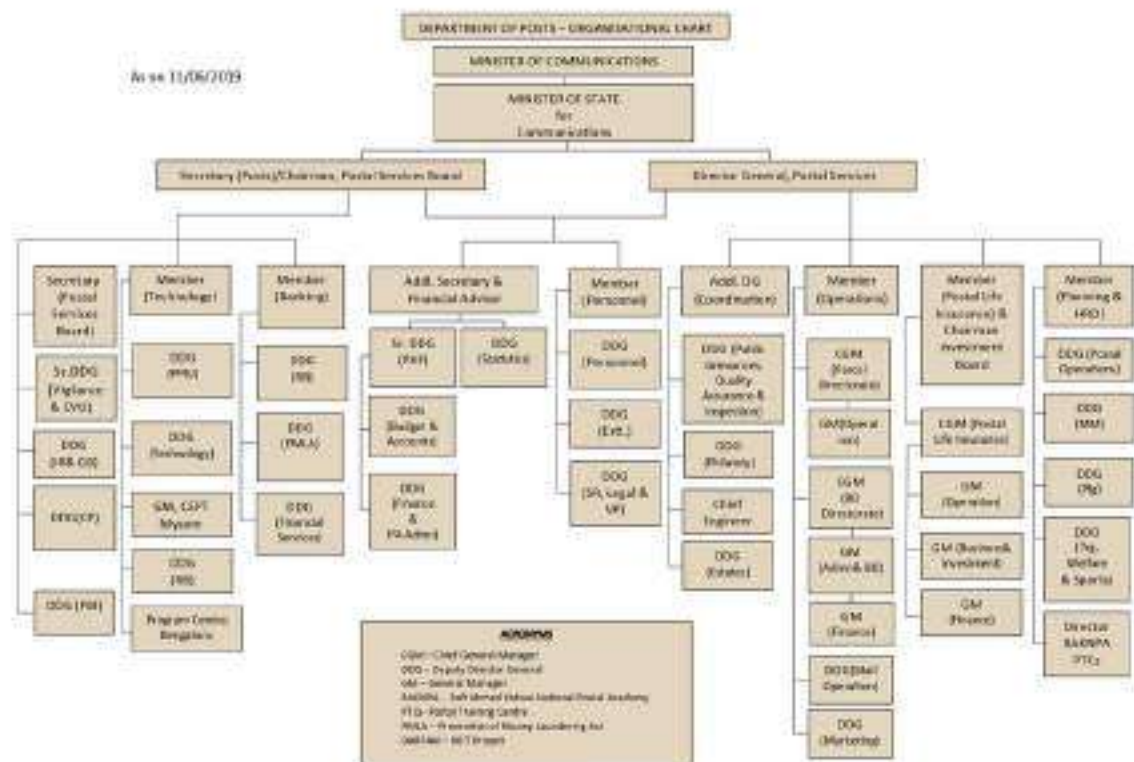
- **Postal Services Board:**

- **Shri Vineet Pandey**, Secretary, Department of Posts & Chairperson, Postal Services Board
- **Shri Alok Sharma**, Director General (Posts)
- Ms Aindri Anurag, Member (Operations)
- **Shri Sanjay Sharan**, Member (Technology)
- **Ms. Smita Kumar**, Additional Director General (Coordination)
- **Ms Manju Pandey**, Member (Personnel)
- **Ms. Vandita Kaul**, Member (Banking & DBT)

# A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

- **Shri Abhinav Walia**, Member (Planning & HRD)
- **Ms Meera Ranjan Tshering**, Member (PLI) & Chairman, PLI Investment Board

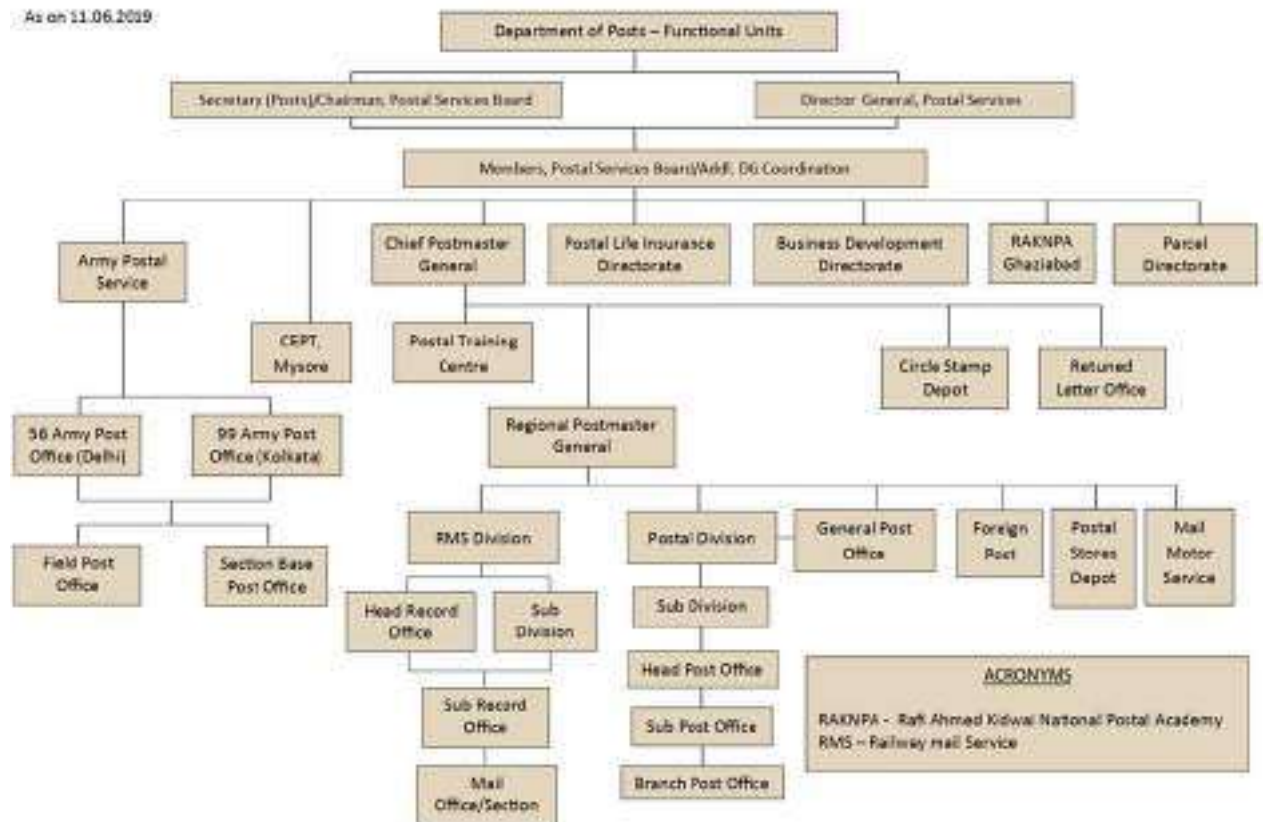
## Organizational Structure:





3.8 FUNCTIONAL DEPARTMENTS:

Department Of Posts-Functional Units:



### **3.9 VISION, MISSION, OBJECTIVES OF POST OFFICE:**

#### **Vision**

- India Post's products and services will be the customer's first choice.

#### **Mission**

- To sustain its position as the largest postal network in the world touching the lives of every citizen in the country.
- To provide mail parcel, money transfer, banking, insurance and retail services with speed and reliability.
- To provide services to the customers on value-for-money basis.
- To ensure that the employees are proud to be its main strength and serve its customers with a human touch.
- To continue to deliver social security services and to enable last mile connectivity as a Government of India platform.

#### **Objectives:**

- Providing e-services to the citizens in efficient manner at affordable cost with greater Accountability & Productivity.
- Maximizing revenue from various services and products.
- Enhancing customer satisfaction through provision of - need-based products and services, the improvement of service quality, speed of delivery and reliability.
- Ability to promote, provide its services in a user friendly, competitive manner in attractive environment.
- Consolidate current IT Infrastructure, migrate to an efficient, reliable, user friendly IT System.
- Planning & Setting up pan India network which supports planned IT Systems, flexible to support Applications.
- Existing Application study, consolidation & migration if necessary.
- Optimal Resource utilization and leveraging strengths of extensive retail network.
- Introduction of Commercial Accounting System ( Accrual Based Accounting).
- Acquiring Brand equity of a leading edge service provider.



- Employee delight.

### 3.10 SERVICES OF POST OFFICE:

#### ▪ **Philately:**

The first philatelic Society in India was founded in Calcutta on 6 March 1897 to service postage-stamp collections. Function include design, printing and distribution of special or commemorative postage stamps, definitive postage stamps and items of postal stationery, promotion of philately, conduct of philatelic examinations at the national level, participation in international exhibitions and monitoring exhibitions at the state, regional and district levels and maintenance of the National Philatelic Museum. Philatelic bureaus were established in head post offices located at circle headquarters and at district-capital head post offices (as necessary). There are 68 philately bureaus and 1111 philatelic counters, including all head post offices in the country as of 31 March 2011. A domestic philatelic deposit-account system was introduced on 1 August 1965 at all philatelic bureaus. Customers are given priority in purchasing commemorative or special-issue stamps, first-day covers and information sheets soon after their issue by opening a deposit account at any philatelic bureau. The number of philately deposit-account holders grew from 23,905 in 1999–2000 to 168,282 in 2006–2007 and 183,202 in 2008–2009. Four philatelic bureaux—the Bombay, Madras, Calcutta and Parliament Street, New Delhi GPOs are authorized to sell United Nations stamps. A quarterly philatelic magazine, Philpot, was launched in 2008.

The Department of Post has also developed software for philatelic inventory management, known as "Phillip". It is used for all activities relating to philately, including forecasting, indenting, invoicing, monitoring supply and demand and recording sales and revenue for commemorative stamps and other philatelic products at philately bureaus and counters (and definitive stamps and stationery at circle stamp depots and head post offices).

The National Philatelic Museum was inaugurated on 6 July 1968 in New Delhi. It had its beginnings at a meeting of the Philatelic Advisory Committee on 18 September 1962. Besides a large collection of India Postage stamps designed, printed and issued, it has a large collection of Indian states (confederate and feudatory), early essays,

proofs and color trials, a collection of Indian stamps used abroad, early Indian postcards, postal stationery and thematic collections. The museum was renovated in 2009 with more exhibits, a philatelic bureau and postal objects (such as Victorian post boxes). The Department of Posts inaugurated the National Philatelic Museum on 11 July 2011. It exhibits rare postage stamps from around the world and provides a venue for philatelists to exhibit their collections.

- **Army Postal Service:**

The Army Postal Service (APS) functions as a government-operated military mail system in India. A primary feature of Army Postal Service systems is that normally they are subsidized to ensure that military mail posted between duty stations abroad and the home country (or vice versa) does not cost the sender any more than normal domestic mail traffic. In some cases, Indian military personnel in a combat zone may post letters and/or packages to the home country for free, while in others, senders located in a specific overseas area may send military mail to another military recipient, also located in the same overseas area, without charge.

- **Electronic Indian Postal Order:**

The Electronic Indian Postal Order (e-IPO) was introduced on 22 March 2013, initially only for citizens living abroad. The postal orders can be used for online payment of fees for access to information under the Right to Information Act, 2005. The service was expanded to include all Indian citizens on 14 February 2014.

- **Postal Life insurance:**

Postal Life Insurance (PLI) was introduced on 1 February 1884 with the express approval of the Secretary of State (for India) to Her Majesty, the Queen Empress of India. It was essentially a welfare scheme for the benefit of Postal employees in 1884 and later extended to the employees of Telegraph Department in 1888. In 1894, PLI extended insurance cover to female employees of P & T Department at a time when no other insurance company covered female lives. It is the oldest life insurer in this country. There was over 6.4 million policies active as on 31 March 2015 with a sum assured of ₹130,745 crore (US\$16 billion). Premium income of PLI for the year 2014-15 was ₹6,053.2 crore (US\$760 million). It was extended to all rural residents on 24 March 1995.

### ▪ **Postal savings:**

The post office offers a number of savings plans, including recurring deposit accounts, , National Savings Certificates (NSC), Kisan Vikas Patra (KVP), the Public Provident Fund, savings-bank accounts, monthly-income plans, senior-citizens' savings plans and time-deposit accounts.

### ▪ **Banking:**

In 2013, it was revealed that the Indian postal service had formulated plans to enter the banking industry after RBI guidelines for the issuance of new banking licenses were released. Eventually they are planning to open a Post Bank of India, an independent banking service.

As of 29 February 2016, 18,231 post offices are utilizing Core Banking Solutions (CBS). ATMs are installed at 576 Post Office locations and debit cards issued to Post Office Savings Bank customers. Core Insurance Solution (CIS) for Postal Life Insurance (PLI) is rolled out in 808 head post offices and corresponding 24,000+ sub post offices. In September 2017, it was announced that by 2018 all of the 1.55 lakh post offices, every postman and (postmaster) will accept all payment options that the India Post Payments Bank (IPPB) plans to provide.

On 1 September 2018, the India Post Payments Bank was inaugurated by Prime Minister Narendra Modi.

### ▪ **Data collection**

Collaboration between the Ministry of Statistics and Programmed Implementation (Mops) and the Department of Posts has enabled the computation of consumer-price indices for rural areas. These statistics were previously unobtainable, due to problems of remoteness and scale. The agreement authorizes the postal service to collect data on prices paid for selected consumer goods. In February 2011, Mops published its first Consumer Price Index (CPI) and All-India Consumer Price Index. The information has since been published monthly, based on data available from 1,181 villages across the country.

### ▪ E-commerce delivery:



### **India Post service van delivering mails, Pune, Maharashtra**

The boom in e-commerce and the surging number of cash-on-delivery consignments has led India Post to partner with major e-commerce portals for delivering pre-paid as well as cash on delivery (COD) parcels.[57][58] According to the Minister for Communications and Information Technology, Ravi Shankar Prasad, revenue of India Post from such deliveries would go up to ₹15 billion (US\$190 million) in the year 2015–16.

### ▪ Other services:

Other services include:

- Post boxes and post bags for mail receipt
- Speed Post
- Identity cards for proof of residence
- India Post [ATM](#)
- RMS (Railway Mail Service)
- Post office Passport Seva Kendras (POPSK)
- Aadhaar Enrollment and Updation.
- Western Union.
- Postal Life Insurance and Rural Postal Life Insurance.
- Savings Bank (SB/RD/TD/MIS/SCSS/PPF/SSA)
- Savings Cash Certificates.
- India Post Payments Bank (IPPB).
- Stamp Sales.

**CHAPTER 4**

**DATA ANALYSIES AND INTERPRETATION**

Table 4.1 shows post office Savings account

Table 4.2 shows post office Recurring deposit

Table 4.3 shows post office Monthly income scheme

Table 4.4 shows post office Senior citizen scheme

Table 4.5 shows post office one year time deposit

Table 4.6 shows post office 2 year time deposit

Table 4.7 shows post office 3 year time deposit

Table 4.8 shows post office 5 year time deposit

Table 4.9 shows post office Public provident fund

**CHAPTER 4**

**DATA ANALYSIES AND INTERPRETATION**

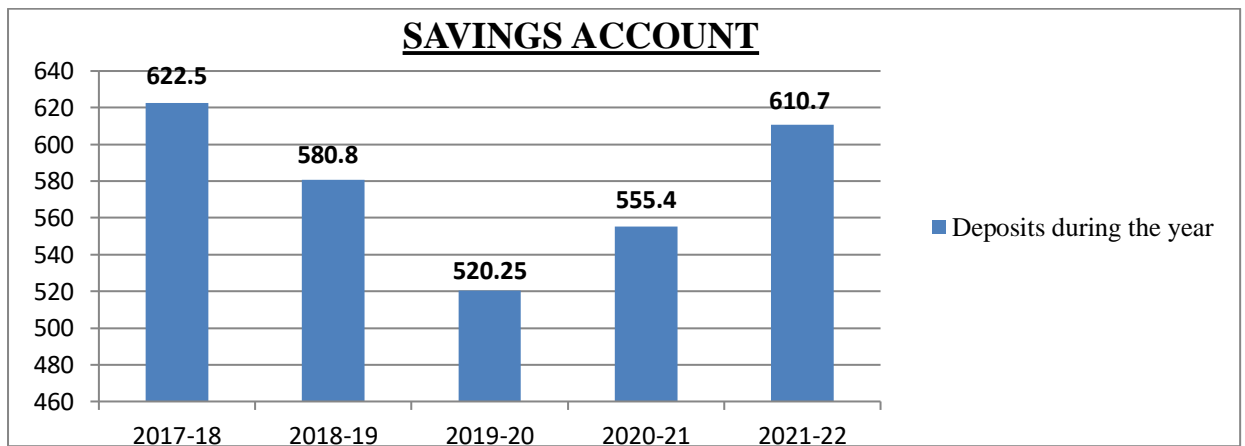
**AMOUNT DEPOSITS IN DIFFERENT SCHEMES IN DIFFERENT YEAR**

**Table 4.1 Shows Savings Account Amount Deposits In different Years:**

<b>Year</b>	<b>Total amount deposits during the year (in lakh)</b>	<b>Absolute increase or decrease (in lakh)</b>	<b>% of increase or decrease</b>
2017-18	622.50	..	..
2018-19	580.80	41.70	6.70%
2019-20	520.25	60.55	10.42%
2020-21	555.40	35.15	6.75%
2021-22	610.70	55.30	9.95%

**Source: Department annual Report**

**Graph 4.1 Shows Savings Account Amount Deposits in different Years**



**Interpretation:**

The above table shows the amount deposited in savings account of post office, the amount deposited in the savings account in the year 2017-18-622.50 lakhs, in the year 2018-19 is 580.80 lakhs, 2019-20-520.25 lakhs 2020-21-555.40 lakhs and 2021-22-610.70 lakhs. There is a fluctuating trend in the amount deposited in savings account from the year 2017-18 to 2021-22.

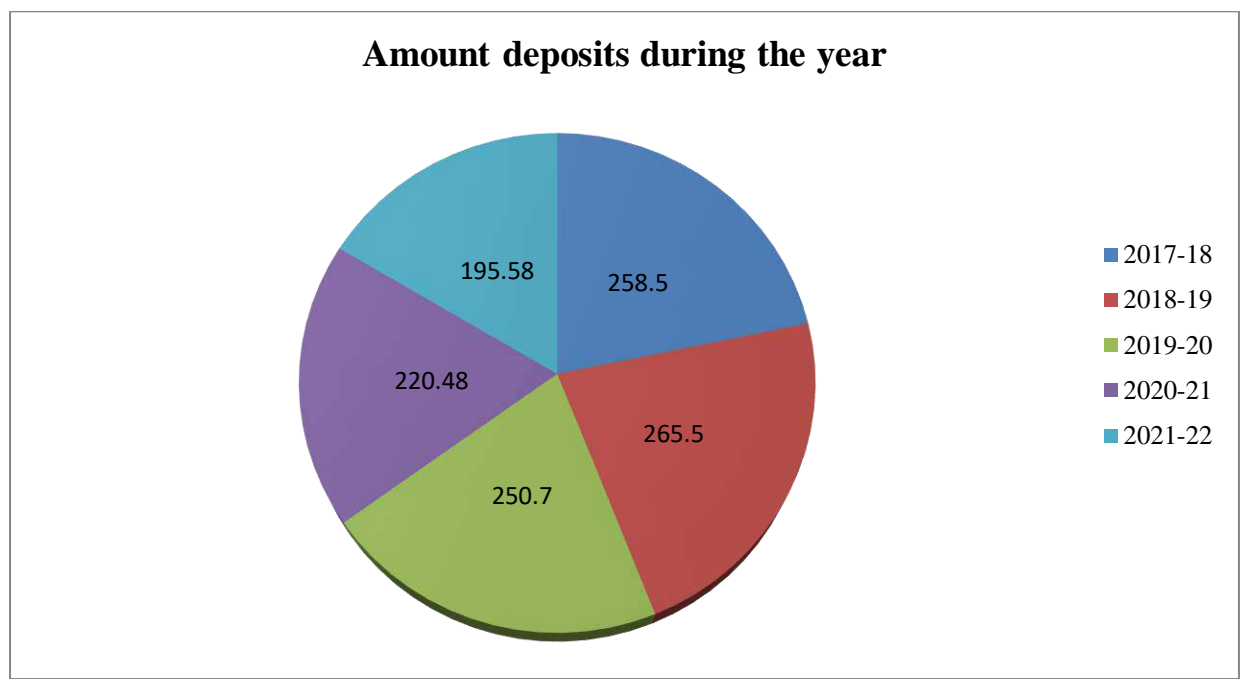
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Table 4.2 shows recurring deposit amount deposits in different years:**

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	258.50	..	..
2018-19	265.50	7.0	2.70%
2019-20	250.70	14.8	5.57%
2020-21	220.48	30.22	12.05%
2021-22	195.58	24.9	11.29%

**Source: Department annual Report**

**Graph 4.2 shows recurring deposit amount deposits in different years:**



### **Interpretation:**

The above table reflects amount deposited in recurring deposits, In the year 2017-18-258.50lakhs, in the year 2018-19 265.50lakhs, 2019-20-250.70 lakhs 2020-21-220.48 lakhs and 2021-22-195.58 lakhs. There is a decreasing trend in the amount deposited in Recurring deposit from the year 2018-19 to 2021-22.

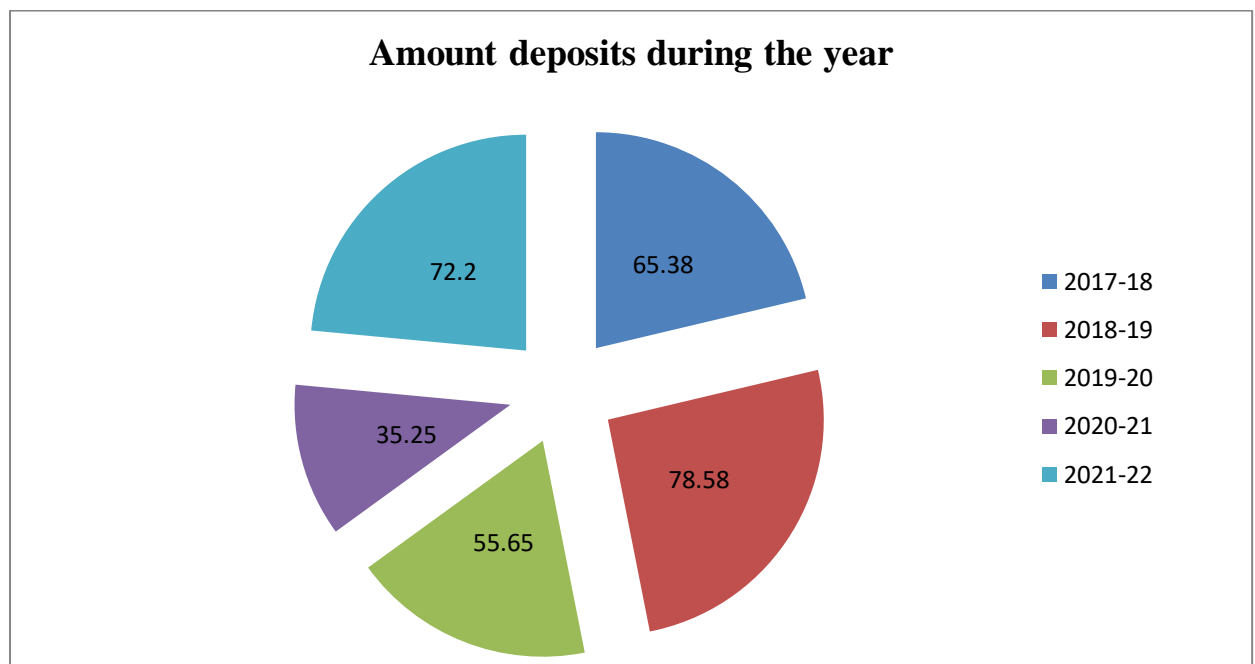
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

Table 4.3 shows monthly income schemes amount deposits in different years:

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	65.38	..	..
2018-19	78.58	13.2	20.18%
2019-20	55.65	22.93	29.18%
2020-21	35.25	23.4	42.04%
2021-22	72.20	36.95	104.82%

Source: Departmental annual Report

Graph No 4.3 Shows Monthly income scheme amount deposits in different years:



### Interpretation:

Form the above table we can see that amount deposited monthly income scheme of post office, , In the year 2017-18-65.38lakhs, in the year 2018-19 is 78.58 lakhs, 2019-20-55.65 lakhs 2020-21-35.25 lakhs and 2021-22-72.20 lakhs. There is a fluctuating trend in the amount deposited in monthly income scheme from the year 2017-18 to 2021-22.



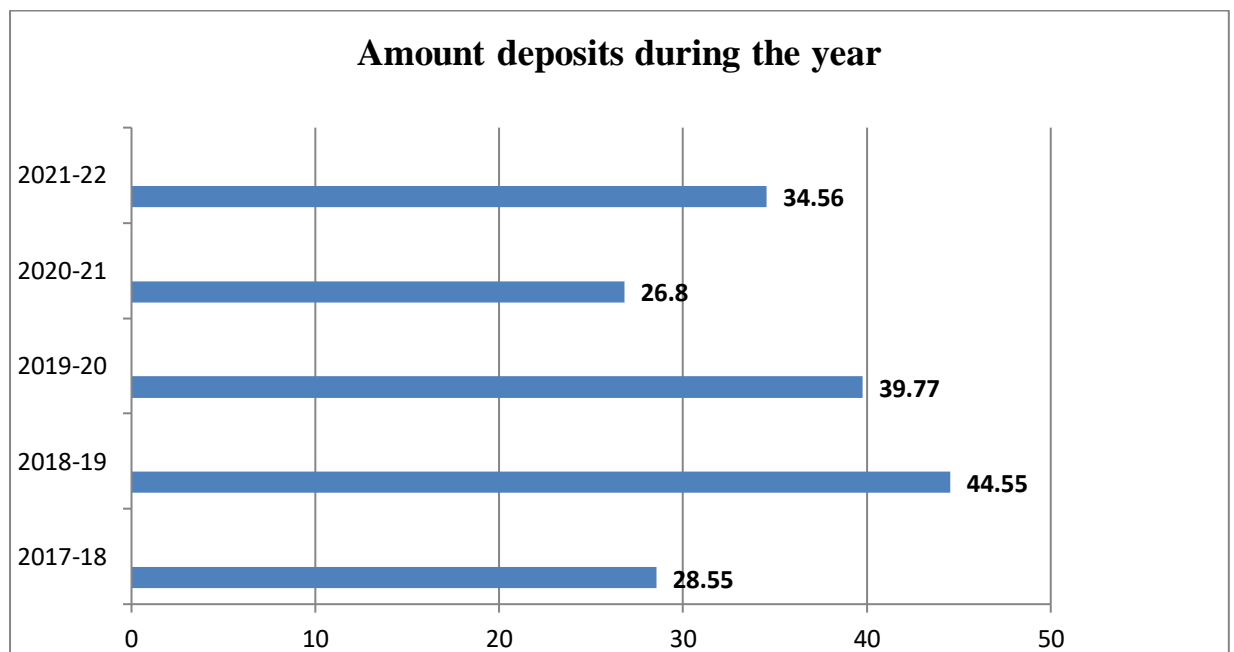
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Table 4.4 shows senior citizen scheme amount deposits in different years:**

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	28.55	..	..
2018-19	44.55	16	56.04%
2019-20	39.77	4.78	10.72%
2020-21	26.80	12.97	32.61%
2021-22	34.56	7.76	28.95%

**Source: Departmental annual Report**

**Graph No 4.4 Shows Senior citizen scheme amount deposits in different years:**



### **Interpretation:**

The above table represents that amount deposited in senior citizen saving scheme, In the year 2017-18-28.55 lakhs, in the year 2018-19 is 44.55 lakhs, 2019-20-39.77 lakhs 2020-21-26.8lakhs and 2021-22-34.56 lakhs. There is a fluctuating trend in the amount deposited in senior citizen saving scheme from the year 2017-18 to 2021-22.

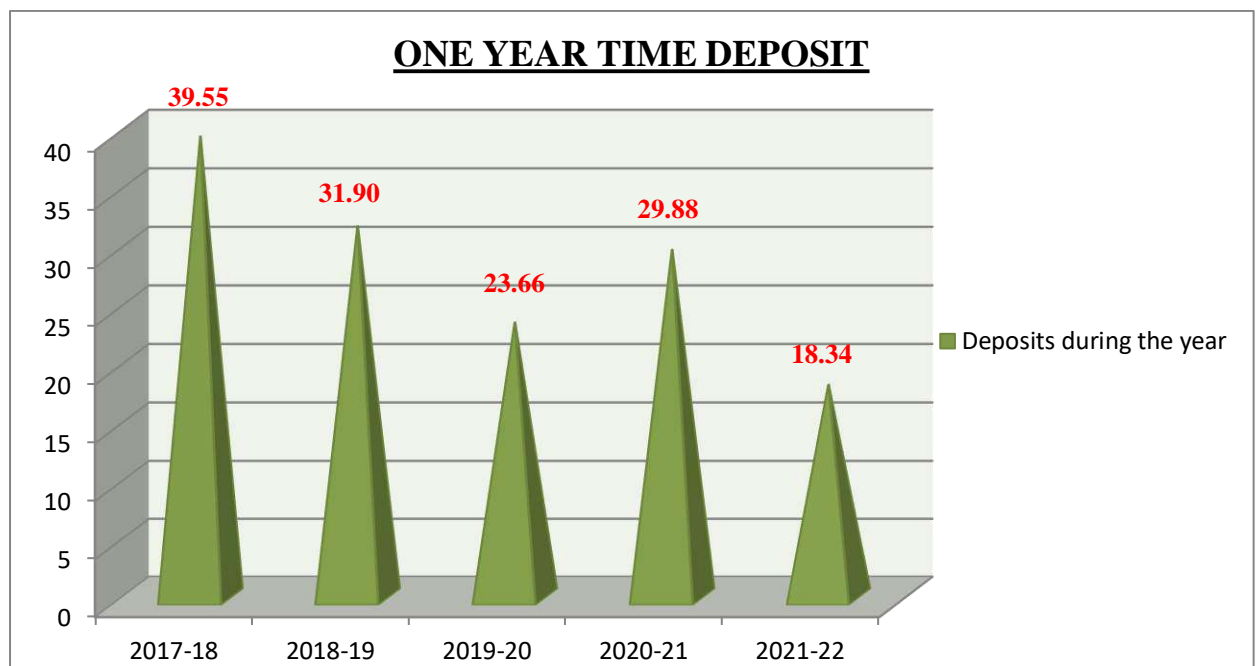
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Table 4.5 Shows one year time deposit amount deposits in different years:**

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	39.55	..	..
2018-19	31.90	7.65	19.34%
2019-20	23.66	8.24	25.83%
2020-21	29.88	6.22	26.28%
2021-22	18.34	11.54	38.62%

**Source: Departmental annual Report**

**Graph No 5 Shows One year time deposit amount deposits in different years:**



### **Interpretation:**

It is analyzed that amount deposited in one year time deposits, In the year 2017-18-39.55lakhs, in the year 2018-19 is 31.90 lakhs, 2019-20-23.66 lakhs 2020-21-29.88 lakhs and 2021-22-18.34 lakhs. There is a fluctuating trend in the amount deposited in one year time deposits form the year 2017-18 to 2021-22.

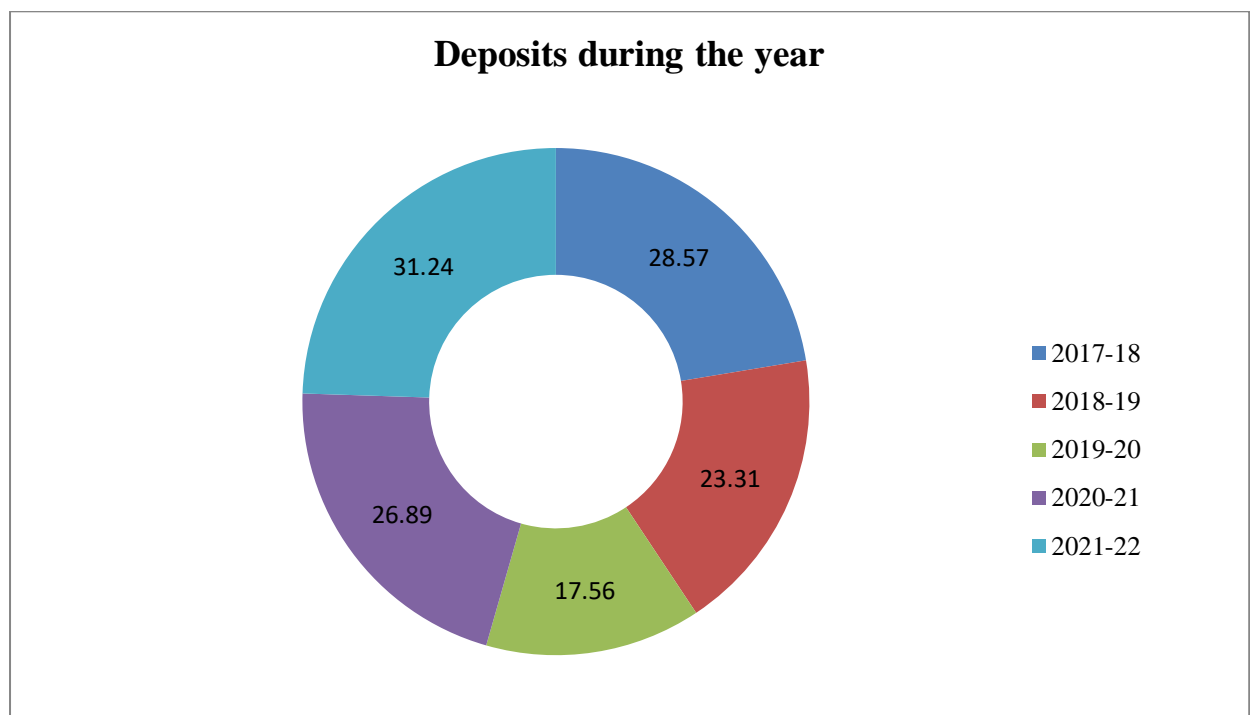
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Table 4.6 Shows 2 year time deposit amount deposits in various years:**

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	28.57	..	..
2018-19	23.31	5.26	18.41%
2019-20	17.56	5.75	24.66%
2020-21	26.89	9.33	53.13%
2021-22	31.24	4.35	16.18%

**Source: Annual Report**

**Graph No 4.6 Shows 2 year time deposit amount deposits in different years:**



**Interpretation:**

It can be observed from above table 2 Year deposit, in the year 2017-18-28.55 lakhs, in the year 2018-19 is 23.31 lakhs, 2019-20-17.56 lakhs, 2020-21-26.89 lakhs and 2021-22-31.24 lakhs. There is a fluctuating trend in the amount deposited 2 Year deposit from the year 2017-18 to 2021-22.

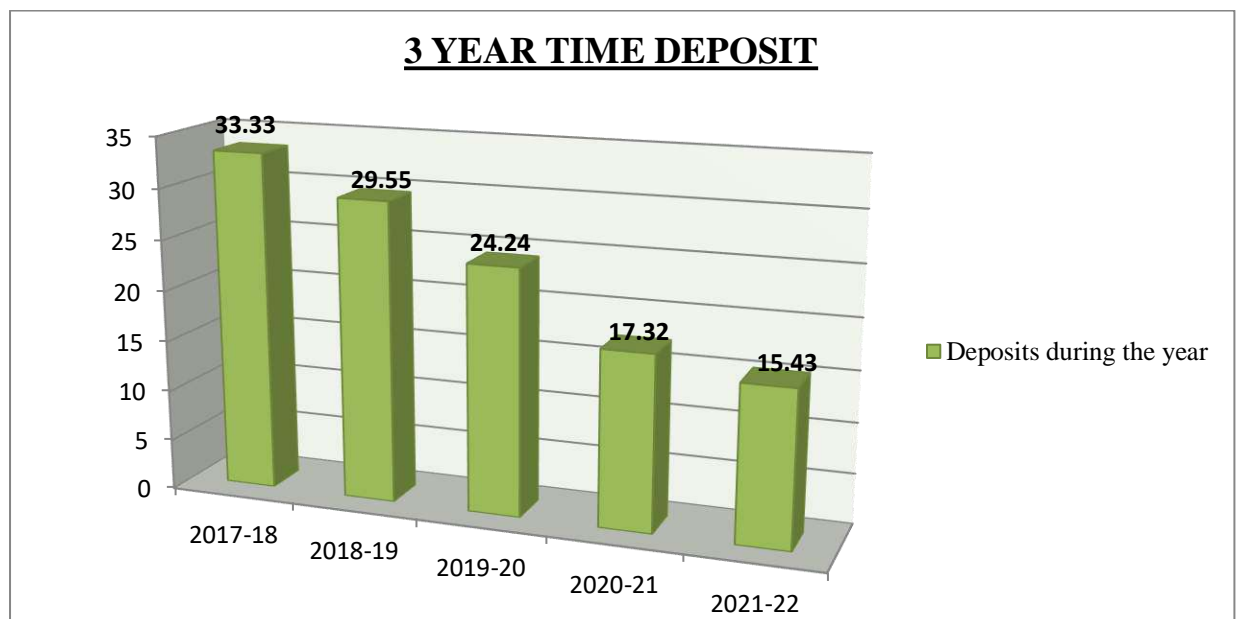
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Table 4.7 Shows 3 Year Time Deposit Amount Deposits In different Years:**

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	33.33	..	..
2018-19	29.55	(3.78)	11.34%
2019-20	24.24	5.31	17.97%
2020-21	17.32	6.92	28.54%
2021-22	15.43	1.89	10.91%

**Source: Annual Report**

**Graph No 4.7 Shows 3 year time deposit amount deposits in different years:**



### **Interpretation:**

The above table shows the amount deposited 3 year time deposits, In the year 2017-18-33.33lakhs, in the year 2018-19 is 29.55 lakhs, 2019-20-24.24 lakhs 2020-21-17.32 lakhs and 2021-22-15.43 lakhs. There is a decreasing trend in the amount deposited 3 year time deposits from the year 2017-18 to 2021-22.

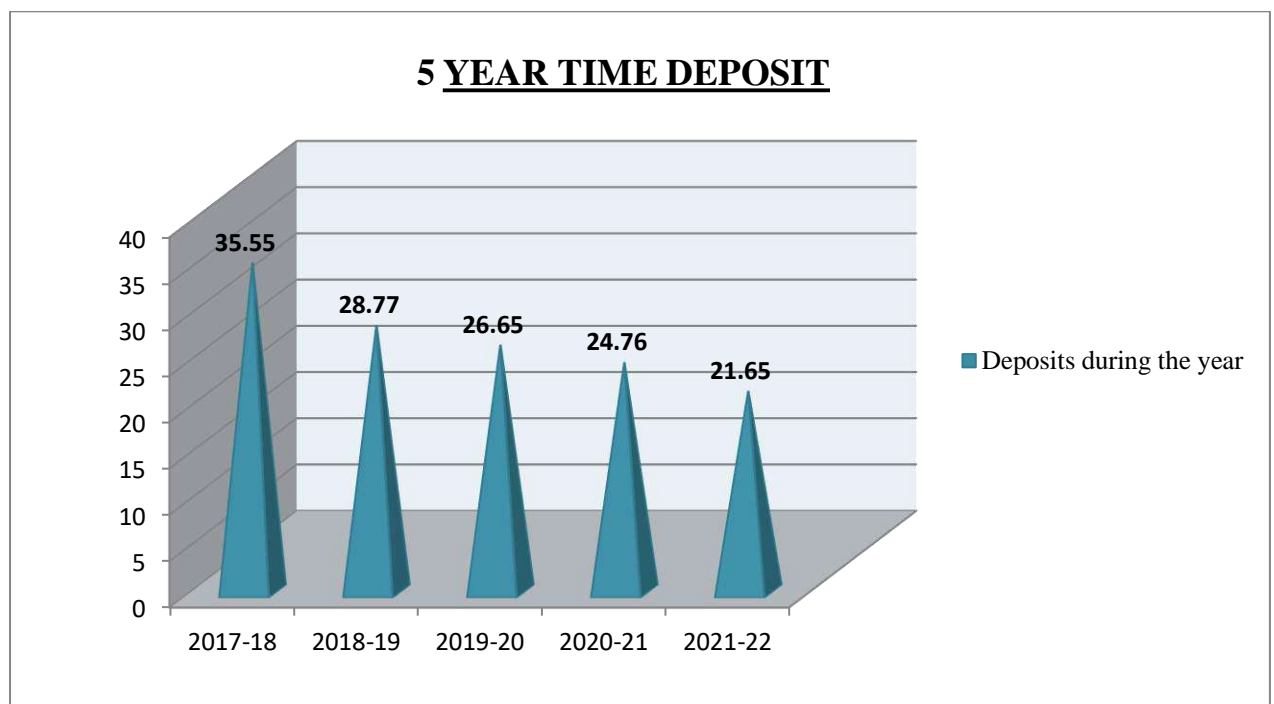
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Table 4.8 Shows 5 year time deposit amount deposits in different years:**

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	35.55	..	..
2018-19	28.77	6.78	19.07%
2019-20	26.65	2.22	7.71%
2020-21	24.76	1.89	7.11%
2021-22	21.65	3.11	12.56%

**Source: Annual Report**

**Graph No 4.8 Shows 5 year time deposit amount deposits in different years:**



**Interpretation:**

The above table depicts that the amount deposited in 5 year time deposits, In the year 2017-18-35.55 lakhs, in the year 2018-19 is 28.77 lakhs, 2019-20-26.65 lakhs 2020-21-24.76 lakhs and 2021-21.65 lakhs. There is a decreasing trend in the amount deposited in 5 year time deposits from the year 2017-18 to 2021-22.

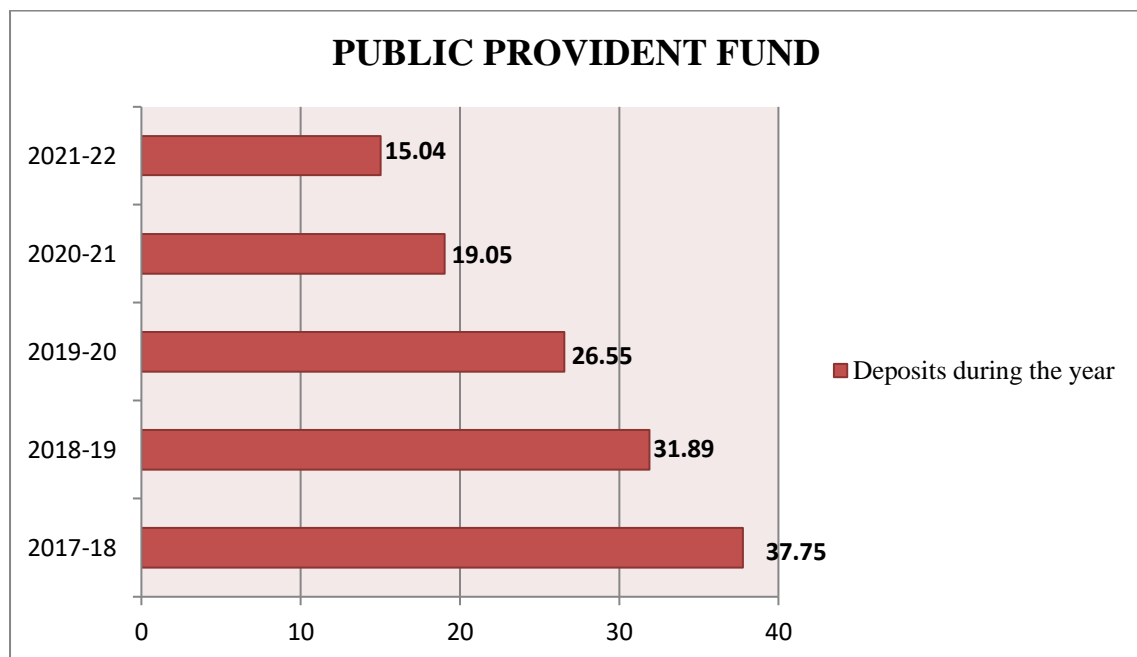
## A STUDY ON ANALYSIS OF POST OFFICES SAVING SCHEMES

**Table 4.9 shows public provident fund amount deposits in different years:**

Year	Total amount deposits during the year (in lakh)	Absolute increase or decrease (in lakh)	% of increase or decrease
2017-18	37.75	..	..
2018-19	31.89	5.99	17.20%
2019-20	26.55	2.33	8.06%
2020-21	19.05	7.49	28.23%
2021-22	15.04	4.01	21.05%

**Source: Departmental annual Report**

**Graph No 4.9 Shows Public provident fund amount deposits different in years**



### **Interpretation:**

The above table shows the amount deposited in PPF, in the year 2017-18-37.75 lakhs, in the year 2018-19 is 31.89 lakhs, 2019-20-26.55 lakhs 2020-21-19.05 lakhs and 2021-22-15.04 lakhs. There is a decreasing trend in the amount deposited in Public provident fund from the year 2017-18 to 2021-22.

**CHAPTER 5**

**FINDINGS, SUGGESTIONS AND CONCLUSION**

5.1 Findings

5.2 Suggestions

5.3 Conclusion

## CHAPTER 5

### FINDINGS, SUGGESTIONS AND CONCLUSION

#### 5.1 FINDINGS

- From the study we can see that there is a fluctuating trend in the amount deposited in savings account from the year 2017-18 to 2021-22.
- The study shows that there is a decreasing trend in the amount deposited in Recurring deposit from the year 2018-19 to 2021-22.
- It can be observed from the study that there is a fluctuating trend in the amount deposited in monthly income scheme from the year 2017-18 to 2021-22.
- The study represents that there is a fluctuating trend in the amount deposited in senior citizen saving scheme from the year 2017-18 to 2021-22.
- The study shows that there is a fluctuating trend in the amount deposited in one year time deposits form the year 2017-18 to 2021-22.
- The study reveals that there is a fluctuating trend in the amount deposited 2 Year deposit from the year 2017-18 to 2021-22.
- From the study we can see that there is a decreasing trend in the amount deposited 3 year time deposits from the year 2017-18 to 2021-22.
- The above table depicts that there is a decreasing trend in the amount deposited 5 year time deposits from the year 2017-18 to 2021-22.
- It can be observed from there is a decreasing trend in the amount deposited in Public provident fund from the year 2017-18 to 2021-22.



**5.2 SUGGESTIONS:**

I would like to give some suggestions for better working of the post office in terms of different savings schemes.

- The post office should increase the savings and recurring deposits by adopting new economic plans.
- The post office should increase the interest rate and other benefits of different schemes.
- The post office should promote the number of savings schemes available in post offices by giving ads in Television, newspaper etc.
- Post Office is offering less interest for Time Deposit & Kissan. If more interest is provided then maximum customers will choose to save in Post Office.

**5.3 CONCLUSION:**

I studied from the available information it is known that the post office has different types of deposits and adopt latest technology in its field. Investment of public in different types of deposits is fluctuating year by year.

Post office can play a very important role in society by providing so many services. It provides not only financial services and also it takes agency system on nationalized bank. It is necessary to increase the rate of interest on different deposit/savings scheme to attract more and more customers. It introduce more and more different schemes as convenient to the daily earner also any enquiries and complaints made by the public is immediately clarified and solved by the postal employees.

## **BIBLIOGRAPHY**

### **Articles:**

- Dr.Dhiraj Jain& Ms.Ruhika Kothari., Investors attitude towards Post Office Deposits Schemes , International Journal of Marketing and Technology, Volume 2, July 2012
- Dr.R.Ganapathi, "Investor's attitude towards post office" deposits schemes in BVIMR management Edge, Volume 3, 2010.
- Karthikeyan B. Small investor's perception on post office small savings schemes, unpublished thesis, madras university, Tamil Nadu, 2001
- Mrs.K. Parimala Kanth i& Dr. M. Ashok Kumar., Post office savings and its relevance in rural areas, International Journal of Scientific Research, Volume 2, Jan 2013
- Dr. K. Senthil kumar, Dr. Desti Kannaiah, Investors Attitude towards Savings in Post Office, Research Journal of Finance and Accounting ,Volume 5, 2014
- B.Saranya and G.B. Karthikeyan, "A study on preference and level of satisfaction towards post office savings schemes, 2015
- Mr. Y. Shafee & Mr. Prabakaran (2014) "A Study on ATM Services Offered India Post". The International Journal Of Engineering And Science (IJES) Volume, 2014

### **BOOKS:**

- 1) Post office service book volume- III
- 2) Rural marketing, pradeep kashyap,2005
- 3) Security analysis and portfolio management, Donald E. Fischer,

### **Websites:**

- <https://indiapostgdsonline.gov.in/>
- [www.karnatakpostoffice.com](http://www.karnatakpostoffice.com)

**K. L. E. SOCIETY'S**  
**BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,**  
**CHIKODI-591 201**  
**PG DEPARTMENT OF COMMERCE**



**PROJECT REPORT ENTITLED**  
**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE**  
**INSURANCE COMPANIES**

**Submitted to**

**RANI CHANNAMMA UNIVERSITY, BELAGAVI**



**FOR THE PARTIAL FULFILMENT OF DEGREE IN MASTER OF COMMERCE**  
**DURING THE ACADEMIC YEAR 2022-2023**

**SUBMITTED BY**

**Mr. PARSHWANATH. P. JAYAGOND**

**M.COM-IV SEMESTER**

**REGISTER NO: P15DM21C0007**

**UNDER THE GUIDANCE OF**

**Shri. V. S. KHOT**

K.L.E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591201

PG DEPARTMENT OF COMMERCE



## CERTIFICATE

This is to certify that **Mr. Parshwanath .P. jayagond** has satisfactorily completed the Project Report Entitled **A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES** for the partial fulfillment of Degree in Master of Commerce in Rani Channamma University, Belagavi during the academic year 2022-2023.

Shri. V. S. KHOT  
PROJECT GUIDE

Dr. LAXMIKANTHA NAYAKA T O  
**HEAD**  
Department of Commerce

Shri. UDAYSINGH RAJPUT  
**PRINCIPAL**  
KLES'S Basavaprabhu Kore  
Arts, Science and Commerce Coll  
CHIKODI - 591 201





# Acknowledgement

The success of any project is incomplete without mentioning the names of the people who have helped me in various ways in the preparation of this project work.

## DECLARATION

I am thankful to all my friends and family members who have helped me in various ways in the preparation of this project work.

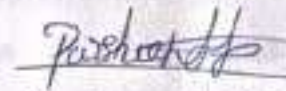
I declare that the project report entitled **A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES** is a record of independent research work carried out by me and submitted in partial fulfilment of the Degree in "Master of Commerce" as prescribed by the Rani Channamma University, Belagavi for the academic year **2022-23**.

It has been prepared under the guidance and supervision of **Shri. V. S. Khot**, Lecturer in PG Department of Commerce K.L.E. Society's Basavaprabhu Kore Arts, Science and Commerce College, Chikodi.

The Thesis or a part thereof has not been previously submitted for the award of any other degree or diploma.

I express my deep appreciation to **Shri. Prashant Rajput**, Principal of my college for his kind support and guidance during the preparation of this project work.

Date: 26-9-2023

  
Mr. Parshwanath. P. Jayagond

Place: Chikodi

Register No: P15DM21C0007

At the same time, I would like to thank all the faculty members of PG Department of Commerce for their kind support and guidance during project work.

My thanks are also due to my friends and family members for their kind support and guidance during the course of project work and for their kind support in printing of this project.

Finally, I would like to thank my parents, friends and relatives for their kind support and guidance during the preparation of this project.

Mr. PARSHWANATH P. JAYAGOND

## Acknowledgement

The success of any project is incomplete without mentioning the names of the people who made it possible.

I am conscious of my indebtedness to each and every individual, who has helped me in many ways in the preparation of this project work. It would be great privileged to express words of gratitude and respect to all those who guided and inspired me throughout the completion of this project.

I sincerely express my deep sense of gratitude and appreciation to Internal Guide **Shri. V. S. Khot**, for his careful and valuable guidance, never ending patience and constant encouragement throughout the project.

I am beholden to **Dr. Laxmikantha Nayaka T O** Head of Department of Commerce for constant interest evidenced by him in my academic pursuits.

I express my deep intelligence of appreciation to **Shri. Udaysingh Rajput**, Principal of our college for his valuable suggestions and encouragement.

At the outset, I would like to thank all the teaching faculty of PG Department of Commerce for their valuable suggestions during project work.

My thanks are also to library staff for their co-operation during the course of project work and I am also thankful to Printers for their skillful printing of this project.

Finally, I owe my deep sense of gratitude to my parents, friends and relatives for their constant encouragement and support.

**Mr. PARSHWANATH .P. JAYAGOND**



A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

INDEX

CHAPTER I

SL NO.	CONTENTS	PAGE NO.
1	INTRODUCTION AND RESEARCH DESIGN	1-9
2	CONCEPTUAL FRAMEWORK	10-24
3	STUDY AREA PROFILE	25-38
4	DATA ANALYSIS AND INTERPRETATION	39-58
5	FINDINGS, SUGGESTIONS AND CONCLUSION	59-63
	BIBLIOGRAPHY	



**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE  
INSURANCE COMPANIES**

---

**CHAPTER 1**

**INTRODUCTION AND RECHARCH DESIGN**

- 1.1 Introduction
- 1.2 Review of Literature
- 1.3 Statement of the Problem
- 1.4 Need of the Study
- 1.5 Objective of The Study
- 1.6 Scope of the Study
- 1.7 Research Methodology
- 1.8 Limitation of the Study
- 1.9 Chapter Scheme

## CHAPTER 1

### INTRODUCTION AND RESEARCH DESIGN

#### 1.1 INTRODUCTION:

In India, the history of insurance goes back quite a way. The texts "Manusmriti, Dharmshastra, and Arthashastra all make reference to it. This was most likely a forerunner to the contemporary concept of insurance. The oldest vestiges of insurance recorded in India are marine time trade loans and carrier contracts. The English introduced insurance to India in the year 1818 when Oriental Insurance Company was established. In the year 1829, the Madras Equitable opened its doors for business as a life insurance provider in the "Madras Presidency".

In 1870, British Insurance Act was made, after that "Bombay Presidency" gave birth too many insurance companies like Bombay Mutual (1871), Oriental Government Security Life Insurance Company (1874) and Empire of India (1897). Foreign insurance offices dominated this era and did tremendous insurance business in India. The main foreign insurance companies were Royal Insurance, Liverpool & London Globe Insurance and Albert Life Assurance which were put to the test by the intense rivalry from international corporations. The first act "Indian Life Insurance Act" whose objective was to regulate the life insurance industry made in 1912.

In 1928, "The Indian Insurance Companies Act" came in existence. The Insurance Act of 1938 merged and altered previous pieces of law with the intention of better safeguarding the interests of the general people who purchase insurance. As a consequence of the Insurance Amendment Act of 1950, principal agencies were abolished from the insurance industry. On the other hand, there were a huge number of different insurance firms; hence, the level of competition was quite high. In addition to it, accusations of using dishonest business practices were raised. As a direct consequence of this, the government of India arrived to the opinion that the insurance sector need to be taken under state control.

Central Government of India had taken over 245 Indian and International insurance businesses in 1956, this resulted in the establishment of LIC. Nationalization of the



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

insurance industry in 1956 marked a significant turning point in the growth of the country's insurance sector by absorbing the operations of 245 formerly independent private insurers. This was a significant turning point in the growth of the insurance sector in India. General insurance industry was also nationalized in 1972. In 1999, again Indian insurance industry was opened for private companies. The following year, in 2000, the IRDA was established to manage market regulation and to be in charge of monitoring compliance with insurance laws. Following the opening of its doors, the life insurance business has witnessed the emergence of a number of private organizations that have effectively seized a substantial piece of the market share. These companies have been able to achieve this by offering more competitive prices and better customer service.

### 1.2 REVIEW OF LITERATURE:

**Patel and Dwivedi (2022):** studied "A Comparative Study on Profitability and Long-Term Soundness of Selected Private Life Insurance Companies in India" concluded that, and after being deregulated in August of 2000, the life insurance business has grown into a sizable one. Unsurprisingly, private life insurance firms have successfully entered the market and established themselves. The purpose of the current study is to evaluate the relative profitability and financial stability of three large private life insurance businesses that account for over half of the private life insurance industry's gross direct premiums. According to the results of the analysis, HDFC LIFE has a high rate of return on investment (ROI), as measured by its total revenue, shareholder money, and total assets. Taking into account the ratios of proprietary funds, total liabilities, and policyholders' liabilities to total assets, it is clear that SBI LIFE has been effectively managing its assets and enhances SBI LIFE's long-term viability.

**Pallavi Pattan and Priyanka Khandelwal (2018):** Evaluated cost effectiveness in their research "Comparative Study of Cost Effectiveness of Public and Private Insurance Companies of India". They concluded that now, the Indian insurance market is open to private corporations, the state-run Life Insurance Corporation of India (LIC) has competition from independent firms. LIC's business is harmed by the presence of this rival. The goal of the current research was to learn how efficient some businesses were and to make comparisons between them based on their cost-



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

effectiveness ratios. Efficiency in terms of cost is the ratio of inputs to outcomes in terms of money (unit). Value of inputs (cost) is in the numerator and unit of output is in the denominator of cost-effectiveness analysis (CEA) to calculate this. Despite stiff competition from the commercial sector, the results reveal that LIC is still the most cost-effective life insurance provider in India.

**Rajini, gomathi and Narayanan (2017):** Examine and concluded on their research "Constructs Influencing Satisfaction: A Comparative Analysis of Life Insurance Schemes Providers" that the factors which contribute to the happiness of those who run life insurance schemes is the focus of this research. Two insurance providers' selection criteria, brand recognitions, service quality, and customer happiness were analysed using a multiple regression model. Through the use of a predetermined questionnaire, we were able to acquire 200 usable samples. Customers of India's LIC are happy with their returns, selection criteria, and quality of service, according to this report. Customers of Reliance Life Insurance have shown that returns are the sole criterion with which they are happy. In addition, most policyholders are unaware of the retirement policy, thus the insurance industry as a whole would benefit from marketing activities that raise consumer knowledge of the many plans available.

**Gairola (2016):** Examine in his research "A Comparative Study of Public and Private Insurance Companies in Post Liberalization Era" relative success of state and PIC in India by looking at three key metrics: total premium revenue, the number of new policy insured and market share. The secondary data spans from the 2000-01 academic year through the 2015-16 academic year. The research found that private life insurers influenced the LIC in several ways throughout the first decade as they consistently worked to strengthen its operations. LIC produced novel, appealing insurance programs, made strides toward improved customer relationship management, and increased the efficiency of their advertising in order to counteract the market pressures they were facing. Considering the size of India's population, the country's untapped potential in the life insurance industry is enormous.

**Reenu Lulla and Monu Bhargava (2015):** A Comparative Analysis between Public Sector and Private Sector Companies" found that the overall size of LIC is much more than that of all private insurance companies. To improve the customer satisfaction



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

levels, the public sector needs to provide customer information about insurers' prices, products, and financial strength to ensure good market performance. They need to improve their systems and practice to the expected levels, then only customers will prefer them over the new players and the private sector insurance companies should ensure prompt and efficient after-sales service to their customers so that they can retain their customer loyalty and prevent them from switching to other competitors

**Bidyadhar and Mayadhar (2013):** studied "Performance of LIC of India after liberalization" concluded that, in 2000, as part of the broader liberalization of the Indian economy that had been underway since 1991. Nationalizing the insurance industry was seen as a failure due to the unfavorable effects it had on the industry's expansion, geographic reach, and the regulations and procedures it implemented. Although it had great promise, the insurance industry failed to expand outside metropolitan centres. What was provided to clients was not consistent with international standards. When the insurance industry was nationalized, it became inefficient and sluggish. The absence of competition and the careless way business was conducted led to a stale market. It was thought that the insurance industry's potential in the country's economic development was not being realized, both in terms of its contribution to the growth of GDP and in terms of its ability to meet the requirement for long-term capital necessary for the development of the economy,

**Selvakumar & Piyani (2012):** analyzed the performance of public and private life insurance companies in India. The researcher opined that today's market is customer-centric, and the customer is supposed to be king of the market. To satisfy customers innovations are taking place with distinct features to attract the customers.

**Upadhyaya and Badlani (2011):** Attempt to identify the key success factors in the life insurance industry, in terms of customer satisfaction so as to survive the intense competition and to increase the market share. The objectives of the study are to identify the factors of customer satisfaction in retail life Insurance in India and to study the importance of technology in fulfilling Customer Satisfaction. Data was collected from 206 insurance customers of the ten public and private sector life insurance companies from the major cities of Rajasthan and Maharashtra state in India. The study concludes that despite high satisfaction levels, there remains a lot to



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

be done by the management of the retail life Insurance companies' to maximize their customer satisfaction and improve the quality of service. The satisfaction of the customer with services of the Life Insurance Companies was found to be linked with the performance of the service.

### 1.3 STATEMENT OF THE PROBLEM:

The Insurance sector in India Comprises both Life Insurance corporation (LIC), a Government-owned Insurance Provider, and. Numerous Private Insurance companies (Pic) operating independently in the market. However, there is a lack of comprehensive comparative Analysis between LIC and PIC. Which hinders a clews understanding of their Respective strength, weaknesses. And overall Performance. This Research aims to address this Gap by conducting a thorough comparative analysis of LIC and PICs examining various dimensions such. As Product offerings, customer service, financial Performance, market hare, and Regulatory Compliance.

### 1.4 NEED OF THE STUDY:

The Detailed study has been done with the Purpose of finding out the relative shore of LIC and Private Insurance in India. It is useful for the people Associated with the Insurance Industry and the Research Associates Related. To the Insurance sector in India. This study will acquaint them with the data of all the banks complied at one place along with the findings, Conclusion and Recommendations.

### 1.5 OBJECTIVE OF THE STUDY:

A comparative analysis of LIC and PICs is the prime objective of this research. The following's are set to achieve the prime objectives.

1. To compare the performance of LIC and private insurance companies in India.  
(Size, growth, productivity and efficiency)
2. To compare grievance management of LIC and private insurance companies.
3. To suggest LIC and Private Insurers regarding the betterment of their performance.

## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 1.6 SCOPE OF THE STUDY:

The present study focused on comparative Analysis of LIC and Private Insurance companies. This study analysis of performance, size, growth, productivity, efficiency, grievance and suggest to betterment of the performance of LIC and Private Insurance companies. The study is based on secondary data the source for data collection is websites, journals, books etc.

### 1.7 RESEARCH METHODOLOGY:

Research methodology is a way of explaining how a researcher intends to carry out their research. It's a logical, systematic plan to resolve a research problem. A methodology details a researcher's approach to the research to ensure reliable, valid results that address their aims and objectives. It encompasses what data they're going to collect and where from, as well as how it's being collected and analyzed.

### RESEARCH PROCESS:

The research process is a set of ordered steps a researcher takes to ensure that all parts of an investigation are completed to a high standard. Following the research process allows the researcher to cover all angles and ensure that the information they gather is reliable and effectively presented.

### Method of data collection:

- 1) Primary data
- 2) Secondary data

#### 1) Primary Data:

The data which is directly collected by the researcher and was not available before is called as "primary data". The sources o of primary data are very useful in finding the real facts about the incidents or events. It includes the personal observation of the researcher and respondent. Primary data are the freshly collected data that provide information about a particular problem. These data can be gathered using techniques like, interview, observation, mailing Counseling, etc.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### **SOURCES OF DATA:**

#### **2) Secondary Data:**

This study is used on secondary data. The secondary data was collected from various Research Paper, Journals, Journals Published IRDA reports, Annual IRDA Reports, Annual Reports of life Insurance Companies and websites.

#### **Analysis and Interpretation:**

In this Research my research objective was to compare the performance of LIC and private Insurance companies. For this purpose I decided the Four broad categories under which I have Compared the LIC and private insurance company.

These are: 1) size 2) growth 3) productivity 4) grievance handling

#### **1.8 LIMITATION OF THE STUDY:**

1. Could reach to a limited number of documents of different insurance companies in regard to the management and other policies and resultant figures so as to identify the exact cause of their lag in performance.
2. Due to the limited time could not study all the insurance companies original documents individually.
3. Non-Proficiency in technical aspects of insurance companies might have hindered the best analysis of the findings.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 1.9 CHAPTER SCHEME:

#### **Chapter 1- Introduction and Research Design:**

This Chapter gives detail on Introduction, Review of Literature, and Statement of the Problem, Need of the Stud, Objectives of the Study, Scope of the Study, Research Methodology and Limitations of the Study.

#### **Chapter 2- Conceptual framework:**

In this chapter is viewed on various concepts related to the study which are. Introduction ,meaning and definition, working of insurance, key features of insurance, types of insurance available, basic principles of insurance, benefits and importance of insurance, need of insurance.

#### **Chapter 3- Companies Profile:**

This chapter deals with LIC and Private Insurance Companies Profile which includes Introduction of LIC, profile of LIC, LIC history, mission and vision of LIC of India, general information's of LIC, objectives of LIC, organizational chat of LIC company, private company insurance, private insurance companies in India, understanding and awareness of public regarding insurance company's.

#### **Chapter 4- Data analysis and interpretation:**

This chapter gives details regarding the analysis and interpretation of data it also consist of the tables, charts and its interpretation.

#### **Chapter 5- Findings, Suggestion and Conclusion:**

This chapter concludes the project it comprises findings, suggestions and conclusion

## CHAPTER-2

### CONCEPTUAL FRAMEWORK

#### 2.1 Introduction

#### 2.2 Insurance - Meaning and Definition

#### 2.3 Working Process of Insurance

#### 2.4 Key Features of Insurance

#### 2.5 Types of Insurance Available

#### 2.6 Basic Principles of Insurance

#### 2.7 Benefits and Importance of Insurance

#### 2.8 Need of Insurance

#### 2.9 Risks in Insurance

#### 2.10 Investments and Recent Developments in Insurance Sector

#### 2.11 Insurance India

#### 2.2 INSURANCE - MEANING AND DEFINITION

The broad meaning of insurance would be an assurance against unforeseen and  
unfortunate loss. This means that if you acquire a loss due to an event in your



## CHAPTER-2

### CONCEPTUAL FRAMEWORK

#### 2.1 INTRODUCTION:

The Insurance sector in India governed by Insurance Act, 1938, the Life Insurance Corporation Act, 1956 and General Insurance Business (Nationalizations) Act, 1972, Insurance Regulatory and Development Authority (IRDA) Act, 1999 and other related Acts. With such a large population and the untapped market area of this population Insurance happens to be a very big opportunity in India. Today it stands as a business growing at the rate of 15-20 per cent annually. Together with banking services, it adds about 7 per cent to the country's GDP. In spite of all this growth the statistics of the penetration of the insurance in the country is very poor. Nearly 80% of Indian populations are without Life insurance cover and the Health insurance. This is an indicator that growth potential for the insurance sector is immense in India. It was due to this immense growth that the regulations were introduced in the insurance sector and in continuation "Malhotra Committee" was constituted by the government in 1993 to examine the various aspects of the industry. The key element of the reform process was Participation of overseas insurance companies with 26% capital. Creating a more efficient and competitive financial system suitable for the requirements of the economy was the main idea behind this reform.

Since then the insurance industry has gone through many sea changes. The competition LIC started facing from these companies were threatening to the existence of LIC. Since the liberalization of the industry the insurance industry has never looked back and today stand as the one of the most competitive and exploring industry in India. The entry of the private players and the increased use of the new distribution are in the limelight today. The use of new distribution techniques and the IT tools has increased the scope of the industry in the longer run.

#### 2.2 INSURANCE – MEANING AND DEFINITION:

The literal meaning of insurance would be an assurance against unforeseen and unfortunate loss. This means, that if you encounter a less than normal event in your



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

normal course of life, and happen to incur a financial loss because of it, you can be compensated.

Insurance is a legal contract between two parties- the insurance company (insurer) and the individual (insured), wherein the insurance company promises to compensate for financial losses due to insured contingencies in return for the premiums paid by the insured individual. In simple words, insurance is a risk transfer mechanism, where you transfer your risk to the insurance company and get the cover for financial loss that you may face due to unforeseen events. And the amount that you pay for this arrangement is called premium. There is insurance available for various risks, starting from your life to mobile phones that you use. In the end, it's essential to protect what is 'important' to you.

### 2.3 WORKING PROCESS OF INSURANCE:

The concept of insurance works on the basis of 'risk pooling'. When you buy any type of insurance policy from the insurance company for a specified period with specific cover, you will make regular payments (referred to as premiums) towards the policy. Similarly, Insurance Company collects premium from all of its clients (referred to as insured) and pools the money collected to pay for losses arising out of an insured event. In case the insured event takes place, and you make a claim, losses will be compensated by the insurance company from the pool of policyholder's premiums. In case you don't make a claim during the specified policy period, no benefits will be paid to you. However, there are various types of products offered by insurance companies today which also involve savings element attached to it.



#### 2.4 KEY FEATURES OF INSURANCE:

Insurance policies are the much-needed support pillar one requires at the time of need. The salient features of insurance are

- **Easy to purchase**

One of the features of an insurance policy is its ease of purchase. Due to the widespread use of the internet, people can now easily purchase a policy by sitting in their comfort zone. Most insurance companies provide the option of both online and offline purchases of the policies so people can choose as per their comfort.

- **A partner in a financial crisis**

The basic purpose of an insurance policy is to provide financial help when in need. Be it health, vehicle, or any other insurance policy, the aim is to extend the monetary aid.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### • **Abundant options**

The current insurance market is full of a number of options. A customer need not stick to a few options. There is great flexibility to surf all the options available and then make the final decision.

### • **Benefits of insurance**

One insurance policy provides a number of benefits. Right from providing financial coverage to tax benefits and so on, insurance cover provides wide coverage.

### • **Offers**

There are several occasions when the insurance companies provide offers for the policyholder. It may be a reduction in the renewal amount or anything as such. No claim bonus is also a happy moment. It is the bonus provided for making no claims in a policy year.

### • **Insurance for every precious thing**

There is the facility of insurance for almost all precious and luxury things. Apart from the life insurance, you can get a cover for your vehicle, home, mobile, jewellery, etc.

### • **A cover for family**

Insurance policies are not limited to covering only one person. When it comes to a life insurance policy, several plans allow a policyholder can get their whole family covered.

### • **The ease of insurance premium calculator**

Almost all the insurance companies provide the easy of insurance premium calculator. An individual can calculate the lump-sum premium he will have to pay in lieu of the insurance cover. It makes it easier for the customers to decide their deal.

## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 2.5 TYPES OF INSURANCE AVAILABLE:

There are various types of insurance products available in India. Mainly, insurance products are classified as:

1. Life insurance products
2. General insurance products

Life insurance covers you against the risk of death. Life insurance policies come in many variants such as term plans, endowment plans, whole life insurance plans, money back plans and unit-linked investment plans etc. Many life insurance products can be a great tool for long-term savings also as it comes as a combination of protection and savings. General insurance products cover financial losses caused by various risks other than death. General insurance products come in various types covering a wide range of risks such as health insurance, motor insurance, marine insurance, liability insurance, travel insurance and commercial insurance etc.

Insurance is an effective risk management tool that protects what is precious for us – life, health, home and businesses etc. The requirement of insurance may vary from one individual to another, but there are certain types of insurance products that are must-have for every individual for ensuring a secure future.

#### Must-have insurance products

Knowing the importance of insurance is the need of the hour. Following insurance products are the must-have for any individual today.

- **Life insurance:**

As no one wants to leave their loved ones financially shattered, life coverage is one of the must-have for every individual having dependents. In case of life insurance, the sum assured or the coverage amount will be paid out to the nominee of the insured in the event of the death of the insured. Life insurance is a crucial requirement to ensure the financial well-being of your loved ones even in your absence. The coverage amount opted should be able to provide complete financial protection – to replace income loss, to repay debt and also to create a financial buffer that can be utilized by



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

insured's family for future financial stability. Though life insurance products come in many variants, it's important to first avail the term insurance with adequate coverage.

- **Health insurance:**

Health uncertainties are part of life. Keeping in mind the rising cost of healthcare and an increasing number of diseases, it's important to have the financial cushion to protect yourself against health contingencies. Health insurance policies are of many types such as individual health insurance, family floater health insurance, critical illness health insurance and senior citizen health insurance. It's important to have adequate health insurance coverage that can protect you from financial crisis during medical emergencies.

- **Motor insurance:**

Motor insurance policies are the mandatory legal requirement in India for every vehicle owner under the Motor Vehicle Act. Be it two-wheeler, car or a commercial vehicle, it's compulsory to avail third party liability motor insurance to protect oneself against the claims that may arise from another party during an accident. However, motor insurance policies come in a comprehensive package wherein your valuable assets (bike or car) are covered against the various risk of damage or loss along with the personal accidental cover to you as the owner. Keeping in mind the rising incidents of road accidents and the asset value, it's most important to have a comprehensive motor insurance policy.

- **Accident and disability insurance:**

Accidents are unexpected and are inevitable. Sometimes accidents can result in disabilities that can further have huge impact on your earning capacity. In order to have financial stability for yourself and your family, it's important to be insured against accidents.

- **Home insurance:**

Home is one of your most valuable possessions that also includes many precious belongings and memories. Though you try to secure it to the fullest, your property is



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

exposed to various risks like theft, damages due to natural disasters etc. which you may not be able to mitigate completely. Hence, in order to protect your home against losses and damages that may arise due to many insurable events, availing home insurance is the most effective solution.

Though you need to be prepared for future uncertainties by availing insurance cover, you may not need all types of insurance. The priority of any insurance product may vary depending on your individual need. Insurance is a large industry with numerous product types available to cater to every sort of need. Some of them mentioned already are of top priority for every individual. Priority of rest other types of insurance may purely depend on your unique need or situation. Let's take a look at some of the insurance types that are of lesser priority.

- **Standalone critical illness insurance:**

Critical illness insurance plan may not be needed for every individual, specifically, if you do not have any family history of critical illness. A critical illness are sometimes covered in health insurance plans and also comes as a rider along with life insurance plans. Hence, a standalone cover for critical illness depends purely on the requirement of an individual.

- **Travel insurance:**

Travel insurance may be the priority for frequent travellers. But, it may not be needed for all. The need for insurance may vary depending on each individual's unique needs. For example, if you are planning a domestic trip and your comprehensive health insurance plan covers you across the country for any medical emergencies, travel plans may not just be needed for you. More specifically, the travel insurance plan may not be your priority if you can afford to lose your pre-paid trip expenses. Sometimes travel covers also come as your credit card travel benefit.

Likewise, there are many insurance types that are not suitable or required for every individual. It's important to think about the benefits that you can reap before investing in an insurance plan.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 2.6 BASIC PRINCIPLES OF INSURANCE:

1. Insurable interest
2. Utmost good faith
3. Proximate cause
4. Indemnity
5. Subrogation
6. Contribution
7. Loss of Minimization.

### 2.7 BENEFITS AND IMPORTANCE OF INSURANCE:

Insurance is a risk management tool not only benefits the individual and businesses but also benefits the society and economy in numerous ways. Following are some of the important benefits of insurance:

#### 1. Provides peace of mind:

Insurance provides protection against various uncertainties that can put you or your family in financial crisis. By covering the uncertainties of human life and businesses, insurance provides a sense of security. Having life insurance gives you peace of mind that the financial stability of your family will remain intact even when you are not around. Having health insurance gives you a sense of security that you do not need to shell out all your savings in the event of medical emergencies.

#### 2. Promotes risk control:

As insurance works on risk transfer mechanism, it promotes risk control activity.

#### 3. Promotes economic growth:

As insurance funds are invested in various projects like water supply, power and roads etc. it contributes to the overall economic growth of the nation. Also, insurance provides employment opportunity to people. Insurance contributes to economic growth in many other ways such as getting Foreign Direct Investment, paying taxes on the profit earned and by investing in the capital market etc.

## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### **4. Distribution of risk:**

Risk of insurance is spread across various individuals and organisation instead of concentrating on only one.

### **5. Helps to get loan easily:**

There are loan facilities offered against insurance policies. In case of home loans, having an insurance cover can help to get the loan easily from the lender.

### **6. Inculcates savings habit:**

There are many life insurance products that come with investment cum protection benefit. Such products inculcate a regular saving habit among individuals. Plans like endowment insurance plans help in achieving long-term financial goals. Pension plans help to receive regular income flow in older age.

### **7. Provides tax benefit:**

Insured gets the tax benefits for premium paid depending on the insurance product type. For example, the premium paid towards life insurance plans qualifies for tax deduction under Section 80C of the Income Tax Act. And, the premium paid towards health insurance plans qualifies for tax deduction under Section 80D of the Income Tax Act.

### **8. Financial safety for the family:**

One of the biggest benefits of having insurance is that you can safeguard your family. For example, a life insurance policy pays out a lump sum death benefit to your loved ones in case of your death, which can help them sustain a comfortable livelihood.

### **9. Safety of financial status:**

The right insurance policy can assure your safety if an unforeseen accident brings financial burdens on you. Be it your own safety or the safety of your business, property or valuables, in case of a mishap; you would not have to dig up your hard-earned savings.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 10. Wealth creation goals:

In the case of a comprehensive life insurance plan, you receive a maturity benefit at the time of maturity. This amount, generally received in a lump sum, can be very helpful in fulfilling a number of financial requirements. For example, as a retirement fund, money to buy a house, go on a foreign holiday or pursue your hobbies.

### 11. Wealth preservation:

An insurance policy can be instrumental in managing and safeguarding your financial future. Suitable plans can help in reducing the risk element in your financial portfolio. It can eliminate uncertainties or offer you the funds to manage them without disturbing your savings.

### 12. Wealth distribution:

When more and more people opt for insurance, the insurance ecosystem gets help at large. It helps in spreading out the risk, thus making the insurance premiums more affordable for everyone.

Following are some of the examples that demonstrate the importance of insurance:

### 2.8 NEED OF INSURANCE:

Insurance is a way of managing risks. When you buy insurance, you transfer the cost of a potential loss to the insurance company in exchange for a fee, known as the premium. Insurance companies invest the funds securely, so it can grow, and pay out when there's a claim. Insurance helps you:

- Own a home, because mortgage lenders need to know your home is protected
- Drive vehicles, because few people could afford the repairs, health care costs and legal expenses associated with collisions and injuries without coverage
- Maintain your current standard of living if you become disabled or have a critical illness

## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

- Cover health care costs like prescription drugs, dental care, vision care and other health-related items
- Provide for your family in the event of a death Run a small business or family farm by managing the risks of ownership
- Take vacations without worrying about flight cancellations or other potential issues

Take the time to review your policies and contact one of our helpful agents to answer your questions or get advice. A little knowledge can make a big difference when it comes to buying the right insurance protection for you and your family.

### 2.9 RISKS IN INSURANCE:

In insurance terms, risk is the chance something harmful or unexpected could happen. This might involve the loss, theft, or damage of valuable property and belongings, or it may involve someone being injured.

#### Main four types of risk are:

1. Strategic risk - a competitor coming on to the market.
2. Compliance and regulatory risk - eg introduction of new rules or legislation.
3. Financial risk - interest rate rise on your business loan or a non-paying customer.
4. Operational risk - the breakdown or theft of key equipment.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 2.10 INVESTMENTS AND RECENT DEVELOPMENTS IN INSURANCE SECTURE:

The following are some of the major investments and developments in the Indian insurance sector.

- ❖ With the introduction of new private sector companies, the insurance sector in India gained momentum in the year 2000.
- ❖ India allowed private companies in insurance sector in 2000, setting a limit on FDI to 26%, which was increased to 49% in 2014 and further increased to 74% in the Union Budget (Feb'21).
- ❖ The market share of private sector companies in the non-life insurance market rose from 15% in FY2004 to 49.3% in FY2021.
- ❖ Private insurers like HDFC, ICICI and SBI have been some tough competitors for providing life as well as non-life products to the insurance sector in India.
- ❖ The IPO of Life Insurance Corporation (LIC) of India was the largest IPO ever in India and the sixth biggest IPO globally of 2022. As of November 2022, listing of LIC accounted for more than a third of resources mobilized in the primary equity market until November 2022.
- ❖ Insurance market in India is expected reach US\$ 222 billion by 2026.
- ❖ Robotic Process Automation (RPA) and AI will occupy center stage in insurance, driven by newer data channels, better data processing capabilities and advancements in AI algorithms.
- ❖ Bots will become mainstream in both the front and back-office to automate policy servicing and claims management for faster and more personalized customer service.
- ❖ Insurers can now launch new health insurance products without IRDAI's nod. Earlier the flexibility was given for group insurance products but now retail products have also come under the new norms.
- ❖ The insurance industry is expected to use this opportunity for introduction of customized and innovative products, expansion of the choices available to the policyholders in order to address the dynamic needs of the market, which will further help in enhancing the insurance penetration in India.

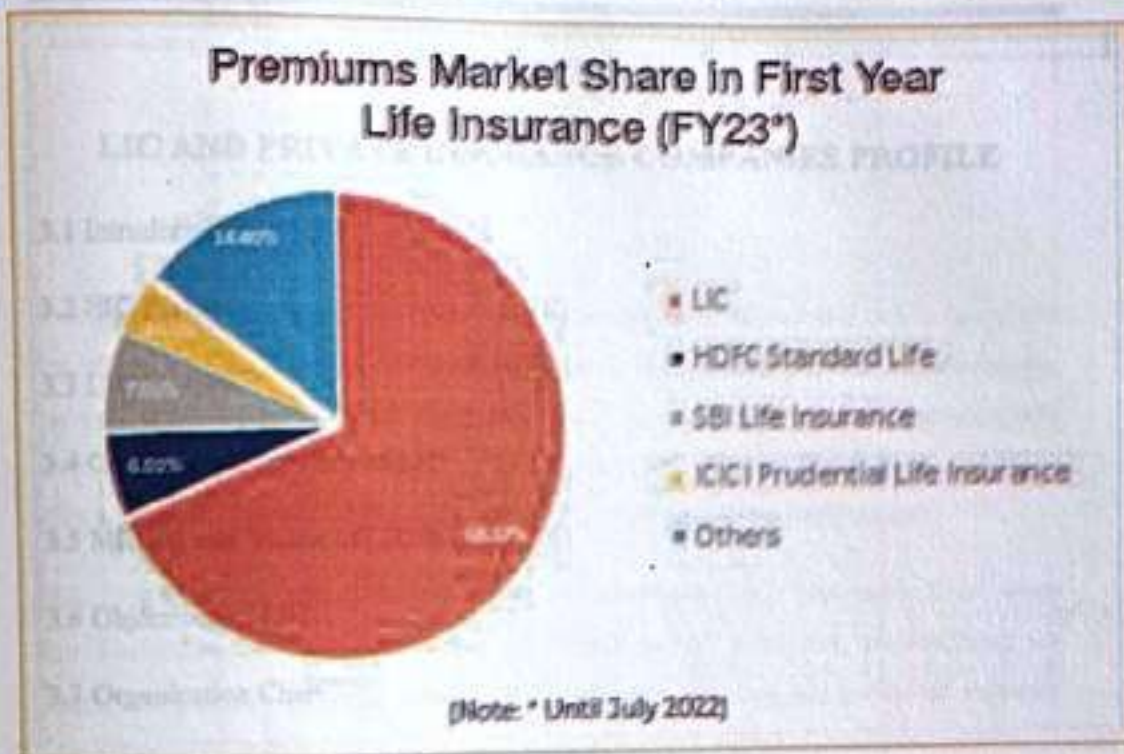


## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

- ❖ Bajaj Allianz Life Insurance, a private life insurer, has entered into a strategic partnership with City Union Bank, one of the oldest private sector banks in India. This partnership will help the private life insurer offer a wide array of life insurance solutions to the bank's existing and future customers, across their 727 branches.
- ❖ In October 2022, Policybazaar's PBPartners launches its mobile app to facilitate the ease of insurance business for its advisors digitize their insurance business.
- ❖ Canara HSBC Life Insurance launched its 'Canara HSBC Life Insurance App' on the 75th Independence Day of India. The app, available on android, iOS devices and web portal, offers access to policy details, the option to receive timely alerts, pay the premium, and track fund value among others.
- ❖ ICICI Lombard and Airtel Payments bank have entered into a partnership for providing cyber insurance in February 2022.
- ❖ Probus Insurance receives US\$ 6.7 million in funding from a Swiss impact fund in December 2021.
- ❖ Companies are trying to leverage strategic partnership to offer various services as follows:
  - ❖ In November 2021, ICICI Lombard collaborated with Vega to provide a personal accident insurance cover with every online Vega helmet purchase to increase road safety awareness among customers.
  - ❖ In November 2021, ICICI Prudential Life Insurance partnered with NPCI Bharat BillPay, a subsidiary of National Payments Corporation of India (NPCI), to offer ClickPay feature to its customers.
  - ❖ In November 2021, the Competition Commission of India (CCI) approved HDFC Life Insurance's acquisition of 100% shareholding in Exide Life Insurance. The move is expected to strengthen HDFC Life's position in South India.
  - ❖ In November 2021, Willis Towers Watson acquired the remaining 51% shares in WTW India, taking the company's holding in WTW India to 100%.
  - ❖ In November 2021, Acko, a digital insurance start-up, raised US\$ 255 million in funds, taking the company's valuation to ~US\$ 1.1 billion



2.11 INSURANCE INDIA:



**Industry Contacts:**

- General Insurance Corporation of India
- Life Insurance Corporation of India
- India - Insurance Regulatory and Development Authority (IRDA)
- Insurance Institute of India
- United India Insurance Company Ltd

## CHAPTER -3

### LIC AND PRIVATE INSURANCE COMPANIES PROFILE

- 3.1 Introduction of LIC
- 3.2 LIC Profile
- 3.3 LIC History
- 3.4 General Information's of LIC
- 3.5 Mission and Vision of LIC in India
- 3.6 Objectives of LIC
- 3.7 Organization Chart
- 3.8 Private Company Insurance
- 3.9 Private Insurance Companies in India
- 3.10 Understanding and awareness of public Regarding Insurance Companies
- 3.11 Private Sector Life, General, Health Insurance Companies
- 3.12 Difference between a Public and a Private Sector Insurance Company



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

### CHAPTER -3

#### LIC AND PRIVATE INSURANCE COMPANIES PROFILE

##### 3.1 INTRODUCTION OF LIC

Life Insurance Corporation of India (LIC) is an Indian multinational public sector life insurance company headquartered in Mumbai. It is India's largest insurance company as well as the largest institutional investor with total assets under management worth ₹45.7 trillion (US\$570 billion) as of March 2023. It is under the ownership of Government of India and administrative control of the Ministry of Finance.

The Life Insurance Corporation of India was established on 1 September 1956, when the Parliament of India passed the Life Insurance of India Act, nationalizing the insurance industry in India. Over 245 insurance companies and provident societies were merged together.

LIC reported 290 million policyholders as of 2019, a total life fund of ₹28.3 trillion, and a total value of sold policies in the year 2018–19 of ₹21.4 million. The company also reported having settled 26 million claims in 2018–19. It ranked 98th on the 2022 Fortune Global 500 list with a revenue of ₹775,283 crore (equivalent to ₹8.2 trillion or US\$100 billion in 2023) and a profit of ₹4,415 crore (equivalent to ₹47 billion or US\$580 million in 2023)

##### 3.2 HISTORY OF LIC

Existing organizations

The Oriental Life Insurance

Insurance Company, established

primary target market was to

### 3.2 LIC PROFILE



Life Insurance Corporation of India (LIC) is an Indian multinational public sector life insurance company headquartered in Mumbai. It is India's largest insurance company as well as the largest institutional investor with total assets under management worth ₹45.7 trillion (US\$570 billion) as of March 2023.[3] It is under the ownership of Government of India and administrative control of the Ministry of Finance.

The Life Insurance Corporation of India was established on 1 September 1956, when the Parliament of India passed the Life Insurance of India Act, nationalizing the insurance industry in India. Over 245 insurance companies and provident societies were merged together.[4][5]

LIC reported 290 million policyholders as of 2019, a total life fund of ₹28.3 trillion, and a total value of sold policies in the year 2018–19 of ₹21.4 million. The company also reported having settled 26 million claims in 2018–19. It ranked 98th on the 2022 Fortune Global 500 list with a revenue of ₹775,283 crore (equivalent to ₹8.2 trillion or US\$100 billion in 2023) and a profit of ₹4,415 crore (equivalent to ₹47 billion or US\$580 million in 2023).

### 3.3 HISTORY OF LIC:

#### Founding organizations

The Oriental Life Insurance Company, the first company in India to offer life insurance coverage, was established in Kolkata in 1818 by Bipin Das Gupta. Its primary target market was India.[7]



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

Surendranath Tagore had founded Hindustan Insurance Society in the same time period, which later became the Life Insurance Corporation.

The Bombay Mutual Life Assurance Society was formed in 1870, almost half a century later. It was the first native insurance provider of Western India. Other insurance companies established in the pre-independence era include:

- Postal Life Insurance (PLI) was introduced on 1 February 1884
- Bharat Insurance Company (1896)
- United India (1906)
- National Indian (1906)
- National Insurance (1906)
- Co-operative Assurance (1906)
- Hindustan Co-operatives (1907)
- The New India Assurance Co Ltd (1919)
- Indian Mercantile
- General Assurance
- Swadeshi Life (later Bombay Life)
- Sahyadri Insurance (Merged into LIC, 1986)

These companies were established when India was marked mostly by turbulent economic and political conditions including the Indian rebellion of 1857, World War I and World War II. The effect of these events led to a high liquidation rate of life insurance companies in India and adversely affected the faith of the general public in the value of obtaining life insurance.



LIC New Delhi

3.4 GENERAL INFORMATIONS OF LIC

<b>Type</b>	Public
<b>Traded as</b>	BSE: 543526 NSE: LICI
<b>Industry</b>	Insurance and Financial services
<b>Key people</b>	Siddharth Mohanty (Chairperson) R Doraiswamy (Managing Director) M Jagannath (Managing Director) Tablesh Panday (Managing Director)
<b>Products</b>	Life insurance Health insurance Investment management Mutual fund
<b>Revenue</b>	₹784,889 crore (US\$98 billion) (2023)
<b>Operating income</b>	₹41,093 crore (US\$5.1 billion) (2023)
<b>Net income</b>	₹37,997 crore (US\$4.8 billion) (2023)
<b>Total assets</b>	₹4,578,491 crore (US\$570 billion) (2023)
<b>Total equity</b>	₹46,233 crore (US\$5.8 billion) (2023)
<b>Owner</b>	Government of India (96.5%)
<b>Number of employees</b>	of 114,000 (2020)
<b>Subsidiaries</b>	LIC Pension Fund Limited LIC Cards Services Ltd LIC Housing Finance



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 3.5 MISSION AND VISION OF LIC OF INDIA:

#### Mission:

"Ensure and enhance the quality of life of people through financial security by providing products and services of aspired attributes with competitive returns, and by rendering resources for economic development."

#### Vision:

"A trans-nationally competitive financial conglomerate of significance to societies and Pride of India."

### 3.6 OBJECTIVES OF LIC:

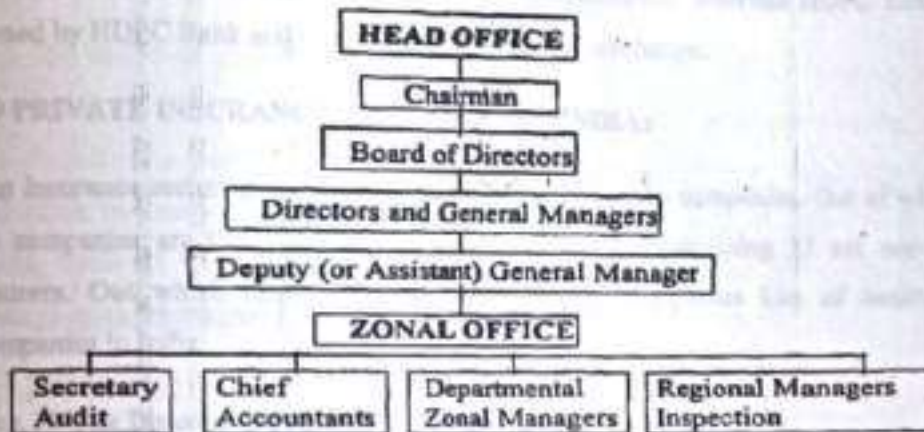
- Spread Life Insurance widely and in particular to the rural areas and to the socially and economically backward classes with a view to reaching all insurable persons in the country and providing them adequate financial cover against death at a reasonable cost.
- Maximize mobilization of people's savings by making insurance-linked savings adequately attractive.
- Bear in mind, in the investment of funds, the primary obligation to its policyholders, whose money it holds in trust, without losing sight of the interest of the community as a whole; the funds to be deployed to the best advantage of the investors as well as the community as a whole, keeping in view national priorities and obligations of attractive return.
- Conduct business with utmost economy and with the full realization that the moneys belong to the policyholders.
- Act as trustees of the insured public in their individual and collective capacities.
- Meet the various life insurance needs of the community that would arise in the changing social and economic environment.
- Involve all people working in the Corporation to the best of their capability in furthering the interests of the insured public by providing efficient service with courtesy.



A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

3.7 LIC ORGANIZATIONAL CHART:

**ORGANIZATION STRUCTURE OF LIC**



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 3.8 PRIVATE COMPANIES INSURANCE:

Private insurance companies are those that are owned by private entities or funds, for e.g. Star Health is owned by multiple funds including Safecrop Investments India LLP, WestBridge AIF and investor Rakesh Jhunjhunwala, whereas HDFC Life is owned by HDFC Bank and is also listed on the stock exchange.

### 3.9 PRIVATE INSURANCE COMPANIES IN INDIA:

The Insurance sector in India consists of total 57 insurance companies. Out of which 24 companies are the life insurance providers and the remaining 33 are non-life insurers. Out of which there are seven public sector companies. List of insurance companies in India

#### Top 10 Life Insurance Companies in India:

Following is the list of top 10 life insurance companies in India:

##### 1. Max Life Insurance Company

Max Life Insurance Company is amongst the top life insurance companies in India and it was founded in the year 2000. The aim of this life insurance company is majorly to offer adequate financial strength to its policyholders and for this reason, the insurance provider offers various types of life insurance policies including child insurance, long-term savings, protection, investment, and various other group solutions, etc. All of these insurance plans offered by Max Life are full of benefits and various essential features according to the needs of the individual.

##### 2. HDFC Life Insurance Company

HDFC Life Insurance Company is collaboration between Standard Life Aberdeen PLC and Housing Development Finance Corporation Limited. It began its operations in the year 2000 and has its headquarters located in Mumbai, Maharashtra. This company offers various types of life insurance plans to its customers such as protection plans, pension plans, women plans, child plans, health plans, etc. This company provides the best life insurance policy, especially created for children and women. A policyholder can include additional riders to the plans in order to enhance



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

the coverage. Moreover, the HDFC Life insurance company guarantees settlement of claims in a single day, taking into regards various terms and conditions so as to make the entire claim settlement process easier.

### 3. Tata AIA Life Insurance Company

This life insurance company came into existence as a joint venture between AIA Group Ltd and Tata Sons Pvt Ltd. It is another popular life insurance company and was started in the year 2001. Tata AIA follows an entirely customer centric approach, and offers various life insurance plans to its policyholders in order to meet their future needs. Some of the main insurance products offered by them include wealth plans, savings plans, protection plans, etc.

### 4. Pramerica Life Insurance

Pramerica Life insurance company is formed as a result of joint efforts between the Prudential International Insurance Holdings Limited and Dewan Housing Finance Corporation Limited. They started with their operations in the life insurance segment in 2013 and now are one of the best insurance companies in India. The insurance company has around 138 offices located all across the nation. It provides several life insurance products for both groups as well as individuals. All of these insurance products are designed specifically to cater to the needs of the policyholders like retirement planning, protecting the future of the children, wealth creation and savings.

### 5. Aegon Life insurance

Aegon Life Insurance had its beginnings as a joint venture between Aegon N.V., an international financial services company based in the Netherlands, and The Times Group, one of India's largest media conglomerates. The company was established to provide life insurance solutions to the Indian market, leveraging Aegon's global expertise and The Times Group's deep-rooted understanding of the Indian landscape. With this collaboration, Aegon Life entered the Indian insurance sector with a vision to offer innovative and customer-centric life insurance plans, catering to the diverse needs of individuals and families across the country. Over time, Aegon Life has grown to become a trusted name in the insurance industry, providing valuable financial protection and investment opportunities to its policyholders.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 6. Reliance Life Insurance Company

Reliance Nippon life insurance company was formed as a result of collaboration between Reliance Capital and Nippon Life. It began with its operations in 2001 and is known to be one of the top Indian life insurance companies amongst the insurance policy buyers. They have been known to offer insurance plans to over 10 million customers. As a matter of fact, at present, it is said to be one of the largest non-bank supported life insurance companies amongst the private insurance companies. The insurance company mainly deals with 5 different insurance segments i.e. retirement, protection, child, health, investment and saving for both individuals as well as corporate or group entities.

### 7. Canara HSBC Life Insurance Company

This insurance company came into formation as a joint venture amongst 3 financial entities i.e. Punjab National Bank, Canara Bank, and HSBC Insurance Holdings Limited. They provide a wide variety of insurance plans to their customers that are customized as per their individual needs and also have a huge network all over India. The range of insurance products offered by them includes savings plan, health insurance plans, term insurance plans, and child insurance plans amongst others.

### 8. Life Insurance Corporation of India (LIC)

As one of the largest and most well-established life insurance companies in India, LIC holds a prominent position in the market. With a rich history dating back to 1956, LIC is a state-owned enterprise and plays a crucial role in promoting life insurance coverage across the country. The company offers a wide array of life insurance plans, including term insurance, endowment plans, money-back policies, and more. LIC is known for its extensive network of branches and agents, making it accessible to people from all walks of life. Their strong financial stability and commitment to customer service have earned them the trust of millions of policyholders.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 9. Bharti Axa Life Insurance

Bharti Axa Life Insurance is a joint venture between Bharti Enterprises, an Indian business conglomerate, and AXA, a global insurance and asset management group. Since its inception, the company has been dedicated to providing innovative and customer-centric insurance solutions. Bharti Axa offers a diverse range of life insurance products, including protection plans, savings, and investment options, child plans, and retirement solutions. With a focus on digital initiatives and a personalized approach, Bharti Axa strives to meet customers' evolving needs and provide them with financial security and peace of mind.

### 10. Kotak Life Insurance

Kotak Life Insurance, part of the Kotak Mahindra Group, is another reputable player in the Indian insurance sector. With a strong presence in urban and rural regions, Kotak Life offers a broad spectrum of insurance plans to cater to various requirements. Their product portfolio includes term plans, savings and investment-linked policies, and health insurance solutions. The company is known for its customer-friendly approach, hassle-free claim settlements, and a range of value-added services. Backed by a solid financial foundation and a commitment to customer satisfaction, Kotak Life Insurance continues to be a trusted choice for securing the financial future of policyholders.

### 3.10 UNDERSTANDING AND AWARENESS OF PUBLIC REGARDING INSURANCE COMPANIES:

Recent reports suggest that public awareness and understanding of health insurance in India is poor. However, general public awareness of health insurance in Kerala and in some other parts in India is increasing as a result of the efforts of private health insurance agents.[6] Lack of necessary education and "culture" are perceived as "barriers" due to which people have difficulties in managing money and health and difficulty in learning this new technology. Poor and less educated people residing in both the rural and urban areas, consult private practitioners more than government practitioners and spend about twice as much on treatment from them than from government practitioners.[7,8] This thing has led to the deepening of poverty in both



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

rural and urban areas, pushing the millions of people into poverty each year.[9] According to recent surveys and field works carried out in India, understanding of the entitled benefits and privileges remains confusing not only to the poor and illiterate people but also to the educated middle class citizens.[10] This could be due to promotional languages of the insurance sellers that is difficult to understand for the general public belonging to different educational backgrounds.

### 3.11 PRIVATE SECTOR LIFE INSURANCE COMPANIES:

- Aegon Life Insurance Co. Ltd.
- Aviva Life Insurance Co. India Ltd.
- Bajaj Allianz Life Insurance Co. Ltd.
- Bharti AXA Life Insurance Co. Ltd.
- Birla Sun Life Insurance Co. Ltd.
- Canara HSBC Oriental Bank of Commerce Life Insurance Co. Ltd.
- DHFL Pramerica Life Insurance Co. Ltd.
- Edelweiss Tokio Life Insurance Co. Ltd.
- Exide Life Insurance Co. Ltd.
- Future Generali India Life Insurance Co. Ltd.
- HDFC Standard Life Insurance Co. Ltd.
- ICICI Prudential Life Insurance Co. Ltd.
- IDBI Federal Life Insurance Co. Ltd.
- IndiaFirst Life Insurance Co. Ltd.
- Kotak Mahindra Old Mutual Life Insurance Ltd.
- Max Life Insurance Co. Ltd.
- PNB MetLife India Insurance Co. Ltd.
- Reliance Life Insurance Co. Ltd.
- Sahara India Life Insurance Co. Ltd.
- SBI Life Insurance Co. Ltd.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

- Shriram Life Insurance Co. Ltd.
- Star Union Dai-Ichi Life Insurance Co. Ltd.
- Tata AIA Life Insurance Co. Ltd.

### PRIVATE SECTOR GENERAL INSURANCE COMPANIES:

- Aditya Birla Health Insurance Co. Ltd.
- Bajaj Allianz General Insurance Co. Ltd.
- Bharti AXA General Insurance Co. Ltd.
- Cholamandalam General Insurance Co. Ltd.
- Future Generali India Insurance Co. Ltd.
- HDFC ERGO General Insurance Co. Ltd.
- ICICI Lombard General Insurance Co. Ltd.
- IFFCO-Tokio General Insurance Co. Ltd.
- Kotak General Insurance Co. Ltd.
- L&T General Insurance Co. Ltd.
- Liberty Videocon General Insurance Co. Ltd.
- Magma HDI General Insurance Co. Ltd.
- Raheja QBE General Insurance Co. Ltd.
- Reliance General Insurance Co. Ltd.
- Royal Sundaram Alliance Insurance Co. Ltd.
- SBI General Insurance Co. Ltd.
- Shriram General Insurance Co. Ltd.
- TATA AIG General Insurance Co. Ltd.
- Universal Sampo General Insurance Co. Ltd.

**PRIVATE SECTOR HEALTH INSURANCE COMPANIES:**

- Apollo Munich Health Insurance Co.Ltd.
- Star Health Allied Insurance Co. Ltd.
- Max Bupa Health Insurance Co. Ltd.
- Religare Health Insurance Co. Ltd.
- Cigna TTK Health Insurance Co. Ltd.

**3.12 DIFFERENCE BETWEEN A PUBLIC AND A PRIVATE SECTOR  
INSURANCE COMPANY:**

Private insurance companies are those that are owned by private entities or funds, for e.g. Star Health is owned by multiple funds including Safecrop Investments India LLP, West Bridge AIF and investor Rakesh Jhunjhunwala, whereas HDFC Life is owned by HDFC Bank and is also listed on the stock exchange. Just like private banks, these are private insurance companies.

Public sector insurance companies are those companies that are owned and 100% held by the government, and report to the Ministry of Finance. However, they are not welfare or non-profit companies. They have a goal of making profits, being autonomous and running on their own, self-sufficiently. As a result - they function in a manner very similar to Private insurers.

For instance, it is easy to assume that public sector companies are more likely to cover someone with serious pre-existing diseases, as they are part of the government. But, this isn't true. Like their private counterparts, they too can't cover any and every risk that comes their way and have to ensure they remain profitable.



A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE  
INSURANCE COMPANIES

---

CHAPTER-4

DATA ANALYSIS AND INTERPRATION

Table 4.1 Shows Size of LIC and Private Insurance Companies-

- 4.1 (A) Total Premiums
- 4.1 (B) Total Incomes
- 4.1 (C) Size of Balance Sheet
- 4.1 (D) Total Numbers of Policies

Table 4.2 Shows LIC and Private Insurance Companies Growth

- 4.2 (A) First Premiums
- 4.2 (B) Growths in Income
- 4.2 (C) Increase in Number of Policies
- 4.2 (D) Market Share

Table 4.3 Shows LIC and Private Insurance Companies Productivity

- 4.3 (A) Business per Branch
- 4.3 (B) Incomes per Branch
- 4.3 (C) New Premium per Branch
- 4.3 Shows LIC and Private Insurance Companies Grievance Management

Table 4.4 Shows LIC and Private Insurance Companies Total Points Table

- 4.4 (A) Total Numbers of Grievances
- 4.4 (B) Total Numbers of Grievances Resolved

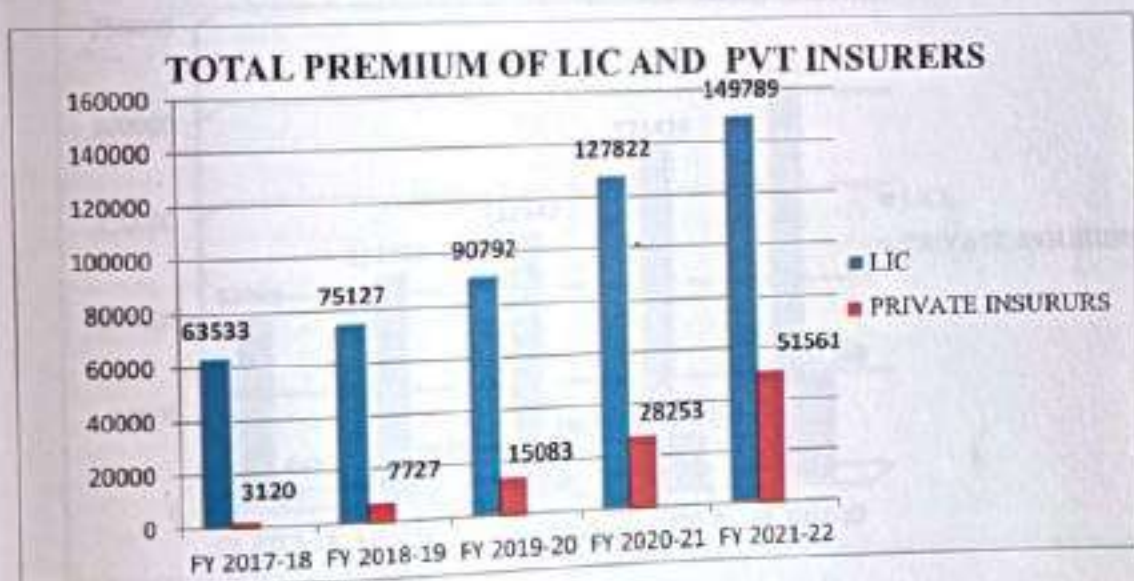
**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Table 4.1 Shows Size of the LIC and Private Insurance Companies**

**Table 4.1 (A) Shows Size of the LIC and Private Insurance Companies In Terms of Total Premium**

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
LIC	63533	75127	90792	127822	149789
Private Insurers	3120	7727	15083	28253	51561
<b>TOTAL</b>	<b>66653</b>	<b>82854</b>	<b>105875</b>	<b>156075</b>	<b>201350</b>

**Graph 4.1(A) Shows Size Of the LIC and Private Insurance Companies In Terms of Total Premium**



**INTERPRETATION:**

This table shows the size of total premium of LIC and private insurance companies. The premium collected by LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 63533 & 3120, 75127 & 7727, 90792 & 15083, 127822 & 28253 and 149789 & 51561 respectively. As compared to private insurance companies premium collecting by LIC is more.

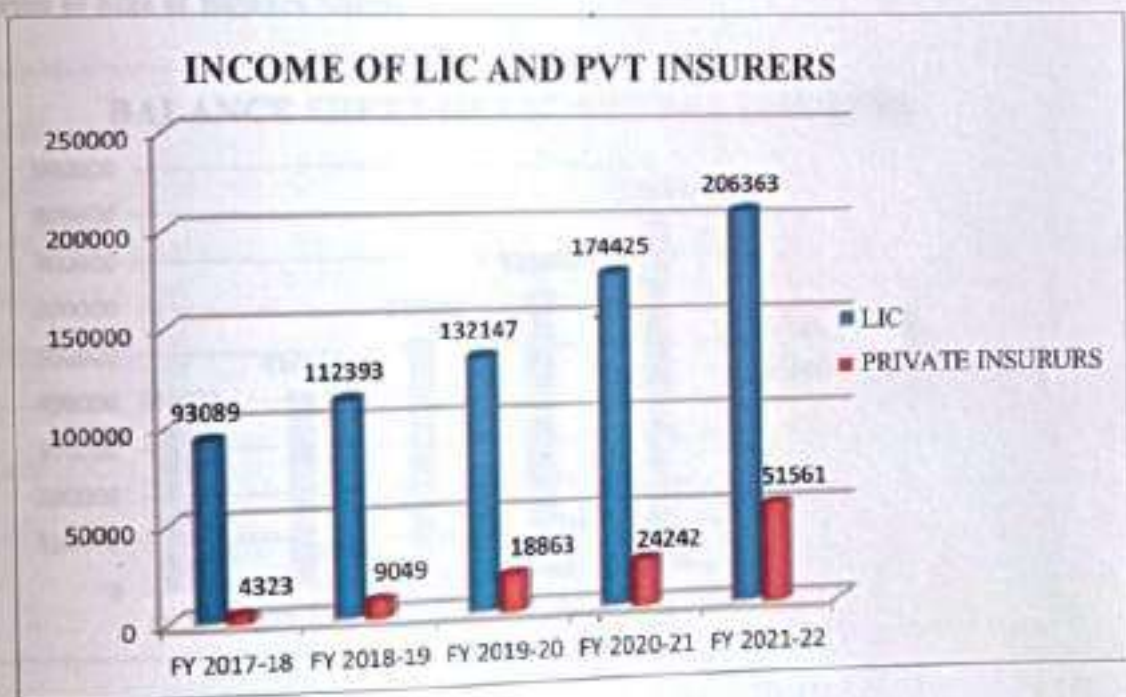


## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

**Table 4.1(B) Shows Size Of The LIC And Private Insurance Companies In Terms of Total Income:**

	(Rs. In crores)				
	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	93089	112393	132147	174425	206363
<b>Private Insurers</b>	4323	9049	18863	24242	52648
<b>TOTAL</b>	<b>97412</b>	<b>121442</b>	<b>151010</b>	<b>198667</b>	<b>259011</b>

**Graph 4.1 (B) Shows Size Of The LIC And Private Insurance Companies In Terms of Total Income:**



### INTERPRETATION:

The above table shows the size of total income of LIC and private insurance companies. The total income of LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 93089 & 4323, 112393 & 9049, 132147 & 18863, 174425 & 24242, 206363 & 51561 respectively. As compared to private insurance companies total income generated by LIC is more.

## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

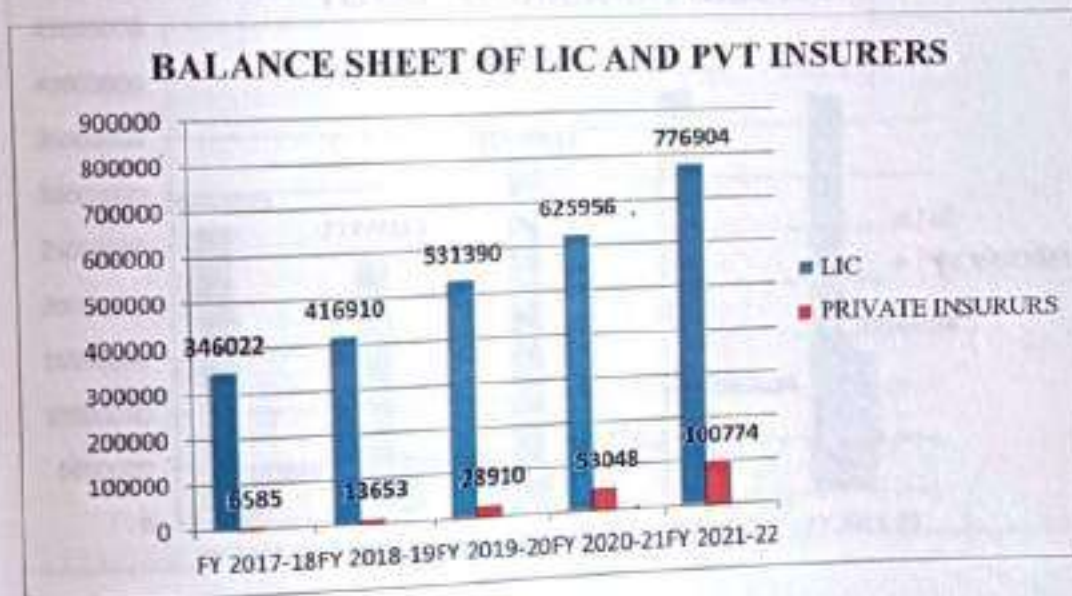
**Table 4.1(C) Shows Size of The LIC And Private Insurance Companies In Terms of Size of Balance Sheet:**

(Rs. In crores)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	346022	416910	531390	625956	776904
<b>Private Insurers</b>	6585	13653	28910	53048	100774
<b>TOTAL</b>	<b>352607</b>	<b>430563</b>	<b>560300</b>	<b>679004</b>	<b>877678</b>

**Graph 4.1(C) Shows Size of The LIC And Private Insurance Companies In Terms of Size of Balance Sheet:**

**Graph 4.1(C) Shows Size of The LIC And Private Insurance Companies In Terms of Size of Balance Sheet:**



### INTERPRETATION:

This table shows the size of balance sheet of LIC and private insurance companies. The balance sheet of LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 346022 & 6585, 416910 & 13653, 531390 & 28910, 625956 & 53048, 776904 & 100774 respectively. As compared to LIC balance sheet size goes much higher than the private insurance companies.

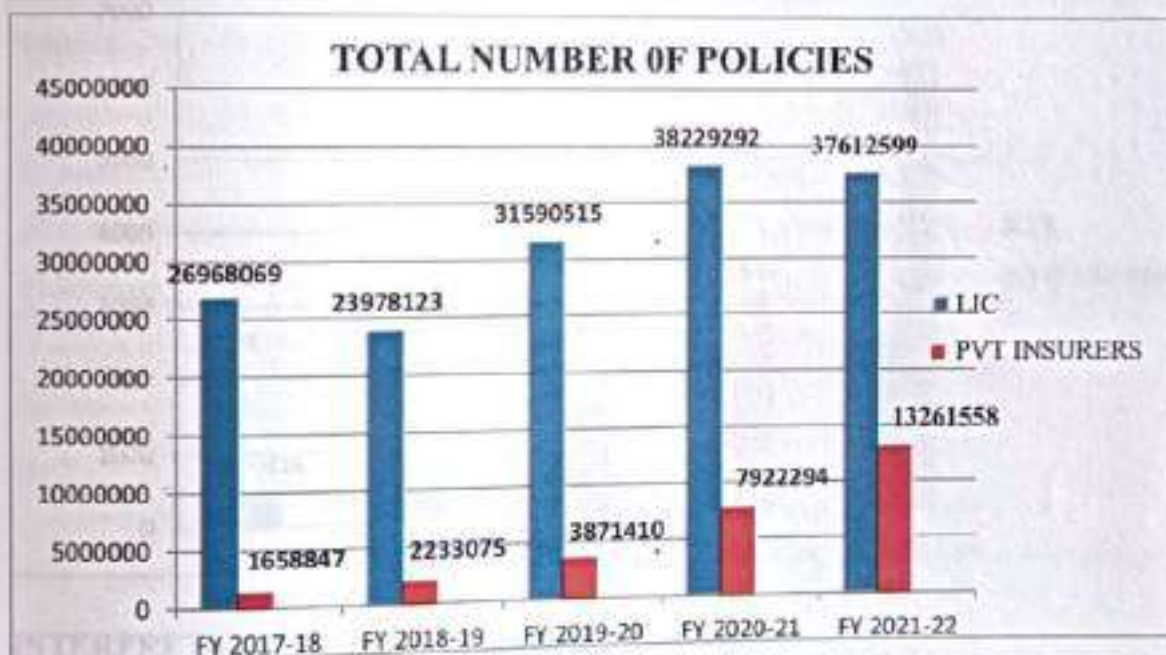


## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

**Table 4.1(D) Shows Size of The LIC And Private Insurance Companies In Terms of Total Number of Policies:**

	(Rs. In crores)				
	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	26968069	23978123	31590515	38229292	37612599
<b>Private Insurers</b>	1658847	2233075	3871410	7922294	13261558
<b>TOTAL</b>	<b>28626916</b>	<b>26211198</b>	<b>35462117</b>	<b>46151586</b>	<b>50874157</b>

**Graph 4.1 (D) Shows Size of The LIC And Private Insurance Companies In Terms of Total Number of Policies:**



### INTERPRETATION:

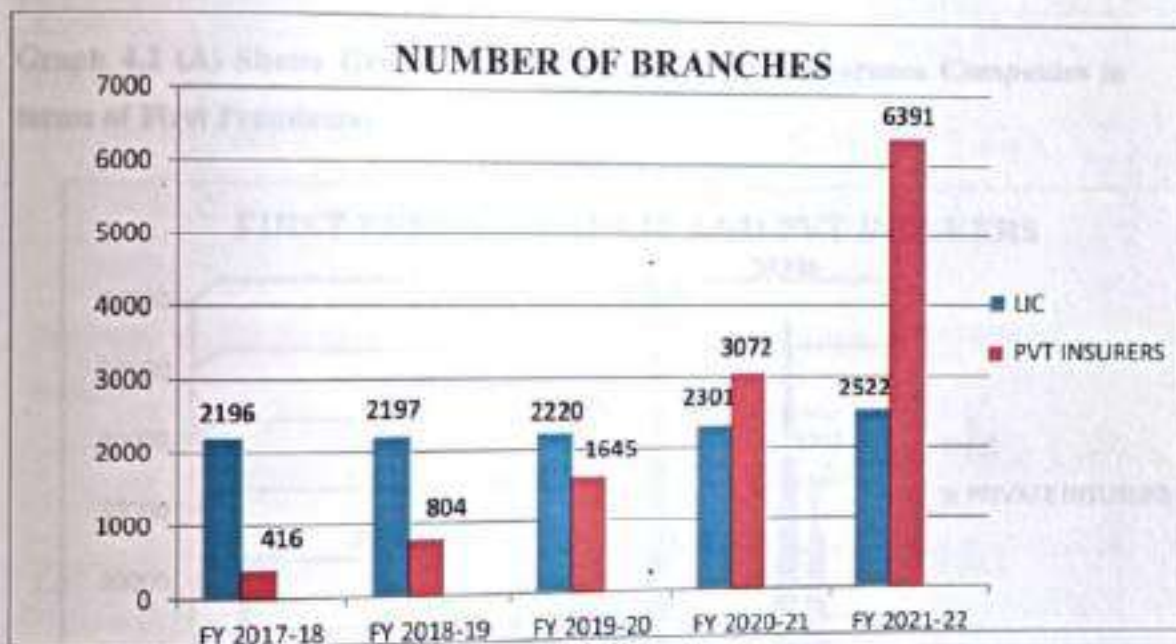
This table shows the size of total number of policies in LIC and private insurance companies. The number of policies in LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 26968069 & 1658847, 23978123 & 2233075, 31590515 & 3871410, 38229292 & 7922294, 37612599 & 13261558 respectively. As compared to private insurance the numbers of policies are more in the LIC.

**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Table 4.1 (E) Shows Size Of The LIC And Private Insurance Companies In Terms Of Total Number Of Branches:**

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	2196	2197	2220	2301	2522
<b>Private Insurers</b>	416	804	1645	3072	6391
<b>TOTAL</b>	<b>2612</b>	<b>3001</b>	<b>3865</b>	<b>5373</b>	<b>8913</b>

**Graph 4.1 (E) Shows Size of The LIC And Private Insurance Companies In Terms of Total Number of Branches:**



**INTERPRETATION:**

This table shows the size of total number of branches in LIC and private insurance companies. The number of branches in LIC and private insurance companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 2196 & 416, 2197 & 804, 2220 & 1645, 2301 & 3072, 2522 & 6391 respectively. As compared to private insurance companies the branches of LIC are more from the financial year 2017-18 to 2019-20 but from the financial year 2020-21 & FY 2021-22 the branches of private insurance are more than the LIC.



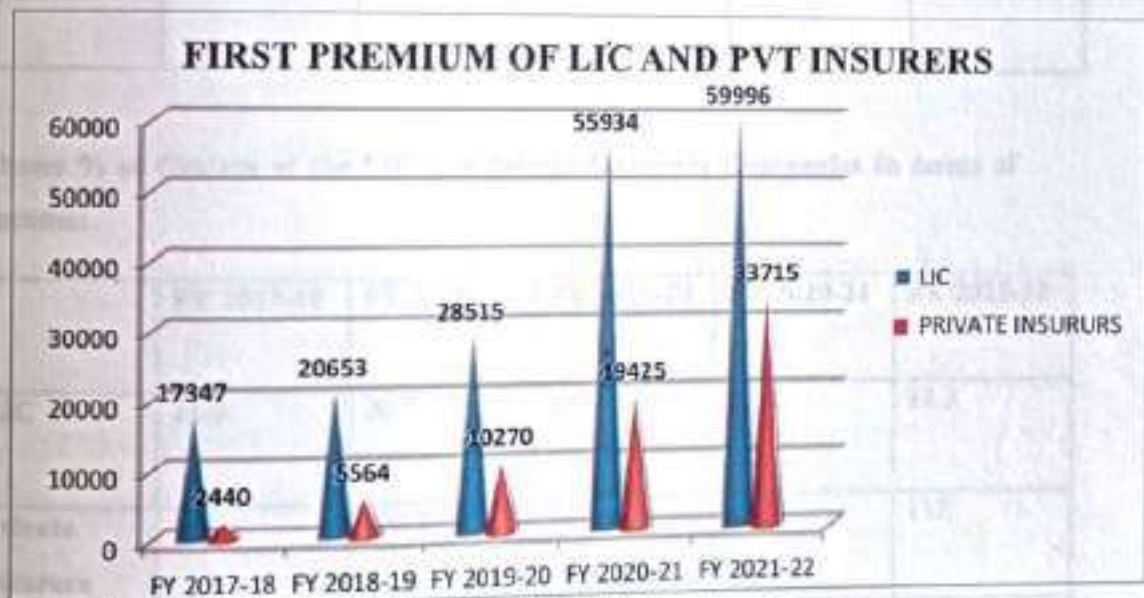
## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

**Table 4.2 Shows Growth of the LIC and Private Insurance Companies:**

**Table 4.2 (A) Shows Growth of the LIC and Private Insurance Companies in terms of First Premiums:**  
(Rs. In crores)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	17347	20653	28515	55934	59996
<b>Private Insurers</b>	2440	5564	10270	19425	33715
<b>TOTAL</b>	<b>19787</b>	<b>26217</b>	<b>38785</b>	<b>75359</b>	<b>93711</b>

**Graph 4.2 (A) Shows Growth of the LIC and Private Insurance Companies in terms of First Premiums:**



### INTERPRETATION:

This table shows the growth of first premium of LIC and private insurance companies. The first premium collected by LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 17347 & 2440, 20653 & 5564, 28515 & 10270, 55934 & 19425, 59996 & 33715 respectively. As compared to private insurance companies first premium collecting by LIC is more.

**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Table 4.2 (B) Shows Growth of the LIC and Private Insurance Companies in terms Income:**

(Rs. In crores)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	12101	19303	19754	42277	31988
<b>Private Insurers</b>	2692	4725	9814	5379	28406
<b>TOTAL</b>	<b>14793</b>	<b>24028</b>	<b>29568</b>	<b>47656</b>	<b>60394</b>

**Shows % of Growth of the LIC and Private Insurance Companies In terms of Income:**

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	14.9	20.7	17.5	32	18.3
<b>Private Insurers</b>	165	109.3	108.4	28.5	117
<b>TOTAL</b>	<b>17.8</b>	<b>24.6</b>	<b>24.3</b>	<b>31.5</b>	<b>30.3</b>



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

Graph No: 4.2 (B) Shows % of Growth of the LIC and Private Insurance Companies In terms of Income:



### INTERPRETATION:

This table shows the growth in income of LIC and private insurance companies in term of %. The growth in income of LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 14.9 & 165, 20.7 & 109.3, 17.5 & 108.4, 32 & 28.5, 18.3 & 117 respectively. As compared to LIC, % of a growth in an income for private insurance companies are more in the financial year 2017-18, 2018-19, 2019-20 & 2021-22 but in the financial year 2020-21 the % of growth in the income for LIC is more than the private insurance company.

**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Table 4.2 (C) Shows Growth of the LIC and Private Insurance Companies in terms of Increases in Number of Policies:**

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	1475992	-2989946	7632584	6638585	-616693
<b>Private Insurers</b>	804696	574228	1638335	4050884	5339264
<b>TOTAL</b>	<b>2280688</b>	<b>-2415718</b>	<b>9270919</b>	<b>10689469</b>	<b>4722571</b>

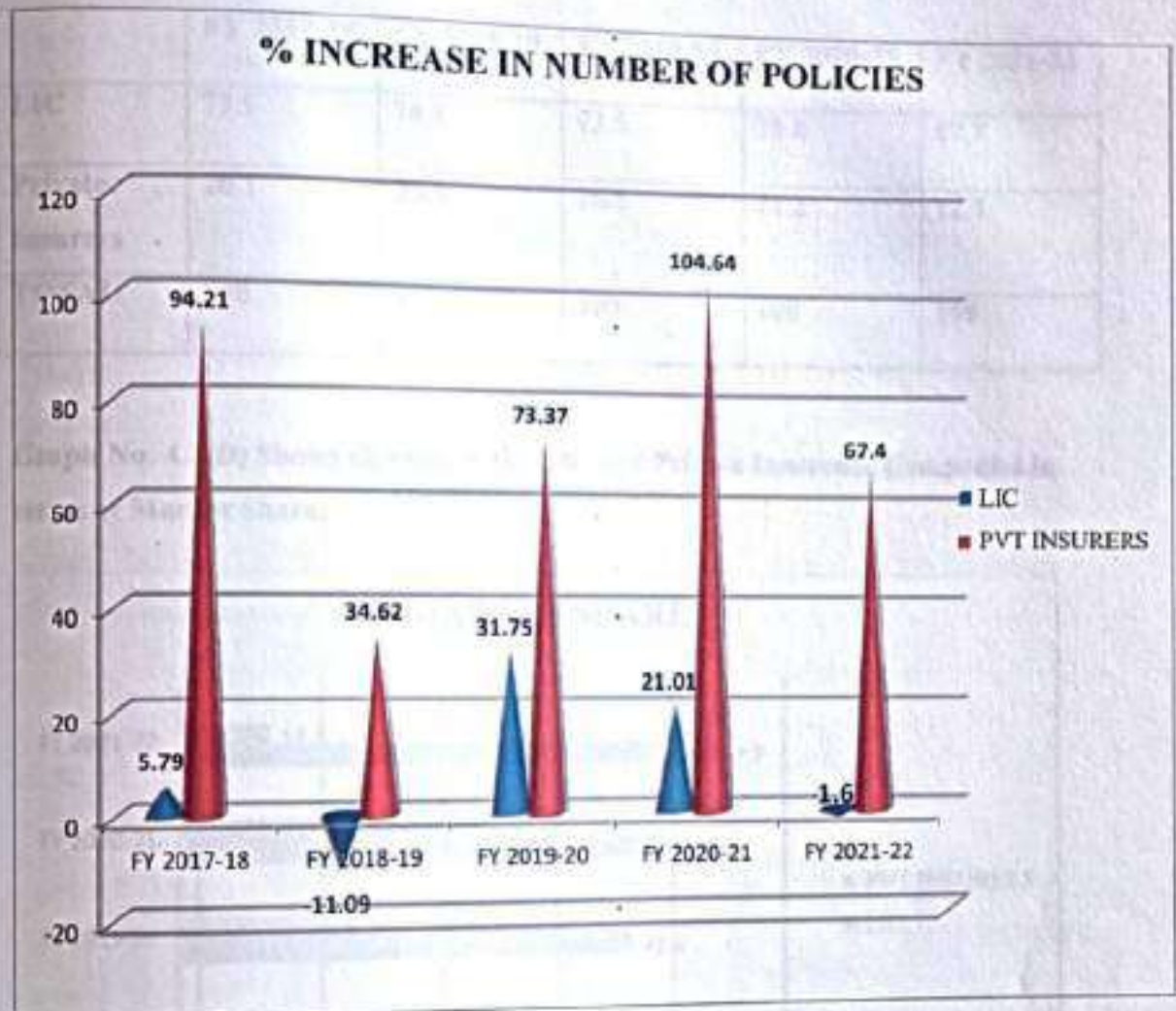
**Shows Growth of the LIC and Private Insurance Companies in terms of % Increase/Decrease in Number of Policies:**

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	5.79	-11.09	31.75	21.01	-1.6
<b>Private Insurers</b>	94.21	34.62	73.37	104.64	67.4
<b>TOTAL</b>	<b>8.6</b>	<b>-8.4</b>	<b>35.3</b>	<b>30.1</b>	<b>10.2</b>



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

Graph No: 4.2 (C) Shows Growth of the LIC and Private Insurance Companies  
% of Increases/decrease in Number of Policies:



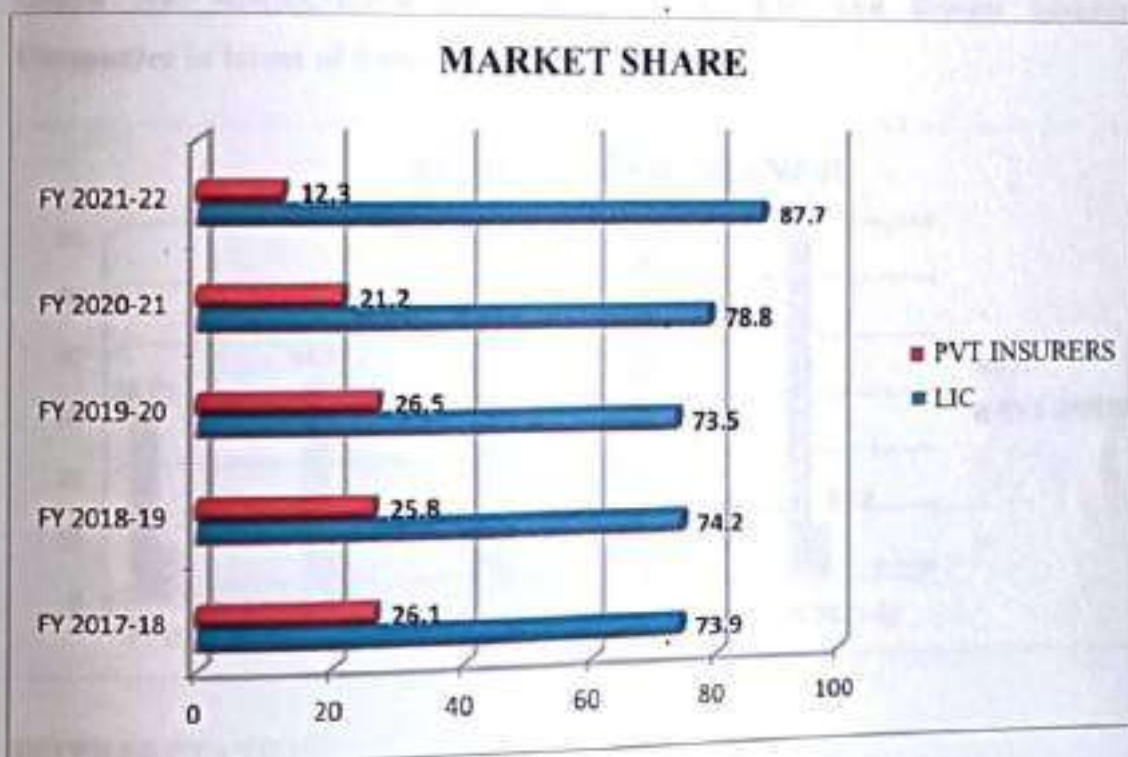
### INTERPRETATION:

This table shows the growth % increase in the number of policies of total premium of LIC and private insurance companies. The number of policies in LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 5.79 94.21, -11.09 & 34.62, 31.75 & 73.37, 21.01 & 104.64, -1.6 & 67.4 respectively. As compared to LIC % of increase in number of policies are more in Private Insurance Companies.

Table 4.2(D) Shows Growth of Market Share of LIC and Private Insurance Companies:

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
LIC	73.9	74.2	73.5	78.8	87.7
Private Insurers	26.1	25.8	26.5	21.2	12.3
TOTAL	100	100	100	100	100

Graph No: 4.2(D) Shows Growth of the LIC and Private Insurance Companies in terms of Market Share:



**INTERPRETATION:**

This table shows the growth in the market share of LIC and private insurers companies. The market share of LIC and private insurance companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 12.3&87.7, 21.2&78.8, 26.5&73.5, 25.8&74.2, 26.1&73.9 respectively. As compared to private insurance companies market share is more than LIC.



**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Table 4.3 Shows Productivity of the LIC and Private Insurers Companies:**

**Table 4.3 (A) Shows Productivity of the LIC and Private Insurers Companies in terms of Business per Branch:**

(Rs. In crores)					
	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	28.93	34.20	40.9	55.55	59.20
<b>Private Insurers</b>	7.5	9.61	9.17	9.2	8.07

**Graph No: 4.3(A).Shows Productivity of the LIC and Private Insurers Companies in terms of Business per Branch:**



**INTERPRETATION:**

This table shows the productivity of business per share in LIC and private insurance companies. The productivity of business per share in the LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 28.93&7.5, 34.2&9.61, 40.9&9.17, 55.55&9.2, 59.2&8.07 respectively. As The productivity of business per share of LIC is more than the Private insurance company.

## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

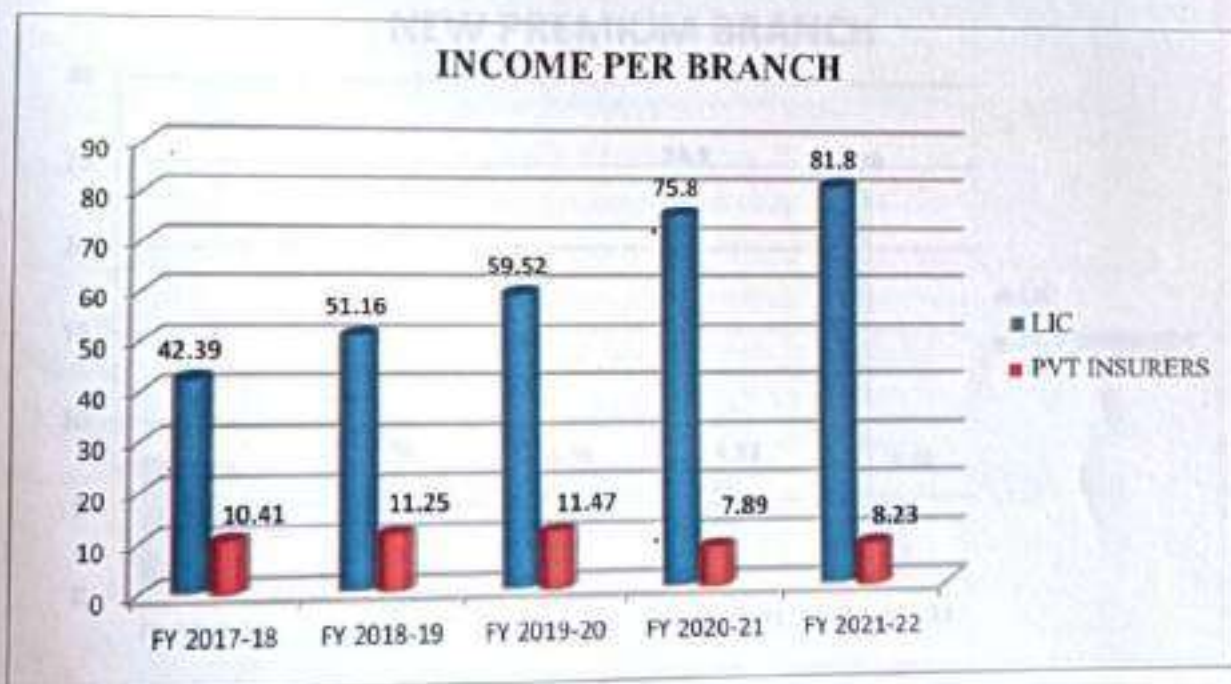
**Table 4.3(B) Shows Productivity of the LIC and Private Insurers Companies in terms of Income per Branch:**

(Rs. In crores)

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	42.39	51.16	59.52	75.80	81.80
<b>Private Insurers</b>	10.41	11.25	11.47	7.89	8.23

Graph No: 4.3(B) Shows Productivity of the LIC and Private Insurers Companies in terms of Income per Branch:

**Graph No: 4.3(B) Shows Productivity of the LIC and Private Insurers Companies in terms of Income per Branch:**



### INTERPRETATION:

This table shows the productivity of income per branch in LIC and private insurance companies. The productivity of income per branch in the LIC and private insurance companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 42.39&10.41, 51.16&11.25, 59.52&11.47, 75.8&7.89, 81.8&8.23 respectively. As compared to productivity of income per branch in LIC are more than the private insurance companies.



**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Table 4.3(C) Shows Productivity of the LIC and Private Insurers Companies in terms of New Premium Branch:**

	(Rs. In crores)				
	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
LIC	7.90	9.40	12.84	24.30	23.78
Private Insurers	5.86	6.92	6.24	6.32	5.28

**Graph No: 4.3 (C) Shows Productivity of the LIC and Private Insurance Companies in terms of New Premium Branch:**



**INTERPRETATION:**

This table shows the productivity of new premium branch in LIC and private insurance companies. The productivity of new premium branch in the LIC and private insurers companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 7.9&5.86, 9.4&6.92, 12.84&6.24, 24.3&6.32, 23.78&5.28 respectively. As compared to LIC productivity of new premium branch of LIC is more than that of private insurance companies.

**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Table 4.4 Shows Grievance Management of the LIC and Private Insurance Companies:**

**Table 4.4 (A) Shows Grievance Management of the LIC and Private Insurance Companies in terms of Total Number of Grievance:**

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	474	704	851	354	651
<b>Private Insurers</b>	45	195	540	507	1406

**Table 4.4(B) Shows Grievance Management of the LIC and Private Insurance Companies in terms of Number of Grievance Resolved:**

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	39	123	215	313	80
<b>Private Insurers</b>	26	83	216	450	1103

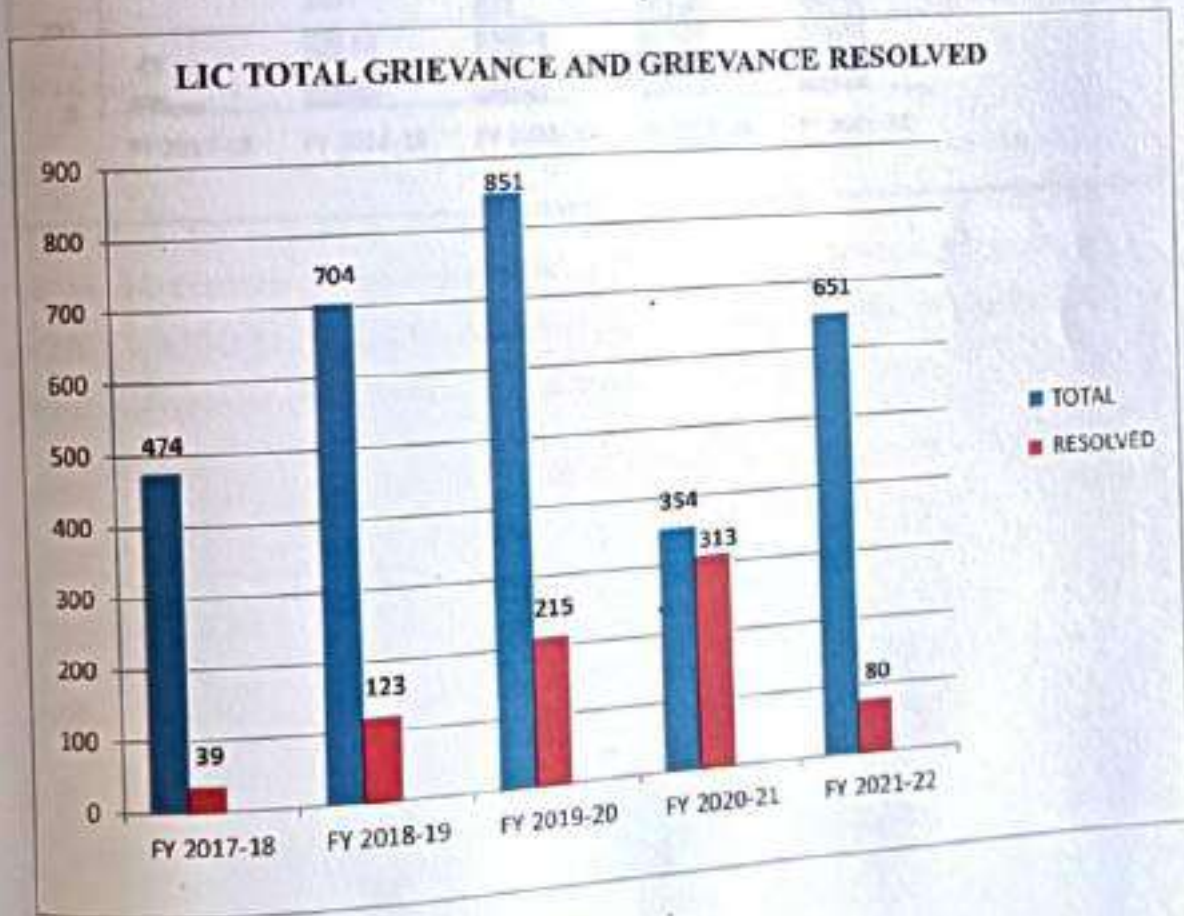


**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**Show Grievance Management of the LIC and Private Insurance Companies in terms of % of Grievance Resolved**

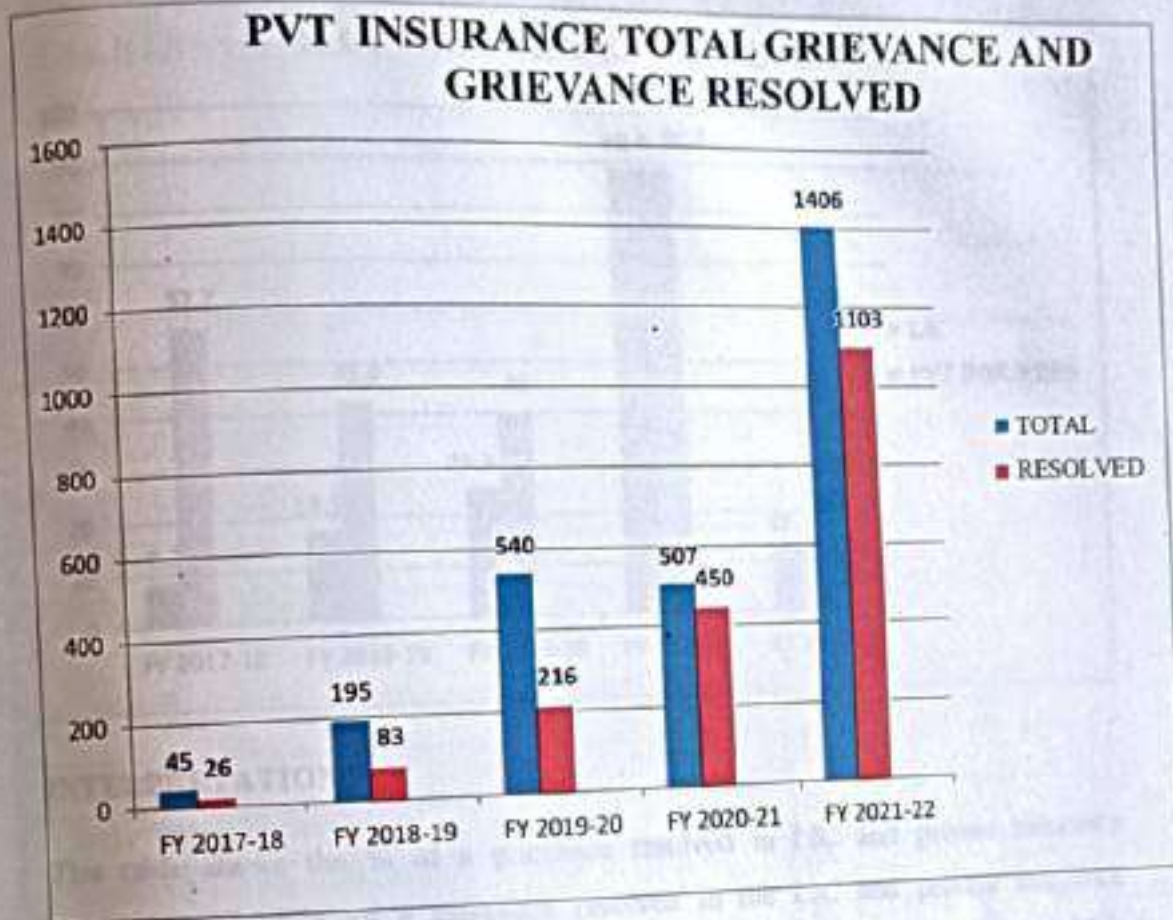
	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>LIC</b>	8.2	17.5	25.3	88.4	12.2
<b>Private Insurers</b>	57.7	42.6	40.0	88.7	78.4

**Graph No: 4.4 (A) Shows Grievance Management of the LIC in term of Total Number of Grievance:**



# A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

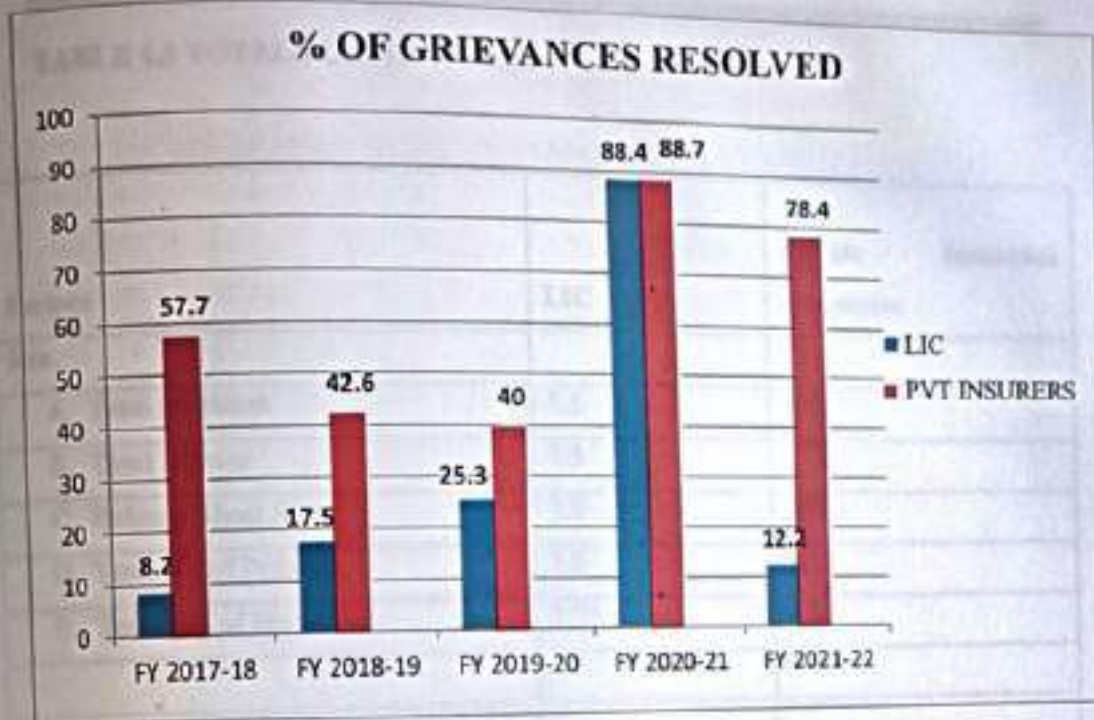
Graph No: 4.4 (B) Shows Grievance Management of the Private Insurance Companies in terms of Total Number of Grievance Resolved.





# A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

Graph No: 4.4 (C) Shows Grievance Management of the LIC and Private Insurance Companies in terms of % of Grievance Resolved:



## INTERPRETATION:

This table shows the % of a grievance resolved in LIC and private insurance companies. The % of a grievance resolved in the LIC and private insurance companies from the financial year 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 is 8.2&57.7, 17.5&42.6, 25.3&40, 88.4&88.7, 12.2&78.4 respectively. As compared to private insurance companies % of grievances resolved more than the LIC.

**A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES**

**TABLE 4.5 TOTAL POINTS TABLE:**

Factors	LIC	Private Insurance companies
<b>Size</b>		
A. Total premium	7.5	3.75
B. Total Income	7.5	3.75
C. Balance Sheet Size	7.5	3.75
D. Total No. of Policies	7.5	3.75
E. Total No. of Branches	3.75	7.5
<b>Growth</b>		
A. First Premium	5	10
B. Growth in Income	5	10
C. Increase in No. of policies	5	10
D. Market Share	10	5
<b>Productivity</b>		
A. Business per Branch	5	2.5
B. Income per Branch	5	2.5
C. First Premium per Branch	5	2.5
<b>Grievance Handling</b>	3.75	7.5
<b>Total Score</b>	77.75	72.75



CHAPTER 5

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 FINDINGS

5.1 Findings

According to the study the following are the major findings.

5.2 Suggestions

- **5.3 Conclusion** is that total premium collected by the LIC is more than the private insurance companies.
- It can be observed from the study that the income generated by LIC is more than that of Private Insurance Companies.
- The study shows that the LIC policies that also give much higher than the private insurance.
- From the study we can see that the LIC number of policies are more than the private insurance companies.
- The study shows that the total number of branches as compare to private insurance companies, the branches of LIC are more than the financial year 2017-18 to 2019-20 but from the financial year 2020-21 and financial year 2021-22 private insurers are more than the LIC.
- It can be observed from the study that the first premium collected by LIC is more than that of private insurance companies.
- The study reveals that the LIC % of growth is an increase for a private insurance companies are more in the financial year 2017-18, 2018-19, 2019-20, and 2021-22 but in the financial year 2020-21 the % of growth is an increase for LIC is more than private insurance company.
- From the study we can see that % of increase in number of policies of private insurance companies are more than the LIC.
- The study reveals that the private insurance company's market share is more than the LIC.
- It can be observed from the study that the LIC productivity of income per branch is more than the private insurance companies.
- The study shows that the LIC productivity of income per branch is more than the private insurance companies.

CHAPTER 5

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 FINDINGS:

According to the study the following are the major findings.

- The study reveals that total premium collected by the LIC is more than the private insurance companies.
- It can be observed from the study that the income generated by LIC is more than that of Private Insurance Companies.
- The study shows that the LIC balance sheet size goes much higher than the private insurance.
- From the study we can see that the LIC number of policies are more than the private insurance companies.
- The study shows that the total number of branches as compare to private insurance companies, the branches of LIC are more from the financial year 2017-18 to 2019-20 but from the financial year 2020-21 and financial year 2021-22 private insurers are more than the LIC.
- It can be observed from the study that the first premium collecting by LIC is more than that of private insurance companies.
- The study reveals that the LIC % of growth in an income for a private insurance companies are more in the financial year 2017-18, 2018-19, 2019-20, and 2021-22 but in the financial year 2020-21 the % of growth in an income for LIC is more than private insurance company.
- From the study we can see that % of increase in number of policies of the private insurance companies' are more than the LIC.
- The study reveals that the private insurance company's market share is more than the LIC.
- It can be observed from the study that the LIC productivity of business per share is more than the private insurance companies.
- The study shows that the LIC productivity of income per branch is more than the private insurance companies.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

- From the study we can see that the LIC productivity of new premium branch is more than the private insurance companies.
- From the study we can see that the private insurance company's % of grievance resolved more than the LIC.

- LIC should increase the number of policy.
- The private insurance company should offer new policy with less premium to attract the customer.
- The private insurance company should improve the productivity of a branch per branch.
- More of policies about of private insurance companies are being sold than LIC. Because about of LIC is more than private insurance company. The private insurance company should improve the rate of business.
- LIC should improve the % of grievance resolved rate.
- The private insurance company should adopt different strategies to increase business.
- LIC will have to adopt something new to increase productivity.

## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 5.2 SUGGESTIONS:

The study has conducted on comparative analysis between LIC and private insurance companies, based on observation I would like to give some suggestions for the betterment Insurance Companies.

- LIC should increase the number of Policy.
- The private insurance company is should offer new policy's with less premium in order to attract the customer.
- The private insurance company should improve the productivity of a business per branch.
- Sizes of balance sheet of private insurance companies are lagging much behind LIC. Balance sheet of LIC is seven times bigger than that of private insurance companies so the private insurance company is should improve the size of balance sheet.
- LIC should improve the % of grievance resolved ratio.
- The private insurance company should adopt different strategies to increase its income.
- LIC still needs to adapt something new to increase growth in income.



## A STUDY ON COMPARATIVE ANALYSIS BETWEEN LIC AND PRIVATE INSURANCE COMPANIES

---

### 5.3 CONCLUSION:

I studied from the available information it is known LIC is the giant of the insurance sector. The overall size of LIC is much more than that of all private insurance company. The LIC premiums are usually higher as compared to private insurance companies and the Private insurance company's total income is very less. We can see that private insurance companies are giving a tough competition to the LIC and will certainly create a good business for themselves in the coming day.

Customer base of LIC is very strong and still business per branch, profit per branch or premium per branch, they are leading much ahead of private insurance companies. LIC has not shown their good concern when the matter of grievance handling comes. Private insurance companies are far ahead in this matter. LIC has just resolved 25% cases in the last five years while private insurance companies have resolved nearly 70% cases. This is a matter from where customer shift starts. We have seen the rapid increase in customer base of private insurance companies which can be very much affected by this factor.

Overall we have seen that still LIC is very famous but private insurance companies are growing at exceptionally fast pace. Private companies show due concern in grievance management and brings innovative schemes to attract the customers. Right now they are giving good competition to LIC and very soon they will give very tough competition to Life Corporation of India.

## **BIBLIOGRAPHY**

### **ARTICLES:**

1. Patel and Dwivedi, a Comparative Study on Profitability and Long-Term Soundness of Selected Private Life Insurance Companies in India, August 2000.
2. Pallavi Pattan and Priyanka Khandelwal, Comparative Study of Cost Effectiveness of Public and Private Insurance Companies of India, 2018
3. Rajini, gomathi and Narayanan, A Comparative Analysis of Life Insurance Schemes Providers, 2017.
4. Gairola, a Comparative Study of Public and Private Insurance Companies in Port Liberalization Era, 2016.
5. Reenu Lulla and Monu Bhargava, A Comparative Analysis between Public Sector and Private Sector Companies, 2015
6. Selvakumar & Piyan, analyzed the performance of public and private life insurance companies in India, 2012
7. Upadhyaya and Badlani, Attempt to identify the key success factors in the life insurance industry, 2011

### **BOOKS:**

1. Balchandran, S., & Kaikini, A. N. (2014). Indian Insurance Industry. Mumbai: Insurance Institute of India.
2. Sahoo, S. C., & Das, S. C. (2013). Insurance Management (Text and Cases). Himalaya Publishing House.

### **RESEARCH PAPERS:**

- Journals published by Insurance Regulatory & Development Authority.

### **WEBSITS:**

- <http://www.irdaindia.org>
- <http://www.licindia.co.in>
- <http://www.sbilife.co.in/>
- <http://www.tata-aig-life.com>
- <http://www.bharti-axalife.com/>
- <http://www.hdfelife.com/>
- <http://www.reliancelife.co.in/>



K. L. E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591 201  
PG DEPARTMENT OF COMMERCE



PROJECT REPORT ENTITLED  
A STUDY ON CUSTOMER SATISFACTION WITH REFERENCE TO  
D.T. PATIL CO-OPERATIVE BANK, CHIKODI

Submitted to

**RANI CHANNAMMA UNIVERSITY, BELAGAVI**



FOR THE PARTIAL FULFILMENT OF DEGREE IN MASTER OF COMMERCE  
DURING THE ACADEMIC YEAR 2022-2023

SUBMITTED BY

**Miss. REKHA KHOT**

M.COM-IV SEMESTER

REGISTER NO: P15DM21C0009

UNDER THE GUIDANCE OF

**Shri. V. S. KHOT**

K.I.E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591201

PG DEPARTMENT OF COMMERCE



## CERTIFICATE

This is to certify that Miss. **REKHA KHOT** has satisfactorily completed the Project Report Entitled **A STUDY ON CUSTOMER SATISFACTION WITH REFERENCE TO D.T. PATIL CO-OPERATIVE BANK CHIKODI** for the partial fulfillment of Degree in Master of Commerce in Rani Channamma University, Belagavi during the academic year 2022-2023.

Shri. V. S. KHOT  
PROJECT GUIDE

Dr. LAXMIKANTHA NAYAKA T O

HO D

Department of Commerce

Shri. UDAYSINGH RAJPUT

PRINCIPAL

KLES'S Basavaprabhu Kore  
Arts, Science and Commerce College  
CHIKODI - 591 201





ESTD : 1980

**SHRI D. T. PATIL  
CO-OPERATIVE BANK LTD., CHIKODI.**

Dist. Belgaum.(Karnataka) Pin code-591201. Phone No. : 08338-272249

Email : dtpatilbank@rediffmail.com.

Email : liberalbank@rediffmail.com.



(Formerly : The Liberal Co-operative Bank Ltd., Chikodi.)

ಶ್ರೀ ಡಿ. ಟಿ. ಪಾಟೀಲ ಕೋ-ಆಪರೇಟಿವ್ ಬ್ಯಾಂಕ್ ಲಿ., ಚಿಕ್ಕೋಡಿ

श्री डी. टी. पाटील को-ऑपरेटिव्ह बँक लि., चिक्कोडी

ef. No. 59/23

Date : - 6 OCT 2023

**CERTIFICATE**

This is to certify that Miss Rekha Khot M.COM IV Semester. Student of K.L.E SOCIETY'S BASAVAPRABHU KORE ARTS, SCIENCE & COMMERCE COLLEGE CHIKODI, had successfully completed project work study titled "A Study on Customers Satisfaction" in our Bank from 01/06/2023 to 20/09/2023. During the period she found sincere and hard working.

We wish her every success in her future endeavors.



*Amata*  
Managing Director,

## DECLARATION

I declare that the project report entitled **A STUDY ON CUSTOMER SATISFACTION WITH REFERENCE TO D.T. PATIL CO-OPERATIVE BANK CHIKODI** is a record of independent research work carried out by me and submitted in partial fulfilment of the Degree in "**Master of Commerce**" as prescribed by the Rani Channamma University, Belagavi for the academic year **2022-23**.

It has been prepared under the guidance and supervision of **Shri. V. S. Khot**, Lecturer in PG Department of Commerce K.L.E. Society's Basavaprabhu Kore Arts, Science and Commerce College, Chikodi.

The Thesis or a part thereof has not been previously submitted for the award of any other degree or diploma.

Date: 25-09-2023

Place: Chikodi



Miss. Rekha Khot

Register No: P15DM21C0009

## Acknowledgement

The success of any project is incomplete without mentioning the names of the people who made it possible.

I am conscious of my indebtedness to each and every individual, who has helped me in many ways in the preparation of this project work. It would be great privileged to express words of gratitude and respect to all those who guided and inspired me throughout the completion of this project.

I sincerely express my deep sense of gratitude and appreciation to Internal Guide **Shri. V. S. Khot**, for his careful and valuable guidance, never ending patience and constant encouragement throughout the project.

I am beholden to **Dr. Laxmikantha Nayaka T O** Head of Department of Commerce for constant interest evidenced by him in my academic pursuits.

I express my deep intelligence of appreciation to **Shri. Udaysingh Rajput**, Principal of our college for his valuable suggestions and encouragement.

I express my sincere gratitude to **Shri. A. S. Masti** Manager, D.T.Patil co-operative Bank Chikodi for providing me an opportunity to do a project in their organization.

At the outset, I would like to thank all the teaching faculty of PG Department of Commerce for their valuable suggestions during project work.

My thanks are also to library staff for their co-operation during the course of project work and I am also thankful to Printers for their skillful printing of this project.

Finally, I owe my deep sense of gratitude to my parents, friends and relatives for their constant encouragement and support.

**Miss. Rekha Khot**



## INDEX

SL NO.	CONTENTS	PAGE NO.
1	INTRODUCTION AND RESEARCH DESIGN	1-7
2	CONCEPTUAL FRAMEWORK	8-46
3	STUDY AREA PROFILE	47-54
4	DATA ANALYSIES AND INTERPRETATION	55-67
5	FINDINGS, SUGGESTIONS AND CONCLUSION	68-71
	BIBLIOGRAPHY	
	ANNEXURE	

**A STUDY ON CUSTOMER SATISFACTION TOWARDS  
D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**CHAPTER-I**

**INTRODUCTION AND RESEARCH DESIGN**

- 1.1 Introduction
- 1.2 Review of literature
- 1.3 Statement of the problem
- 1.4 Need for the study
- 1.5 Objectives
- 1.6 Scope of the study
- 1.7 Research methodology
- 1.8 Limitations of the study
- 1.9 Chapter scheme

# **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

## **1.1 INTRODUCTION:**

Customer satisfaction, which refers to a customer's satisfaction of particular service of Shri. D.T.PATIL Bank, allows the customer to get the most from what services he consumes. Customers know more about their choices when they have services information and benefit from knowing their rights, hearing about alerts and warnings and finding out about safety issues. Customer satisfaction is about making the customer satisfied of his/her rights. It is a marketing term which means that customers are satisfied of facilities and services of the Shri. D.T.PATIL Bank.

The bank provides financial assistance to the people with small means to protect them from the debt trap of the money lenders. It is a part of vast and powerful structure of bank. This bank is a financial entity which belongs to its members, who are at the same time the owners and the customers of their society. This society is often created by persons belonging to the same local or professional community or sharing a common interest. These societies generally provide their members with a wide range of banking and financial services (loans, deposits, banking account.

## **1.2 REVIEW OF LITERATURE:**

- **C. K. SUNITY (2019) in the article “customer satisfaction in E-banking services”**

Stated that electronic banking incorporates system that enable individual customers to access their accounts. Transact with speed and obtain current and updated information on latest financial product and services through private and private network. It accommodates a variety of platform such as internet banking, telephonic and television based banking. Automated teller services mobile phone banking as well as personal computer based and offline banking services.

- **Dr. PRATIMA MERUGU (2018) in his article “customer satisfaction towards online banking with reference to greater Visakhapatnam city”,**

Stated that customers and deliver customer satisfaction in online banking has attained greater prominence as more and more banks compete to offer superior



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

services to their clients making it imperative for banks to align their strategies in response to changing customers need and technology.

- **MD. KHALED BIN AMIR, Dr. HASINSHEYKH (2017)in their article “Analysis of customer satisfaction on online banking,**

A case study on “one bank limited” stated that customers are asked about their satisfaction level on online banking. After conducting a thorough research, online banking service of one bank limited, is quite good and satisfaction are grater for some parameters and less for same parameters.

- **Ms M. ESTHER KRUPA (2016) in their article “A study on customer satisfaction towers E-banking Service in Coimbatore City,”**

Banking is one of the emerging trends in the Indian banking I playing a unique role in strengthening the banking sector and improving service quality. It has enabled the banking to handle the payments electronically faster and in large volumes.

- **D.N.V.KRISHNA REDDY, Dr. M .SUDHIR REDDY (2015) in their article “A Study on Customer’s Perception and Satisfaction towards Electronic Bank in Chama District”,**

Stated that Information and Communication Technology (ICT) have brought about a lot of changes in almost all aspect of life. In the banking industry, it has been in the form of E-Banking or online banking or internet banking, which is now replacing the traditional banking mechanism E-Banking has a lot of benefits which add value to enhance customer’s satisfaction in terms of better quality of service offering and simultaneously enable the bank gain.

- **ZEINALIZADEH N. SHARIATMADARI M.(2014),**

Opined that out of the nine customer satisfaction factors fees and loan, prompt service and appearance are the major factors which have more significant impact on customer satisfaction followed by interest rate and accessibility of bank and availability of service which have less impact on the satisfaction on the banking customers.

- **GUPTA. A and DEV.S (2013),**

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

Opined satisfaction of customer is dependent on variable then independent variable. These dependent variables largely depend on service quality, ambience, involvement, accessibility and financial factors of the bank. According to the finding of the research. The impact of nearness of bank and financial factors on customer satisfaction is not up to the mark.

- **SHARMA N. (2012),**

Research study used the 17 variables related to the quantitative aspects of e-banking. Study on rural customers satisfaction from e-banking was found to be significant. Research suggests that satisfactions in rural customers are quite satisfied in e-banking services. So, in order to improve the tendency to use e-banking channels in rural areas the use of local languages during dealings should be promoted as well as publicized. Her research also suggest that ATM is one of the important channel out of all alternate banking channel for securing patronage of rural customers.

### **1.3 STATEMENT OF THE PROBLEM:**

This study has been conducted in order to know the customer opinions and satisfaction towards Shri D.T.PATIL Bank with reference to CHIKODI CITY. The present study is conducted to find out the main problem faced by the customer and the customer satisfaction and opinion towards the bank rules, regulations, policy towards its customer, and opinion about service provided by the bank.

### **1.4 NEED OF THE STUDY:**

For every bank customer is the main player because the main intention of every financial institution is to fulfil the needs of their customers and give them maximum benefits. The present study deals with “A study on customer satisfaction towards D.T.Patil Bank in chikodi.” The study helps to know about how well the services provided by the bank to their customers.

# **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

## **1.5 OBJECTIVES OF THE STUDY:**

- To analysis the satisfaction level of customers and quality of services offered by the Shri. D.T.PATIL Bank.
- A study of components of customer satisfaction.
- To suggest ways to improve the level of satisfaction among the customer.

## **1.6 SCOPE OF THE STUDY:**

The present study is limited to Shri. D.T.PATIL BANK CHIKODI. Covers the study on “customer satisfaction to the bank”. The study is based on primary data: the source for data collection is Questionnaire. The target population for the study is customers of in Shri. D.T.PATIL Bank. The sample size is 25.

## **1.7 RESEARCH METHODOLOGY:**

Research methodology is simply the study to analyze relation between variables and elements here in this research we have dependent element as satisfaction and various independent elements like time, location, interest rate, and flexibility there is a dependent factor or element there is customer satisfaction.

### **A. Primary data:**

- a. Primary data are original data are first hand information collected for the purpose of a particular study.
- b. Sources of primary data.
- c. Observation and discussion.
- d. Questionnaire methods.

### **B. Secondary data:**

- a. Secondary data are those which have already been collected by some other person usually in the shape of finished products.
- b. Sources of secondary data.
- c. Internet, Journals, Reference material, Books.

### **C. Sampling Methods**

# **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

Sampling design is a design or working plan that specifies the population frame, sample size, sampling selection and estimation methods in detail. Objective of the sampling design is to know the characteristics of population.

## 1. Population:

Target population for the study is customer of Shri. D.T.PATIL Co-operative bank.

## 2. Sample Size:

Collected sample size of 25 respondents.

## 3. Sampling Method:

Simple random sampling.

### **1.8 LIMITATIONS OF THE STUDY:**

- A study is limited to customer of Shri. D.T.PATIL Bank.
- Accuracy- it is difficult to know if all the respondents tend to give misleading information.
- The sample size 25 was taken from the population for the purpose of study so there can be difference between results of sample from total population.
- The required time for the study is limited.

### **1.9 CHAPTER SCHEME:**

#### **Chapter 1: Introduction And Research Design**

This chapter deals with the introduction, review of literature, objectives of the study, research methodology, scope of the study, need of the study, limitations of the study, chapter scheme.

#### **Chapter 2: Conceptual Framework**

In this chapter is reviewed on various concepts related to the study which are: introduction, meaning of customer satisfaction, definition, objectives, and variables of customer satisfaction, customer satisfaction, customer perceptions and behaviour: relationship between satisfaction, quality and loyalty. Benefits and important of customer satisfaction, components of customer satisfaction, customer satisfaction

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

strategies for banks, customer satisfaction is the largest competitive advantage for banks, mistakes that lower customer satisfaction for banks, the result of great customer satisfaction for banks, customer satisfaction process improvement, customer orientation and customer satisfaction, service quality effects on customer satisfaction in banking industry, what constitutes, tools, and surveys of customer satisfaction, how to measure customer satisfaction, factors influencing customer satisfaction, factors relationship among the concepts of customer satisfaction.

### **Chapter 3: Bank Profile**

This chapter deals with bank profile which includes introduction, bank profile, organization structure, product and service profile, area of operation, requirements to open an account, objectives, vision and mission, swot analysis.

### **Chapter 4: Data Analysis And Interpretation**

In this chapter data has been analysed as per the information available through the questionnaire in the forms of tables and graphs.

### **Chapter 5: Findings, Suggestion And Conclusion**

In these chapter findings, suggestion and conclusion are presented and also this chapter includes bibliography and annexure.



**CHAPTER - 2**

**CONCEPTUAL FRAMEWORK**

- 2.1 Introduction
- 2.2 Meaning and Definition of Customer Satisfaction
- 2.3 Objectives
- 2.4 Variables of Customer Satisfaction
- 2.5 Customer Satisfaction
- 2.6 Customer Perceptions and Behaviour: Relationship between Satisfaction, Quality and Loyalty
- 2.7 Benefits and Important Of Customer Satisfaction
- 2.8 Components of Customer Satisfaction
- 2.9 Customer Satisfaction Strategies for Bank
- 2.10 Customer Satisfaction Is the Largest Competitive Advantage for Banks
- 2.11 Mistakes That Lower Customer Satisfaction for Banks
- 2.12 The Result of Great Customer Satisfaction for Banks
- 2.13 Customer satisfaction process improvement
- 2.14 Customers Orientation and Customer Satisfaction
- 2.15 Service Quality Effects on Customer Satisfaction in Banking Industry
- 2.16 What Constitutes, Tools and Surveys of Customer satisfaction
- 2.17 How to Measure Customer Satisfaction
- 2.18 Factors Influencing Customer Service in the Banking Sector

# **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

## **2.1 INTRODUCTION:**

A bank is a financial institution which accepts deposit, pays interest on pre-defined rates, clears checks, makes loans and often acts as an intermediary in financial transaction. It also provides other financial services to its customer. The issue of service quality is a critical one throughout service industries as business attempt to sustain their competitive advantage in the marketplace. Owing to the financial services like banks' competition in marketplace through undifferentiated products, this highlights service quality as the basic competitive tool. In other words, a banking organization may attract customers through the provision of high quality services. A such, structural modifications have led to banks being enabled to carry out various activities which in turn, allow them to more competitive even against non-banking financial institutions.

Bank is a institution which channel people savings into productive loan and investments. Thus banking mainly refers to deposits and loan.

## **2.2 MEANING AND DEFINITION OF CUSTOMER SATISFACTION**

### **2.2.1 MEANING:**

Customer satisfaction is defined as customers' response to the perceived gap between prior expectation or experiences and actual performance of products or service consumed.

### **2.2.2 DEFINITION:**

PHILIP KOTLER defines,

Customer satisfaction as 'person's feeling of pleasure or disappointment, which resulted from comparing a product's perceived performance or outcome against his/her expectation.

## **2.3 OBJECTIVES:**

- To examine the needs of D.T.Patil Bank.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

- To determine the main factors influencing the level of customer satisfaction in this bank.
- To assess the level of customer loyalty in this banking services.
- To assess the level of customer satisfaction of the quality of service provided by the bank.
- To assess the level of satisfy perception of the customers in this bank.

### **2.4 VARIABLES OF CUSTOMER SATISFACTION:**

In this study the researcher will examine how the independent variables affect the de-pendent variable. Hence the dependent variable is customer satisfaction, and the in-dependent variables are Customer Loyalty, Service Quality, and Security

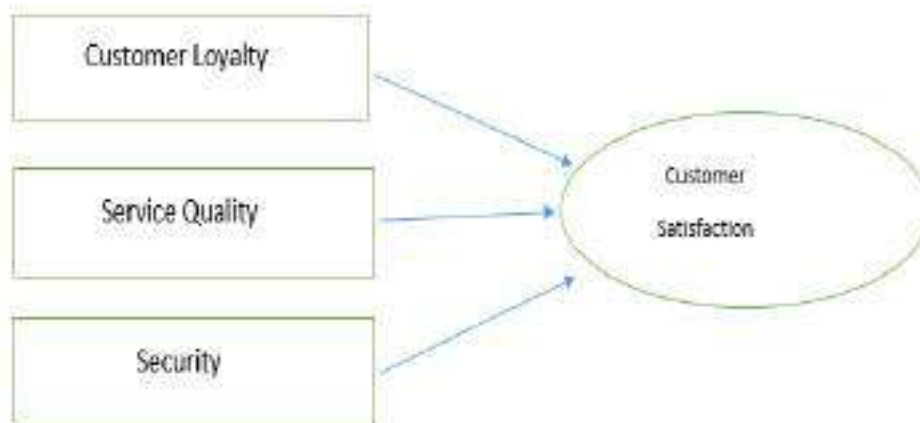


Figure: Framework of customer satisfaction

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.4.1 CUSTOMER SATISFACTION:**

CUSTOMER SATISFACTION IN THIS STUDY IS A DEPENDENT VARIABLE, CUSTOMER SATISFACTION IS THE TERM MOST COMMONLY USED IN TRADE AND INDUSTRY. BUT IS AN EXPRESSION OF THE WORK EXPLAINING THIS TYPE OF MEASUREMENT OF PRODUCTS AND SERVICES OFFERED BY THE COMPANY TO MEET THE EXPECTATIONS OF ITS CUSTOMERS. FOR SOME, THIS MAY BE CONSIDERED THE COMPANY'S KEY PERFORMANCE INDICATOR. CUSTOMER SATISFACTION IS ONE OF THE IMPORTANT OUTCOMES TO MARKETING ACTIVITY (SPRENG ET AL., 1996). IN TODAY'S HIGHLY COMPETITIVE BANKING INDUSTRY, CUSTOMER SATISFACTION IS CONSIDERED AS THE ESSENCE OF SUCCESS (SIDDIQI, 2011). A LOT OF STUDIES HAVE DEALT WITH SATISFACTION OF CUSTOMERS OR CONSUMERS WITH PRODUCTS OR SERVICES. MARKETING RE-SEARCHERS IN GENERAL AGREE THAT SATISFACTION IS RESPONSE TO CONSUMPTION RELATED EXPERIENCES (ANDERSON ET AL., 1994).

### **2.4.2 CUSTOMER LOYALTY:**

The study of customer loyalty has long been a topic of interest in the arena of consumer behaviour. A number of constructs of customer behaviour related to customer attachment have been developed and explored in marketing, including source loyalty, customer loyalty, customer involvement, customer commitment, brand sensitivity and brand commitment. Customer loyalty is considered an important key to organization-al success and profit (Oliver, 1997). It is more expensive to recruit new customer than to keep existing customer (Rosenberg and Czepiel 1983). The matter of expenditures would not be matter as those consumers that demonstrate the greatest levels of loyalty toward the product, or service activity, tend to repurchase more often, and spend money. Consequently, a great deal of research attention has focused on the identification of effective methods of enhancing loyalty (Lach, 2000) Oliver (1999) defined customer loyalty as a deeply held commitment to rebury a pre-furred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.4.3 CUSTOMER QUALITY:**

Service quality can be defined as the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received (Asubonteng et al., 1996). Gefan (2000) defined Service quality as the subjective comparison that customers make between the quality of the service that they want to receive and what they actually get. Service quality is determined by the differences between customer's expectations of services provider's performance and their evaluation of the services they receive.

### **2.4.4 SECURITY:**

In many ways this security of an bank process isn't dissimilar to this security of an process which usually belongs to help another business corporation. Nonetheless, people knowing of the requirement permanently computer system security regarding bank programs can be quite large. Perhaps this consciousness is usually lifted by the affiliation along with Automated Money Transport, as well as the heavy dependence and that is located on very large intercontinental personal telecoms systems. None the less, seriously isn't the only real programs action throughout bank. Numerous stability practices tend to be akin to these of another small business corporation. Your security of bank programs can be incredibly noticeable into a bank customer.

### **2.5 CUSTOMER SATISFACTION:**

Customer satisfaction refers to the extent to which customer are happy with products and services provided by a business. Customer satisfaction level can be measured using survey techniques and questionnaires.

There are varies studies done to determine the level of customer satisfaction and factors affecting them. On the basis of these information and studies we can know that there number of dependent and independent variable involved and in the determination of customer satisfaction. However of these various independent and dependent variables we take in consideration only few or major ones due to lack of time and resources to analyse each and every co-operative.



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

A significant level of customer satisfaction is among the most critical indicators of the business's future. Customers who are satisfied are also loyal and this ensures a consistent cash-flow for the business in the future. In addition, satisfied customers are often characterized as less-price sensitive and they are more partial to spend more on the products they have tried and tested before. Moreover, stability in business relations is also beneficial where the positive quality image minimizes the cost for a current customer.

Satisfaction refers to a feeling or a short term attitude that can change owing to various circumstances. It exists in the user's mind and is unlike observable behaviours like product choice, complaint or repurchase. In a related study investigated the relationship between expectations, performance and satisfaction. The findings revealed that when a customer judges the performance of a product, he usually compares a set of performance outcomes that are expectations. The product is then likely to be considered as dissatisfactory or satisfactory. In another related study developed and tested alternative models of market-level expectations, perceived product performance, and customer satisfaction. They revealed that in a particular period, satisfaction is positively impacted by performance and expectations where performance effects reveal the impact that experiences of the product or service have upon satisfaction and expectation effects reveal the impact that past performance information has upon satisfaction. They stated that managers inclined to maximize market satisfaction for the purpose of enhancing future profitability is better off investing in long-run quality improvement strategies and methods as short-term techniques only leads to temporary performance or benefits per customer and will be negligible in the long-run. Similarly, examined the antecedents and outcome of firms' customer satisfaction and found that quality falling short of expectations have higher impact on satisfaction and retention compared to those exceeding expectations. They also revealed that satisfaction positively affects repurchase intentions and both positive and negative disconfirmations increase with the ease of quality evaluation.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.5.1 CUSTOMER SATISFACTION AND BANKING SECTOR:**

Among the many studies in literature dedicated to customer satisfaction in banks, utilized a benchmark involving bank customers from all geographic areas and bank assets. The study involved asking customers various questions concerning their satisfaction with the banks. Data collected was utilized to benchmark customer satisfaction scores of banks participating in the financial client satisfaction index. The findings revealed that the most significant attributes that results in satisfaction include human interaction issues like ‘correcting errors promptly’, ‘courteous employees’ and ‘professional behaviour’. Moreover, the findings also revealed that the provision of good, personal service is considered by the clients as more important more than convenience or products. The latter study was also conducted in Washington and it revealed that customers taking the customer satisfaction survey bought more products compared to the control group that were not participants to the survey. According to the authors, survey participation is what led the customers to develop more positive perceptions towards the company and it convinced them that the firm values and cares about its customers and their feedback.

In another study, claimed that the key to obtaining competitive advantage in the banking business is to be customer-driven. In other words, the entire aspects of the institution should concentrate on the factors that the customers hold dear and it should be willing to exceed customer expectations. Several studies evidenced that by concentrating on and delivering excellent customer satisfaction outcome, firms achieve superior profitability. Hence, improving customer service may entail training procedure or enhancement of computer information systems of the bank. While improving customer service may lead to increased tangible accounting costs, it may also steer clear of the occurrence of intangible costs. Bankers can develop quantitative data through researching customer satisfaction, in the hopes of stressing that the emphasis and delivery of exceptional customer satisfaction can lead to improved revenues that are higher than increased costs. Customer service and satisfaction are the factors differentiation a firm from its large, national competitors. Moreover, the banks branding message reads, “Great Rates. Friendly Service” and through ongoing sales and service training, it attempts to deliver what it promises to

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

revealed that in order to achieve customer satisfaction, it is imperative for banks to make use of different tools that varies from re-engineering of service to focusing on specific tasks. The study also revealed a very high correlation between satisfaction scores and customer's predisposition to repurchase. In short, for happy customers to provide recommendations through word-of-mouth to others, they must be satisfied. if the firm is derelict in serving the customer, they will not hesitate to switch to another financial institution. Customer satisfaction is not becoming significant in a way that some banks view it as a main element in their marketing strategies. The term 'after marketing' has also been commonly utilized to reflect the concentration on expending effort to cater to current customers in an attempt to increase their satisfaction and to retain them. This section stressed on the importance of customer satisfaction which is considered to be the basis of banks' development of strategies. As such, it is important for current financial institutions to shift towards customer management for their satisfaction of the services provided. It is also imperative for banks to develop a system that continuously measures customer satisfaction.

### **2.5.2 CUSTOMER SATISFACTION AND LOYALTY:**

Customer loyalty is defined as "the market place currency of the twenty-first century". Similarly, customer loyalty to the customer's thoughts and actions. Several customer loyalty experts describe loyalty as a state of mind and a set of beliefs. Among the main elements of loyalty are the information exchange and the relation between the state of mind and behaviour. For instance, loyal customers often provide information to service providers because of their sense of trust in them and they expect the service providers to utilize the provide information to their advantage. Moreover, customer satisfaction leads to customer loyalty which in turn, leads to profitability.

### **2.5.3 CUSTOMER SATISFACTION AND SERVICE QUALITY:**

In the current dynamic and competitive business world, sustainable competitive advantage is driven by the delivery of high quality service that will result in customer satisfaction. In other words, customer satisfaction is a condition to achieving

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

customer retention and loyalty and it can assist in boosting profitability, market share and return on investment. The investigation of the relation between service quality and customer satisfaction. The concluded by identifying five factors of service quality that are considered by customers as critical. They are enumerated as follows;

- Core service or service product – service content.
- The human elements of the service delivery including reliability, responsiveness, assurances, empathy, and service recovery all a part of the human element when delivering the service.
- Service delivery systemization which refers to the processes, procedures, systems and technology that helps in making the provision of service in a seamless manner.
- Service tangibles which refers to equipment, signage, employees' appearance and the man-made physical environment characterizing the service – commonly called the 'service space', and finally,
- Social responsibility which is the service provider's ethical behaviour activities.

The above study indicated the close relation between service quality and customer satisfaction in a way that an increase in one factor leads to the increase in the other. View deforms another perspective of investigated the relation between the determinants of service quality and outcomes of the zone of tolerance. He revealed that there are some determinants that are more likely to be a source of dissatisfaction while others to be a source of satisfaction. The demonstrated the following;

- ✓ Some determinants of quality are superior to others.
- ✓ The key sources of satisfaction of the bank's customers include attentiveness, responsiveness, care and friendliness while the key sources of dissatisfaction include issues pertaining to integrity, reliability, responsiveness, availability and functionality.
- ✓ The sources of satisfaction enumerated above are not necessary the opposite of the sources of satisfaction.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

- ✓ The intangible aspects of the staff customer relation significantly impact service quality in a negative and positive way.
- ✓ Responsiveness is a key determinant of quality and is a key element in the provision of satisfaction while the lack of it is a main source of dissatisfaction, and Issues of reliability are a source of dissatisfaction as opposed to satisfaction.

From the above, it is evident that satisfaction can be achieved by providing the service in a timely and efficient manner. The presence of satisfying factors may also lead to positive, virtuous circles, supporting contact staff-customer relationship

Customer satisfaction in business service is the one of that service quality has a highly significant relationship with overall customer satisfaction. First, that product quality is a critical element of presentation. Second, the significant relation between timeliness and cost management could support the saying “time is money” in the context of business response to market changes. The third most critical contributor to overall customer satisfaction was revealed to be service quality.

Moreover, internet banking service quality is significantly related to overall customer satisfaction in banks. The added that the delivery of high quality online service is called for, for the maintenance or enhancement of the banks’ customer satisfaction.

Bank’s customers were satisfied with the banks’ overall service quality. The findings also indicated that the standard model of banking service quality dimensions should include the following six dimensions; tangible, reliability, empathy, responsiveness, assurance and compliance along with the good determinants of satisfaction. They also revealed a significant relationship between service quality and customer satisfaction.

### **2.6 CUSTOMER PERCEPTIONS AND BEHAVIOUR: RELATIONSHIP BETWEEN SATISFACTION, QUALITY AND LOYALTY:**

Customer satisfaction is a key variable for evaluating and controlling bank marketing management. Additionally, the main role of service quality in the realm of financial service delivery has been stressed. Despite the fact that the constructs of



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

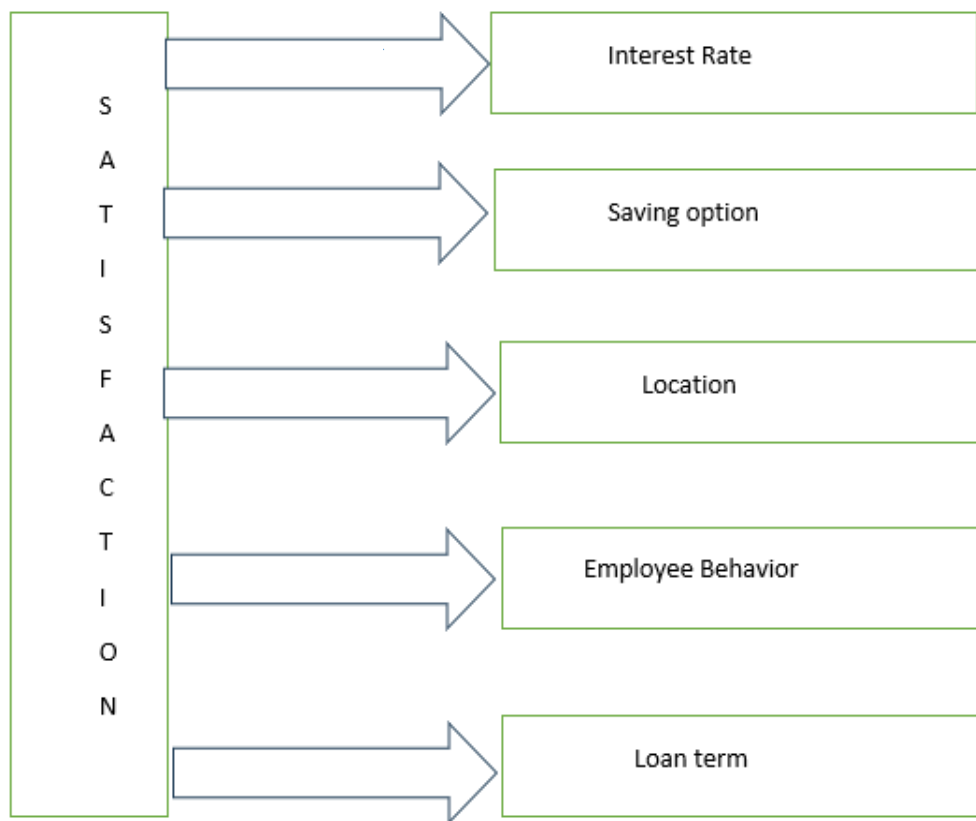
---

both service quality and satisfaction are often interchangeable, the significant body of research has attempted to clarify the nature of the relationship between them. Moreover, based on review of the issues, service quality is an antecedent to satisfaction and it is by nature, non-experiential, which is not unlike attitude in nature that can be developed from other sources like word of mouth. Despite the acknowledgement of the multi-attribute nature of both constructs, over the years, researchers have been focusing on the identification of the attributes and expansive dimensions of service quality. Prior works in the topic differentiated between technical and functional quality and stressed on the significance of the functional or service delivery as an element of consumer evaluations. This distinction has influenced later works where researchers investigated the dimensionality of service quality. Other provided the following three elements of the service process in addition to outcome; access/convenience, human elements comprising of the combination between instrumental and expressive qualities and finally, tangibles.

The effect of consumer's service evaluation (implicit or explicit) in service quality and satisfaction literature indicates the relation between the constructs and consumer behaviour. The relationship between behavioural intentions and satisfaction between behavioural intentions and service quality. Meanwhile the investigated the antecedent relation between all three constructs with conflicting findings. Moreover, the relationship between intentions and actual behaviour is still unconfirmed as research has mostly concentrated on studying the relationships between customer satisfaction and loyalty. Loyalty is defined as repeat purchase intention, attitudes or other alternative measures of actual behaviour like repeat purchase, recommendation among others. The complex relation between consumers various degrees or conditions of loyalty.

## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---



### 2.6.1 BENEFITS AND IMPORTANT OF CUSTOMER SATISFACTION:

#### a. BENEFITS:-

- Customer loyalty
- Support pillars
- Growth sales revenue
- Boost brand reputation and popularity
- Reduce marketing expenses
- Support during corporate crisis
- Stand out from the competition
- Increase brand popularity

#### b. IMPORTANCE

- Repeat customer
- Competition differentiator
- Reduce customer churn

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

- Decrease negative word of mouth
- Retaining customers is cost effective
- Reputation are powerful
- To gain market share
- To retain customers in the long run
- Quick services

### **2.6.2 COMPONENTS OF CUSTOMER SATISFACTION:**

Any organization willing to have the sustainable development and progress in their entire business should have positive contribution to meet the customer satisfaction. The exact addressing and fulfilment of needs of customer in the right way at the right time helps in getting the business success and paves the way for better goodwill of the company. It is all so believed that when a customer is fully satisfied from the services, they are forced to come back again for the services.

### **2.6.4 PRODUCT QUALITY OR SERVICES QUALITY:**

Every customer wants to get total satisfaction from the expenses they make for. They do not want to invest their money in vain. They always try to get maximum satisfaction from the money they spend in buying the goods or want the maximum output from the investment they make. It is a common thing that nobody wants to ruin their earning and invest their money for nothing. Therefore, if business men or the organizations want to make the maximum profile from the market then they should be able to give the reward for the customer money and the product quality or the services rendered should be high.

### **2.6.5 STATE OF CUSTOMER MIND:**

It is not obvious that we can meet the need of each and every customer. When a customer is not in good stand of mind, we cannot meet his level of satisfaction. Such cases are exceptional. When a customer is in the state of angry, whatever we do to fulfil his satisfaction it becomes useless. Our efforts do not work at that time. In such conditions we should live them as we can do nothing. But the best level should be

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

tried to meet his/her intention. But if the dissatisfied puts the negative feedback on the social sites or WebPages then it may affect the entire business transaction.

### **2.6.6 EQUALITY BEHAVIOUR:**

The behaviour among the customer should not be biased. Each and every customer has their own value and assumption. The customer paying the same amount for the same commodity should not be charged double is even a penny more to another customer. There should be fair transaction among the customers.

### **2.7 CUSTOMER SATISFACTION STRATEGIES FOR BANK:**

Banks and financial services play a key role in the everyday lives of customers. From online banking to savings accounts to financial planning, customer service is an integral part of every interaction between businesses and consumers in the banking industry.

In the past years, we've seen the financial industry evolve dramatically with the advent of technology. This has put a lot more emphasis on digital channels and online banking. As a result, customer service executives have needed to adapt, finding ways to stay connected with their customers via remote banking options.

Nonetheless, there is still a clear in-person component to banking customer service. Bank branches haven't ceased to exist, and bank tellers should still be able to handle basic situations like money transactions and account inquiries.

Whichever way they choose to engage, financial customers are looking for more than just somewhere to deposit checks or transfer funds when it comes to choosing their bank. They'll want to see that their bank can provide them with different levels of service for various banking activities, as well as quality products.

As far as banks are concerned, an exceptional customer experience will increase loyalty among existing customers and attract new ones. That means it's well worth investing efforts into customer service to add value to a financial services offering.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.7.1 MAKE A GREAT FIRST IMPRESSION:**

Your first touch point is an opportunity to set the tone for a new customer relationship. If a customer is opening a checking account or signing on to investment products, this is likely to be an official on boarding process. However, on boarding sits at the crux of inefficiency for many banks. Due to large amounts of personal and legal data, it can take weeks to complete a process—especially when these are paper-based, manual processes.

It's vital that firms look for ways to optimize on boarding, but few are taking the steps to do so. According to The Digital Banking Report, a shocking 47% of organizations don't have a formalized on boarding process (The Financial Brand). With a lot to gain from using the on boarding process to make a first impression, enhancing processes and service standards for this stage of the customer journey is likely to help banks stand out.

### **2.7.2 OPTIMUM FOR POSITIVE LANGUAGE:**

Finances are often personal in nature, and can involve sensitive subjects. Therefore, using the right language when engaging with customers is vital. Customer service agents should aim to answer banking questions in simple language, offering the appropriate banking resources for any additional questions.

Language is also important when it comes to communications powered by artificial intelligence. If a bank uses chat bots to respond to certain customer requests, these interactions should also reflect the tone and attitude of a human customer service agent.

The best rule of thumb is to focus on the positive. Agents should emphasize what is in their power to do and, if they can't resolve a request instantly, assert that a resolution is on its way.



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.7.3 EMPOWER THE STAFF:**

In today's banking landscape, the importance of trust can't be underestimated. Building trust means showing the customer that they are being heard, but this also requires banks to equip their advisors and agents to deliver an exceptional customer experience. Just as customers might encounter issues with protocols around credit cards or debit cards, customer service employees run into problems when they can't resolve a customer request due to company procedures and regulations. By listening to agents and giving them what they need, banks can empower customer service staff to solve problems on the spot. Banks should encourage them to make decisions that resolve issues, without having to get a manager's permission first.

### **2.7.4 CHOOSE YOUR EXPERTISE:**

Innovative uses of technology have raised the bar for customer expectations. In today's market, they want tailored advice to be accessible at any time.

That said, trying to provide quick and personalized guidance on all banking products is inefficient. Without a clear strategy, this will lead to higher expenses and overworked advisors who are struggling to keep up with specific customer demands.

Therefore, a better approach is to streamline areas of expertise. Banks can train advisors with specialized competencies (like mortgage applications or estate planning) and employ technologies like algorithmic banking to help them serve customers better.

Technology can also help advisors to reach customers more easily. Channels like video conferencing and live chat offer a quicker way to engage, as well as a convenient solution for many customers. Banks should invest in helping customers learn about new technologies to encourage digital uptake—but leaving the door open to in-person interaction is also key.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.7.5 CUSTOMIZE THE CUSTOMER JOURNEY:**

Technology offers banks ways to create a more customized customer journey. Many banks are leveraging the benefits of this, with 75% of financial organizations reporting that digital banking transformation has been their top priority over the past year" Online banking should be user-friendly and intuitive, but it's also vital to give customers multiple channels through which to engage with their bank. These should be a mix of channels that are supported by mobile devices, as well as telephone services and video meetings for higher-touch interactions. Every banking journey will look slightly different, so it's important to give customers flexibility to navigate evolving needs throughout the customer lifecycle.

### **2.7.6 FUSE TECHNOLOGY WITH A PERSONAL TOUCH:**

Younger customers are the main advocates for personalized services. As a group that are accustomed to seamless and hyper personalized big tech experiences delivered by Apple, Google and Amazon, they expect the same from financial services providers. 81% of Gen Z customers say that personalized features would deepen their connection with their bank. For customers over the age of 65, a further 47% express this preference

A growing number of customers are looking for a personal touch—and this is never more relevant than with the institutions they entrust with their money. Banks can meet both these demands by using technology to augment human expertise and build detailed profiles of customer preferences. Digital banking should aim to serve everyday needs while keeping customers connected to higher-touch engagements and personalized offers.

### **2.7.7 BUILD TRUST:**

People must be able to trust those in charge of their finances. In a world where victims of fraud often turn to their banks for help, customers want assurance that banks are protecting customer data, with between 14% and 18% of all ages ranking this as the most important determinant of trust Banks must build robust internal

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

systems for managing vast amounts of customer data, and stay transparent about how they are managing and processing personal information. With many financial institutions using third-party channels to communicate with customers, it's also worth outlining what customers can do to keep their information safe. For instance, if sharing particular data such as an account number, social security number or PIN isn't secure on certain channels, make sure this is obvious to customers.

### **2.7.8 GATHER FEEDBACK:**

Feedback is fuel for customer service teams. Without it, it's very difficult to improve customer service in banking. Ratings provide valuable insights into the customers' experience of financial services.

The issue is that customers are often reluctant to spend time giving feedback. Constantly hounding customers to log into an online portal and fill out a complicated form is unlikely to foster much customer engagement.

A better approach is integrating links to surveys in emails to customers. It's best to keep these short and relevant. Ideally, they should also offer some kind of incentive or reward for providing information. That way, feedback processes can be mutually beneficial.

### **2.7.9 ADDRESS YOUR CUSTOMERS' PAIN POINTS:**

Unfortunately, the idea that one dissatisfied customer cancels out countless happy customers is no exaggeration. Knowing where you're not delivering is a critical insight.

For many banks, the weaker points fall within digital service offerings, which are often newer additions to the customer experience. One survey showed that 64% of respondents felt that their mobile banking was inadequate for resolving customer queries quickly, sometimes failing to resolve them entirely

### **2.7.10 FOCUS ON RETENTION:**

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

Customer loyalty is as important as client acquisition. Customers who feel satisfied with their experience will pick up momentum throughout the customer lifecycle, improving acquisition without any extra sales effort. Of customers who report feeling valued by their financial services provider, 92% plan to stay with the brand, 87% plan to purchase more, and 87% will advocate for the brand

So, what can banks do to improve customer retention rates? The research suggests that improving communication is a critical aspect—which also means expanding channels. Digital self-service in online banking portals shouldn't be the only exposure a customer has to their chosen financial institution. An Omni channel offering can help banks encourage the high-touch interactions that are likely to improve retention.

### **2.7.11 PUT THE CUSTOMER FIRST:**

Ultimately, strong customer service in banking depends on putting yourself in the customer's shoes. New strategies should always start from the customer's perspective, and this should be reflected in the performance measures used. Focusing on average handle time (AHT) rather than customer satisfaction scores, for example, puts the emphasis on productivity and costs rather than the overall customer experience.

### **2.8 CUSTOMER SATISFACTION IS THE LARGEST COMPETITIVE ADVANTAGE FOR BANKS:**

The banking industry is a commoditized space. With everyone offering nearly the same products and services without much room to compete on price, the experience customers have with their banks is what gives one bank a competitive advantage over another. There are two areas where banks can really look to stand out by delivering an incredible customer experience.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.8.1 INTERPERSONAL SERVICE:**

In our experience, the relationship between a bank and their customer has the biggest impact on customer satisfaction. People want to be treated as if they matter. They want to form a relationship with their bank, and they want their bank to make an effort to get to know them instead of just pushing a product.

### **2.8.2 CONSISTENT OMNI-CHANNEL EXPERIENCE:**

In modern banking, there are many ways for customers to interact with a bank, including online and mobile banking, at an ATM, and over the phone. One of the biggest things we've seen is that a consistent experience across channels matters to customers. Whether it's transferring information quickly between channels or making sure deposit times are consistent no matter how a deposit is made, these things matter. To provide a great customer experience, banks need to deliver on the expectations their customers have in all channels.

### **2.8.3 EFFECTIVE PROBLEM-SOLVING:**

Customers are reasonable. They know that an occasional problem or mishap is possible. But they also expect that their bank will make the situation right. This means fixing the problem quickly and effectively.

## **2.9 MISTAKES THAT LOWER CUSTOMER SATISFACTION FOR BANKS:**

With our extensive experience measuring customer satisfaction for banks, we've seen some common mistakes that can really have a negative impact.

### **2.9.1 TREATING A CALL CENTER LIKE A COST CENTER:**

Your call centre is a safety net. A quality call centre solution can really help to improve the customer experience. But when corners are cut to reduce costs, your call centre can do more harm than good. By not giving your call centre enough resources



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

or outsourcing to the most affordable solution, you could risk providing a poor customer experience.

### **2.9.2 AVOIDING INTERPERSONAL COMMUNICATION:**

Though this isn't as large a problem as it was in the recent past, banks that push customers out of branches and lean on digital space to reduce costs are missing the interpersonal communication and relationship building that is so important to banking customers. Having quality digital solutions is convenient for customers, but you still have to be committed to getting to know the people that bank with you.

### **2.10 THE RESULT OF GREAT CUSTOMER SATISFACTION FOR BANKS:**

Plain and simple, the result is better financial outcomes. Being incredibly involved with customer satisfaction in the banking industry, we've seen firsthand how big of an impact it has for a bank's financial success.

The results are two-fold. First, your current customers are far more likely to open more accounts or use more services if they've had an overall positive experience. A client with just a checking account could add a savings account and use you for their mortgage when they buy a home. Second, satisfied customers are far more likely to recommend you to others. This is especially true in business banking.

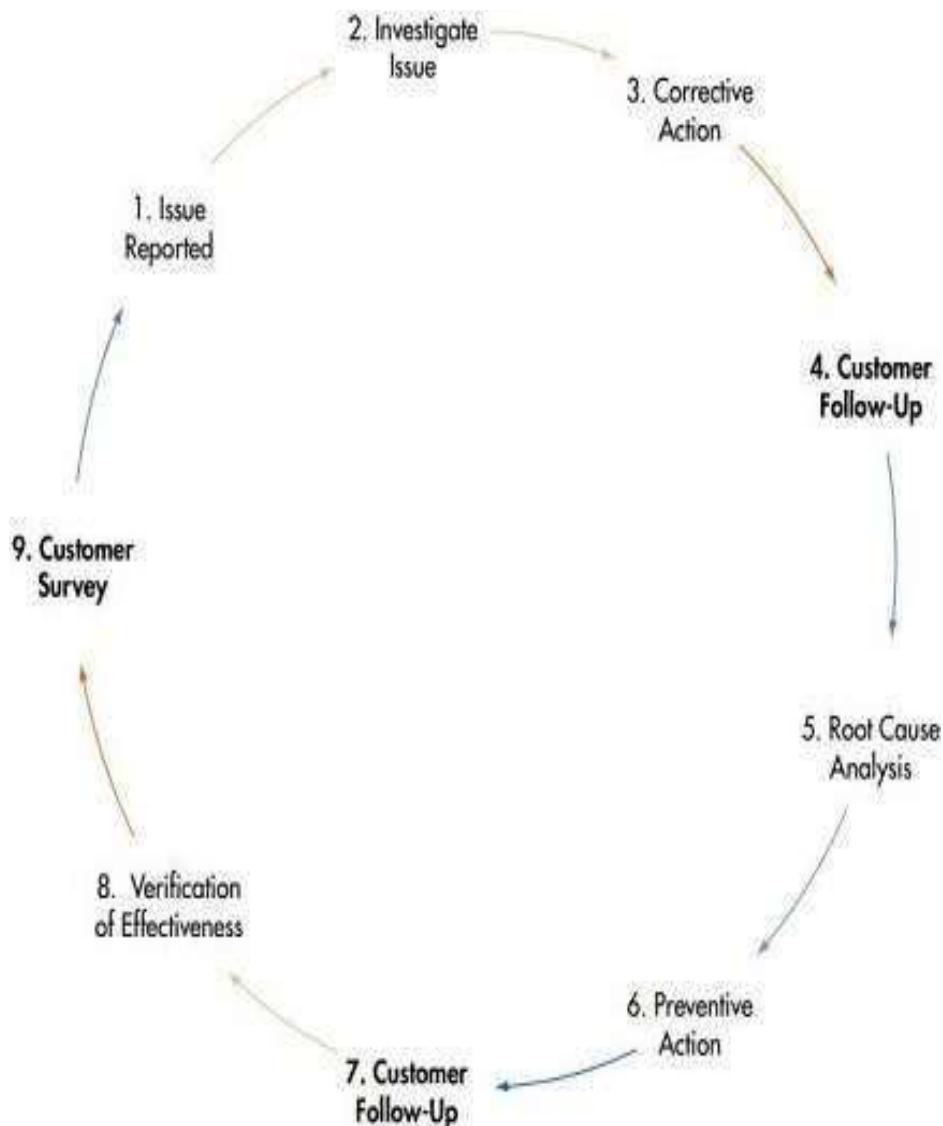
### **2.11 CUSTOMER SATISFACTION PROCESS IMPROVEMENT:**

Organizations should not assume they know what the customer want. Instead, it is important to understand the voice of the customer, using tools such as customer surveys focus groups, and polling. Using these tools, organizations can gain detailed insights as to what their customer want and better tailor their devices or products to meet or exceed customer expectations. Often, banks can rectify customer pain points by doing the basics well. The common frustration of a forgotten password is avoidable if banks are willing to invest in biometric technologies. It's a small tweak that makes a huge difference to the overall customer experience.

## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

Additionally, giving customers options for how they engage is likely to quell smaller issues. With collaboration tools such as live and asynchronous messengers, calls, and video meetings, banks can offer multiple paths to issue resolution. If the option for a conversation with a human agent is there, people are likely to take it, which also helps to craft more meaningful interactions.



**Figure: Customer satisfaction process improvement**

Ways to improve customer satisfaction:

- Ask them!
- Focus on retention

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

- complaints and compliments
- Conduct focus group
- Set up a customer hotline
- Hire a mystery shopper
- Become a customer of your best competitors
- Visit your customer's site
- Go online to seek more feedback

### **2.12 CUSTOMER ORIENTATION AND CUSTOMER SATISFACTION:**

Before customers patronise a bank service, they often have some kind of expectation of service delivery that they desire or wish to be met after purchase and consumption. To meet these expectations, banks are expected to put customers at the heart of quality service delivery. Banks that put customers first are said to be customer-centric. One characteristic of a service is inseparability, which means most service offers have concurrent production and consumption. This remains a highly relevant context for service providers and customers. The bank's practises have an influence on customer satisfaction. In the context of bank service delivery, customer orientation is about understanding the needs of customers not only to help the bank generate superior value but also for the satisfaction of their customers. On the other hand, customer satisfaction is understood as an overall customer attitude towards the product or service of a bank or service provider. Those two variables (Customer Orientation and Customer Satisfaction) have enjoyed much attention in the service marketing literature and among some scholars. Discovered a significant direct and indirect relationship between customer orientation and customer satisfaction.

### **2.13 SERVICE QUALITY EFFECTS ON CUSTOMER SATISFACTION IN BANKING INDUSTRY:**

This study contributes to the literature by considering a model for testing the quality of deposit services in the banking industry. The results indicating support for the hypotheses suggest that the five SERQUAL factors can be used to test banking services based on the whole system. Previous studies have shown that satisfying

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

customers is not enough to retain them because even satisfied customers may defect at a high rate in many industries. And its banking sector has wide geographic reach catering to needs of a diverse range of customers. In this regard, the good opportunity for examining the issue of banking quality. Most customers have difficulty in understanding the complex nature of financial products and thus tend to focus on brand names, which are generally built on quality services.

### **SERVICE QUALITY MODEL:**

Numerous researchers realized the importance of SERVQUAL and used the service quality measuring model for various types of industries. The aim of this study is to measure the satisfaction level of banks of the help of SERVQUAL in order to measure service quality. Basically examines five dimensions of service quality.

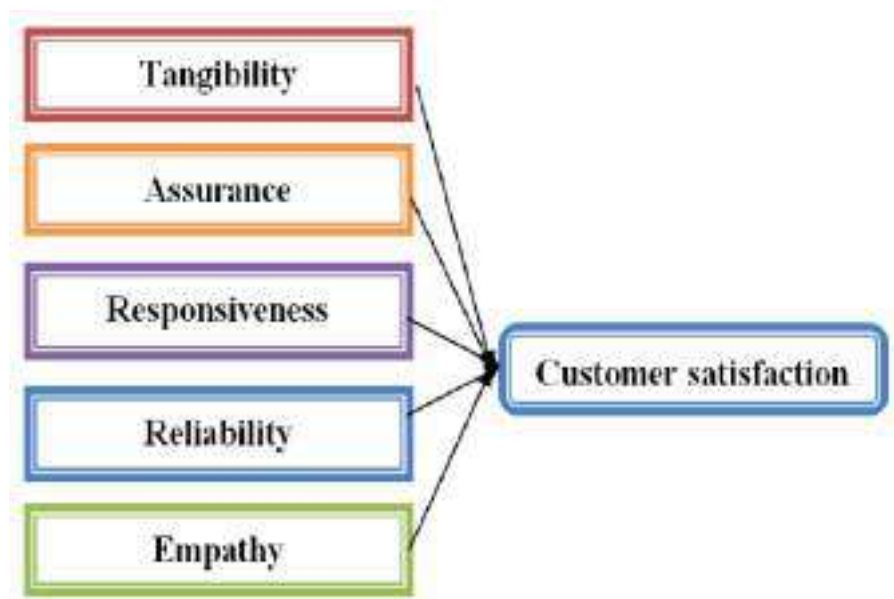


Figure: Service Quality Model

- **Tangibility:**

The tangibles are considered as the firms' representatives, physical facilities, materials, and equipment as well as communication materials. Denoted Physical environmental conditions that work as a clear evidence of the care and attention paid for the details offered by the service provider. Tangibles like the physical

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

confirmation of the service. The tangibility appearance of physical facilities, equipment, personnel, and written materials. However, physical facilities and equipment, physical appearance, understand ability of the staff all are the components of tangibles. In context of service quality, tangibles can be referred to as Information and Communications Technology (ICT) equipment, physical facilities and their appearance (ambience, lighting, air conditioning, seating arrangement); and lastly but not least, the services providing personnel of the organization.

Tangibility as the appearance of physical facilities, equipment, personnel, and written materials. In this research, tangibles are the facilities and the banking services offered by the employees of the banks perceived by the banking customers.

- **Assurance:**

The information that the passes with their trust and certainty. It is the level of knowledge and courtesy of employees for providing services and to build confidence in customer. Moreover, skilled employees who treat customers with respect and make consumers feel that they can trust the firm exemplifies assurance.

- **Responsiveness:**

Responsiveness is defined as "the willingness to help customers and provide prompt service". More specifically, responsiveness is defined as the willingness or readiness of employees to provide services. It contains the timeliness of service. It as the eagerness to encourage clients and to give provoked benefits.

However, responsiveness such as speed and timeliness of service delivery. Responsiveness is the speed, prompt customer service, less waiting time and short queuing time. Moreover, responsiveness is defined as the willingness or readiness of employees to provide services. It contains the timeliness of service.

- **Reliability:**

Reliability is to provide promised, dependable, accurate and consistent services to the customers. However, reliability depends on handling customer service issues,



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

performs the services right the first time; offers services on time, and maintain a record of error-free. Reliability as the most significant factor in conventional service. reliability as to provide precise and constant benefit or service to the customers.

- **Empathy:**

The arrangement of bank considering the individualized service to the respective clients. However, empathy as a care and individual attention to its clients. Bank employees need to recognize their customers by name and providing specific service to the individual customers that shows empathy.

- **Customer Satisfaction:**

Satisfaction is a feeling that surfaces from an evaluation process, i.e. when the consumer of a good or service compares what is received against what is expected from the utilization of that good or service. More specifically, in the banking industry, a main element of customer satisfaction is the nature of the relationship among customers and suppliers of products and services. Therefore, both product and service quality usually are observed as an important condition and valuable factor for retaining customer satisfaction

### **2.14WHAT CONSTITUTES, TOOLS AND SURVEYS OF CUSTOMER SATISFACTION:**

- ❖ What constitutes satisfaction?

We cannot create customer satisfaction just by meeting customer's requirement fully because these have to be met in any case. However failing short is certain to crest dissatisfaction major attributes of customer satisfaction in banking industry can be summarized as;

- Product quality
- Premium outflow
- Return investment
- Services

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

- Responsiveness and ability to resolve complaints and reject report
- Overall communication, accessibility and attitude
- ❖ What are the tools?

Customer expectations can be identified using various methods such as:

- Market research
- Telephonic interview
- Personal visits
- Warranty records
- Information discussions
- Satisfaction surveys
- ❖ Customer satisfaction surveys: Formal survey has emerged as by far the best methods of periodically the customer satisfaction. The survey is not marketing tools but an information gaining tool. Enough homework needs to be before embarking on the actual survey. This includes;
  - Defining objectives of the survey
  - Design survey approach
  - Develop questionnaires and forms
  - Administer survey (Email, Telephone or Post)
  - Method of compiling data and analysing the findings
  - Format of the report to present the findings

### **2.15 HOW TO MEASURE CUSTOMER SATISFACTION**

Customer satisfaction cannot be limited to a short concept and include different ideas. Customer loyalty and customer delight and customer retention to name a few. Satisfaction is a word that summarizes the feelings of customer satisfaction is an essential part of every successful business, thus every company strives to increase the level of satisfaction and improve business, thus every company strives to increase the level of satisfaction and improve business performance.

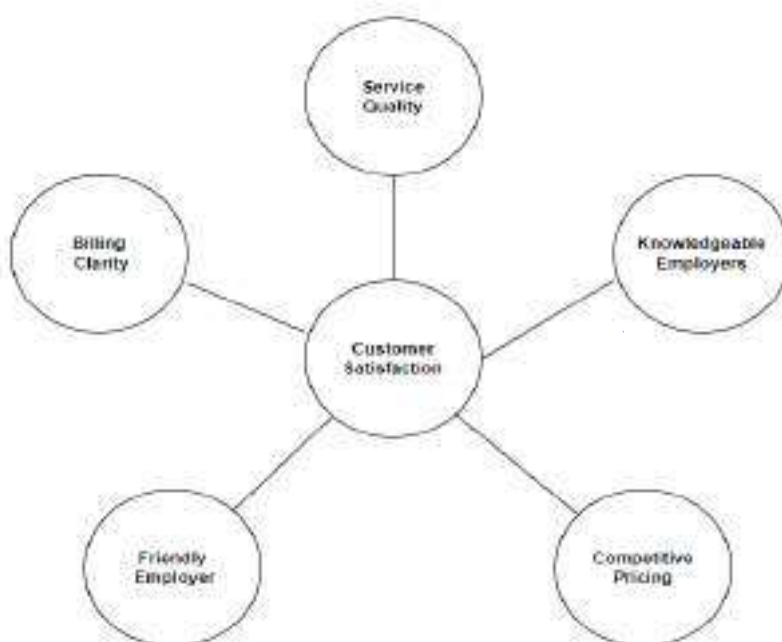
How can banks know that they are succeeding in satisfaction the customer if a company know customer expectations and attitudes and meet the requirement they

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

are more likely to make successful decision and increase customer satisfaction. Consequently, perception of customer should be accurately measured by models that have been proven effective.

There are many factors that affect customer satisfaction: helpful and knowledgeable employees, services quality, competitive pricing and billing clarity.



In many ways this security of on bank process isn't dissimilar to this security of an process which usually belongs to help another business corporation. Nonetheless, people knowing of the requirement permanently computer system security regarding bank programs can be quite large. Perhaps this consciousness is usually lifted by the affiliation along with Automated Money Transport, as well as the heavy dependence and that is located on very large intercontinental personal telecoms systems. None the-less, seriously isn't the only real programs action throughout bank. Numerous stability practices tend to be akin to these of another small business corporation. Your security of bank programs can be incredibly noticeable into a bank customer. These are multiple business models and theories that allow measuring the factors

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

and drawing a conclusion about performance concerning customer satisfaction. It is usually very expensive to measure customer satisfaction and collect the data that will help to develop an efficient questionnaire. Bank should understand customer perceptions and then analyze it, thus this is one of the most important investment that companies should make even though payoffs will be seen only in the long run.

### **2.16 FACTORS INFLUENCING CUSTOMER SERVICE IN THE BANKING SECTOR:**

#### **2.16.1 TRUST:**

HOW MUCH DOES YOUR BANK VALUE CONSUMER TRUST? TRUST IS REGARDING AS THE FUNDAMENTAL TIE BETWEEN BANKS AND THEIR CUSTOMERS. TRUST CAN NEVER BE TAKEN FOR GRANTED OR EXPECTED TO REMAIN TO FOREVER ONCE ESTABLISH. THE TRUST FACTORS INFLUENCING CUSTOMER SERVICE IN BANKING SHIFT WITH THE TIMES. RIGHT NOW, MOST PEOPLE AREN'T CONCERNED WITH WHETHER OR NOT THEIR BANK WILL COLLAPSE TOMORROW. BUT MANY PEOPLE ARE CONCERNED WITH ISSUES LIKE PHISHING.

#### **Top five ways banks can damage trust:**

- Unexpected fee charged to the account.
- Bad banking practice reported in the news.
- Blaming an error on the customer's actions.
- Availability of funds deposited is delayed.
- Long wait times to reach a rep.

#### **Top five ways banks can build trust:**

- Alert you to suspicious activity.
- Help reduce the fees paid.
- Recognize or reward them for the business they bring.
- Offer a grace period before a late fee or overdraft charge.
- Suggest ways to save money or earn more interest.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **2.16.2 TIME AND EASE OF INTERACTIONS:**

Time and ease go hand. No one wants their banking to take up the entire day or slow things down. Time was mentioned repeatedly as factor influencing banking customer service. It comes up for issue like completing financial interactions and getting to a bank when they want. It also factors into the speed and ease of customer service, website activities, making account interactions, getting updates, making account changes, and understanding information. Here the thing, banking is part of most people's everyday lives. And your services can either fit seamlessly into the customer's day or create multiple points of inconvenience.

### **2.16.3 THE DIGITAL CHANNEL EXPERIENCE:**

Providing digital service is no longer optional. Almost all banks understand this now and have moved to build out their channels. But it has to be done right. The quality of your digital service- website, and in app is a key factor influencing the banks customer satisfaction. This is why offering basic digital or omnichannel options for the sake of saying you have digital isn't enough.

### **2.16.4 PROBLEM RESOLUTION:**

This is an obvious factor influencing customer service in banking. The last thin any customer wants is to wait in a phone queue or go back and forth between chat and a phone call, only to have their issue go unresolved. Banking customer satisfaction levels strongly correlate to how well their problems are resolves. Part of this depends on agent training and how effective your customer service protocols are. But part of it depends on how well your back-end customer service platform is integrated. Since even the best service program needs software that aligns with its mission. To consistently resolve customer problem, banks need to rely on a blend of Omni channel customer visibility, multiple touch points, effective resource delivery, and self-service capabilities.

**Self –service tools** can take care of many immediate smaller concerns, particularly requests for information and updates.



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**Intelligent catboat** scan instantly guide customers through common issues without requiring them to wait for live assistance.

**A unified view** with rich contextual information will give your representatives everything they need to know about the customer. Having information at hand increase the likelihood of a positive call outcome. But sometimes issues can't be resolved in one session.

**A consultative** transfer can be used to fill in supervisors, should calls need to be escalated.

**Omni channel routing** should be used to deliver information through text email, mobile apps, or even whatsapp.

**A follow-up-calls** can be automated to check in on customers or provide further assistance.

This can be distilled down to information access and reach- for both your customers and service representatives. Both are needed to maintain high levels of banking customer satisfaction

### **2.16.5 HUMAN SUPPORT:**

Your call centre and the people who staff it matter. This comes up in virtually every banking customer satisfaction survey or study and for good reason. A phone call is often the first way that banking customers try to get help. It's quick and far more convenient than getting into a physical bank. Or at least it should be. But thing have been rocky lately. Wait times at banking contact centres exploded in 2020 when a dramatic spike in call volume met a disruption in normal working procedures. During this time, customers routinely waited hours to reach a representative or even das to get a call back.

Things seem to be coming back down to normal. Customers are more likely to report wait times of a few minutes, rather than hours. But is this good enough? Not so much. Customers have never been willing to wait that long to reach a bank representative. Satisfaction levels are slashed by a third when customers have to wait longer than four minutes.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

The faster you can get clients on the phone with a representative or service agent, the better. And this isn't the only call centre factor that influences banking customer service. Every interaction needs to be measured, assessed, and refined. Aside from physical branches, the call centre is usually the customer's only experience with a bank's representatives.

### **2.17 CONCEPTS OF CUSTOMER SATISFACTION:**

Both customers and banks attach much importance to satisfaction. Efforts are being made by banks to offer high quality products and services to their customers. Customers also want the best value for their money and are sparing no efforts in selecting the best products and services. Once customers are satisfied and have a positive image or intentions about a particular firm, it will take some time for competitors to snatch or convince them to switch to them. Benefits derived by companies from customer satisfaction include loyalty, repurchasing to increase sales or profit, speak well about the products or services to others to purchase. As pointed out by the economic viability of firms lies in the hands of consumers. There are various types of customers or consumers. They may be individuals, groups, organisations, communities or nations. The banking industry like any other industry has intensified its efforts to satisfy consumers through the provision of quality services. This stems from that fact that competition has been stiff and every bank is trying to retain old customers and new ones.

Quality, satisfaction and value are the concepts that featured prominently in the customer satisfaction literature. Explaining these concepts will be very useful.

### **QUALITY**

The quality is the extent to which a bunch of inbuilt features (relating to a product, a process or a system) meet requirements. The inbuilt features can be physical, sensory, behavioural, temporal, ergonomic or functional whilst requirements are the stated need or expectation be it implied or obligatory. Quality as conformance to requirements or specifications and fitness for the purpose or use respectively. The quality cannot be compared and adjectives such high, low, excellent and good cannot be used to describe quality. Note that quality is the meeting the needs and the

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

expectations of customers. Therefore, the yardstick for determining service quality is the expectations of customers and not the policy of the bank. Quality of service is the view of customers about how superior or excellent the service received or used is. Quality of service is a function of the experience of customers since services must be used first.

The interaction or the relationship between customers and service organisations induce perceptions of customers' quality. The attitude of service providers can also serve as a quality indicator for customer. Receptive attitude of workers is a key ingredient for giving customers a good impression about a bank and its services. The physical environment in terms of the infrastructure, the design and the general atmosphere are also considered by consumers in assessing the quality of services of banks. Likewise, the duration of the service delivery gives a positive or a negative impression to customers. A short waiting time may give a good impression about the bank that its services are of high quality and vice versa.

On the other hand think that the quality of the service will partially be based on the customer interactions with the organization rendering the service. They further indicate that customers who are willing to participate actively in the delivery of service are likely to expect to receive a better quality of service. The reasons are that, the service provider will understand their needs and circumstances. Also customers involved in the service delivery process will have an insight into the impediments on the way of the service organisation and therefore be sympathetic in their quality expectations.

Service purchase is different from a product. There is no contact with the organisation selling the product and the consumer and therefore the perceptions of the quality of the product are not induced by the people in the organisation. The consumer forms the quality of the product based on advertisements, recommendations by individuals who have used the product before or the experienced he has had after using the product in the past. On the other hand consumers are moved either positively or negatively by the service provider and therefore the provision of service is both a personal and a psychological thing.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

Customers used to measure the quality of services. The general conclusion is that the criteria used are complex and difficult to determine exactly due to the factors listed below;

- ✓ Services are intangible.
- ✓ services are heterogeneous indicating that their performance often varies from provider to provider, from customer to customer, and from context to context.
- ✓ Services cannot be placed in a time capsule and thus be tested and retested over time.
- ✓ Production of services is likely to be inseparable from their consumption.

Customers generally evaluate service quality by its outcome, the process of the service delivery and the context. Consumers assess services and products through three processes. These are pre-purchase or search qualities, experience qualities and credence qualities. Search qualities are features that consumers look out for before buying and are those they can see, feel or touch. On the other hand experience qualities are post-purchase features that customers assess whilst credence features are those not easy for consumers to assess during the post-purchase period. Banks services are of the experience and credence types and therefore difficult to assess by customers. Customers cannot evaluate these types because they do not have the required skills, expertise and knowledge to carry out the evaluation. As a results of that, customers place a high premium on the image and reputation of the bank before purchasing. Services of banks are of the credence type, friends and fellow customers constitute the main source of information for customers. This has been confirmed by the results of a claim that there are two ways service organisations can improve up on service quality. First, a good human resources management policy must be adopted to ensure employees 'satisfaction. It is believed that with the necessary support from management, employees strive hard to provide high quality service to customers. Also, the organisation has to implement its organisational values, policies and procedures to leverage the delivery of high service quality to customers.

### **SATISFACTION**

Satisfaction is the extent to which the requirements of the customers have been met where requirements means stated needs or expectations whether implied or

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

obligatory. Satisfaction is whereby the service provider meets the expectations and norms of customers postulate that satisfaction is when a consumer cognitively compares actual performance with expected performance. Satisfaction is the post-purchase evaluation of products or services taking into consideration the expectations. Satisfaction indicates that satisfaction is the feeling which emanates from the process of evaluating what was obtained against what was expected, the purchase decision itself and or the fulfilment of needs or wants.

The level of customer satisfaction may be influenced by various internal and external factors. This suggests that the determination of satisfaction is very difficult. When the customer get an experience with the service provider. The following as the difficulties associated with the concept of satisfaction:

- It is not static, but changes over time; new experiences and levels of awareness will alter the potential levels of satisfaction that could be achieved.
- It is likely to be complex and the result of a mix of experiences before, during and after the point at which it is measured.
- It occurs in social contexts which are varied and changing and may be unpredictable or inexpressible to the service user.
- It may be difficult to express the reasons for satisfaction; particularly where less tangible aspects of services are being considered.
- It may be easier to express the reasons for dissatisfaction, particularly if this is the exceptional state.
- without understanding the causes of satisfaction, there is a danger that we might treat a “good result” as a reason not to change anything

Customer satisfaction is not linked with only the view of customers regarding the reliability of the service delivered but also based on the experience of the customer with the service delivery process. Posit that high customer retention is an indicator for customer satisfaction. Customer satisfaction alone is not enough and cannot guarantee loyalty to organisations as between 65% to 85% of customers who switch to other organisations are satisfied customers. What is needed is a full customer satisfaction to ensure customer loyalty and improvement in performance of organisations.



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

The Kano model specifies three types of attributes that give different satisfaction to customers; 'must-be', one dimensional and attractive needs. The 'must-be' is whereby customers are not satisfied if the service or product quality fail to meet their expectation. There is no corresponding increase in satisfaction when the service or product attribute is above expectation. Another attribute is the one-dimensional or performance needs. In this case, when the customer perceives the service or product of a high quality, satisfaction is also high and vice versa. Finally, the attractive or the excitement needs is whereby there is a corresponding increase in satisfaction when the service or the product performance increases but a decrease in performance does not lead to a decrease in customer satisfaction.

It is also believed that there is a correlation between satisfaction of employees and customer satisfaction. Customers were glad and satisfied with the service provided when they see bank employees also in a good mood. The determinants of customer satisfaction in retail banking that service quality dimensions (core and relational performance, problem encountered and satisfaction with problem recovery), the bank's features (e.g. location), the competitiveness of the bank's interest rates, the customers' judgment about the bank employees' skills and whether the customer was a borrower influenced satisfaction. Service problems and the bank's service recovery ability impacted on customer satisfaction and intentions to switch very much. Customers who encountered service problems were likely to switch to other banks and inform others to follow suite since they were not satisfied. Similarly, resolving problem does not necessarily improve customer satisfaction.

### **VALUE**

Value is what customers derive from the transactions made e.g. Quality, benefits, worth and utilities) and what he used for the exchange (price or the sacrifice made). Value emanates from learnt perceptions, preferences and the overall assessment made by customers. Value is higher than quality. Also value can be defined in four ways; value is low price, value is want satisfaction, value is the quality of the price paid for and what is received in exchanged for what is given out. It is also argued that value judgments are based on both financial and non-financial costs. That is, the sacrifices made in using the service and the gains made in exchange for the service.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

Customers assign value to a product or service based on perceived price and perceived quality. Be value is situational and personal than quality. It varies in accordance with the consumption process. Value is more than perceived cost, the value of customers is high and vice versa. There must be a rise in value when quality rises and price falls.

Customers buy different types of value. Since values are different, corporate bodies should select their customers and scale down their value focus. Value standard shores up in connection with customer expectations claims that there are two types of customers' value. The first is the value or the expected value that customers get from the organisation. The second is how the organisation also values its customers.

These are value proposition, value driven operating model and value disciplines. Value proposition is the suppose assurance which is not verbally stated. It is given to customers by management of organisations that they will render particular values like price, quality, performance, selection or convenience. The value driven operating model is the auxiliary supporting systems in delivering value (value proposition) to customers. These include; management systems, operating processes, business structure and culture. The last one, values disciples are how management of organisations can integrate both the value proposition and the value driven operating model to beat all competitors in their markets and provide the highest value to customers. There are three value disciplines; operational excellence, product leadership and customer intimacy. Operating excellence is the provision of a combination of low price and services which is devoid of problems to customers. Product leadership on the other hand, refers to the delivering of the highest quality and best performing products in the market. This is possible when organisations keep on innovating to improve products quality. Customer intimacy concerns the establishment of relationship with customers, supporting and providing what they want in order to enable them get the needed value from the product or service.

### **2.18 FACTORS RELATIONSHIPS AMONG THE CONCEPTS OF CUSTOMER SATISFACTION;;**

- **Customer Satisfaction and Quality:**

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

The differences between service quality and satisfaction. They indicated that the dimensions of service quality are specifically or directly connected with the rendering of the service whilst satisfaction is based on many factors, both directly and indirectly relating to the delivery of the service. Customers do not base their perceptions of the quality of service on experiences/encounters with both the service provider and the service environment. On the other hand, past experiences form the basis for evaluation of satisfaction. In addition, quality is supposed to be ascertained by external cues such as price and reputation whilst satisfaction is prompted by conceptual cues like equity and regret. Also ideals and excellence in connection with the service delivery are the clues to service quality. In the same vein, satisfaction perceptions are based on predictions or norms for the service delivery. It is very difficult to draw a line between satisfaction and quality of service. Satisfaction can be experienced and happened during or at the transactional level whilst quality is seen to be taking place at the global level. The quality judgments are more specific and that of satisfaction are holistic. Quality judgments have a connection with cognitive judgments whilst that of satisfaction relates to affective judgments.

Service quality and satisfaction service quality leads to satisfaction, others think otherwise. Satisfaction leads to quality empirical studies regarding the above issue support the assertion made by the latter. Satisfaction leads to quality. There is a correlation between the quality of service and customer satisfaction. Enhanced service quality leads to customer satisfaction with its ripple effects such as; customer loyalty and improvement in the existing relationship between the organisation and customers. Others are that customers will bear with the service provider when the organisation is not able to deliver as well as customers canvassing for the organisation to get more customers.

It can be gathered from the above that the two concepts are the same and are being used interchangeably. Quality and satisfaction are closely connected and are synonymous and interchangeable. Thus, both concepts are referring to meeting the requirements of customers. Therefore making a clear distinction between them will be a difficult task.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

- **Value, Satisfaction and Quality :**

There are four main factors that constitute customers perceptions of service quality, satisfaction and value. These are service encounters, the evidence of service, image and price. Service encounter refers to both verbal and non-verbal attitudes which form the basis for intangible service quality such as the environment where the service is provided like equipment and layout of the room or building. Evidence of service is whereby customers based their search of the level of service provided on certain proof like employees, process and physical evidence. This is because services are intangible and they are produced and consumed at the same time. These are furnished three proofs; employees, process and physical evidence.

Service price is associated with an equal high quality consumer expectation. A low price will prompt customers to be apprehensive about the quality of the service and the capability of the organisation to render quality service. This point is not wholly true. Normally a low price of things in general does not connote inferior or superior quality. Value is more practicable or is a feasible thing than satisfaction since it includes not only the benefits accrued but the price. Value is dynamic that must be managed. On the other hand, satisfaction is derived from the value proposition offered in specific products/markets value precedes satisfaction. There is correlation between service satisfaction and quality and value. It is clear from that value is the worth or the importance attached to or gains and loss derived from purchases or consumption of services. Satisfaction and quality are also seen as the meeting of the requirements of customers. It could therefore be inferred that the requirements are the same as the importance attached to the services. Therefore, the three concepts; quality, satisfaction and value are the same and are being used interchangeably.

**A STUDY ON CUSTOMER SATISFACTION TOWARDS  
D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**CHAPTER - 3**

**BANK PROFILE**

- 3.1 Introduction
- 3.2 Bank Profile
- 3.3 Organization Structure
- 3.4 Product and Service Profile
- 3.5 Area of Operation
- 3.6 Requirements to Open an Account
- 3.7 Objectives, vision and mission
- 3.8 SWOT Analysis



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **3.1 INTRODUCTION:**

SHRI D.T.PATIL CO-OPERATIVE BANK, CHIKODI is an autonomous association which is established for the fulfilment of all needs and wants related to credit facilities. It was with owing to the abounding zeal and vision of our Founder, Chief Promoter, President, Sahakar Ratna Shri. D.T.PATIL realizing the need of banking serving to the rural area and benefitting the customers of our rural area, achieved commendable feat with honest efforts by obtaining banking business license #ACD/KA/229/P from RBI on November 6<sup>th</sup>, 1980.

Shri. D.T.Patil Co-operative bank has continued to register a steady growth in business and earnings, the then management of the bank realized the vital need of the bank to extend its area of operation so as to carry banking business in whole district. Speaking to the need of issue in its own style with deep faith, vision, optimism and entrepreneurial skill is the key of board of honourable president Shri.M.S.Kaladagimath has enabled bank to introduce a specifically designed more meaningful a short cut familiar identical name as “D T Patil Bank”.

It provides various loans and facilities to shareholders and the persons who are in associate members too.

The bank is transacting almost all kinds of banking business. It receives current, savings, Food Call and Cumulative, pigmy deposits and issued Golden Jubilee Cash Certificate of ten years & advances loans and cash credits on personal security or on mortgage of property and against agricultural and industrial goods and gold & silver ornaments.

## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

### 3.2 BANK PROFILE:

Name of the bank	Shri D.T.Patil co-operative bank Ltd,  Chikodi
Address of the bank	Shri D.T.Patil co-op bank Ltd,  Guruwar peta chikodi 591201
Phone no	(08338)-284425
Sector	Co-operative
Registration no	RBI License No:ACD/KA 229/p-6-11-1980
Year of establishment	1980
President	Shri.D.T.PATIL
Vice-President	Shri.M.S.KALADGIMATH
General Manager	ShriV.S.Manturagimath
Board of Directors	Shri: B.S.Kavalapure  Shri: S.D.Lagare  Shri: R.G.Vantamure  Shri: R.B.Dambal

**A STUDY ON CUSTOMER SATISFACTION TOWARDS  
D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

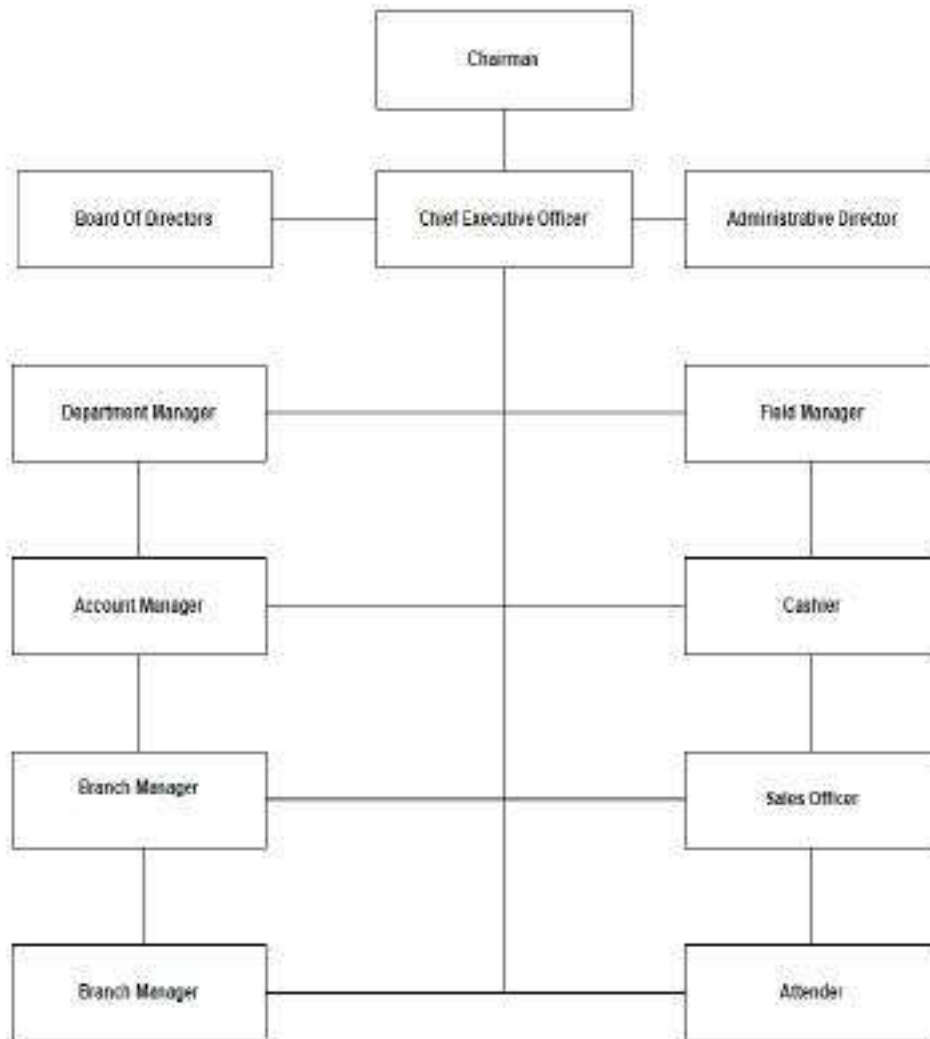
---

	Shri: B.R.Patil  Shri: S.B.Kumbar  Shri: C.S.Patil  Shri: S.E.Patil  Shri: R.I.Doddamani  Shri: V.J.Kavatagimath  Shri: S.M.Yadagude
Asst. Manager	-----
Accountant	D.N.Ingle
Asst. Accountant	-----
Sales Office	ShriA.S.Masti

# A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

## 3.3 ORGANIZATION STRUCTURE



# **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

## **3.4 PRODUCT AND SERVICE PROFILE:**

- Loans on fixed deposits
- Short term loans
- Medium-term loans
- Long-term loans
- Farm machinery purchasing loans

### **NON AGRICULTURAL LOANS:**

- ★ Surety loan
- ★ Gold & silver loans
- ★ Non movable Asset loans
- ★ Housing loans
- ★ Education loans
- ★ Machinery and Equipments Loans
- ★ Vehicle loans

### **DEPOSITES:**

- Fixed deposits
- Saving deposits
- Recurring deposits
- Pigmy deposit

## **3.5 AREA OF OPERATION:**

Entire Chikodi

### **COMPETITORS**

- ❖ Liberal co-operative bank ltd.
- ❖ Beereshwar co-operative bank.
- ❖ Basaweshar co-operative bank.
- ❖ D.C.C Bank.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **CONDUCT OF MEETINGS:**

- ✓ Annual general meeting - Once in every year
- ✓ Board meeting
- ✓ Every month
- ✓ Staff based meeting
- ✓ According to need based every month

### **3.6 REQUIREMENTS TO OPEN AN ACCOUNT:**

- Opening account form with all the required information.
- Affixe a passeport size photo.
- Attached identity proof

### **3.7 OBJECTIVES, VISION AND MISSION:**

#### **3.7.1 OBJECTIVES:**

- Enhanced co-operative between everybody, involved with an organization.
- To provide good and quick services.
- To provide security and support by lending various loan and facilities.
- To earn high profit in future and improve bank' reputation.

#### **3.7.2 VISION:**

To be the most admired Co-operative bank in Belgaum district, their first main vision is to more expansion of the branches and to serve service cross the district.

#### **3.7.3 MISSION:**

Explore and enhance the quality of life of formers through financial security and support by providing products and services that would be helpful to him in his path of prosperity.



## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **3.8 SWOT ANALYSIS;;**

Strength, weakness, opportunity and threats of the bank, the bank how gets the opportunity, what are the strength of the bank. How to remove the threats and how specify the strength

#### **A. OPPORTUNITIES:**

- Provision for small scale business loans.

#### **B. STRENGTH:**

- Growth in working capital.
- Increase in goodwill.
- Good relation with other banks.

#### **C. WEAKNESS:**

- ★ Identification of new customers.
- ★ Burden of heavy work.
- ★ Inexperienced personnel.

#### **D. THREATS:**

- Change in market trend.
- Change in government.
- Unrecovered loan.
- Increase in competition.

# **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

## **CHAPTER - 4**

### **DATA ANALYSIS AND INTERPRETATION**

Table 4.1 Shows that the occupation of the customers.

Table 4.2 Shows that which type of the account do you have in D.T.Patil Bank

Table 4.3 Shows that why you have opened on account in this bank

Table 4.4 shows that what is the main reason for coming to this co-operative bank

Table 4.5 shows that why do you expect from this bank.

Table 4.6 shows that the are you happy with bank policy and schemes

Table 4.7 shows that did you have to complain to the officials on any matters during last 12 months.

Table 4.8 shows that how much time do they take the loan.

Table 4.9 shows that are you happy with bank management system.

Table 4.10 shows that would you like to continue with bank service for next upcoming year.

Table 4.11 shows that in future which facilities expect from this bank.

Table 4.12 shows that are you satisfied with the service quality of the D.T.Patil bank.

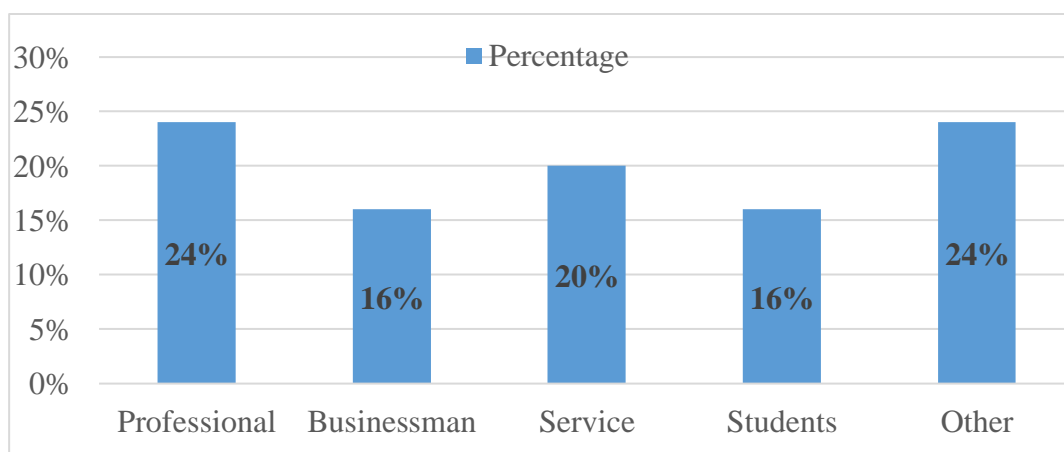
## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

**Table 4.1: Shows the occupation of the customer in D.T.Patil bank:**

Sl.No	Particulars	No. of Respondents	Percentage (%)
1	Professional	6	24%
2	Business	4	16%
3	Service	5	20%
4	students	4	16%
5	other	6	24%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.1: Shows the occupation of the customer in D.T.Patil bank:**



### **INTERPRETATION:**

The above table shows the occupation of the customer in D.T.Patil bank. Out of 25 respondents, 24% of professional, 16% of business, 20% of service, 16% of students and 24% of others. The majority of respondents i.e. 24% of respondents are professional and 24% of respondents are others in occupation of customer in bank.

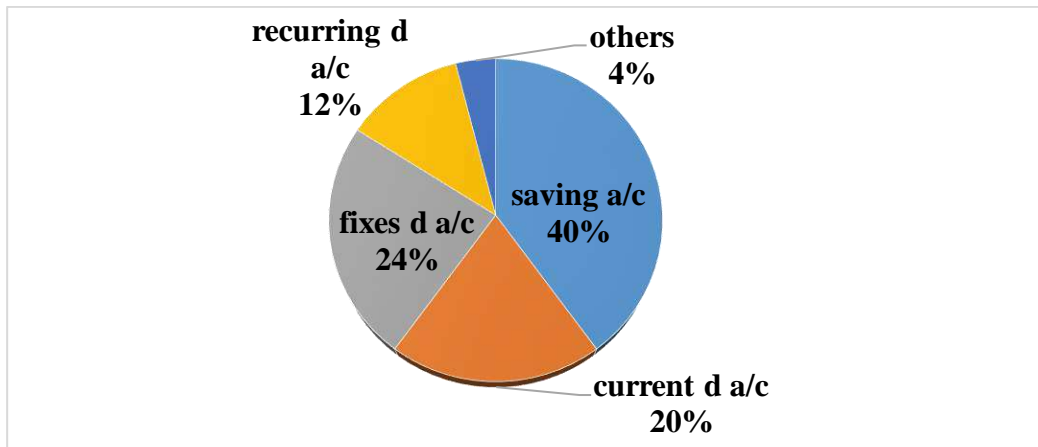
**A STUDY ON CUSTOMER SATISFACTION TOWARDS  
D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**Table 4.2: Shows the account held by the customer’s respondent in the D.T.Patil bank:**

SI.NO	Particulars	No. of Respondents	Percentage (%)
1	Saving account	10	40%
2	Current deposit account	5	20%
3	Fixed deposit account	6	24%
4	Recurring deposit account	3	12%
5	others	1	4%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.2: Shows the account held by the customers respondent in the D.T.Patil bank:**



**INTERPRETATION:**

The above table shows the account held by the respondents in co-operative bank, Out of 25 respondents, 40% of saving account, 20% of current deposit account, 24% of fixed deposit, 12% of recurring deposit and 4% of others. The majority of respondents i.e. 40% of respondents are having 40% of saving account.

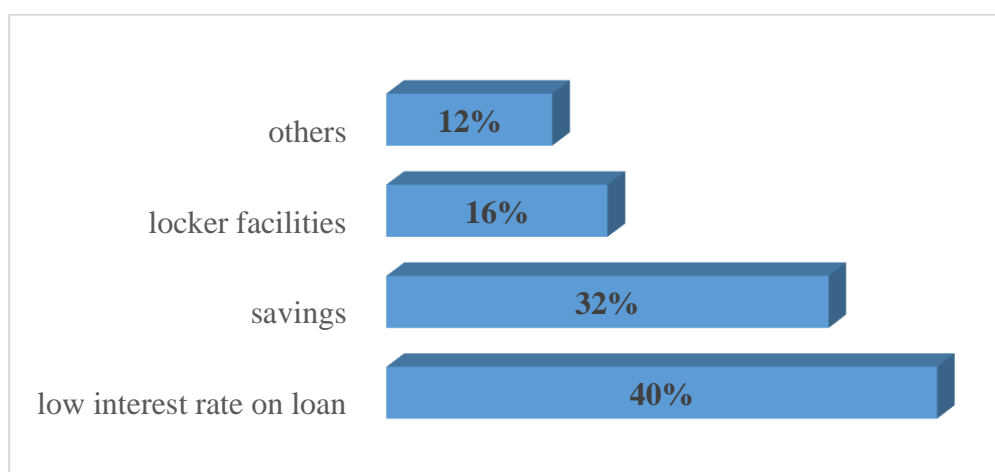
## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**Table 4.3: Shows the reason for opening account in D.T.Patil bank:**

<b>Sl.No</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percentage (%)</b>
1	Low interest rate on loan	10	40%
2	Savings	8	32%
3	Locker facilities	4	16%
4	Others	3	12%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.3: shows the reason for opening account in D.T.Patil bank:**



### **INTERPRETATION**

The above table shows the reason for opening account in D.T.Patil bank. Out of 25 respondents, 40% of low interest rate on loan, 32% of savings, 16% of locker facilities, 12% of others. The majority of respondents i.e. 40% of respondents are opening account because of low interest rate on loan.

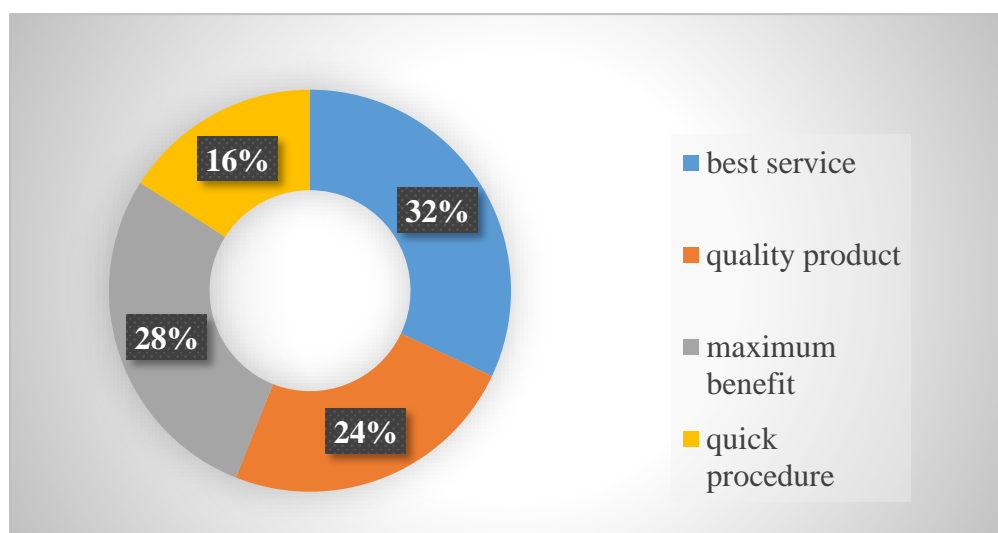
## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

**Table 4.4: Shows the reason for coming to co-operative bank:**

Sl.NO	Particulars	No. of Respondents	Percentage (%)
1	Best service	8	32%
2	Quality product	6	24%
3	Maximum benefit	7	28%
4	Quick procedure	4	16%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.4: Shows the reason for coming to co-operative bank:**



### **INTERPRETATION:**

The above table shows the reason for coming to co-operative bank. Out of 25 respondents, 32% of best product, 28% of maximum benefit, 24% of quality product, and 16% of quick procedure. The majority of respondents i.e. 32% of the respondents are opined the coming to bank because they receive best service.



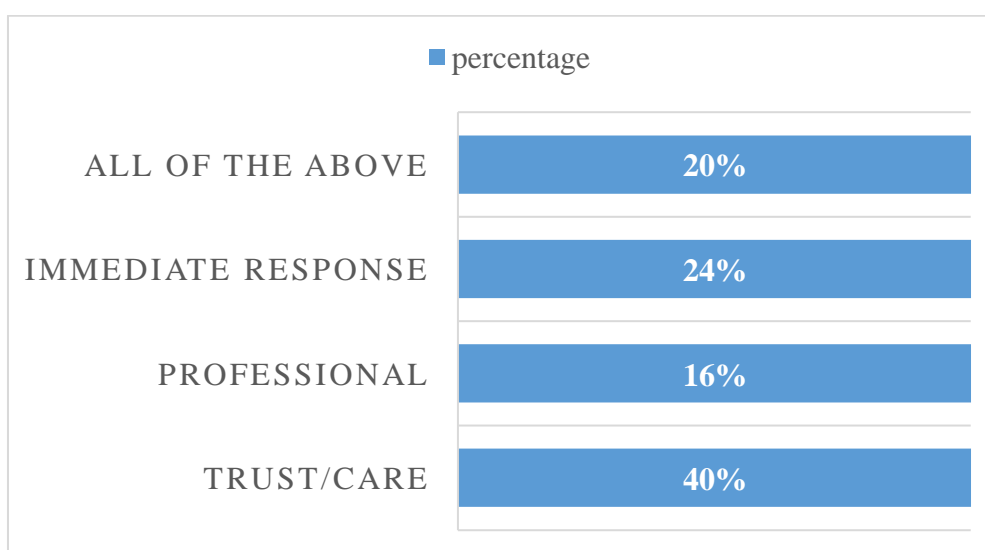
## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

**Table 4.5: Shows the expectation of the customers from the bank:**

Sl.NO	Particulars	No. of Respondents	Percent age (%)
1	Trust/care	10	40%
2	Prof quality service	4	16%
3	Immediate response	6	24%
4	All of the above	5	20%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.5: Shows what customer expectation the customers of the bank:**



### **INTERPRETATION:**

The above table shows the expecting the customers of the bank. Out of 40% of trust/care, 16% of professional, 24% of immediate response, and 20% of all of the above. The majority of respondents i.e. 40% of respondents are expectation trust/care from the bank.

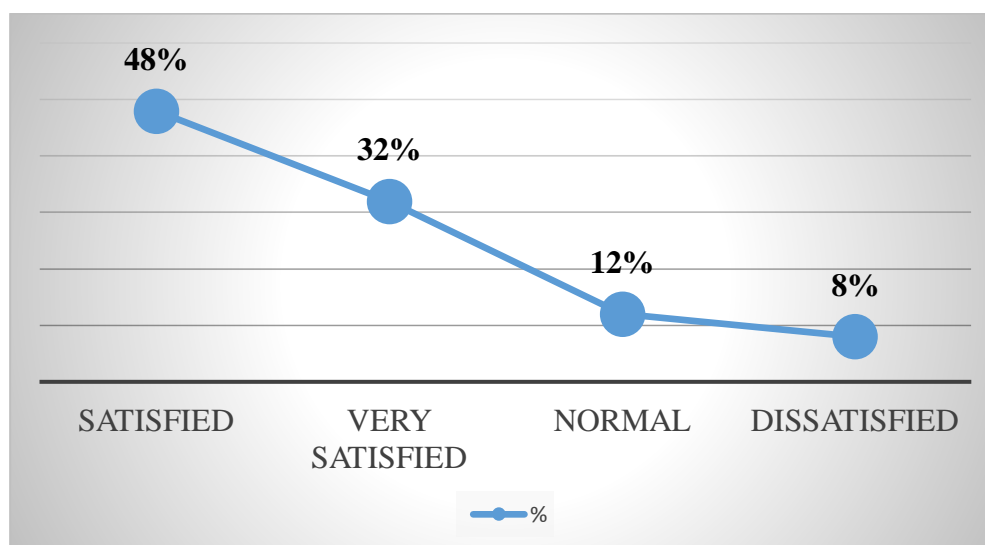
## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**Table 4.6: Shows satisfaction of the respondents towards bank policy and schemes:**

<b>SI.NO</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percentage (%)</b>
1	Satisfied	12	48%
2	Very satisfied	8	32%
3	Normal	3	12%
4	Dissatisfied	2	8%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.6: Shows satisfaction of the respondents towards bank policy and schemes:**



### **INTERPRETATION:**

The above table shows the satisfaction of the respondents towards bank policy and schemes. Out of 25 respondents, 48% of satisfied, 32% of very satisfied, 12% of normal and 8% of dissatisfied. The majority of respondents i.e. 48% of respondents are satisfied with the bank.

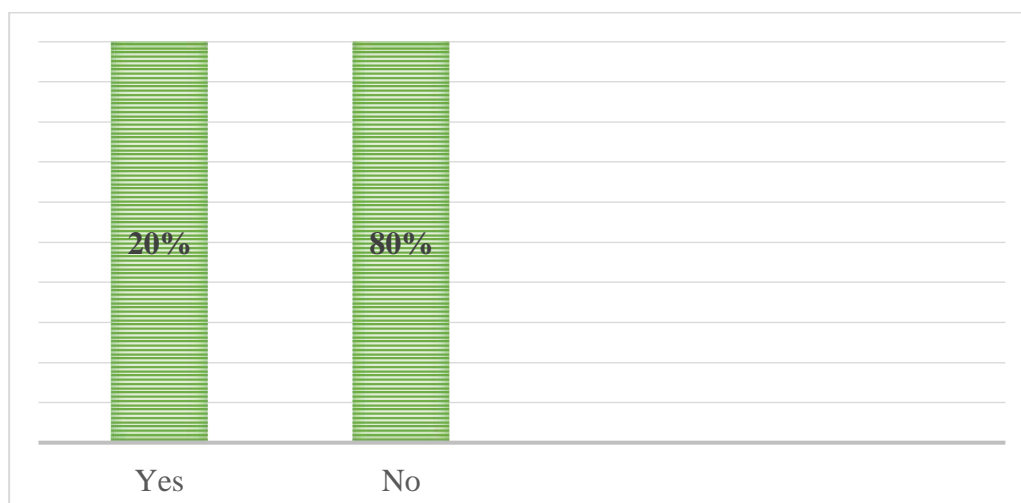
## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

**Table 4.7: Shows opinion on complaint raised by customer during last 12 months:**

Sl.NO	Particulars	No. of Respondents	Percentage (%)
1	Yes	5	20%
2	No	20	80%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.7: Shows opening of the customers on the officials on any matters during the last 12 months:**



### **INTERPRETATION:**

The above table shows the opening of the customers on an officials on any matters during the last 12 months. Out of 25 respondents, 20% of yes and 80% of no. The majority of respondents i.e. 80% of respondents are haven't raised any complaint of during last 12 months.

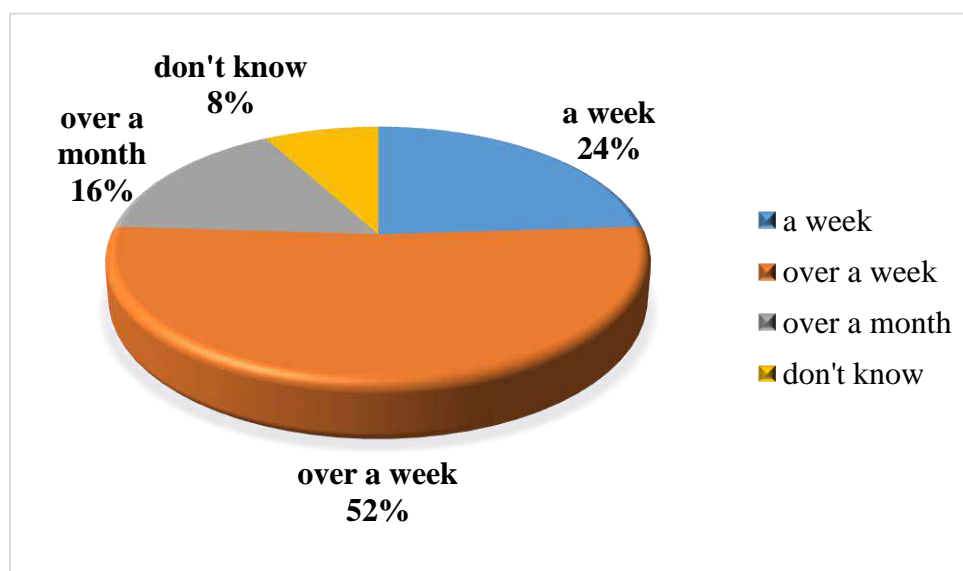
## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

**Table 4.8: Shows the duration of loan taken by the customers:**

SL.NO	Particulars	No. of Respondents	Percentage (%)
1	A week	6	24%
2	Over a week	13	52%
3	Over a month	4	16%
4	Don't know	2	8%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.8: Shows the duration of loan taken by the customers:**



### **INTERPRETATION:**

The above table shows the duration of loan taken by the customers. Out of 25 respondents, 24% of a week, 52% of over a week, 16% of over a month and 8% of don't know. The majority of respondents i.e. 52% of respondents are opined that for more than 1 week.

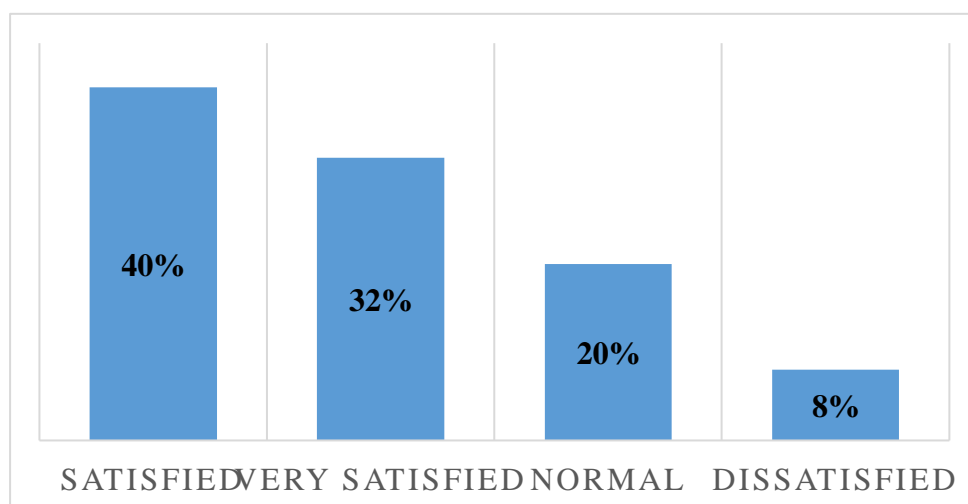
## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**Table 4.9: Shows the opinion about customers about the bank management system:**

<b>SI. NO</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percentage (%)</b>
1	Satisfied	10	40%
2	Very satisfied	8	32%
3	Normal	5	20%
4	Dissatisfied	2	8%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.9: Shows the opinion about customers about the bank management system:**



### **INTERPRETATION:**

The above table shows the opinion about customers about the bank management system. Out of 25 respondents, 40% of satisfied, 32% of very satisfied, 20% of normal and 8% of dissatisfied. The majority of respondents i.e. 40% respondents are satisfied with bank management system.

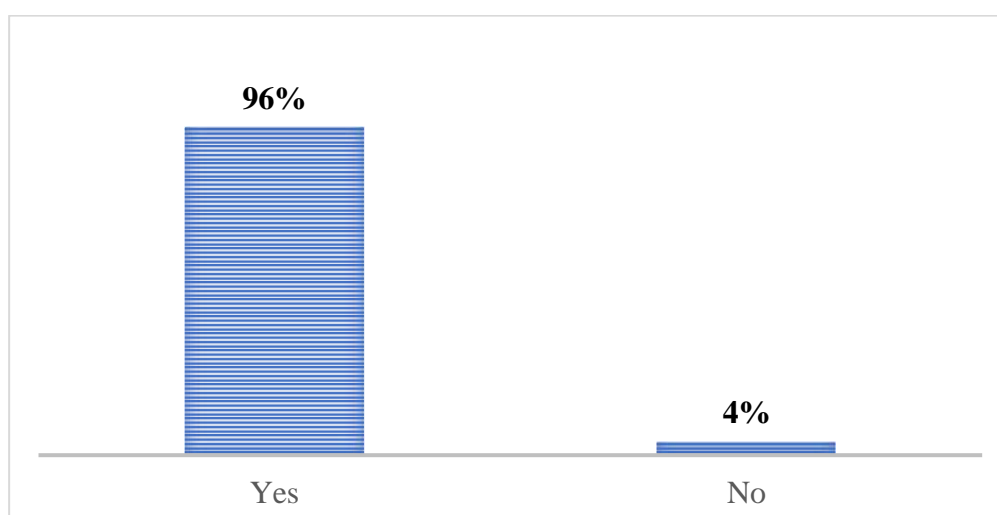
## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**Table4.10: Shows the opinion on continue the bank service with co-operative for next upcoming years:**

<b>SI.NO</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percentage (%)</b>
1	Yes	24	96%
2	No	1	4%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.10: Shows the opinion on continue the bank service with co-operative for next upcoming years:**



### **INTERPRETATION:**

The above table shows the opinion on continue the bank service with co-operative for next upcoming years. Out of 25 respondents, 96% of yes and 4% of no. The majority of respondents i.e. 96% of respondents are want to continue bank service with co-operative with next up coming years.



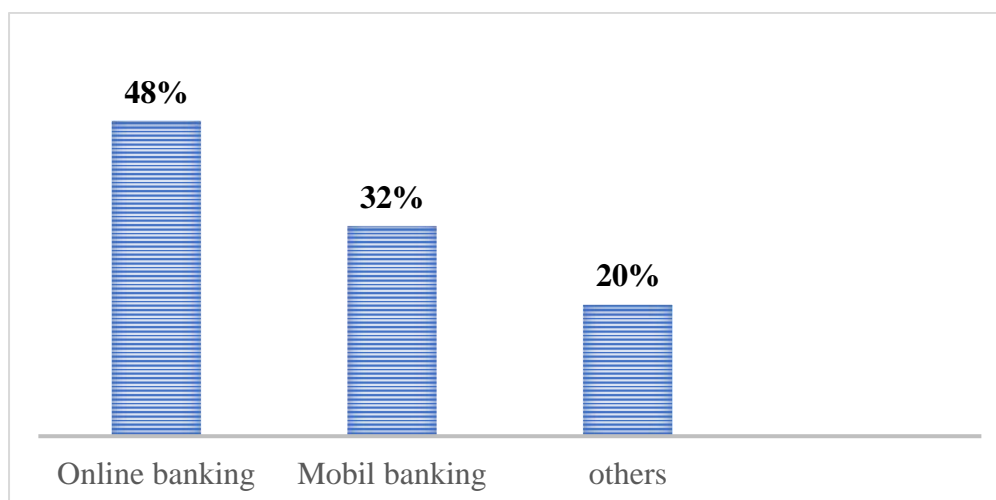
## A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI

---

**Table 4.11: shows expectation of customers towards the facilities in future:**

SI. NO	Particulars	No. of Respondents	Percentage (%)
1	Online banking	12	48%
2	Mobile banking	8	32%
3	others	5	20%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.11: shows the expectation of customers towards the facilities in future:**



### **INTERPRETATION:**

The above table shows the expectation of customers towards the facilities in future. Out of 25 respondents, 48% of online banking, 32% of mobile banking and 20% others. The majority of respondents i.e. 48% of respondents are expectation online banking service facilities in future.

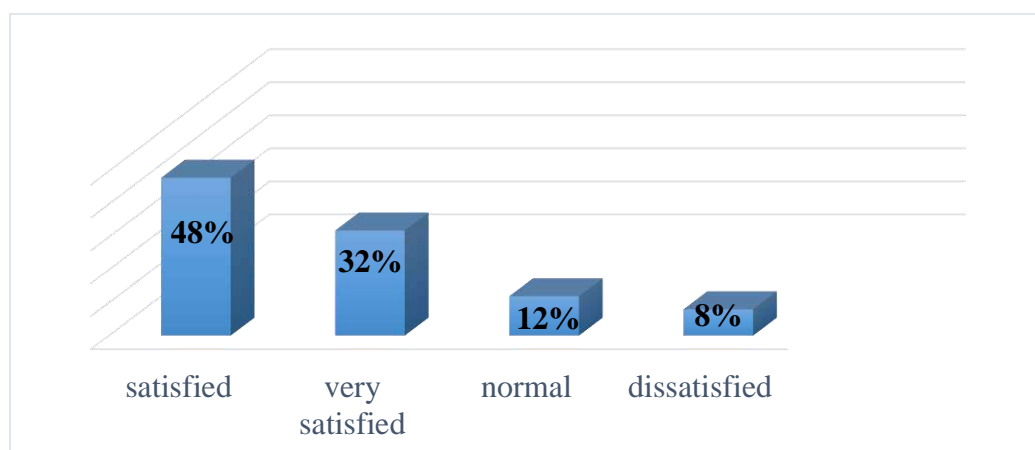
## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**Table 4.12: Shows the overall satisfaction of the customers with the service quality in D.T.Patil bank:**

<b>SI. NO</b>	<b>Particulars</b>	<b>No. of Respondents</b>	<b>Percentage (%)</b>
1	Satisfied	13	48%
2	Very satisfied	8	32%
3	Normal	3	12%
4	Dissatisfied	2	8%
<b>Total</b>		<b>25</b>	<b>100%</b>

**Graph 4.12: Shows the overall satisfaction of the customer with the service quality in D.T.P at Bank:**



### **INTERPRETATION:**

The above table shows the overall satisfaction of the customers with the service quality in D.T. Patil bank. Out of 25 respondents, 48% of satisfied, 32% of very satisfied, 12% of normal and 8% of dissatisfied. The majority of respondents i.e. 48% of respondents are satisfied with D.T.Patil co-operative bank.

**A STUDY ON CUSTOMER SATISFACTION TOWARDS  
D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

**CHAPTER -5  
FINDINGS, SUGGESTIONS AND CONCLUSION**

- 5.1 Findings
- 5.2 Suggestions
- 5.3 Conclusion

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **5.1 FINDINGS;;**

- From the above study out of 25 respondents, maximum that is 24% of professional and 24% of others in occupation of the customer.
- The study revealed that out of 25 respondents, maximum 40% of customers are having saving account.
- The study revealed that out of 25 respondents maximum 40% of customers are opened on account in this bank because the bank have low interest rate on loan.
- The study shows that out of 25 respondents maximum 32% of customers are opined because they receive best service to this co-operative bank.
- The study revealed that out of 25 respondents maximum 40% of customers opined because they receive trust/care.
- The study revealed that out of 25 respondents, that is maximum 60% of customers are satisfied with the bank policy and schemes.
- The study shows that out of 25 respondents maximum 80% of customers are haven't raised any complaints of during last 12 months.
- The study revealed that out of 25 respondents that is maximum 52% of customers are opined that for more than 1 week.
- The study revealed that maximum 40% of customers are satisfied with bank management system.
- The study revealed that maximum 96% of customers are continuing with bank because they want to continue bank service with co-operative with next upcoming year.
- The study revealed that maximum 48% of customers are expectation online banking service facilities in future.
- The study revealed that out of 25 respondents maximum 48% of customers are satisfied with the service quality of the D.T.Patil bank.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **5.2 SUGGESTION:**

The study has conducted on changing consumption pattern of customer D.T.Patil co-operative bank credit society Ltd, chikodi. Based on the observation and personal discussion with customer and management of D.T.Patil co-operative bank as researcher 1 I would like to give some suggestions working for D.T.Patil co-operative bank chikodi.

- Proper training facilities have to be providing to the staff's so that they can give valid answer to the customer.
- Staffs have to update their knowledge for that bank has to take necessary actions.
- To provide varies types services like Mobil banking, online banking, debit card, credit card etc.
- Creating of customer awareness and education for creting bank account is necessary in rural areas.
- We can suggest to cooperative conducted regularly annual general meeting.

## **A STUDY ON CUSTOMER SATISFACTION TOWARDS D T PATIL CO-OPERATIVE BANK LTD, CHIKODI**

---

### **5.3 CONCLUSION:**

A cooperative is established to uplift the economics status of the local people by investing their money and seeking loans when needed. It helps to mobilize cash and earn interest from the deposited cash. The respondents, Om urban cooperative credit society limited had been established to serve the local people.

The research has examined the level of satisfaction and has also explored the customer needs. The liker scale used as a means of measuring the level of satisfaction has been proven effective as in other studies. A qualitative methods using focus group discussion or in depth interview is also an effective methods to identify the level of satisfaction among the customer. But such kind of research would require high amount of resources and time. Therefore, when carrying out the study like this with various limitations, quantitative methods will also give a satisfactory result. This kind of study will half a cooperative to formulate strategies through bottom of approach, such study can be used as a guideline by the future researchers.



## BIBLIOGRAPHY

### ARTICLES:

1. C.K. Sunity, Customer satisfaction, international journal of business and management invention, January 2019.
2. Dr. Pratima Merugu, customer satisfaction, international journal of management, volume 11, February 2018.
3. Md. Khaled Bin Amir, international journal of research in business and social science, volume 12, 2017.
4. Ms. M. Esther Krupa, customer satisfaction, Indian journal of applied research, 2016.
5. D.N.V. Krishna Reddy and Dr. M. Sudhir Reddy, customer satisfaction, journal of business and management, volume 17, December 2015.

### BOOKS:

1. Michael D. Johnson, Improving customer satisfaction, Loyalty, published 1 August 2000.
2. Richard L, Satisfaction: A behavioural perspective on the consumer, published 26 September 1996.

### WEBSITES:

[www.researchgate.net](http://www.researchgate.net)

[www.slideshare.net](http://www.slideshare.net)

[www.wikipedia.com](http://www.wikipedia.com)

**ANNEXURE**  
**QUESTIONNAIRE**

Respected sir/madam,

It is matter of great pleasure to introduce myself Miss. Rekha Khot studying M.com in K.L.E's Basavaprabhu Kore College Chikodi, as per the course requirement we need to undergo a major concurrent project entitled, "A study on Customer Satisfaction with Special Reference to D.T.Patil co-operative Bank Chikodi".

I am requesting you to please share your valuable time provide in information and opinion by filling this questionnaire. Your co-operation will be highly appreciated and also this will helpful to us to serve you better in future.

1. Occupation of the customer
  - A. Professional
  - B. Businessmen
  - C. Service
  - D. Students
  - E. Others
  
2. Which type of the account do you have in D.T.Patil bank?
  - A. Saving a/c
  - B. Current deposit a/c
  - C. Fixed deposit a/c
  - D. Recurring deposit a/c
  - E. Others
  
3. Why you have opened on account in this bank?
  - A. Low interest rate on loan
  - B. Savings
  - C. Locker facilities
  - D. Others
  
4. What is the main reason for coming to this co-operative bank?
  - A. Best service
  - B. Quality products
  - C. Maximum benefit

D. Quick procedure

5. What do you expectation from this bank?

- A. Trust/care
- B. Professional quality service
- C. Immediate response
- D. All of the above

6. Are you happy with bank policy and schemes?

- A. Satisfied
- B. Very satisfied
- C. Normal
- D. Dissatisfied

7. Did you have to complaint to the officials on any matters during last 12 months?

- A. Yes
- B. No

8. How much time do they take the loan?

- A. A week
- B. Over a week
- C. Over a month
- D. Don't know

9. Are you happy with bank management system?

- A. Satisfied
- B. Very satisfied
- C. Normal
- D. Dissatisfied

10. Would you like to continue with bank service for next upcoming year?

- A. Yes
- B. No

11. In future which facilities expect from this bank?

- A. Online banking
- B. Mobile banking
- C. Others

12. Are you satisfied with the service quality of the D.T.Patil bank?

- A. Satisfied
- B. Very satisfied
- C. Normal
- D. Dissatisfied

If any of your suggestions, please mention here

.....  
.....

Signature

**K. L. E. SOCIETY'S**  
**BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,**  
**CHIKODI-591201**  
**PG DEPARTMENT OF COMMERCE**



**PROJECT REPORT ENTITLED**  
**A STUDY ON IMPACT OF GOODS AND SERVICES TAX ON INDIAN**  
**ECONOMY**

**Submitted to**  
**RANI CHANNAMMA UNIVERSITY, BELAGAVI**



**FOR THE PARTIAL FULFILMENT OF DEGREE IN MASTER OF COMMERCE**  
**DURING THE ACADEMIC YEAR 2022-2023**

**SUBMITTED BY**  
**Miss. SOUMYA KUMBAR**  
**M.COM-IV SEMESTER**  
**REGISTER NO: P15DM21C0015**

**UNDER THE GUIDANCE OF**  
**Shri. S. M. BHOSAGE**

K.L.E. SOCIETY'S  
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE,  
CHIKODI-591 201

PG DEPARTMENT OF COMMERCE



## CERTIFICATE

This is to certify that Miss. SOUMYA KUMBAR has satisfactorily completed the Project Report Entitled **A STUDY ON IMPACT OF GOODS AND SERVICES TAX ON INDIAN ECONOMY** for the partial fulfillment of Degree in Master of Commerce in Rani Channamma University, Belagavi during the academic year 2022-2023.

Shri. S. M. BHOSAGE  
PROJECT GUIDE

Dr. LAXMIKANTHA NAYAKA T O  
**HEAD**  
Department of Commerce

Shri. UDAYSINGH RAJPUT  
**PRINCIPAL**  
KLES'S Basavaprabhu Kore  
Arts, Science and Commerce College  
CHIKODI - 591 201





## **DECLARATION**

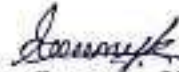
I declare that the project report entitled **A STUDY ON IMPACT OF GOODS AND SERVICES TAX ON INDIAN ECONOMY** is a record of independent research work carried out by me and submitted in partial fulfilment of the Degree in "Master of Commerce" as prescribed by the Rani Channamma University, Belagavi for the academic year 2022-23.

It has been prepared under the guidance and supervision of **Shri. S. M. Bhosage**, Lecturer in PG Department of Commerce K.L.E. Society's Basavaprabhu Kore Arts, Science and Commerce College, Chikodi.

The Thesis or a part thereof has not been previously submitted for the award of any other degree or diploma.

**Date:** 26-09-2023

**Place:** Chikodi



**Miss. Soumya Kumbar**

**Register No: P15DM21C0015**

# Acknowledgement

The success of any project is incomplete without mentioning the names of the people who made it possible.

I am conscious of my indebtedness to each and every individual, who has helped me in many ways in the preparation of this project work. It would be great privileged to express words of gratitude and respect to all those who guided and inspired me throughout the completion of this project.

My deep sense of gratitude and appreciation to Internal Guide **Shri. S. M. Bhosage** for his careful and valuable guidance, never ending patience and constant encouragement throughout the project.

I am beholden to **Dr. Laxmikantha Nayaka TO** Head of Department of Commerce for constant interest evidenced by him in my academic pursuits.

I express my deep intelligence of appreciation to **Shri. Udaysingh Rajput** Principal of our college for his valuable suggestions and encouragement.

At the outset, I would like to thank all the teaching faculty of PG Department of Commerce for their valuable suggestions during project work.

My thanks are also to library staff for their co-operation during the course of project work and I am also thankful to Printers for their skillful printing of this project.

Finally, I owe my deep sense of gratitude to my parents, friends and relatives for their constant encouragement and support.

**Miss. Soumya Kumbar**

## INDEX

<b>SL NO</b>	<b>CONTENTS</b>	<b>PAGE NO</b>
1	INTRODUCTION AND REASERCH DESIGN	1-7
2	CONCEPTUAL FRAMEWORK	8-36
3	STUDY AREA PROFILE	37-52
4	DATA ANALYSIS AND INTERPRETATION	53-68
5	FINDINGS, SUGGESTIONS AND CONCLUSION	69-73
	BIBLIOGRAPHY	

**CHAPTER -1**  
**INTRODUCTION AND REASEARCH DESIGN**

- 1.1 Introduction
- 1.2 Review of Literature
- 1.3 Statement of the Problem
- 1.4 Need of the Study
- 1.5 Objective of the Study
- 1.6 Scope of the Study
- 1.7 Research Methodology
- 1.8 Limitations of the Study
- 1.9 Chapter Schemes

### 1.1 Introduction:

GST first introduced during 2007-2008 budget session. On 17<sup>th</sup> December 2014, the ahead of its time union cabinet ministry approved the proposal for inauguration of GST constitution Amendment bill. On 19<sup>th</sup> of December 2014. The bill was presented on GST in Loksabha. The bill was absorbed for discussion far and wide for the coming budget session. The president of INDIA canonical the constitution Amendment Bill for GOOD AND SERVICE TAX (GST) on 8<sup>th</sup> September 2016. Consequently the bills of article in the Indian chamber and its ratification by greater than 50% of the size of it legislatures (CITATION pre16/I16393)

GST was launched on 1<sup>st</sup> of July 2017. It is an indirect tax applicable throughout India. Now single tax would be levied on all goods and services. Around 160 countries have implemented GST. GST will ensure a comprehensive for base with minimum exemption, which will help indirectly

The implementation of GST got overwhelming support from the industry. This was seen as an opportunity by the industry to redefine. The supply chain model optimize IT system and review internal and external agreement to maximize interest and reduce tax cost.

In other words GST is an Indirect tax which made after combining 15 Indirect tax. GST is consumption tax GST is value added tax. GST is levied on sales consumption of goods and services and levied at all stages. Tax is beard by consumer in the end.

GST is unique indirect tax for the entire nation. Under the GST regime the tax is charged at every point of sale. In the in the situation of inters sale central GST (CGST) and state (SGST) were charged. Interstate sale are charged to Integrated GST (IGST).

It would apply for both goods as well as service in comprehensive manner, with exemption restricted to a minimum. With federal structure of India.

It is proposed that GST will be levied on concurrently by the central government (CGST) state (SGST). It is expected that the base and other essential design future would be common between central GST and state GST for individual states the

interstate supplies within India. Would attract an integrated GST (IGST), which is the aggregate of CGST and SGST of the destination state.

To remove the cascading effect of taxes and also to provide for common national market for goods and services, the government of India proposed for amendment to introduce the goods and services tax for conferring concurrent taxing powers on the union as well as state including union territory with legislature to make laws for laying goods and services tax on every transaction.

GST is an indirect tax has introduced on 1<sup>st</sup> July 2017 in India was applicable through India which replaces multiple cascading taxes levied by central and state government.

## **1.2 REVIEW OF LITERATURE:**

### **a) Subha and Premkumar (2020)**

Examined An Empirical Study on Impact of GST on Hotel Industry at Chennai City. This study aims to find out the influence of GST on Hotel Industry at Chennai city with the help of five independent variables to identify the opinion of respondents on the implementation of GST namely GST is effective, easy to understand, taxation condition, profit margin, customer increase after GST. For study purpose researchers collected data from 50 hotels by using structured interview method. The sampling technique adopted by researchers was disproportionate stratified random sampling method. Researchers used descriptive statistics and multiple regression analysis to analyze data. Researchers examined the pros and cons of GST with respect to Hotel Industry and also analyzed the positive or negative influence of GST on Hotel Industry at Chennai city. So finally study concluded that GST in hotel industry will attract more customers to consume hotel service and also enhance revenues to the government.

### **b) Saeeda (2019):**

Studied about GST: Impact of GST on Various Aspects of Restaurant and Hotel Business in Anand and Nadiad District. The main aim of the study is to examine the impact of GST on various aspect of restaurant business in Anand and Nadiad City. For the study purpose, researcher selected 35 hotels and restaurants from Anand city and 33 hotels and restaurants from Nadiad city using Convenience Sampling



technique. The study is based on primary data collected using structure questionnaire. Researcher used Pearson Correlation, T-test and Independent sample test for the hypothesis testing. Researcher concluded that effect of GST on sales and purchase of hotel and restaurants is positive to neutral but the profit remains constant even after the implementation of GST. Researcher also stated that accounting procedure and record keeping become easier and production and service cost remains same,

**c) Nayyar (2018):**

Concluded that all sector in IDIAN manufacturing, services, telecom, automobiles and small SME's will bear the impact of GST. One of the biggest taxation reforms, GST will bind the entire countries under a single taxation system rate, as predicted by experts GST will improve tax collection and boost up India's economic development and disco tries all tax basis between state and central government.

**d) World Bank (2018):**

Research study on "GST in India "concluded that the Indian GST system among the most complicated once in the world, with its high tax rates and a larger number of tax rates and negative impaction on its economy.

**e) Pallvi Kapila (2018):**

The article entitled "GST: impact on Indian economy ",In this paper an attempt has been made to throw light on how GST would help in reducing the existing complexity of taxes in India as it subsumes VAT, excise duty, services tax and sales tax. The study found that, the implementation of GST had played an important role in the growth of Indian economy. A uniform and traditional taxation system in India would lead to lesser disruptions in the market economy and more efficient distribution of resources within the industry in the near future .the study also found that, GST will lead to an increase in GDP and exports of the country, enhancing economic welfare and returns to the factors of production i.e. land, labor, and capital.

**f) Rathod M (2017):**

In his paper "an overview of goods and services tax (GST) in India" concludes that GST will be step towards a development of India benefitting too many parties and entire nation.

**g) Jadhav Bhink Lala (2017):**

The article entitled “Impact of GST on Indian economy”. In this paper attempts had been made to throw light on GST, its features and also effect of GST on prices of goods and services. The study found that, the GST system is basically restructured to simplify current critical indirect tax system in India. The well designed GST is an attractive method to get liberates of deformation of the existing process of multiple taxes and reduces the compliance burden.

**h) Prof Pooja S Kawale and Prof Yogesh L.Aher (2017):**

The article entitled “gst:an economy overview:challenges and impact ahead ”The research intends to focus on understanding the concept of goods and services tax and its impact on Indian economic the study found that, GST may assure the possibility of overall gain for industry, trade and agriculture. The study also found that, GST will have positive impact on the Indian economy

**1.3 STATEMENT OF THE PROBLEM:**

The concept of GST is the highest tax reform in decades thought the world in many countries, but INDIA has just started implementing it to meet its target of rolling out GST. The research intends to focus on understanding concept of goods and services tax and its impact on Indian economy.

**1.4 NEED FOR THE STUDY:**

An analysis of the influence on the Indian economy and the purposes of this research were to find out how implementation of GST affected various sector of the Indian economy. The research primarily looked at the challenges to past taxing rates as well as newly imposed tax rates. IN the last two decades there has been significant transformation in the system of various countries with far reaching economic reforms. The board objective of their reforms have varied across different nations depending on this development strategies In number of so called less developed economies the need for tax reforms is aimed at enhancing revenues so as to achieve this fiscal objectives, however in recent times the main reason for tax reforms in many developing countries has been designed the tax system so as to meet the challenges of

international competitiveness. In India as well as the transition from planned economy to market economy has taken place based on resource allocation.

### **1.5 OBJECTIVES OF THE STUDY:**

1. To study the positive and negative impact on Indian economy
2. To study the impact of GST on Indian economy
3. To know the benefits and challenges of GST

### **1.6 SCOPE OF THE STUDY:**

The overall aim of this study is to gain an understanding of how GST impacts the Indian economy, the study is restricted to the impact of GST on the Indian economy whether it may be positive or negative, it is totally dependent on the GST rates and the implications of GST in the country.

### **1.7 RESEARCH METHODOLOGY:**

The impact of GST on several sectors of the Indian economy is described in the study. This is descriptive in nature. The secondary sources approach was used to gather data for the research study.

#### **Primary data:**

It refers to the first hand data gathered by the researcher himself.

#### **Secondary data:**

It is the data collected by someone else earlier.

For the purpose of analysis and interpretation the research relies on secondary data; magazines, articles and research papers published online and offline newspapers and websites and magazines are examples of secondary data.

The research paper is an attempt at research. Based on secondary data sourced from journals, internet, books, previous year papers which focused on the various aspects of goods and services tax.

### **1.8 LIMITATIONS OF THE STUDY:**

- Whatever the study done is related to the Indian tax system not to other economy.
- The information and data collected is form secondary source.
- The data analysis part has been on tax of previous tax system and present tax system only and it's limited

### **1.9 CHAPTER SCHEME:**

The plan of analysis is made chapter wise .Here we have included five chapters, where each chapter will be discussed in detail with the data.

#### **Chapter1:** Introduction and Research Design:

This chapter covers about the introduction of goods and services tax research design, and objectives, scope, limitations of the study

#### **Chapter 2:** Conceptual framework:

This chapter covers about the GST introduction meaning and definitions of the study, types of GST, rates of GST in India and foreign countries furthermore, factors influencing on Indian economy.

#### **Chapter3:** Study Area Profile's

This chapter covers about the area on which the study has taken place. That is about Indian economy.

#### **Chapter 4:** Data Analysis and Interpretation:

This chapter contains about the data is being analyzed and results of it.

#### **Chapter 5:** Findings, Suggestions and Conclusion;

This chapter covers about the findings of the research and conclusions from the study undertaken.

## CHAPTER 2

### CONCEPTUAL FRAMEWORK

- 2.1 Introduction of GST
- 2.2 Meaning of Goods and Service Tax
- 2.3 Definition of Goods and Services Tax
- 2.4 Reasons to Adopt GST in India
- 2.5 Types of GST in India
- 2.6 Advantages and Disadvantages of GST
- 2.7 Framework of GST in India
- 2.8 GST Structure Rates In India
- 2.9 Exempted Goods and Service's From the GST
- 2.10 Global Frame Work of GST
- 2.11 Difference between VAT and GST
- 2.12 Theoretical Background of the Study
- 2.13 GST Revenue Collection and Growth
- 2.14 Impact of GST on Consumer Price Index (CPI)
- 2.15 Impact of GST On the Common Man's Pocket
- 2.16 Impact of GST on Different Sectors

## 2.1 INTRODUCTION:

GST is an indirect tax imposed on the supply of goods and services in India. GST is a value-added tax imposed at all points in the supply chain, with credit allowed for any tax paid on input acquired for use in making the supply.

In other words, goods and service tax (GST) is an indirect tax levied on the supply of goods and services. This law has substituted numerous indirect laws previously existing in India. GST is a unique indirect tax for the entire nation. Under the GST regime, the tax is charged at every point of sale, in the situation of intrastate sale, central GST and state GST are charged; interstate sales are chargeable to integrated GST.

It would apply for both goods as well as services in a comprehensive manner, with exemption restricted to a minimum with a federal structure of India. It is proposed that the GST will be levied concurrently by the central government (CGST) and state government (SGST). It is expected that the base and the other essential features would be common between central goods and services tax and state goods and services tax. For the individual states, supplies within India would attract an integrated GST (IGST), in which the aggregate of CGST and the SGST of the destination state.

A single tax structure is definitely a welcome move, and the introduction of goods and services tax (GST) seeks to do just that by way of amalgamation. A large number of central and state taxes into a single tax (GST) will not only address the concerns of double taxation but it will also help in reducing the overall tax burden on goods and services. Furthermore, it will also help in making Indian goods competitive internationally, thus providing a much-needed boost to the economy.

Originally, the tardy growth of the GST revenue collections has pushed the states and the center into a corner. In the month of August, the GST income collection stood at RS 98,202 crore, below the psychologically important one lakh crore mark. It was up by an unimpressive 4.5% compared to August 2018, compared with this year's high of RS 113,865 crore collected in April. The income in August was down 13.7%.

One has to take account of that demand in August, a month before the festive shopping spree begins, has traditionally been sluggish. This year, due to the slowdown in



consumer demand the effect is amplified. The second major challenge that the GST is being today could potentially drag down total revenue.

Early this week, the Directorate of general GST intelligence unearthed a Rs 400 crore fraud of overvaluing and faking invoices to claim refund on GST paid for the purchases of goods or services so as to prevent cascading taxation to be fair, in the last two years, the GST council has responded to the concerns of business, modifying select process and tax rates for a company with less than Rs 2 crore annual turnover, there is now no need to file monthly or quarterly returns through it has to pay the tax every month.

Further, many items such as nuclear fuel, non-branded paneer, non-branded natural honey, jiggery salt, agriculture implemented, similarly napkins and rakhi all of which originally attracted GST, were later shifted to zero slab, meaning no tax would be charged on them.

## **2.2 MEANING OF GOODS AND SERVICES TAX:**

G-Goods

S- Services

T- Tax

The goods and services is multi tier tax where ultimate burden of tax falls on the consumer consuming the goods or services. it is called as value added tax as every stage with every addition of value, tax is being paid. under this scheme, an individual who was liable to pay tax on his or her output- whether for provisions of services or for sale of goods –is entitled to get input tax credit (ITC) on the tax paid on the inputs, that is, for the purchase of goods or services, thus tax is being paid on the addition, which is being paid to the government.

## **2.3 DEFINITION OF GOODS AND SERVICES TAX:**

The goods and services tax (GST) is a type of tax levied on most goods and services sold for domestic consumption in many countries. It is paid by consumers and remitted to the government by the businesses selling the goods and services.

GST is tax on goods & services with value addition at each stage having comprehensive & continuous chain of set of benefit from the producer's/service provider's point up to the retailers level where only the financial consumer.

#### **2.4 REASSONS TO ADOPT GST IN INDIA:**

Before the introduction of GST, the taxation system in India lent itself to various problems. GST Registration Process was introduced to provide relief from these problems. GST:

- Subsumed majority of the indirect taxes
- Removed the cascading effect of taxes
- Stopped evasion of taxes
- Increased taxpayer base
- Provided online procedures to increase the ease of doing business
- Made the distribution system and logistics better
- Promoted consumption and competitive pricing.

#### **2.5 TYPES OF GST IN INDIA:**

In India, four different types of GST have been implemented:

1. Integrated Goods and Services Tax (IGST)
2. State Goods and Services Tax (SGST)
3. Central Goods and Services Tax (CGST)
4. Union Territory Goods and Services Tax (UTGST).

Under each version of GST, the rate of taxation is different.

The following table provides the difference between each type of GST at a glance.

<b>GST Type</b>	<b>Benefiting Authority</b>	<b>Priority Of Tax Credit Use</b>	<b>Collecting Authority</b>	<b>Applicable Transactions (Goods And Services)</b>	<b>Governin g Act</b>
CGST	Central Government	CGST IGST	Central Government	Intrastate – Within a Single State	CGST ACT
SGST	State government	SGST IGST	State Government	Intrastate – Within a Single State	SGST ACT
IGST	Central Government and State government	IGST CGST	Central government	Interstate – Between a State and a Union Territory or Between Two States	IGST ACT
UGST/UT GST	Union territory (union government)	UTGT IGST	Union territory government	Within one single UT	UTGST ACT

## 2.6 ADVANTAGES AND DISADVANTAGES OF GST:

GST is levied on goods and services that are sold for consumption domestically. This tax is part of the final price of the good or service, and the final consumer needs to pay it when purchasing. The seller passes the collection to the government. Generally, GST is taxed at one rate all throughout the country.

The following list provides some of the important advantages of GST.

1. Price reduction: Traders and manufacturers do not need to include taxes in their production cost, due to which the cost of production will decrease

2. Reduction in procedural costs and compliance requirements: GST lends itself to decreasing compliance maintenance load and does away with the need to maintain separate records for IGST, SGST, and CGST.
3. Implement Unified GST: While dual GST has been implemented in India, it will lead to a Unified GST, the Indirect Tax method
4. Increase GDP growth by 100-200 bps or (1 to 2%): Due to GST providing a uniform structure of taxation, it will encourage cheaper and faster goods movement all over the nation
5. Attract foreign investment: GST will display to foreign investors the ability created to support business.
6. Use our GST calculator to determine the exact amount of GST to be paid before registering for GST.

### **Disadvantages of GST**

#### **1. Very High Tax Burden on SMEs**

As per the structure of the previous tax system, only those businesses whose yearly sales were more than Rs.1.5 crore were required to pay excise duty. But as per the new tax structure, it is mandatory for all businesses whose annual sales are more than Rs.40 lakh to pay GST.

#### **2. Compliance Burden**

GST compliance is quite high due to the filing of 3 tax returns every single month. Besides, now it is mandatory for the companies to register for the GST in all states wherever they perform business.

Compliant invoices, maintaining digital records, and filing returns have put a huge stress burden on SME'S and others.

#### **3. Increased Costs**

It is seen that GST compels businesses to convert their present accounting software to ERP or GST-compliant software with a view to keeping their operations running. But one also has to remember that the businesses may incur substantial expenses for buying, installing, and then training employees to use GST-compliant software.

In addition to this, the costs of doing business have increased considerably not only for big businesses but also for small ones since they have to hire tax professionals in order to become GST-compliant.

#### **4. IT Software Expenditure**

Keeping in view the GST regime, all businesses either have to update their current accounting software or ERP software to make it GST compliant or purchase new GST software to prop up their businesses. This results in an increase in IT expenses of the businesses in terms of purchasing the GST software and training the staff to use the software efficiently. However, Masters India, a firm that is one of the leading GST Suvidha Providers (GSP) has successfully developed customized GST software and APIs in order to ease the compliance procedures for different business users.

#### **2.7 FRAMEWORK OF GST IN INDIA:**

As India has adopted a Dual GST model as followed in Canada & Brazil.

Centre & States simultaneously levy GST on taxable supply of Goods and Services which takes place within a State/UT.

Now, Centre has power to tax Intra-State Sales & States have power to tax services.

**GST in India:**

GST in India comprises of Intra State Supply and Inter State Supply.

**INTRA STATE SUPPLY:**

Under Intra State Supply GST is divided into CGST, SGST, and UTGST.

CGST is governed by CGST Act, 2017 in which taxes are levied & collected by Central Government.

SGST is governed by SGST Act, 2017 in which taxes are levied & collected by SGs or UTs with State Legislatures.

UTGST is governed by UTGST Act, 2017 in which taxes are levied & collected by UTs without State Legislatures.

**INTER STATE SUPPLY:**

IGST is governed by ITGST Act, 2017 in which taxes Levied & collected by CG on all inter-State supplies.

IGST will be apportioned between CG & SG in manner provided by Parliament as per recommendation of GST Council.

IGST = CGST + SGST/UTGST.

### GST ACTS:

There are 35 GST Acts in India which are as follows:

1. One Central Goods & Services Tax Act, 2017
2. Thirty-one State Goods & Services Tax Act, 2017
3. One Union Territory Goods & Services Tax Act, 2017
4. One Integrated Goods & Services Tax Act, 2017
5. One the GST (Compensation to States) Act, 2017.

Though there are multiple SGST legislations, basic features of law i.e. Chargeability, Definition of taxable event & taxable person, classification & valuation of Goods and Services, procedure for collection & levy of tax etc. are uniform in all SGST legislations.

### GST RATES:

CGST & SGST would be levied at rates to be jointly decided by Central Government And State Government on recommendations of GST Council.

Rates of IGST shall be decided by the Centre on the recommendations of the GST Council.

Highest (Peak) rates of CGST & IGST have been provided in the law @ 20% and 40%.

Tax rates have been fixed at 5%, 12%, 18% and 28%.

Other rates are 0%, 0.25% and 3%.

The rates of GST commodity wise are as follows –

Essential Goods	-	5%
Basic Necessities	-	12%
Revenue Neutral Rate	-	18%
Luxury Goods	-	28%

## 2.8 GST STRUCTURE RATES IN INDIA:

**The GST rates have 5 categories. These are:**

### 1. No Tax:

**Goods:** No taxes will be levied on goods like milk, fruits, vegetables, bread, salt, bindi, curd, sindoor, natural honey, bangles, handloom besan, flour, eggs, stamps, printed books, judicial papers, and newspapers.



**Services** - All hotels and lodges who carry a tariff below Rs. 1,000 are exempted from taxes under GST.

## **2. GST Tax Slab of 5%:**

**Goods** - The goods which will attract a taxation of 5% under GST include skimmed milk powder, fish fillet, frozen vegetables, coffee, coal, fertilizers, tea, spices, pizza bread, kerosene, ayurvedic medicines, agarbatti, sliced dry mango, insulin, cashew nuts, unbranded namkeen. lifeboats etc.

**Services**- Small restaurants along with transport services like railways and airways, Standalone ACS non-ACs Restaurants and those which serve liquor. Takeaway Food, Restaurants in hotels with a room tariff less than Rs.7.500 no input credit for these restaurants, will come under this category.

## **3. GST Tax Slab of 12%**

**Goods** -Items coming are the tax slab of 12% include frozen meat products, butter, cheese, ghee, pickles, sausage, fruit juices, namkeen, tooth powder, medicine, umbrella, instant food mix, cell phones, sewing machine, man-made yarn, etc.

**Services** - Business class air tickets will attract a tax of 12% under GST.

## **4. GST Tax Slab of 18%**

**Goods** - most of the items are part of this tax slab. Some of the items are sugar, cornflakes, pasta, pastries and cakes, detergents, washingand cleaning preparations, safety glass, mirror, glassware, sheets, pumps, compressors, fans, light fitting, chocolate, preserved vegetables, tractors, ice cream, etc.

**Services** Restaurants located inside hotels with tariffs of Rs. 7,500 and above, outdoor catering input tax credit to be available, IT and Telecom services and financial services along with branded garments will be part of this tax slab.

## **5. GST Tax Slab of 28%**

**Goods**- The goods which will be part of this category under GST are sunscreen, pan masala, dishwasher, weighing machine, paint, cement, vacuum cleaner. Other items include automobiles, hair clippers and motorcycles.

**Services** - five-star hotels, racing, movie tickets and betting on casinos and racing will come under this category.

**GST Rates**
clear

**GST @ 0%**

- Milk
- Lassi
- Prasad
- Unbranded & not packed in container: Honey & Paneer
- Jaggery
- Kajal
- Tender Coconut Water
- Salt
- Fresh Vegetables



**GST @ 5%**

- PDS Kerosene
- Domestic LPG
- Packed Paneer
- Agarbatti
- Milk Food for Babies
- Coal
- Tea
- Cashew Nuts
- Edible Vegetable Oil
- Footwear (< Rs.500)
- Apparel (< Rs.1000)
- Coir Mats, Matting & Floor Covering
- Spectacles
- Raisin



**GST @ 12%**

- Butter
- Umbrella
- Preparations of Vegetables, Fruits, Nuts or other parts of Plants including Pickle, Murabba, Chutney, Jam, Jelly
- Ghee
- Packed Coconut Water
- Almonds
- Mobiles



**GST @ 18%**

- Hair Oil
- Pasta
- CCTV
- Corn Flakes
- Toothpaste
- Ice-cream
- Staplers
- Computer Monitor (>17 inches)
- Computers
- Printers
- Aluminum Foils



clear
Get GST Software Free Trial at <https://cleartax.in/gst>

Note: labeled and pre-packaged paneer, buttermilk, and curd attract 5% GST from 18<sup>th</sup> July 2022

**Here is a table listing the items under the several GST tax slabs in India:**

0%	Milk, Eggs, Education Services, Curd, Health Services, Lassi, Children's Drawing & Colorings Books, Unpacked Food grains, Unbranded Atta, Unpacked Paneer, Unbranded Maida, Gur, Unbranded Natural Honey, Fresh Vegetables, Palmyra Jaggery, Salt
5%	Sugar, Tea, Edible Oils, Domestic LPG, Roasted Coffee Beans, PDS Kerosene, Cashew Nuts, Footwear (< Rs.500), Milk Food for Babies, Apparels (< Rs.1000), Fabric, Coir Mats, Matting & Floor Covering, Spices, Agarbatti, Sweets, Life-saving drugs, Coffee (except instant)
12%	Butter, Ghee, Processed food, Almonds, Fruit Juice, Fruits, Nuts, Pickles, Chutney, Jam, Jelly, Packed Coconut Water
18%	Hair Oil, Toothpaste, Industrial Intermediaries, Soap, Ice-cream, Pasta, Toiletries, Corn Flakes, Soups, Computers, Printers
28%	Small cars (+1% or 3% cess), Luxury & sin items like BMWs, cigarettes and aerated drinks (+15% cess), High-end motorcycles (+15% cess)

Unlike goods categories, services are categorized under the applicable tax slab rates. No major changes in GST service rates have been announced for service category items. To know the GST rate applicable, the service provider can start from nil GST rates which have the largest number of listed services under it. Several services may

become eligible for 0% GST rate after submission of necessary forms or fulfillment of required processes.

**Services with 0% GST rates**

**Comprise of a long list of service items that include:**

- Services by autonomous bodies, government bodies, educational institutions, religious institutions, medical, and health care institutions.
- Services provided for charity purpose, arts or culture, charitable sports defined u/s 12 AA of IT act.
- Folk culture performances, performance arts, circus, dance, drama shows for which ticket is not more than Rs. 250 per person.
- Services rendered to a foreign diplomat, UN organizations, and the Indian consulate
- Services of socially benefitting nature.

**Services with 5% GST rates**

**Include the following services:**

- Aircrafts leasing by scheduled airline for scheduled operations
- Space selling for print media advertisement
- Tour operator services
- Book printing, newspaper printing
- Natural textile yarn, natural fiber making, animal skin processing
- Polishing and made of precious metals and stones.

**Services with 12% GST rates**

**Include the following services:**

- Food and drinks supply at restaurants having AC, central heating but not a liquor license

- Accommodation services charging Rs. 1000 per day and above but less than Rs. 2500 per day.

**Services with 18% GST rates**

- Air transport of passengers in non-economy class
- Foreman services for chit fund
- Intellectual property rights transfer (permanent/temporary) services barring IT software
- Buildings constructed for sale purpose
- Food and drinks supply at restaurants with liquor serving license, AC, central heating, outdoor catering.
- Accommodation services with charges above Rs 2500 per day but less than Rs 7500 per day.
- Services under bundled foods and drinks supply and accommodation services
- Services listed under section 2 clause 119 of GST Act
- Circus, Indian classical dance, folk dance, theatre performances, cinema with tickets less than Rs. 100

**Services with 28% GST rates**

Includes accommodation services that charge Rs. 7500 per day or more, entertainment services, sports, race-course, casino, ballet, films.

**Difference between Nil Rated, Exempt, Zero Rated and Non-GST supplies:**

<b>Supply name</b>	<b>Description</b>
Zero Rated	Exports Supplies made to SEZ or SEZ Developers.

Nil Rated	Supplies that have a declared rate of 0% GST. Example: Salt, grains, jiggery etc.
Exempt	Supplies are taxable but do not attract GST and for which ITC cannot be claimed. Example: Fresh milk, Fresh fruits, Curd, Bread etc.
Non-GST	These supplies do not come under the purview of GST law. Example: Alcohol for human consumption, Petrol etc.

## 2.9 EXCEMPTED GOODS ANDSERVICE ARE FROM THE GST:

### Major Exempted goods under GST:

In the following section, you will find a list of the GST exempted goods in India:

- Fresh and dry vegetables like potatoes, onions, and other leguminous vegetables.
- Non-GST goods include fish, egg, fresh milk, etc.
- Grapes, melons, ginger, garlic, unroasted coffee beans, green tea leaves that are not processed, and more.
- Food items that are not put into branded containers like rice, hulled cereal grains, wheat, corn, etc.
- Components like human blood.
- Unspun jute fibers, raw silk, khadi fiber, etc.
- Hearing aid manufacturing parts, chalks, slates, handloom, etc.
- Note: Certain non-GST items, once processed, will attract a GST.

### Major exemption to tax on services-following is important exemptions:

- Agricultural related services (up to first stage)
- Toll for road or bridge (services of collections of tolls with be taxable)



- Services by recognized educational institutes (certain services provided to educational institution are also exempt)
- Interest on loans, deposits or advances is exempt (but not on credit card or for late payments of invoices)
- Services to UN agencies and by UN agencies are exempt by of refund.

## **2.10 GLOBAL FRAMEWORK OF GST:**

### **1. FRANCE:**

Goods and Service tax (GST): Introduced for the first time by France in 1954 is a comprehensive value added system operational in more than 140 countries today. It is collected on the value added on goods and services at each stage of production via a tax credit mechanism.

- Rate of GST 19.6%
- France was the first country to introduce GST in 1954

Worldwide, almost 150 countries have introduced goods and services tax in one or the other since now.

Most of the countries have unified goods and services tax system Brazil and Canada follow a dual system vise a vise India is going to introduce. In China, goods and services tax applies only to goods and the provision of repairs, replacement and processing services.

### **2. AUSTRALIA:**

In July 2000, the federal government introduced a goods and services tax (GST), based on the value-added tax (VAT) model, as part of a broader package of taxation reform. The GST replaced the WST and a range of inefficient state taxes, in conjunction with reforms to federal financial relations.

- Rate of GST 10%
- GST Is admistrated by the office on behalf Australia Government and is appropriated to the states and territories.
- Every company whose turnover exceeds \$75000 is liable for registration under GST and in default 1/11<sup>th</sup> of the income and some amount is for penalty.

### 3. CANADA:

GST was introduced in Canada in 1991 at a standard rate of 7.0%. Since then the minimum and maximum standard rates have been at 5.0% and 7.0% respectively. The VAT Revenue Ratio (VRR) for Canada was 0.48 in 2020, below the OECD average of 0.56. The VRR is a measure of the revenue raising performance of a VAT system.

- Goods and services tax is imposed at 5% in part of the excise tax act. Goods and services tax is levied on goods and services made in Canada except items that are either exempt or zero rated.
- When a supplier makes a zero rated supply. He or she is eligible to recover any GST paid on purchases but the supplier who makes a supply of exempt goods is not eligible take input tax credit (ITC) on purchases of making the exempt goods and services.

### 5. NEWZEALAND:

GST was introduced in Canada in 1991 at a standard rate of 7.0%. Since then the minimum and maximum standard rates have been at 5.0% and 7.0% respectively. The VAT Revenue Ratio (VRR) for Canada was 0.48 in 2020, below the OECD average of 0.56. The VRR is a measure of the revenue raising performance of a VAT system.

- Rate of GST 15%
- Exemptions are rent collected on residual rental properties. donation and financial services.

### 6. MALAYSIA:

To modernize its taxation system and improve business efficiency, Malaysia replaced its Sales and Service Tax regimes with the Goods and Services Tax (GST) effective 1 April 2015

Goods and services tax (GST) in Malaysia is elimination of VAT.GST is imposed on Production changes other than the final consumer with the exception of blocked input tax.

**2.11 DIFFERENCE BETWEEN VAT AND GST:**

<b>BASIS</b>	<b>VAT</b>	<b>GST</b>
<b>Date of Commencement</b>	The Government of India had introduced VAT on 1st April 2005.	The Government of India had introduced GST on 1st July 2017.
<b>Taxation Rates and Laws</b>	The VAT rate and the taxation laws under it are different for each state in India.	The GST rate is uniform for each state in India. When it comes to taxation laws, there are four different Acts – Central GST Act, State GST Act, Integrated GST Act and Union Territory GST Act – applicable for different types of transactions
<b>Authority</b>	Since the state government collects the VAT, they have total authority over the tax proceeds.	The Central GST and State GST gets collected from every sale, and the tax amount then gets bifurcated between the two governments.
<b>Mode of Payment</b>	VAT is payable only through offline mode.	GST is payable both through the online and offline mode.
<b>Tax Collection</b>	The responsibility for the collection of tax lies with the seller's state.	The responsibility for the collection of tax lies with the consumer state.

<b>Basis of levy</b>	Under VAT, tax will be levied at the place where goods are manufactured or sold or the place at which services are rendered	Under the tax will be levied at the place of consumption like destination based tax
<b>Validation</b>	Under the VAT the system will partly validate the returns, and full verification will be subject to assessment by state or central authorities.	Under GST the validation will take place on the system and consistency checks will be carried out on input credit.
<b>Basic custom duty</b>	Under vat the central government charges tax on imports under a separate act.	No charges
<b>Special additional duty</b>	Center charges tax on imports separately	This duty is subsumed by the state GST

## 2.12 THEROTICAL BACKGROUND OF THE STUDY:

In 2000, the then Prime Minister introduced the concept of GST and set up a committee to develop the country's GST model. In 2003, the Central Government set up a task force on fiscal responsibility and budget management, which in 2004 proposed that Goods and Service Tax replace the existing tax regime by introducing a comprehensive tax on all goods and services to replace the central rate of VAT and the national level of VAT.

It proposed that all indirect taxes, including customs duties, be replaced by value added tax on all goods and services with total value added tax at all stages of the value chain. The GST movement was articulated by the then Union Finance Minister in his 2006-07 budget speech. It was initially proposed that GST be implemented as of 1 April 2010,

The Empowered Committee of State Finance Ministers (EC) which formulated the definition of State VAT was asked to draw up a GST roadmap and structure. Joint

working groups of officials with representatives of the States and the Centre were set up to discuss various aspects of GST and to draw up reports explicitly on and thresholds, taxation of and taxation of inter-State supplies.

On the basis of consultations within and between the FC and the Central government, the Finance minister released its first discussion paper (FDP) upon GST in November 2009.

The implementation of the Goods and Services Tax (GST) is a very significant step forward in the area of indirect tax reform in India. Through amalgamating a large number of central and state taxes into a single tax. GST would substantially reduce the ill effects of cascading or double taxation and pave the way for a common national market.

From the point of view of consumers, the biggest advantage would be to reduce the overall tax burden on goods, which is currently estimated to be around 25%-30%. It would also mean that the real cost of indirect taxes on goods and services would be much clearer to the customer. The implementation of GST would also make Indian goods competitive in domestic and international markets by completely neutralizing input taxes across the value chain of production and distribution. Studies show that this would have a boosting effect on economic growth. Last but not least, because of its straightforward and self-policing nature, this tax would be easier to administer. It would also encourage a shift from the informal economy to the formal economy. The Government proposes to introduce GST with effect from 1 July 2017.

#### **GST and Centre-State Financial Relations:**

Today, fiscal powers between the Centre and the States are clearly demarcated in the Constitution, with almost no overlap between the respective jurisdictions. The center has the authority to levy taxes on the production of products with the exception of alcoholic beverages for human consumption, morphine, cocaine, etc.) While States have the right to levy taxes on the sale of goods.

In the case of cross-state sales, the Centre has the power to levy a tax (Central Sales Tax) but the tax is collected and retained entirely by the originating States. As far as utilities are concerned, it is the Centre alone that is empowered to impose utility taxes. Because States are not allowed to impose any tax on the sale or purchase of products

in the course of their importation into or exports from India, the Centre levies and collects this tax in addition to the Basic Customs Duty.

This additional customs duty (commonly referred to as CVD and SAD) balances the excise duty, sales state VAT and other taxes imposed on the same national product. The implementation of the GST included changes to the Constitution in order to allow the Central and the States to administer and receive GST at the same time.

**The way GST Impact on Indian Economy:**

**Simplification of the tax structure:** Reduces tax burden on producers and faster growth more production. The current taxation structure, pumped with myriads prevents manufacturers from producing to their optimum capacity and retards growth GST will take care of this problem by providing a tax credit to the manufacture

**Enhanced pan India operations:** Different tax barriers, such as check posts and will pi lead to wastage of unpreserved items being transported. This penalty transforms to r costs due to the higher needs of buffer stock and warehousing costs. A single nation system will eliminate this roadblock.

**Transparency in the GST system:** There will be more transparency in the system as the customers will know exactly how many taxes they are being charged and on what use Increased GST will add to government revenues by extending the base

**Fostering production:** GST will provide credit for the taxes paid by producers in the gods or services chain. This is expected to encourage producers to buy raw material from differed registered dealers and is hoped to bring in more vendors and suppliers under an anion purview.

**Increase in Exports:** GST will remove the custom duties applicable to exports. The nation's competitiveness in foreign markets will increase on account of the lower costs of the Transaction

**SME support:** Under the Composition Scheme introduced by GST. the small and medium sized enterprises (SME's) can now register. According to their annual turnover, they can gay taxes through this scheme.



### 2.13 GST REVENUE COLLECTION AND GROWTH:

STATEWISE GROWTH OF GST REVENUES DURING:

SL NO	STATE	22-Jul	23-Jul	GROWTH (%)
1	Jammu and Kashmir	431	549	27
2	Himachal Pradesh	746	917	23
3	Punjab	1733	2000	15
4	Chandigarh	176	217	23
5	Uttarakhand	1390	1607	16
6	Haryana	6791	7953	17
7	Delhi	4327	5405	25
8	Rajasthan	3671	3988	9
9	Uttar Pradesh	7074	8802	24
10	Bihar	1264	1488	18
11	Sikkim	249	314	26
12	Arunachal Pradesh	65	74	13
13	Nagaland	42	43	3
14	Manipur	45	42	-7
15	Mizoram	27	39	47
16	Tripura	63	78	23
17	Meghalaya	138	175	27
18	Assam	1040	1183	14
19	West Bengal	4441	5128	15
20	Jharkhand	2514	2859	14
21	Odessa	3652	4245	16
22	Chhattisgarh	2695	2805	4
23	Madhya Pradesh	2966	3325	12
24	Gujarat	9183	9787	7
25	Daman and Diu	313	354	13
26	Dadra and Nagar Haveli			

**A STUDY ON IMPACT OF GST ON INDIAN ECONOMY**

27	<b>Maharashtra</b>	22129	26064	<b>18</b>
28	<b>Karnataka</b>	9795	11505	<b>17</b>
29	<b>Goa</b>	433	528	<b>22</b>
30	<b>Lakshadweep</b>	2	2	<b>45</b>
31	<b>Kerala</b>	2161	2381	<b>10</b>
32	<b>Tamil Nadu</b>	8449	10022	<b>19</b>
33	<b>Pondicherry</b>	198	216	<b>9</b>
34	<b>Andaman and Nicobar Islands</b>	23	31	<b>32</b>
35	<b>Telangana</b>	4547	4849	<b>7</b>
36	<b>Andhra Pradesh</b>	3409	3593	<b>5</b>
37	<b>Ladakh</b>	20	23	<b>13</b>
38	<b>Other Territory</b>	216	226	<b>4</b>
39	<b>Center Jurisdiction</b>	162	209	<b>29</b>
	<b>Grand Total</b>	<b>106580</b>	<b>123026</b>	<b>15</b>

**AMOUNT OF SGST & SGST PORTION OF IGST SETTLED TO STATES/UTS IN JULY'2023 (RS. IN CRORE)**

<b>Sl No</b>	<b>State/UT</b>	<b>SGST collection</b>	<b>SGST portion of IGST</b>	<b>Total</b>
1	<b>Jammu and Kashmir</b>	234	429	663
2	<b>Himachal Pradesh</b>	233	285	518
3	<b>Punjab</b>	727	1138	1865
4	<b>Chandigarh</b>	57	133	190
5	<b>Uttarakhand</b>	415	210	625
6	<b>Haryana</b>	1610	1256	2866
7	<b>Delhi</b>	1221	1606	2827
8	<b>Rajasthan</b>	1380	1819	3199
9	<b>Uttar Pradesh</b>	2751	3426	6176
10	<b>Bihar</b>	718	1469	2187

A STUDY ON IMPACT OF GST ON INDIAN ECONOMY

11	<b>Sikkim</b>	30	53	83
12	<b>Arunachal Pradesh</b>	37	113	150
13	<b>Nagaland</b>	18	70	88
14	<b>Manipur</b>	23	58	80
15	<b>Mizoram</b>	22	57	79
16	<b>Tripura</b>	40	86	125
17	<b>Meghalaya</b>	50	99	149
18	<b>Assam</b>	451	696	1146
19	<b>West Bengal</b>	1953	1531	3483
20	<b>Jharkhand</b>	721	330	1051
21	<b>Odessa</b>	1300	416	1716
22	<b>Chhattisgarh</b>	627	382	1009
23	<b>Madhya Pradesh</b>	1045	1581	2626
24	<b>Gujarat</b>	3293	1917	5210
25	<b>Dadra and Nagar Haveli and Daman and Diu</b>	56	29	85
26	<b>Maharashtra</b>	7958	4167	12124
27	<b>Karnataka</b>	3181	2650	5831
28	<b>Goa</b>	173	146	320
29	<b>Lakshadweep</b>	2	13	14
30	<b>Kerala</b>	1093	1441	2534
31	<b>Tamil Nadu</b>	3300	2119	5419
32	<b>Pondicherry</b>	41	57	99
33	<b>Andaman and Nicobar Islands</b>	11	25	37
34	<b>Telangana</b>	1623	1722	3345
35	<b>Andhra Pradesh</b>	1199	1556	2755
36	<b>Ladakh</b>	11	47	58
37	<b>Other Territory</b>	19	55	75
	<b>Grand Total</b>	<b>37623</b>	<b>33188</b>	<b>70811</b>

### **GST REVENUE COLLECTION AND GROWTH:**

India's gross GST revenue collection in June stood at Rs 1, 61,497 crore, registering a 12 per cent year-on-year rise, the Ministry of Finance said on Saturday. India in April 2023 saw a record-high GST collection of Rs 1.87 lakh crore, while the indirect taxes collected in May were at Rs 1, 57,090 crore. With this, the monthly GST revenue has come in at more than Rs 1.4 lakh crore for the 15th Conseco The gross revenue has crossed the 1.6 lakh crore mark for the fourth time since the inception of GST in the country.

The data release coincides with GST's sixth anniversary in India. GST's introduction marked a significant milestone in the history of taxation in India. The introduction of this comprehensive system was particularly remarkable in a diverse and federal country like India where multiple tax laws were consolidated into a single system.

Of the total gross GST revenue collected in June, CGST is Rs 31,013 crore, SGST is Rs 38,292 crore, IGST is Rs 80,292 crore (including Rs 39,035 crore collected on import of goods) and cess is Rs 11,900 crore (including Rs 1,028 crore collected on import of goods).

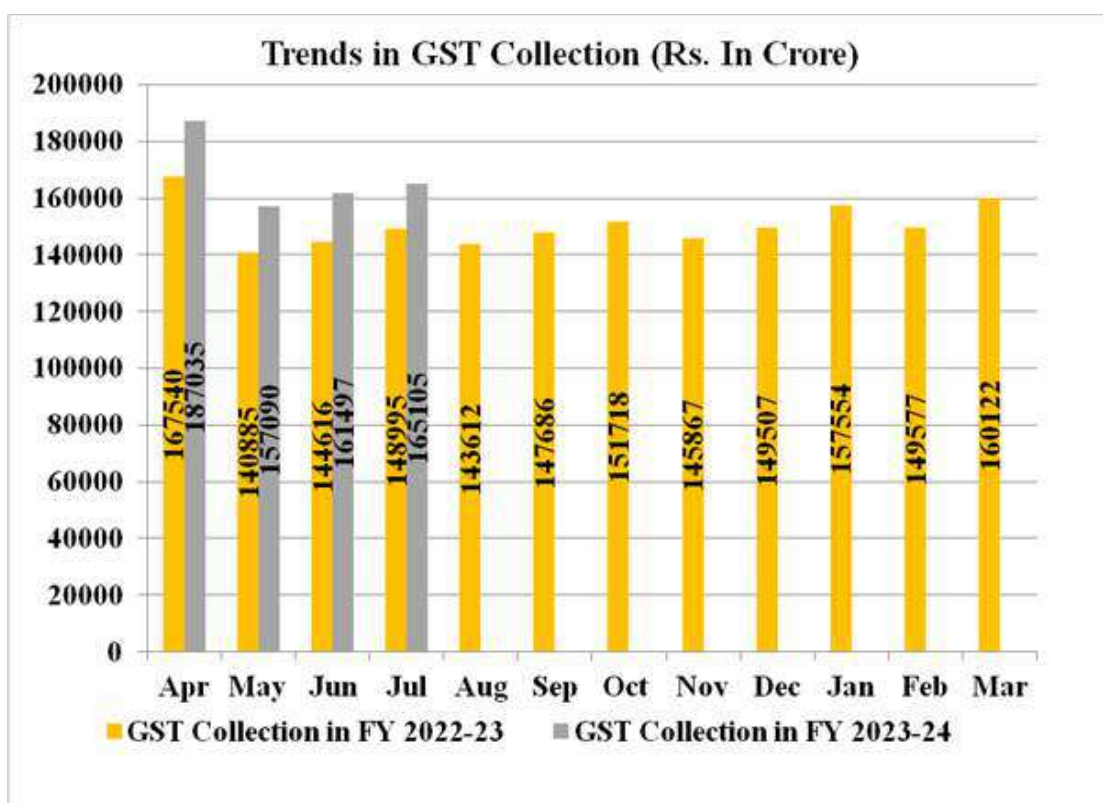
"GST collections in June have surpassed expectations. Settling of GST law, amnesty scheme and anti-evasion drive are bringing desired results. Further the strengthening of GSTN system and generating various discrepancy reports is also helping the trade and authorities. It appears the collection will exceed the budgeted figures," said Parag Mehta, Partner, Indirect Tax, and N.A. Shah Associates.

The average monthly gross GST collection for the first quarter of the FY 2021-22, FY 22-23 & FY 23-24 are Rs. 1.10 lakh crore, Rs. 1.51 lakh crore and Rs. 1.69 lakh crore respectively, the finance ministry said.

The Centre has settled Rs 36,224 crore to CGST and Rs 30,269 crore to SGST from IGST. The total revenue of the Centre and the states in June after regular settlement is Rs 67,237 crore for CGST and Rs 68,561 crore for the SGST, the ministry said in a press release.

During the month, the revenues from domestic transactions (including import of services) are 18% higher than the revenues from these sources during the same month last year.

The chart below shows the trends in monthly gross GST revenues during the current year. The above table shows the state wise figures of GST collected in each states during July 2022 as compared to July 2023



#### 2.14 IMPACT OF GST ON CONSUMER PRICE INDEX (CPI):

Consumer Price Index or CPI signifies the measure of changes in the price level of a basket of consumer goods and services bought by households. The impact of GST can be calculated by taking into consideration the total CPI. The CPI was expected to be around 3.24% when the Government of India had introduced GST in the nation. The Government assumed that purchasing power of the consumers shall increase because they would be paying only unified tax and not different taxes on goods and services. In reality, the CPI turned out to be 4.61%. By this we can say that the CPI moved up by 1.37%.

But the CPI cannot be considered as the only measure to indicate the effects of GST on the economy as it can also be considered as one of the reasons where the economy's purchasing power might have decreased. GST has generated a huge income for the Government in direct as well as indirect ways. It is ideal to note that statistics do indicate that the purchasing power of consumers has been affected after the introduction of GST. Thus, inflation rates in the economy are increasing. This might be due to various reasons and not just because of the concept of GST, as it has various advantages for the economy. GST has proved to be beneficial to the economy in various other ways and has proved to be effective to the economy.

### **2.15 IMPACT OF GST ON THE COMMON MAN'S POCKET:**

With the introduction of GST in the Indian taxation system, purchasers of goods and services now have to pay more taxes on goods and services they buy. But, the long-term benefits of GST for the common man are plentiful. The decrease of taxes that are payable by consumer goods producers like FMCG and the automotive sector, led to a decrease in commodity prices. This further allowed more consumers to avail its services. A fall in prices is directly proportional to surge in demand thereby boosting the production cycle in terms of profit gain. Both the buyer and the seller in such scenarios get to secure a fair monetary share thereby further contributing to economic growth. Further, a production boost makes room for more employment and an increase in income. With the advent of GST, scope for black money and corruption practices have been relatively curbed thereby securing the common man's money in India.

**Should GST rates be revised?** The Government of India has been vested with the authority to revise the rates of GST from time to time according to the conveyance of the people. The need for GST rates to be revised can be taken into consideration on the following products like the daily essentials. Processed food, almonds, preparation of vegetables, nuts, fruits, other parts, ghee, and butter have tax rates of 12% which can be reduced because they are essential for human life. The tax rates on luxuries can be increased because the consumers would not look at the price bands before purchasing luxuries. It can be increased on tobacco as it is harmful to health and is tax-yielding goods.



The new GST rates introduced in India have been categorized into four different groups, namely, 5% GST, 12 % GST, 18% GST, and 28 % GST.

Currently, consumers have to pay more tax on a majority of goods and services they purchase. It is likely that the government by means of taxes will make more money due to an increase in the number of taxpayers. The Government's fiscal deficit is also likely to stay in check. Exports would also rise along with the rise of FDI (Foreign Direct Investment).

### **2.16 SECTOR-WISE IMPACT OF GST IN INDIA**

**1. E-commerce:** E-commerce sector in India is making progress day by day and after implementation of GST there is continuous growth in e-commerce sector's but seeing its long term effect will be interesting because tax collection at source (TCS) mechanism is introduced by GST law for e-companies with which they are not seller. Current rate prevailing in India for TCS is 1%.

**2. Pharmacy:** rates. The healthcare sector remain exempted from the GST and all the inputs of this sector will be taxed at the rate of 18% which will result in increasing the operating cost of healthcare sector. Too happy. Introduction of GST will increase administrative cost of e-commerce companies because GST makes it necessary to collect tax collection at source which disrupts the relation between buyers and taking about overall impact of GST, pharmacy and healthcare industries is the most benefiting sector. It will set a degree of performance for generic drug makers, it boost medical tourism and also elucidate tax framework. So a major concern which will arise for pharmacy sector is pricing tax structure. So this sector is expecting a tax relaxation as it will result in making healthcare services affordable to all at easy

**3. Telecommunication:** After implementation of GST prices of telecom sector will arrive down. Through effectively managing the inventory and by strengthening their warehouse manufactures will get the benefit of saving on cost. For handset manufacturer it will be more convenient to sell their equipment because GST has revoke the requirement of setting state specific bodies and transfer stocks as will add

on saving the logistics costs Tax rate under GST on this sector is 18% which was 15% previously. With higher tax credit is unlikely to exceed 1% of the revenue.

**4. Textile:** As we know textile industry generate large number of jobs for skilled and unskilled workers in India. It also gives 10% in the total export, and it will continue to grow under GST also, GST would affect small and medium enterprises through affecting the cotton and textile industry because it formerly attracted zero central excise duty (optional). Expected rate is 15% after GST which will have a reasonable impact on the industry. The impact will be neutral or a little negative compared to other present system of taxation. But they will be benefited with reduce cost of transportation, saving etc.

**6. Real Estate:** In Indian economy real estate is a most essential sector, and it also has a huge role in employment generation. We can't evaluate the impact of Goods and Service Tax on real estate completely because it heavily depend on prevailing tax rates. This sector has brought a lot of essential transparency and accountability to the industry; it is due to the implementation of GST. Tax rate under GST on under-construction real estate projects will be 12% only and which is not fixed at 18% because it will reduce land cost.

**6. Agriculture:** Agriculture sector is the base of Indian economy as a large part of population depends on agriculture and it also is also contributing a major part in Indian GDP it has 16% part in overall GDP. Implementation of GST will resolve the major issue of agriculture sector which is transportation of agriculture products. Implementation of Goods and Service Tax is a notch towards building one national agricultural market on account of comprising all type of taxes on marketing of agricultural products. Under GST tax rate is nil in seeds, 12% on tractors, 5% on fertilizers and 12% is on fertilizers.

**7. FMCG:** FMCG sector is another most essential sector and it is taking important benefit through saving in logistics and transportation cost and Goods and Service Tax has also terminated the requisite for various sales depots Linder FMCG, by and large tax burden would reduce. The major relief would be in Soap and Hair oil segment.

**8. Freelancers:** Freelancer is still a promising industry in India and the rules regulation related to it also very uncertain yet. But due to the GST implementation it will become easy for freelancer to file their taxes online and it is also easy to do. As previously they are taxed as service provider but the new tax format brings lot of transparency and answerability in freelancers.

**9. Automobiles:** Automobile industry is a biggest producing sector as it produces a huge number of cars which is mostly used by the giant population of India. In the earlier tax structure, a number of taxes laid on this sector. such as road tax, value added tax, sales tax, motor vehicle tax etc. GST submerged the all taxes previously collected individually by government. There is a decrease in tax burden on majority of manufactured goods after GST implementation. A view at key components of manufacturing like automobile sector discloses that tax rate will be reduced in automobile sector and main advantage would go to SUV segment.

**10. Startups:** GST will fit well in Indian startup scene due to the increasing limit of registration; tax credit on purchase etc. previously in India there was different VAT laws in different state which create a lot of confusion to the companies which have PAN India presence. But after the introduction of GST this problem is resolved as a uniform tax structure is followed all over the country. 11. Cement: cement industry is paying tax at the rate of 25% currently and after GST implementation it is expected to pay at the rate of 18% to 20%. This will be a major relief to these industry engaged in cement industry. The cement industry currently pays the tax at the rate of 25% currently. Logistic tax is going to be reduced and it would be a double advantage to industries involved in manufacturing.

## **CHAPTER -3**

### **STUDY AREA PROFILE**

3.1 Indian Economy

3.2 Structure of Indian Economy

3.3 Other Classifications of Economy

3.4 System of Indian Economy

### 3.1 INDIAN ECONOMY:

“After the pandemic Indian economy will bounce by 9% in 2022 and will settle down to 7.5% by 2023–24.”

-World Bank

Over years, the Indian economy has experienced a gradual structural change. Though the pace of the structural transformation was more or less slow throughout the pre-reform period, it has become rapid after the introduction of new economic reforms in the decade of the nineties at the time of independence; Indian economy was predominantly rural and agricultural. At the beginning years of the First Five-year Plan, contribution of the primary sector (agriculture, forestry and logging, fishing) in GDP at factor cost was largest followed by tertiary sector and secondary sector respectively. Thereafter the major drive towards diversification and monetization of the Indian economy in the following plans resulted in increased shares of the secondary and tertiary sectors and declined share of the primary sector in the national product. The share of the primary sector in GDP at factor cost declined from 54.56% in 1950-51 to 27.87% in 1999-00 while share of the secondary sector was 16.11% in 1950-51 and increased to 25.98% in 1999-00. The share of the tertiary sector increased from around 29% to 46% during this period. Indian economy also experienced a major structural change within the industrial sector as a result of the major drive for industrial diversification in the mid-fifties. While the share of the capital goods industries and the basic goods industries in the total industrial value added increased more or less rapidly, the share of the consumer goods in total industrial value added declined considerably over the years.



### **Indian Economy**

Indian economy has managed to sustain high GDP growth despite financial crises it faced on regular intervals. The economic reforms which kicked off in 1991 led it to emerge as the third largest economy in Asia after China and Japan. It has now emerged as a major exporter of software services and software workers. As a result service sector now contributes immensely to India's GDP. However, more than half of the population is dependent on agriculture for its livelihood. Some of key reforms it initiated include increasingly liberal foreign investment and exchange regimes, industrial decontrol, reductions in tariffs and trade barriers, opening and modernization of the financial sector, significant adjustments in government monetary and fiscal policies and more safeguards for intellectual property rights. Post-liberalization and economic reform and since 1997, Indian economy has recorded an average growth rate of more than 7 per cent in the decade, reducing poverty by about 10 percentage points. India achieved GDP growth of India GDP growth rate for 2022 was 7.00 9.05%, a 14.88% increase from 2020. India GDP growth rate for 2020 was -5.83%, a 2.58%, a 9.7% decline from 2019 GDP growth rate for 2019 was 3.87%, a 2.58% decline from 2018. Significantly expanding manufactures through late 2008. Even in the wake of the financial crisis and resulting global economic slowdown, the country's foreign portfolio and direct investment inflows have significantly increased in recent years. However, there are factors which are restricting India's economy. Inadequate infrastructure, a cumbersome bureaucracy, corruption, labor market rigidities, regulatory control, high fiscal deficits, etc. are some of the stumbling blocks



impeding the potential growth of economy. Despite big stride on account of economic reforms and the resultant benefits, Indian economy still suffers from some features of under-developed and developing economies. Dependence on agriculture, low per capita income, high population, unemployment, under-utilization of resources, use of poor technology, unequal distribution of wealth, etc. are some of hindrances it needs to address to transform into a developed economy. The unit aims to analyze the impact of reforms in India economy, its scope, nature and essential features of less developed and developing economies.

Thus, in order to study the structure the Indian economy with the classification of sectors based on input usage input-output technique is appropriate. For this purpose, we have used the Indian Input-Output Transaction Table of the year 1993-1994, sourced from Central Statistical Organization, Ministry of Statistics and Programmed Implementation, Government of India. All the figures are given in Rs (lakh). We have aggregated the commodities and reduced the transaction matrix into a (72 x 72) one. The aggregation scheme is given in the appendix table A. All the subsequent analysis has been in terms of aggregated transaction matrix. India is likely to be the third largest economy with a GDP size of \$15 trillion by 2030. The economy of India is currently the world's fourth largest in terms of real GDP (purchasing power parity) after the USA and Japan and the second fastest growing major economy in the world after China. Indian economy growth rate is estimated to be around seven to eight percent by year 201516. Let's look at some facts from history regarding India as an Economy. Dadabhai Nooraji is known as the Father of Indian Politics and Economics, also known as the "Grand Old Man of India". Dadabhai Nooraji was the first to calculate the national income of India. In his book "Poverty and Un-British Rule in India" he describes his theory. i.e.. the economic exploitation of India by the British. His theory is popularly called the Economic Drain Theory. That's when economy of India came into discussion as an entity, prior to that it was just a scramble of princely states and colonizers. That's all the history there for time being. Agriculture in Indian economy: -

While Indian economy introduction is started, the major focus is always on the agriculture sector. This is because Indian economy is based on agriculture.52% of the total population of India depends on agriculture. According to the 2011-2012 survey of Indian agriculture contributes 14.1% of the Gross Domestic Product (GDP). It was

55.4% in 1950-1951. India is the second largest sugar producer in the world (after Brazil). In tea production, India ranks first. (27% of total production in the world). Wheat production: Uttar Pradesh the largest producer. Punjab and Haryana are then the second and the third largest producer of wheat. Rice production: The principal food grain in India is rice; West Bengal is the largest producer. Uttar Pradesh is the second largest producer of Punjab and is the third largest producer of rice. Agriculture is an important sector of Indian economy as it contributes about 17% to the total GDP and provides employment to over 60% of the population. Indian agriculture has registered

Impressive growth over last few decades. The food grain production has increased from 51 million tones (MT) in 1950-51 to 250 MT during 2011-12 highest ever since independence. The production of oilseeds (nine-major oilseed) has also increased from 5 MT to 28 MT during the same period. The rapid growth has helped Indian agriculture mark its presence at global level. India stands among top three in terms of production of various agricultural commodities like paddy, wheat, pulses, groundnut, rapeseeds, fruits, vegetables, sugarcane, tea, jute, cotton, tobacco leaves, etc (GOI, 2008-09). However, on marketing front, Indian agriculture is still facing the problems such as low degree of market integration and connectivity, accessibility of reliable and timely information required by farmers on various issues in agriculture.

Also, the agricultural marketing sector is characterized by fragmented supply chain. Huge postharvest losses, multiple market intermediaries; higher transaction cost, lack of awareness and several other socio-economic factors are some of the acute problems being faced by the Indian agriculture. Agricultural commodities produced have to undergo a series of operations such as harvesting, threshing, winnowing, bagging, transportation, storage, processing and exchange before they reach the market, and as evident from several studies across the country. there are considerable losses in crop output at all these stages. A recent estimate by the Ministry of Food and Civil Supplies, Government of India, puts the total preventable post-harvest losses of food grains at 10 per cent of the total production or about 20 million Mt, which is equivalent to the total food grains produced in Australia annually. In a country where 20 per cent of the population is undernourished, post-harvest losses of 20 million Mt annually is a substantial avoidable waste. According to a World Bank study (1999), post-harvest losses of food grains in India are 7-10 per cent of the total production

from farm to market level and 4-5 per cent at market and distribution levels. For the system as a whole, such losses have been worked out to be 11-15 million Mt of food grains annually, which included 3-4 million Mt of wheat and 5-7 million MT of rice. With an average per capita consumption of about 15 kg of food grains per month, these losses would be enough to feed about 70-100 million people, i.e., about 1/3rd of India's poor or the entire 2 population of the states of the Bihar and Haryana together for about one year.

Thus, it is evident that the post-harvest losses have impact at both the micro and macro levels of the economy. Horticulture, being one of the important sectors of Indian agriculture, plays an important role in the economy of the country.

There are several horticulture crops suitable for almost all the Agro-climatic zones of the country. Currently horticulture contributes 28 per cent of agricultural GDP.

Country has emerged as the world's largest producer of Mango, Banana, and Coconut and the second largest producer and exporter of Tea, Coffee, Cashew and Spices, About 39 per cent mango and 23 per cent banana of the world are produced in India. The country has recorded highest productivity (25.4 tones/ha) in the case of grapes in the world. Only 2 per cent of horticulture produce is processed, 0.4 per cent is exported and about 20-30 per cent is lost or gets wasted in market chain. Exports of fresh and processed fruits, vegetables, cut flowers, dried flowers have also been picking up. Production of Fruits and Vegetables in India currently pegged at level of 202.68 million tones (NHB, 2008), which was planned to be increased to 300 million tonnes by 2012 (GOI, 2002).

### **Electricity sector in Indian Economy:**

Primary energy consumption of India is the third-largest after China and the US with 5.3% global share in the year 2015. Coal and crude oil together account for 85% of the primary energy consumption of India. India's oil reserves meet 25% of the country's domestic oil demand. As of April 2015, India's total proven crude oil reserves are 763.476 million metric tons, while gas reserves stood at 1,490 billion cubic meters (53 trillion cubic feet). Oil and natural gas fields are located at Bombay High, Krishna Godavari Basin and the Cauvery Delta, and onshore mainly in the states of Assam, Gujarat and Rajasthan. India is the fourth-largest consumer of oil and

net oil imports were nearly 28,200 billion (US\$110 billion) in 2014-15. which had an adverse effect on the country's current account deficit. The petroleum industry in India mostly consists of public sector companies such as Oil and Natural Gas Corporation (ONGC), Hindustan Petroleum Corporation Limited (HPCL), Bharat Petroleum Corporation Limited (BPCL) and Indian Oil Corporation Limited (IOCL). There are some major private Indian companies in the oil sector such as Reliance Industries Limited (RIL) which operates the world's largest oil refining complex.

India became the world's third-largest producer of electricity in 2013 with a 4.8% global share in electricity generation, surpassing Japan and Russia. By the end of calendar year 2015, India had an electricity surplus with many power stations idling for want of demand.

The utility electricity sector had an installed capacity of 303 GW as of May 2016 of which thermal power contributed 69.8%, hydroelectricity 15.2%, other sources of renewable energy 13.0%, and nuclear power 2.1%. India meets most of its domestic electricity demand through its 106 billion tones of proven coal reserves

### **Engineering in Indian Economy:**

Engineering is the largest sub-sector of India's industrial sector, by GDP, and the third-largest by exports. It includes transport equipment, machine tools, capital goods, transformers, switchgear, furnaces, and cast and forged parts for turbines, automobiles, and railways. The industry employs about four million workers. On a value-added basis, India's engineering subsector exported \$67 billion worth of engineering goods in the 2013-14 fiscal year, and served part of the domestic demand for engineering goods.

The engineering industry of India includes its growing car, motorcycle and scooters industry, and productivity machinery such as tractors. India manufactured and assembled about 18 million passenger and utility vehicles in 2011, of which 2.3 million were exported. India is the largest producer and the largest market for tractors, accounting for 29% of global tractor production in 2013. India is the 12th-largest producer and 7th-largest consumer of machine tools. The automotive manufacturing industry contributed \$79 billion (4% of GDP) and employed 6.76 million people (2% of the workforce) in 2022.

### **Pharmaceuticals in Indian Economy:**

The Indian pharmaceutical industry has grown in recent years to become a major manufacturer of health care products for the world. India holds a 20% market share in the global supply of generics by volume. The Indian pharmaceutical sector also supplies over 62% of the global demand for various vaccines. India's pharmaceutical exports stood at \$17.27 billion in 2022- 23 and are expected to reach \$20 billion by 2020.

The industry grew from \$6 billion in 2005 to \$36.7 billion in 2016, a compound annual growth rate (CAGR) of 17.46%. It is expected to grow at a CAGR of 15.92% to reach \$55 billion in 2020. India is expected to become the sixth-largest pharmaceutical market in the world by 2020. It is one of the fastest-growing industrial sub-sectors and a significant contributor to India's export earnings. The state of Gujarat has become a hub for the manufacture and export offices and active pharmaceutical ingredients (APIs).

### **Mining and Construction in Indian economy:**

Mining contributed \$63 billion (2.2%to2.5%of GDP) and employed 2023 million people (5% of the workforce) in 2022. India's mining industry was the fourth-largest producer of minerals in the world by volume, and eighth-largest producer by value in 2009. In 2013, it mined and processed minerals, of which four were fuel, three were atomic energy minerals, and 80 non-fuels. The government-owned public sector accounted for 68% of mineral production by volume in 2021-22

In fiscal year 2022-23. India was the 2<sup>nd</sup>-largest producer of raw steel and the largest producer of sponge iron. The industry produced 91.46 million tons of finished steel and 9.7 million tons of pig iron. Most iron and steel in India are produced from iron ore. The construction industry contributed \$288 billion (13% of GDP).

### **3.2 STRUCTURE OF INDIAN ECONOMY:**

India is one of the largest, if not the largest economy in the world. It is predicted to be the second largest economy in the world by 2050. So, what contributes to the Indian economy? To answer this, we need to divide India's economy into three parts and study

the sectors of Indian economy in detail. We will also discuss the problems faced by each sector and solutions to these sectors respectively.

They are three sectors in the Indian economy, they are; primary economy, secondary economy, and tertiary economy. In terms of operations, the Indian economy is divided into organized and unorganized. While for ownership, it is divided into the public sector and the private sector. But today, we are only going to talk about the sectors of Indian economy and what consists of these sectors.

### **Primary Sector**

The primary sector in India is the sector which is largely dependent on the availability of natural resources in order to manufacture the goods and also to execute various processes. The services in this sector are entirely dependent on the availability of the natural resources in order to keep the day-to-day operations running.

As we have the clear idea of this sector is, the best example to discuss in this sector is the agriculture sector. The other examples in this sector include fishing and forestry, but agriculture accounts for the largest in this sector.

One of the major problems that this sector faces is the underemployment and the disguised employment. Underemployment accounts for the workers not working to the best of their capabilities while the latter accounts for the workers not working to their true potential.

As a solution to the problems, the state, as well as the national government, can increase the funds for the irrigation facilities and provide loans for buying high-quality seeds and fertilizers.

Primary sector business activities include the following:

- Mining and quarrying
- Fishing
- Agriculture
- Forestry



- Hunting

### **Secondary Sector**

The economy in the sector is dependent on the natural ingredients which are used to create the services and products offered and which at the end are used for consumption. In terms of value added to the products and services, this sector is the best sector. The major examples that fall under this category are transportation and manufacturing.

Both these sectors end product is the consumption by the people. This sector is responsible for the employment of almost 14 percent of the entire workforce currently working in India. The secondary sector also contributes to almost 28 percent of the share of GDP. This sector is the backbone of Indian economy and there are more development and growth in the near future.

The secondary sector includes the following business activities:

- Automobile production
- Textile
- Chemical engineering
- Aerospace space
- Shipbuilding
- Energy utilities

### **Tertiary Sector**

This sector contributes the largest in terms of share in GDP in India. The sector is also the service sector and is important when you consider the development of the other two sectors. Like the previous sector, this sector also adds the value to the products. This sector is responsible for employing 23 percentage of the workforce out of the total workforce currently working in India.

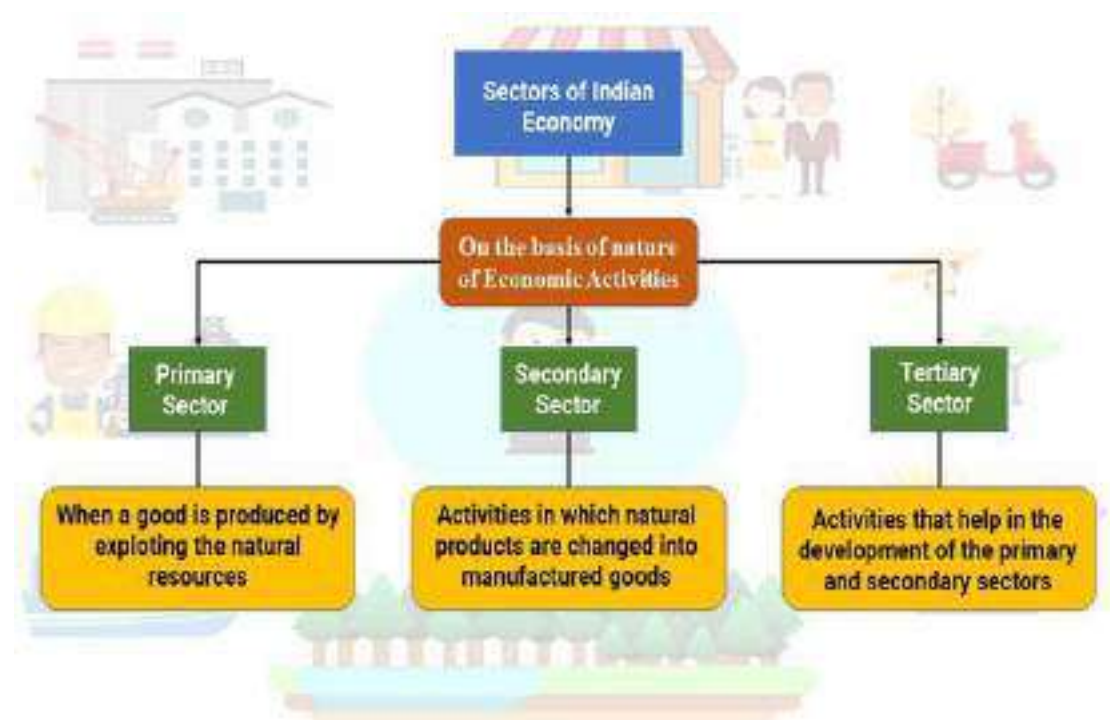
The example of this sector is all service sectors which IT services, consulting, etc. This sector contributes to almost 59 percent of the total share of GDP. The main problem that this sector is that the jobs which involve lower salaries do not attract much employment.

And this remains the future dilemma as India is looking for double-digit growth in the near future.

The tertiary sector includes the following business activities:

- Media
- retail and wholesale
- banking
- law
- healthcare
- restaurants
- tourism
- transportation and distribution
- insurance

**Chart showing sectors of Indian economy:**



### **3.3 OTHER CLASSIFICATIONS OF ECONOMY:**

In Indian economy introduction, the sectors of economy based on other basis are also required to get a clear picture of the strengths of Indian economy.

#### **1. Organized sector:**

An organized sector has been recognized by the government. Individuals get guaranteed labor in this industry, and the job terms are set and predictable. Enterprises, schools, and hospitals that fall under the organized sector are susceptible to a set of laws. It is extremely tough to break into the organized industry because appropriate entity registration is required. The government regulates and taxes the industry.

Professionals in the organized sector enjoy several advantages, including job stability and additional benefits such as various allowances and remunerations. They have a set monthly income, work schedule, and salary increases at regular periods.

#### **2. Unorganized sector:**

An unorganized sector is defined as a sector that is not established with the government and does not have definite and consistent employment conditions. There are no government laws and regulations enforced in this industry. It is simple to enter such a sector because no affiliation or certification is required. Since the unorganized sector is not regulated by the government, no taxes are levied. Small businesses and services with low-skilled and inefficient workers are included in this category.

Workers' work schedules are not predetermined. Furthermore, they may be required to work on weekends and holidays occasionally. They are paid daily rates for their labor, which are far lower than the government's minimum wage.

#### **3. Public sector:**

A Public Sector Undertaking is an establishment that is owned and established by the government of India. Apart from the government, these PSUs can also be owned and established by the State governments. These establishments contribute majorly to the Indian economy by benefiting society by providing public services. A Public Sector Undertaking also includes enterprises that also assist in providing better services to the public.

A Public Sector Undertaking can also be called a nationalized corporation as nationalization is one of the ways through which a PSU comes into existence in the first place. Nationalization refers to converting the available private assets into public assets by bringing them under the purview of the government.

**Private sector:**

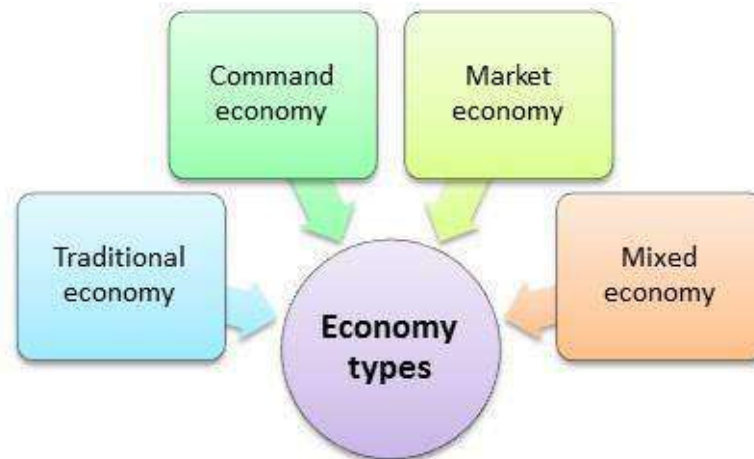
The private sector is the part of the economy that is run by individuals and companies for profit and is not state controlled. Therefore, it encompasses all for-profit businesses that are not owned or operated by the government. Companies and corporations that are government run are part of what is known as the public sector, while charities and other nonprofit organizations are part of the voluntary sector.

**3.4 SYSTEMS OF INDIAN ECONOMY:**

Economic systems are the methods societies and governments use to organize, allocate and distribute goods, services and resources across locations. It serves as a regulatory system for controlling different aspects of production and distribution, including capital, labor, land and other physical resources.

**Types of economic system:**

Each type of economic system has its own distinguishing characteristics, although they all share some basic features. Each economy functions based on a unique set of conditions and assumptions.



### **Traditional economy:**

The traditional economic system is based on goods, services, and work, all of which follow certain established trends. It relies a lot on people, and there is very little division of labor or specialization. In essence, the traditional economy is very basic and the most ancient of the four types some parts of the world still function with a traditional economic system.

It is commonly found in rural settings in second and third world nations, where economic activities are predominantly farming or other traditional income-generating activities. There are usually very few resources to share in communities with traditional economic systems. Either few resources occur naturally in the region or access to them is restricted in some way. Thus, the traditional system, unlike the other three, lacks the potential to generate a surplus. Nevertheless, precisely because of its primitive nature, the traditional economic system is highly sustainable. In addition, due to its small output, there is very little wastage compared to the other three systems.

### **2 Command economic system:**

In a command system, there is a dominant centralized authority-usually the government-that controls a significant portion of the economic structure. Also known as a planned system, the command economic system is common in communist societies since production decisions are the preserve of the government. If an economy enjoys access to many resources, chances are that it may lean towards a

command economic structure. In such a case, the government comes in and exercises control over the resources. Ideally, centralized control covers valuable resources such as gold or oil. The people regulate other less important sectors of the economy, such as agriculture.

In theory, the command system works very well as long as the central authority exercises control with the general population's best interests in mind. However, that rarely seems to be the case. Command economies are rigid compared to other systems. They react slowly to change because power is centralized. That makes them vulnerable to economic crises or emergencies, as they cannot quickly adjust to changing conditions.

### **3. Market economic system:**

Market economic systems are based on the concept of free markets. In other words, there is very little government interference. The government exercises little control over resources, and it does not interfere with important segments of the economy. Instead, regulation comes from the people and the relationship between supply and demand.

The market economic system is mostly theoretical. That is to say, a pure market system doesn't really exist. Why? Well, all economic systems are subject to some kind of interference from a central authority.

For instance, most governments enact laws that regulate fair trade and monopolies, from a theoretical point of view, a market economy facilitate substantial growth. Arguably, growth is highest under a market economic system. A market economy's greatest downside is that it allows private entities to amass a lot of economic power, particularly those who own resources of great value. The distribution of resources is not equitable because those who succeed economically control most of them.

### **Mixed Economic System:**

Mixed systems combine the characteristics of the market and command economic systems. For this reason, mixed systems are also known as dual systems. Sometimes the term is used to describe a market system under strict regulatory control.



Many countries in the developed western hemisphere follow a mixed system. Most industries are private, while the rest, composed primarily of public services, are under the control of the government.

Mixed systems are the norm globally. Supposedly, a mixed system combines the best features of market and command systems. However, practically speaking, mixed economies face the challenge of finding the right balance between free markets and government control. Governments tend to exert much more control than is necessary.

Economic systems are grouped into traditional, command, market, and mixed systems. Traditional systems focus on the basics of goods, services, and work and they are influenced by traditions and beliefs. A centralized authority influences command systems, while a market system is under the control of forces of demand and supply. Lastly, mixed economies are a combination of command and market systems.

## CHAPTER-4

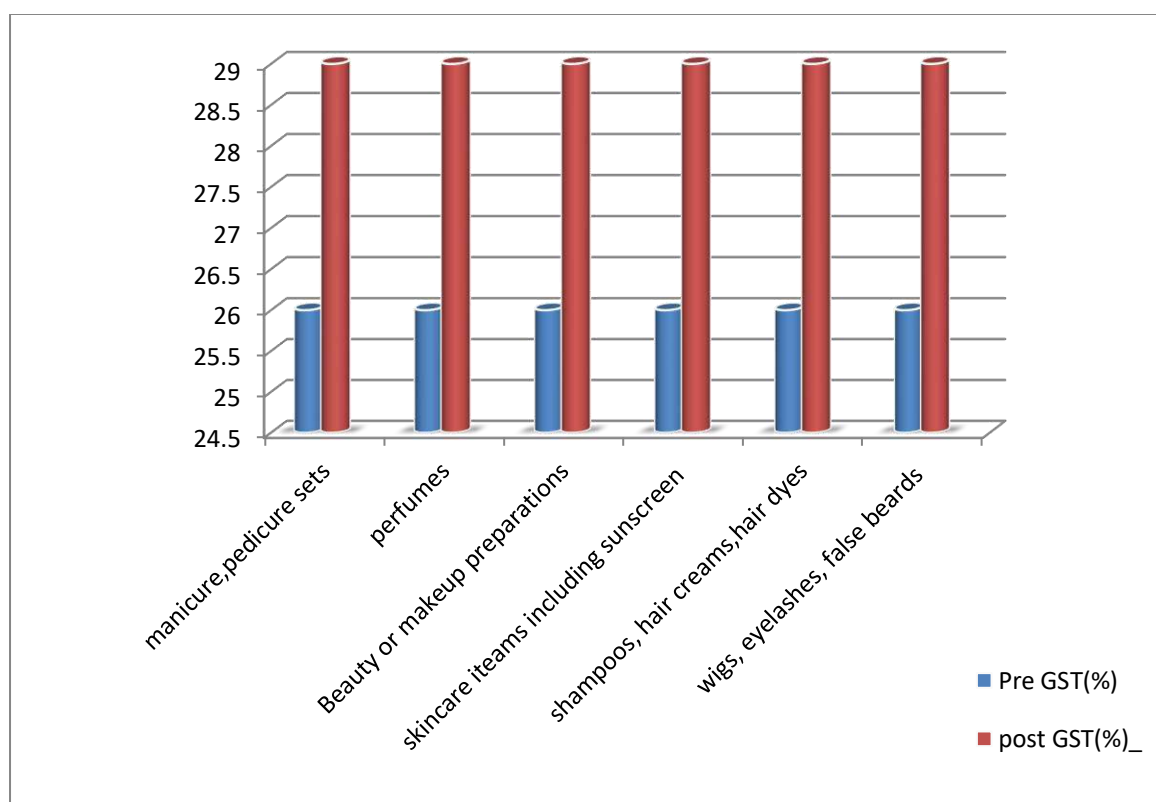
### DATA ANALYSIS AND INTERPRETATION

- 4.1 Beauty and Personal Care Products
- 4.2 Construction Products
- 4.3 Consumer Goods/Consumable Products
- 4.4 Food Products and Hotels
- 4.5 Kitchenware and Appliance
- 4.6 Life Style and Home
- 4.7 Metals and Minerals
- 4.8 Pharmacy Products
- 4.9 Service
- 4.10 Other Products

**Table 4.1 Shows Tax Rates of Beauty and Personal Care Products:**

ITEAM	PRE GST (%)	POST GST (%)
Manicure, pedicure sets	26	29
Perfumes	26	29
Beauty or makeup preparations	26	29
Skincare items including sunscreen	26	29
Shampoos, hair creams, hair dyes	26	29
Wigs,eyelashes,falssesss beards	26	29

**Graph 4.1 Represents the Tax Rates of Beauty and personal care products:**



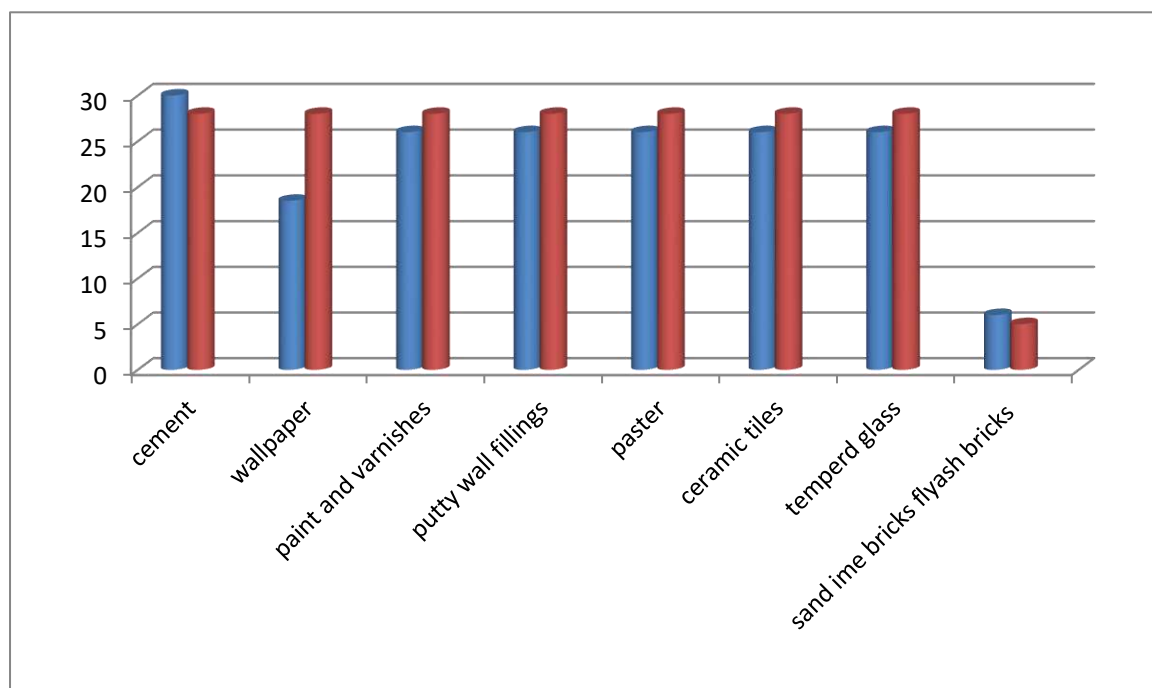
**Interpretation:**

The above table shows that GST has a negative influence on the items specified. Comparatively, the present beauty and personal care product tax rates have been raised by 3 percent. Beauty and personal care items have seen an increase in price as a result of the GST. Because it is comparable to the current tax rate.

**Table 4.2 Shows The Rates of Construction Products:**

<b>Items</b>	<b>PRE GST (%)</b>	<b>POST GST (%)</b>
Cement	30	28
Wallpaper	30	28
Paint and varnishes	18.5	28
Putty, wall fillings	26	28
Plaster	26	28
Ceramic tiles	26	28
Tempered glass	26	28
Sand lime bricks, fly ash bricks	6	5

**Graph 4.2 Represents The Rates Of Construction Products:**



**Interpretation:**

The above table shows Construction-related items have been negatively impacted by GST compared to the rates of the above-mentioned products, as seen in the table. Aside from cement and sand-lime bricks, the exceptional product rates for fly ash bricks have been greatly enhanced. If we look at the average rise in product rates, it's about 2%. And there's cement and sand Furthermore, cement, sand-lime bricks, and fly ash bricks have been decreased by 2% and 1%, respectively. Because it is comparable to the current tax rates.

**Table 4.3 Shows The Tax Rates Of The Consumer Goods/Consumable Products:**

Item	POST GST (%)	PRE GST (%)
Aluminum Foil	28	18.5
Agarbati	12	0
Preserved vegetables	18	0
Butter, ghee, cheese	12	6
Dry fruits	12	6
Jams, jellies	18	12
Frozen Meat	12	6
Branded paneer	5	0
Branded cereals	5	0
Cocoa butter, oils, chocolates	28	26

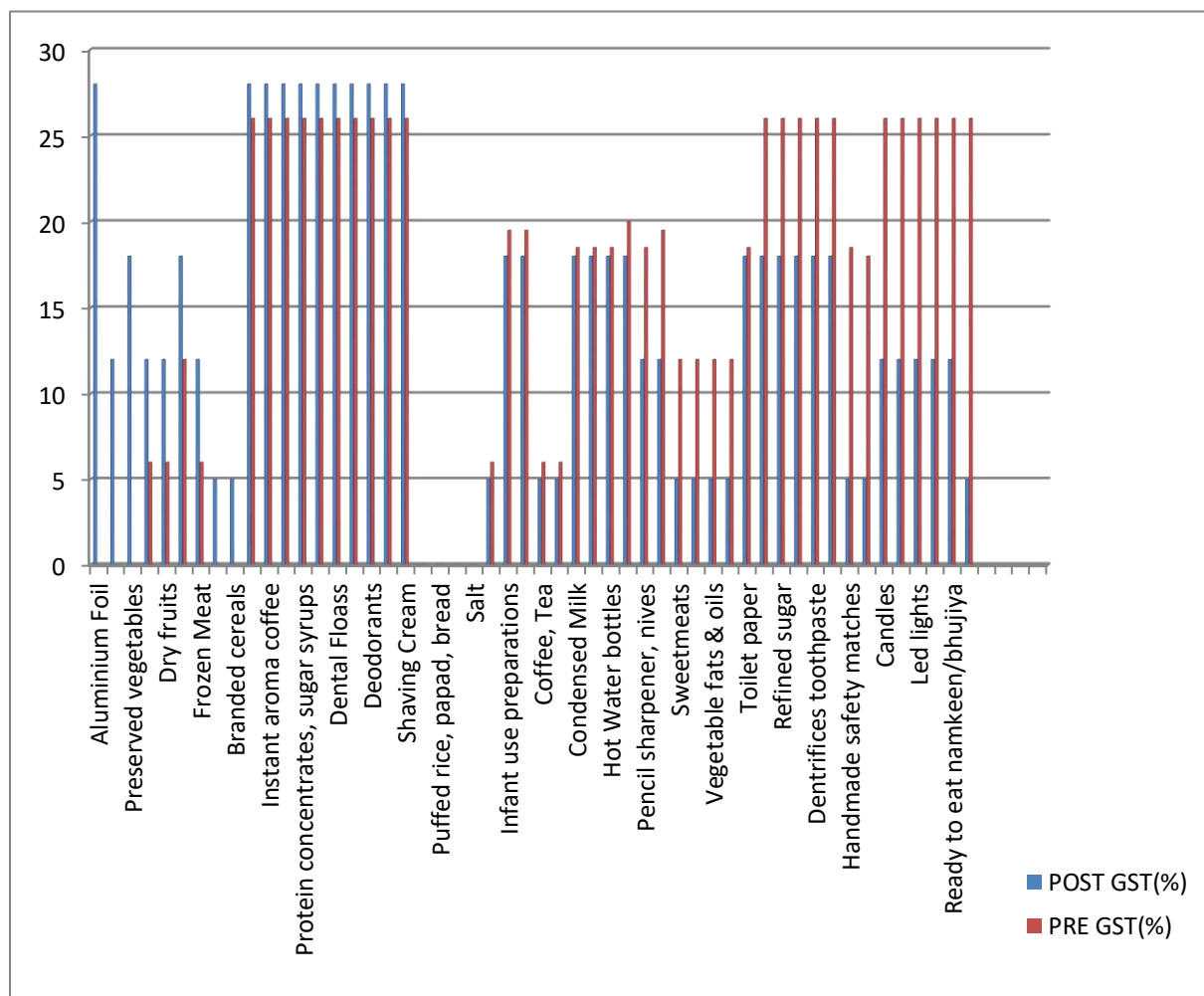
A STUDY ON IMPACT OF GST ON INDIAN ECONOMY

---

Instant aroma coffee	28	26
Coffee concentrates, custard powder	28	26
Protein concentrates, sugar syrups	28	26
Razors	28	26
Dental Floass	28	26
Toothpaste	28	26
Deodorants	28	26
Aftershave	28	26
Shaving Cream	28	26
cereals	0	0
Puffed rice, papad, bread	Exempt	0
Aquatic / poultry/cattle feed	Exempt	0
Salt	Exempt	0
Soybean, groundnut, sunflower	5	6
Infant use preparations	18	19.5
Pasta, Corn flakes, cakes	18	19.5
Coffee, Tea	5	6
Frozen vegetables	5	6
Condensed Milk	18	18.5
Toilet paper	18	18.5
Hot Water bottles	18	18.5
Petroleum jelly, paraffin wax	18	20
Pencil sharpener, naives	12	18.5
Meats & fish preparations	12	19.5
Sweetmeats	5	12
Bakery mixes, dough's, pizza bread	5	12
Vegetable fats & oils	5	12
tea concentrates, sauces, soups	5	12
Toilet paper	18	18.5
Ice cream, instant food mixes, sherbet	18	26
Refined sugar	18	26
Soap	18	26
Dentifrices toothpaste	18	26
Hair oil	18	26
Handmade safety matches	5	18.5
Broomsticks	5	18
Candles	12	26
Tooth powder	12	26
Led lights	12	26
Milk beverages	12	26
Ready to eat nankeen/bhujiya	12	26
Beet sugar, cane sugar	5	26



**Graph 4.3 Represents The Tax Rates Of The Consumer Goods/Consumable Products:**



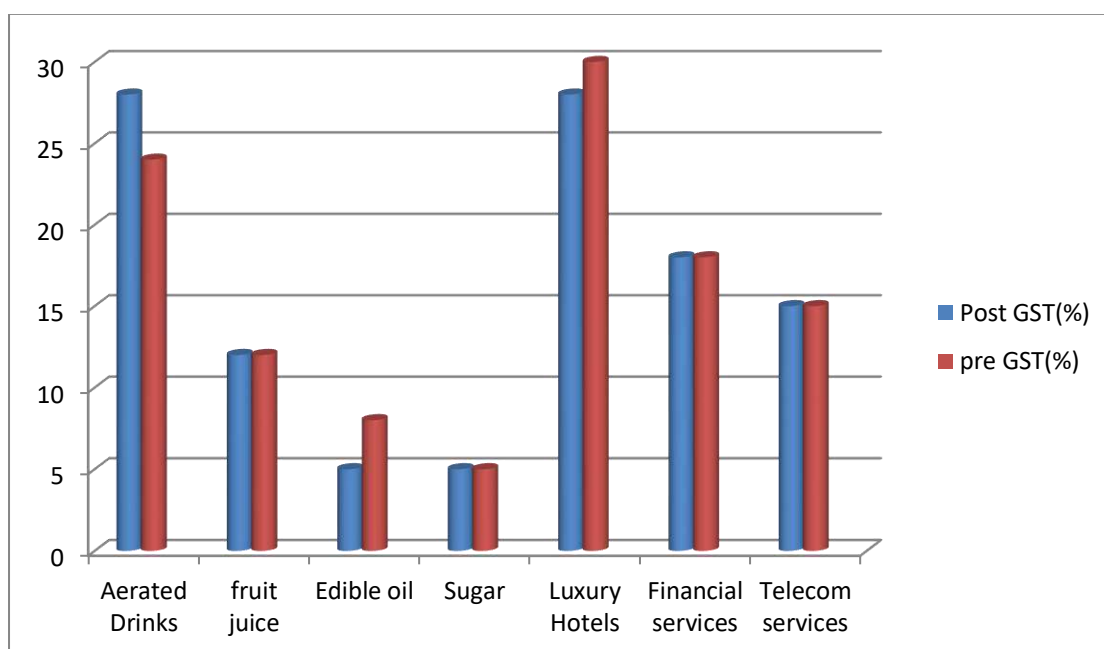
**Interpretation:**

The above table shows half of the products included in the table have had their tax rates raised by an average of 2%, which is rather considerable. According to the table, the tax rates on the products specified later have been decreased by an average of 10%. Some goods are exempted from tax brackets in the middle of the table. When it comes to consumer goods, the GST has had an uneven impact on tax rates. Because it is comparable to the current tax rates.

**Table 4.4 Shows The Tax Rates Of The Food Products And Hotels:**

Items	Post GST (%)	Pre GST (%)
Aerated Drinks	28	24
Fruit Juices	12	12
Edible Oil	5	6%
Sugar	5	5
Luxury Hotels	28	30
Financial Services	18	18
Telecom Services	18	15

**Graph 4.4 Represents The Tax Rates Of The Food Products And Hotels:**



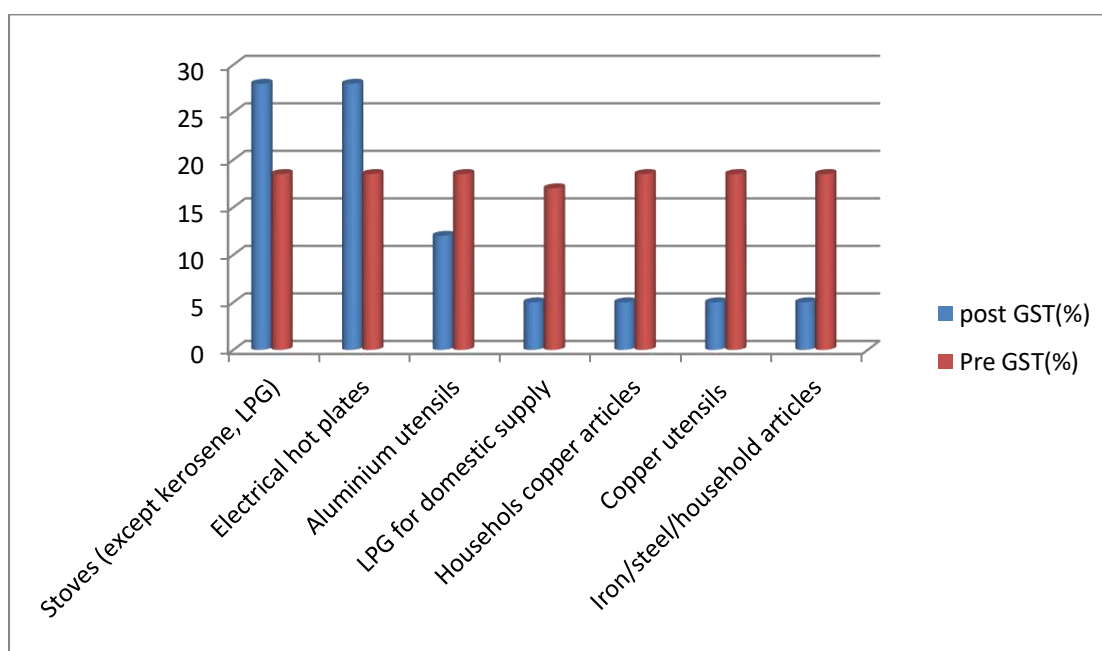
**Interpretation:**

The above table shows the rates of the specified items, such as fruit juices and sugar, are identical to the present tax rates, as shown in the graph above. In comparison to the previous tax bracket; aerated drinks have climbed by 4%, while luxury hotels have fallen by 3%. The above picture shows, that the GST hasn't made a significant change in the prices of food and lodging. Because it is comparable to the current tax rates

**Table 4.5 Shows The Tax Rates Of The Kitchenware And Appliance:**

ITEM	POST GST (%)	PRE GST (%)
Stoves (except kerosene, LPG)	28	18.5
Electrical hot plates	28	18.5
Aluminum utensils	12	18.5
LPG for domestic supply	5	17
Households copper articles	5	18.5
Copper utensils	5	18.5
Iron/steel/household articles	5	18.5
Iron/steel/kerosene stoves	5	18.5

**Graph 4.5 Represents The Tax Rates Of The Kitchenware And Appliance:**



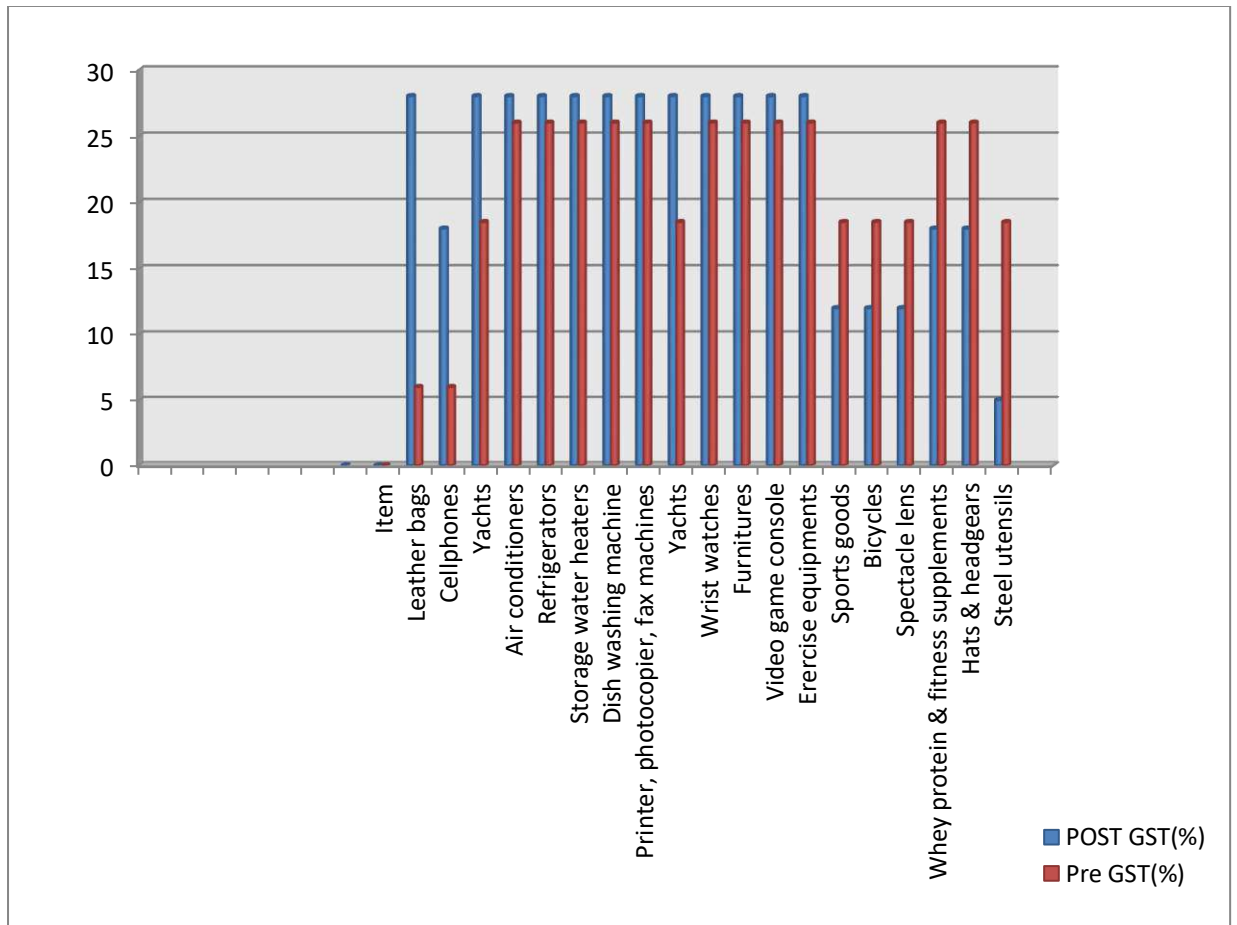
**Interpretation:**

The above table shows the GST tax rate bracket on stoves (excluding kerosene and LPG) and electrical hot plates has been raised by approximately 10%. Except for the above mentioned items, the tax rates on the remaining items have been decreased by an average of 13%, resulting in lower prices for kitchenware and appliances when compared to the previous tax band. GST has had a beneficial influence under this product's heading. Because it is comparable to the current tax rates.

**Table 4.6 Shows The Tax Rates Of The Life Style And Home:**

ITEM	POST GST (%)	PRE GST (%)
Leather bags	28	6
Cellphones	18	6
Yachts	28	18.5
Air conditioners	28	26
Refrigerators	28	26
Storage water heaters	28	26
Dish washing machine	28	26
Printer, photocopier, fax machines	28	26
Yachts	28	18.5
Wrist watches	28	26
Furniture's	28	26
Video game console	28	26
Exercise equipment's	28	26
Sports goods	12	18.5
Bicycles	12	18.5
Spectacle lens	12	18.5
Whey protein & fitness supplements	18	26
Hats & headgears	18	26
Steel utensils	5	18.5

Graph 4.6 Represents The Tax Rates Of The Life Style And Home:



**Interpretation:**

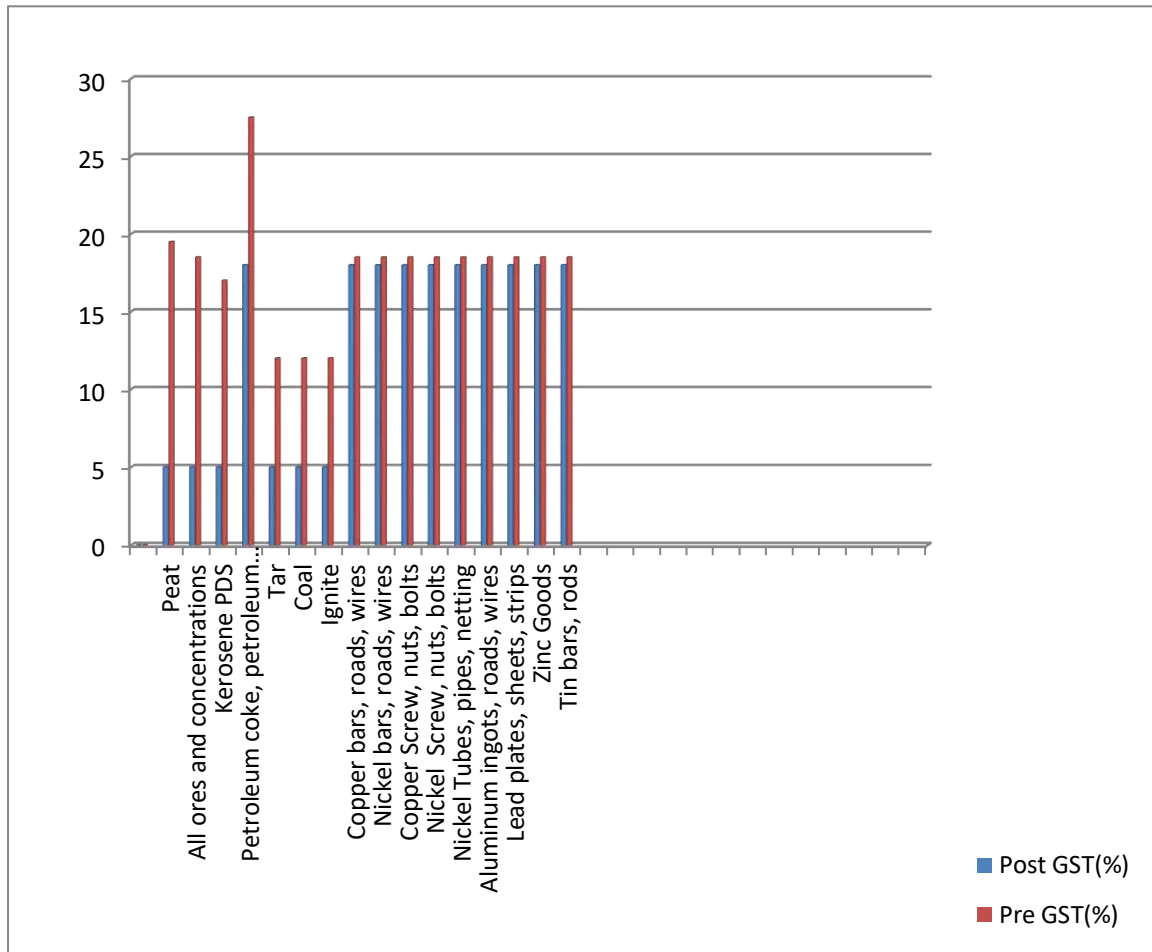
The above table shows the rates of Lifestyle and Home are represented in the table, where we can see a clear picture of an increase in the rates of most Lifestyle and Home have been increased by an average of 2%, while the remaining products rate, which is listed last in the table, has been decreased by an average of 9%. Because it is comparable to the current tax rates

**Table 4.7 Shows The Tax Rates of the Metals and Minerals:**

ITEM	POST GST (%)	PRE GST (%)
Peat	5	19.5
All ores and concentrations	5	18.5
Kerosene PDS	5	17
Petroleum coke, petroleum bitumen	18	27.5
Tar	5	12
Coal	5	12
Ignite	5	12
Copper bars, rods, wires	18	18.5
Nickel bars, rods, wires	18	18.5
Copper Screw, nuts, bolts	18	18.5
Nickel Screw, nuts, bolts	18	18.5
Nickel Tubes, pipes, netting	18	18.5
Aluminum ingots, rods, wires	18	18.5
Lead plates, sheets, strips	18	18.5
Zinc Goods	18	18.5



**Graph 4.7 Represents The Tax Rates Of The Metals And Minerals:**



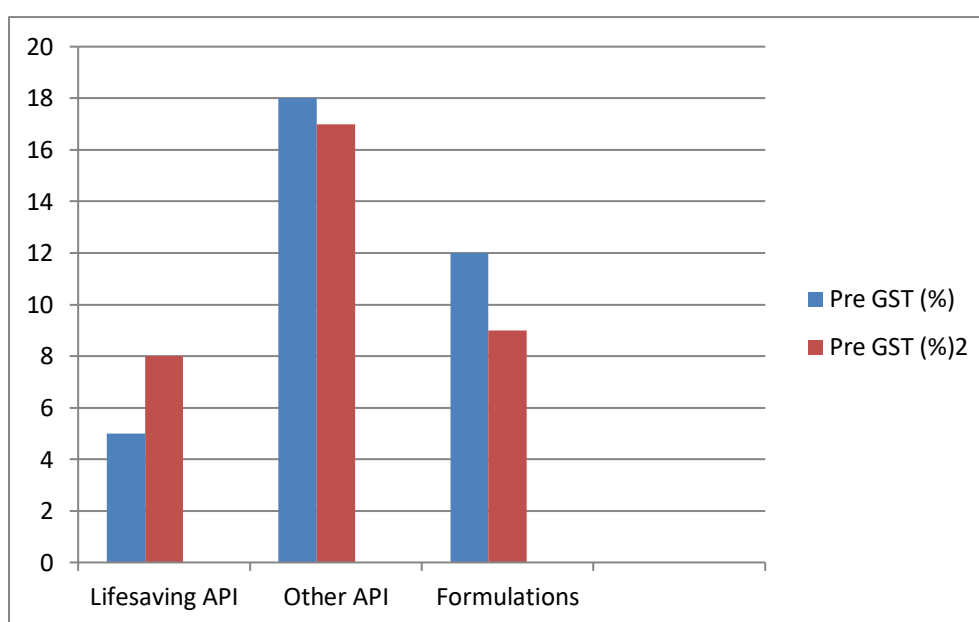
**Interpretation:**

The above table shows that clearly demonstrate that the GST has had a favorable impact on metals and mineral goods. The average product rate has been cut by 0.5 percent, with certain items being dropped by as much as 7 percent, and other products being reduced by over 12 percent. In the metals and minerals industry, GST has had some beneficial effects. Because it is comparable to the current tax rates

**Table 4.8 Shows The Tax Rates Of The Pharmacy Products:**

Item	Pre GST (%)	Pre GST (%)
Lifesaving API	5	8
Other API	18	17
Formulations	12	9

**Graph 4.8 Represents The Tax Rates Of The Pharmacy Products:**



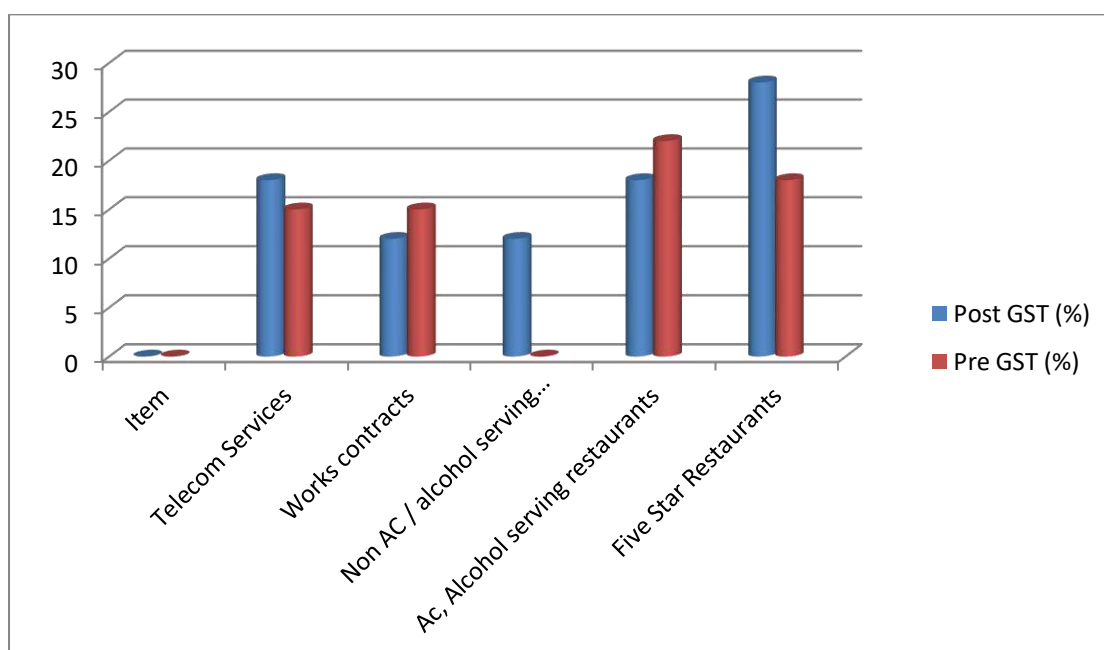
**Interpretation:**

The above table shows the tax rates on pharmaceutical items are depicted in the graph above. The rates for lifesaving APIs have been decreased by 3%, the rates for other APIs have been increased by 1%, and the rates for formulation products have been boosted by 1% GST, once again has had no good influence on this circumstance. Because it is comparable to the current tax rates.

**Table 4.9 Shows The Tax Rates Of The Service:**

ITEM	POST GST (%)	PRE GST (%)
Telecom Services	18	15
Works contracts	12	15
Non AC / alcohol serving restaurants	12	13-14
Ac, Alcohol serving restaurants	18	22
Five Star Restaurants	28	18

**Graph 4.9 Represents The Tax Rates Of The Service:**



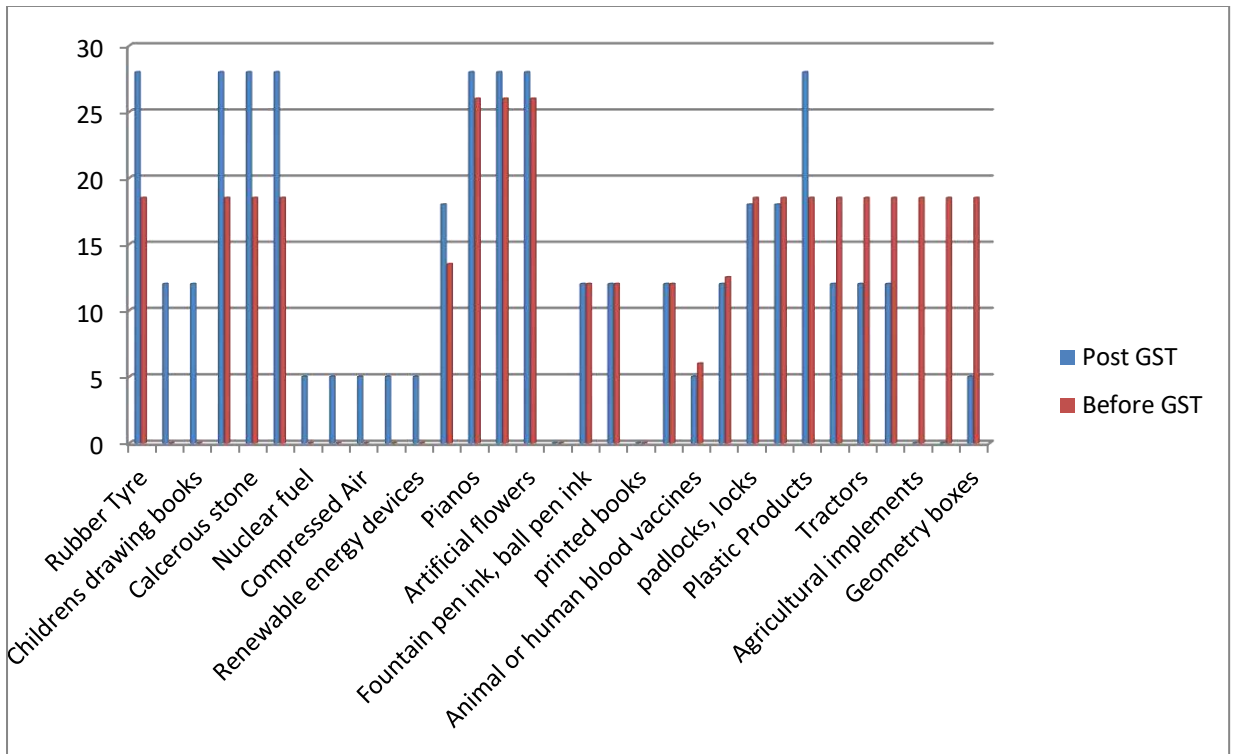
**Interpretation:**

The above table shows, based on the statistics above, the GST has had some good and some negative effects on the services indicated. The tax rates on telecommunication services and five star restaurants have been raised by an average of 8%. The remainder of the services tax rates has been decreased by an average of 2%. GST has been in the natural gear in this case. Because it is comparable to the current tax rates.

**Table 4.10 Shows The Tax Rates Of Other Products:**

ITEM	POST GST (%)	PRE GST (%)
Rubber Tyra	28	18.5
Steam	12	0
Children drawing books	12	0
Plastic products	28	18.5
Caloureous stone	28	18.5
Artist, students or signboard colors	28	18.5
Nuclear fuel	5	0
heavy water and other nuclear fuels	5	0
Compressed Air	5	0
Solar water heater	5	0
Renewable energy devices	5	0
Braille typewriters	18	13.5
Pianos	28	26
Revolvers	28	26
Artificial flowers	28	26
Bangles (Non precious metal)	Exempt	0
Fountain pen ink, ball pen ink	12	12
Wood pulp	12	12
printed books	0	0
calendars	12	12
Animal or human blood vaccines	5	6
power driven water pumps	12	12.5
padlocks, locks	18	18.5
helmets	18	18.5
Plastic Products	28	18.5
Fertilizers	12	18.5
Tractors	12	18.5
Sewing /knitting needles	12	18.5
Agricultural implements	0	18.5
Firewood	0	18.5
Geometry boxes	5	18.5

**Graph 4.10 Represent The Tax Rates Of Other Products:s**



**Interpretation:**

The above table shows the tax rates on the items listed in the table have been raised by an average of 10%. The GST has had a determined influence on this product sector, causing the specified items to be more expensive than before. Because it is comparable to the current tax rates.

## **CHAPTER -5**

### **FINDINGS, SUGGESTIONS AND CONCLUSION**

5.1 Findings

5.2 Suggestions

5.3 Conclusion



### 5.1 FINDINGS:

- ✓ From the above study, we found that the tax rates of food products and hotels are almost the same, except for some minor fluctuations.
- ✓ Under the Pharma products, there is an upward change in the tax rates of concerned products.
- ✓ The goods and services tax (GST) has helped metals and minerals. Mineral and metals tax rates are nearly identical to those already in place, with minor exceptions.
- ✓ According to the results of the prior study, the tax rates on construction-related commodities have skyrocketed since the implementation of the goods and services tax.
- ✓ The home and lifestyle commodity tax rates were partially increased and partially lowered, but the bulk of adjustments were negative, resulting in higher product costs than previously.
- ✓ The tax rate on beauty and personal care goods has been significantly increased by 2% for the whole list of products indicated above.
- ✓ The study found that half of the tax rates of consumer goods/consumable items have been raised, while the other half has been reduced. In addition, some taxable items are exempt from the tax rate.
- ✓ The tax rates on kitchen and appliance items have been lowered, with just 20% of products increasing over the aforementioned list.
- ✓ The tax rates on the items mentioned in the other products section have been raised in comparison to prior tax rates.
- ✓ The Goods and Service Tax has had a small impact on services; not all, but certain services tax rates have been raised by an average of 8%, while others have been reduced by an average of 2%.

## 5.2 SUGGESTIONS:

The study looked at the impact of the Goods and Services Tax on the Indian economy. As a researcher, I would want to provide some ideas for improving the Indian economy with the aid of GST based on information gathered from secondary sources. Rates should be rationalized and decreased to make India more competitive and to promote compliance and economic progress.

- ❖ The maximum rate should be kept around 18%, with only a few products falling into the 28 percent slab. Soaps, crèmes, cinema tickets, and electrical products should not be taxed at 28 percent.
- ❖ All agricultural-related goods and services should be rated at zero or exempt.
- ❖ Daily-necessary goods and services should be taxed at a lower rate since GST is more helpful to the country's ordinary people.
- ❖ As I believe that luxury products and services should be included in the highest tax bracket.
- ❖ The tobacco and alcoholic products should be brought under GST umbrella and taxed at higher rates.

### 5.3 CONCLUSION:

Study was done to determine how GST will affect India's economic growth. Almost all indirect taxes were merged under a single GST tax umbrella, bringing the country closer together. GST would make tax administration more transparent and devoid of corruption, addressing existing flaws in the indirect tax system. GST is anticipated to strengthen each of these stakeholders' responsibilities in India significantly. It has been discovered, based on the analysis carried out as part of the study objective, which Indian economy benefits greatly from the introduction of GST.

The aim of “One Nation One Tax” by the Government brings about uniformity of taxation and ensuring seamless transfer of goods and services has been achieved. Further this has ensured consistency across all jurisdictions.

GST will be completing SIX on 1st of July 2023. The growth of GST has been phenomenal in terms of collection which has grown from Rs.7.19 lakh crore in FY 2017-18 (from July 2017) to Rs.18.10 lakhs crore in FY 2022-23. The collection for FY 2022-23 was 22% higher than that of FY 2021-22.

GST since inception has seen various changes with respect to policy, rate rationalization, procedural compliance and many more. GST has also withstood the Covid pandemic. The continuous and unwavering effort from the government, industry and tax experts have contributed to the success of GST.

GST generates more money for the economy since products and services are taxed at different rates.



## **BIBLIOGRAPHY:**

### **ARTICLES:**

- Namita Mishra “Impact of GST on Indian economy” “international journal of basic and applied research”
- Milan Deep Kour, Kajal Choudray, surjan Singh “A Study Of Impact Of GST After Its Implementation” International journal of innovative studies in sociology and humanities” volume 1
- Nayyar. A “A comprehensive analysis of goods and service tax (GST) in India” Indian journal of finance.
- A Dash –“Positive and Negative Impact of GST on Indian Economy” journal of management and applied science volume 3
- Nitin Kumar “goods and service tax in India –A way forward”

### **WEBSITES:**

- <https://cleartax.in/s/impact-of-gst-on-indian-economy>
- <https;www.gst/gov.in/>
- <https://economictimes.indiantimes.com>
- [www.reaserchgate.net](http://www.reaserchgate.net)
- [scholar.google.co.in](http://scholar.google.co.in)
- [www.deal4loans.com](http://www.deal4loans.com)

**ASSESSMENT OF AIR POLLUTION TOLERANCE  
INDEX (APTI) FROM TWO DIFFERENT LOCATIONS OF  
TALUKA CHIKODI**



A PROJECT REPORT SUBMITTED TO  
**RANI CHANNAMMA UNIVERSITY BELAGAVI**

FOR PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE OF

**MASTER OF SCIENCE**

IN

**BOTANY**

SUBMITTED BY

MISS. DEEPA SHEELINAVAR

MISS. JANHAVI BHATALE

MISS. SHWETA TIRTH

MISS. SOUJANYA PATTAR

MISS. SUDHARANI SANADI

UNDER THE GUIDANCE OF

DR. VIDYA V. KAMBLE M.Sc., Ph.D.

DEPARTMENT OF POST GRADUATE STUDIES IN BOTANY  
KLE SOCIETY'S, BASAVAPRABHU KORE ART'S, SCIENCE AND COMMERCE  
COLLEGE, CHIKODI, BELAGAVI- 591 201

**2023**



**ASSESSMENT OF AIR POLLUTION TOLERANCE INDEX  
(APTI) FROM TWO DIFFERENT LOCATIONS OF  
TALUKA CHIKODI**



A PROJECT REPORT SUBMITTED TO

**RANI CHANNAMMA UNIVERSITY BELAGAVI**

FOR PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE OF

**MASTER OF SCIENCE**

IN

**BOTANY**

SUBMITTED BY

**MISS. DEEPA SHEELINAVAR**

Reg. No: **P15DM21S0007**

**MISS. JANHAVI BHATALE**

Reg. No : **P15DM21S0009**

**MISS. SHWETA TIRTH**

Reg. No: **P15DM21S0015**

**MISS. SOUJANYA PATTAR**

Reg. No: : **P15DM21S0018**

**MISS. SUDHARANI SANADI**

Reg. No: : **P15DM21S0019**

UNDER THE GUIDANCE OF

**DR. VIDYA V. KAMBLE** M.Sc., Ph.D.

**DEPARTMENT OF POST GRADUATE STUDIES IN BOTANY,  
KLE SOCIETY'S, BASAVAPRABHU KORE ART'S, SCIENCE AND COMMERCE  
COLLEGE, CHIKODI, BELAGAVI- 591 201**

**2023**

# RANI CHANNAMMA UNIVERSITY BELAGAVI



## CERTIFICATE

This is to certify that; this project entitled "Assessment of Air Pollution Tolerance Index (APTI) From Two Different Locations of Taluka Chikodi." is being submitted here with for the partial fulfillment of award of the Degree of Master of Science in Botany, Rani Channamma University, Belagavi. The work reported in this report is based upon the results of the original work carried out by Miss. Deepa Sheelinavar, Miss. Janhavi Bhatale, Miss. Shweta Tirth, Miss. Soujanya Pattar and Miss. Sudharani Sanadi under my supervision and guidance.

Place: Chikodi

Date: 22/11/2023

*Vidya V. Kamble* 22/11/2023  
Dr. Vidya V. Kamble  
Research Supervisor

  
Co-ordinator  
Post Graduate of Department Botany

THE CO-ORDINATOR  
P. G. Department of Botany  
B. K. College, Chikodi.

## DECLARATION

We hereby declare that this project work entitled "Assessment of Air Pollution Tolerance Index (APTI) From Two Different Locations of Taluka Chikodi." completed and written by us has not previously formed. This report is based on the results carried out by us.

Place: Chikodi

Date: 22/11/23

*Deepa*  
MISS. DEEPA SHEELINAVAR,

*Janhavi*  
MISS. JANHAVI BHATALE

*Shweta*  
MISS. SHWETA TIRTH

*Soujanya*  
MISS. . SOUJANYA PATTAR

*Sanadi*  
MISS. SUDHARANI SANADI



## *ACKNOWLEDGMENTS*

*Our sincere efforts have made us to accomplish the task of completing this project. However the success and outcomes of this project were possible by the guidance and support from many people. We are privileged to have got this all along with the achievement of our project . Their contribution is sincerely appreciated and gratefully acknowledged.*

*We would like to express our gratitude to shri Udaysingh R. Rajput, principal of Basavaprabhu Kore college, Chikodi for his constant support. We would also appreciate and thank Shri R. R. Naik, co-ordinate. P.G Department of Botany, who has been continuous source of inspiration.*

*We would also like to express our deepest appreciation to our supervisor, Dr. Vidya Viswas Kamble, for granting us an opportunity to do the project and providing us with all support and leadership. We are really thankful to her for presenting such excellent support and guidance.*

*We extend our gratitude to the teaching faculty of our department Dr. Sujata shiragave patil, Mr. Aditya Jain Lengade for their co- operation and encouragement. And a special thanks to Miss. Anjali Hajeri, for her advice and suggestions.*

*And, we would like to take this opportunity to thank our family members and friends who have provided us with moral support and love.*

*Finally, we would like to continue our genuine esteems to non-teaching staff members Mr. Vinod and Mr. Anand of Botany department, for their timely support in the laboratory. Thank you all for your invaluable contribution to this project.*

*. Miss. Deepa sheelinavar*

*Miss. Janhavi Bhatale*

*Miss. Shweta Tirth*

*Miss. Soujanya Pattar*

*Miss. Sudharani Sanadi*

## ACKNOWLEDGMENTS

*Our sincere efforts have made us to accomplish the task of completing this project. However the success and outcomes of this project were possible by the guidance and support from many people. We are privileged to have got this all along with the achievement of our project . Their contribution is sincerely appreciated and gratefully acknowledged.*

*We would like to express our gratitude to shri Udaysingh R. Rajput, principal of Basavaprabhu Kore college, Chikodi for his constant support. We would also appreciate and thank Shri R. R. Naik, co-ordinate. P.G Department of Botany, who has been continuous source of inspiration.*

*We would also like to express our deepest appreciation to our supervisor, Dr. Vidya Viswas Kamble, for granting us an opportunity to do the project and providing us with all support and leadership. We are really thankful to her for presenting such excellent support and guidance.*

*We extend our gratitude to the teaching faculty of our department Dr. Sujata shiragave patil, Mr. Aditya Jain Lengade for their co- operation and encouragement. And a special thanks to Miss. Anjali Hajeri, for her advice and suggestions.*

*And, we would like to take this opportunity to thank our family members and friends who have provided us with moral support and love.*

*Finally, we would like to continue our genuine esteems to non-teaching staff members Mr. Vinod and Mr. Anand of Botany department, for their timely support in the laboratory. Thank you all for your invaluable contribution to this project.*

*. Miss. Deepa sheelinavar*

*Miss. Janhavi Bhatale*

*Miss. Shweta Tirth*

*Miss. Soujanya Pattar*

*Miss. Sudharani Sanadi*



## LIST OF TABLES

**Table 1: Categories of plant species based on air pollution tolerance index**

## LIST OF FIGURES

- Figure 1:** pH of selected plants from location 1 and 2
- Figure 2:** Relative water content of selected plants from location 1 and 2
- Figure 3:** Total chlorophyll content of selected plants from location 1 and 2
- Figure 4:** Carotenoid content of selected plants from location 1 and 2
- Figure 5:** Ascorbic acid content of selected plants from location 1 and 2
- Figure 6:** APTI value of selected plants from location 1 and 2

## PHOTO PLATES

- Plate 1:** Habit and twig of a – b) *Polyathia longifolia* , c-d) *Azadiracta indica*
- Plate 2:** Habit and twig of a – b) *Muntingia calabura*,  
c-d) *Terminalia catappa*
- Plate 3:** Habit and twig of a – b) *Nerium oleander*
- Plate 4:** Map indicating the location 1(basaveshwara circle) and location 2 (B. K college ), Chikodi , Karnataka
- Plate 5:** A- D) Collection of plants material from location 1 and 2
-

## Content

Sr. No.	Title	Page No.
<b>1.0</b>	<b>Introduction</b>	
1.1	In general	
1.2	Impacts of Air Pollution	
1.3	Genus – <i>polyathia</i>	
1.3.1	<i>Polyathia longifolia</i>	
1.4	Genus - <i>Azadirachta</i>	
1.4.1	<i>Azadirachta indica</i> A.Juss.	
1.5	Genus <i>Muntingia</i>	
1.5.1	<i>Muntingia calabura</i>	
1.6	Genus: <i>Terminalia</i>	
1.6.1	<i>Terminalia catappa</i>	
1.7	Genus: <i>Nerium</i>	
1.7.1	<i>Nerium oleander</i> L.	
1.8	Statement of current research	
1.9	Research objectives	
<b>2.0</b>	<b>Review of literature</b>	
2.1	APTI as an air pollution monitoring tool	
2.2	Air pollution monitoring by plants:	
2.3	Significance of APTI in green belt development:	
<b>3.0</b>	<b>Material and methods</b>	
3.1	Study area and sampling location	
3.2	Collection of plant material	
3.3	Biochemical studies	
3.3.1	Leaf extract p <sup>H</sup>	
3.3.2	Relative water content	
3.3.3	Total ascorbic acid content	

3.3.4	Estimation of total chlorophyll	
3.3.5	Air pollution tolerance index (APTI) determination	
<b>4.0</b>	<b>Results and Discussion</b>	
4.1	pH	
4.2	Relative water content (RTC) %	
4.3	Total chlorophyll content	
4.4	Carotenoid content	
4.5	Ascorbic acid content	
4.6	Air pollution tolerance index (APTI) determination	
<b>5.0</b>	<b>Conclusion</b>	
<b>6.0</b>	<b>References</b>	

# CHAPTER 1: INTRODUCTION

## 1.1: In general:

The atmosphere is one of the key components of the environment that is vital for the welfare of urban inhabitants. Climatic conditions straight forwardly impacts life and property. Air is a valuable normal asset that structures the premise of human presence on earth. Climatic air gives oxygen to plants and creatures by which they are to live. Clean air contains 78% nitrogen, 21% oxygen, 0.93% argon, 0.038% carbon dioxide and other follow gases (Chauhan, 2010). A variety in the vaporous piece of earth's air emerging from human exercises is a noteworthy worry of the world today. The consistent increment in human population, vehicular movement and commercial enterprises had brought about high concentration of gaseous and particulate pollutants (Joshi et al, 2009). Environmental pollution consists of five basic types of pollution viz. air, water, soil, noise and light pollution. Among them, air pollution is by far the most harmful form of pollution. The substances that pollute the environment are called as pollutants, these pollutants include gases (sulphur oxides, oxides of nitrogen, carbon monoxide, hydrocarbons, etc.), particulate matter (smoke, dust, fumes, aerosols), radioactive materials and others (Chauhan et al. 2004).

Air pollution can directly affect the plants via leaves or indirectly via soil acidification. When exposed to airborne pollutants, most plants showed physiological changes before exhibiting visible damage to leaves (Liu & Ding 2008). Automobiles are responsible for the maximum amount of air pollutants and the crop plants are very sensitive to gaseous and particulate pollution and these can be used as indicators of air pollution (Joshi & Swami 2009). Pollutants can cause leaf injury, stomatal damage, premature senescence, decrease

photosynthetic rate, disturb membrane permeability and reduce growth and yield in pollution sensitive plant species (Tiwari *et al.* 2006).

### **1.2: Impacts of Air Pollution**

In the twenty-first century, air pollution is a major threat to human health and causes a number of potentially deadly diseases and illness, e.g., lung disease and other respiratory problems. Many studies have shown that air pollution is directly responsible for the development of asthma, Chronic Obstructive Pulmonary Disorder (COPD), cardiovascular and heart disease. Annually, nearly 7 million premature deaths are reported mainly due to air pollution (WHO 2018; Saxena and Sonwani 2020). Earlier studies also reported that the higher exposure of particulate matter can cause preterm birth thus raising the new born babies' risk of health complications (Malley *et al.* 2017; Nieuwenhuijsen *et al.* 2014).

Air pollution is also hazardous for the plants and vegetation causing a reduction in crop yields production (Burney and Ramanathan 2014). Many atmospheric pollutants (like CO<sub>2</sub>, black carbon) have the ability to trap the atmospheric heat and affect the earth's radiating budget (Saxena and Naik 2018). Particulate matter (PM) can also change the cloud properties resulting in changes in cloud albedo as well as total rainfall (Seinfeld *et al.* 2016). A number of studies also reported both positive and negative radiative forcing for different types of aerosol over the different regions of the world from different measurements (Boiyo *et al.* 2019; Zhu *et al.* 2019; Bibi *et al.* 2017; Tiwari *et al.* 2015).

### **1.3: Genus *polyalthia***

*Polyalthia* is a genus of flowering plants in the family Annonaceae. There are approximately 90 species distributed from Africa to Asia and the Pacific. These are trees and shrubs. The flower has six petals in two whorls, the inner petals curving inward over the centre.

The name *Polyalthia* is derived from a combination of Greek words meaning ‘many cures’ with reference to the medicinal properties of certain species (McCann and Charles, 1959).

### 1.3.1: *Polyalthia longifolia*

The false ashoka, also commonly known by its synonym *Polyalthia longifolia*, is an Asian small tree species in the family Annonaceae. It is native to southern India and Sri Lanka, but has been widely introduced elsewhere in tropical Asia. (B.Xue and R.M.K.Saunders, 2020). This evergreen tree is known to grow over 20 m. in height and is commonly planted due to its effectiveness in alleviating noise pollution. It exhibits symmetrical pyramidal growth with willowy weeping pendulous branches and long narrow lanceolate leaves with undulate margins (Bhagwati, 2023).

#### Uses

Enthnobotany is a conception of conscientious use of natural resources. Ages ago, these resources had rendered the rudimentary essence of every medicinal folk culture throughout the world. In contemplating the folk culture, one should be able to translate, interpret, and amalgamate these native concepts and beliefs pertaining to illness, its signs and symptoms. In uniformity, it may beget a better practical biomedical image of therapeutic study (Elisabetsky, 1986). It follows that, the plant *Polyalthia longifolia* had long served the purpose of being medically important as per Ayurveda. *P. longifolia* bark is the most common serving part of this plant as it had been use to treat pyrexia, rheumatism, menorrhagia, scorpion sting and diabetes (Savithramma et al, 2011) meanwhile the decoction is widely used for curing mouth ulcer in many parts of India ( Pradhan et al, 2011).



## Classification

Kingdom-Plantae

Division – Magnoliophyta

Class –Magnoliopsida

Subclass –Mangnoliidae

Order – Mangoliids

Family – Annonaceae

Genus – *Polyalthia*

Species – *longifolia var. pendula Benthall*

### 1.4: Genus *Azadirachta*

*Azadirachta* is a genus of two species of trees in the mahogany family Meliaceae. Numerous species have been proposed for the genus but only two are currently recognized, *Azadirachta excelsa* and the economically important tree *Azadirachta indica*, the neem tree, from which neem oil is extracted. Both species are native to the Indomalaysian region and *A. indica* is also widely cultivated and naturalized outside its native range. In traditional medicine in India, the resin from the trees has been attributed with medical benefits. A component in the resin is an effective insecticide; see azadirachtin. Another component is an effective anti-fungal; see *Azadirachta indica*. These species should not be confused with *Melia azedarach*, which is a tree in a different genus of the family Meliaceae (PWO, 2023).

#### 1.4.1: *Azadirachta indica* A.Juss.

*Azadirachta indica*, commonly known as margosa, neem, nim tree or Indian lilac, is a tree in the mahogany family Meliaceae. It is one of two species in the genus *Azadirachta*. It

is native to the Indian subcontinent and to parts of Southeast Asia, but is naturalized and grown around the world in tropical and subtropical areas. Its fruits and seeds are the source of neem oil. *Nīm* is a Hindustani noun derived from Sanskrit *nimba*, fast-growing tree of the mahogany family (Meliaceae), valued as a medicinal plant, as a source of organic pesticides, and for its timber. The plant has long been used in Ayurvedic and folk medicine and is used in cosmetics and in organic farming applications (Girish and Shankara, 2008)

Neem trees can reach 15–30 metres (49–98 feet) in height and have attractive rounded crowns and thick furrowed bark. The compound leaves have toothed leaflets and are typically evergreen but do drop during periods of extreme drought. The small fragrant white flowers are bisexual or staminate (male) and are borne in clusters in the axils of the leaves. The fruit is a smooth yellow-green drupe and has a sweet-flavoured pulp. Neem is usually grown from seed but can be propagated from cuttings or root suckers. The plant is hardy and resilient and grows well in poor, rocky soils.

### Uses

Nearly all parts of the neem tree are useful, and many of its medicinal and cosmetic uses are based on its antibacterial and antifungal properties. Neem is commonly used in shampoos for treating dandruff and in soaps or creams for skin conditions such as acne, psoriasis, and athlete's foot. Neem leaves have long been used as a traditional treatment for diabetes, and there is some clinical evidence suggesting that it may help control blood sugar levels. Neem oil, neem bark and leaves are unsafe for consumption by pregnant women and can cause miscarriage. Neem-based pesticides generally have low toxicity for mammals and are common in organic farming applications (Girish and Shankara, 2008).

## Classification

Kingdom – Plantae

Division – Magnoliophyta

Class – Magnoliopsida

Order- sapindales

Family – Meliaceae

Genus –*Azadirachta*

Species – *indica* A.Juss.

### 1.5: Genus *Muntingia*

*Muntingia* is a genus of plants in the family Muntingiaceae, comprising only one species, *Muntingia calabura*, and was named in honour of Abraham Munting. It is native to the Neotropics, from Mexico south to Bolivia and Argentina, with edible fruit, and has been widely introduced in other tropical areas (Smith, 1965).

#### 1.5.1: *Muntingia calabura*

*Muntingia calabura* is a shrub or tree that grows fast up between 7.5 to 12 m tall with spreading branches. The leaves are alternate, distichous, oblong or lanceolate, 4–15 cm long and 1–6 cm wide, with toothed margin and covered in short hairs.

The flowers are small (up to 3 cm wide), solitary or in inflorescences of two or three flowers, with five lanceolate sepals, hairy, five obovate white petals, many stamens with yellow anthers and a smooth ovoid ovary. Its fruit is an edible berry with about 1.5 cm wide in diameter and smooth, thin skin; they are green when unripe turning into red when they are mature. It has and light-brown, juicy pulp with very fine seeds; the pulp tastes like fig

*M. calabura* is native to southern Mexico, the Caribbean, Central America, and western South America south to Bolivia and Argentina. It is present in tropical climate in disturbed lowland areas from sea level to 1000 m of elevation (Mahmood et al, 2014).

### **Uses**

The fruits are edible and in some cases sold in markets, as they can be eaten raw or processed as jam; leaves can be used for making tea. Also, traditional medicinal uses have been reported for the leaves (headaches, prostate problems, reduce gastric ulcers), bark (antiseptic), flowers (antiseptic, reduce swelling, antispasmodic) and fruits (respiratory problems; antidiarrheic) (Mahmood et al, 2014).

### **Classification**

Kingdom – Plantae

Division – Magnoliophyta

Class – Monocotyledonae

Subclass - Rosidae

Order – Malvales

Family – Muntingiaceae

Genus – *Muntingia*

Species – *calabura* L.

### **1.6: Genus: *Terminalia***

*Terminalia* is a genus of large trees of the flowering plant family Combretaceae, comprising nearly 300 species distributed in tropical regions of the world. The genus name derives from the Latin word *terminus*, referring to the fact that the leaves appear at the very tips of the shoots (PWO, 2023).

### 1.6.1: *Terminalia catappa*

*Terminalia catappa* is a large tropical tree in the lead wood tree family, Combretaceae, native to Asia, Australia, the Pacific, Madagascar and Seychelles. Common names in English include country almond, Indian almond, Malabar almond, sea almond, tropical almond, beach almond and false kamani.

The tree has been spread widely by humans, so the native range is uncertain. It has long been naturalised in a broad belt extending from Africa to northern Australia and New Guinea through southeast Asia and Micronesia into the Indian subcontinent. More recently, the plant has been introduced to parts of the Americas (Dukes, 2008).

#### Uses

*Terminalia catappa* is widely grown in tropical regions of the world as an ornamental tree, grown for the deep shade its large leaves provide. The fruit is edible, tasting slightly acidic. The seeds are edible raw or cooked when ripe and the source of its 'almond' common names, but are small and difficult to extract. The wood is red and solid, and has high water resistance; it has been used in Polynesia for making canoes.

In Tamil, almond is known as nattuvadumai. The leaves contain several flavonoids (such as kaempferol or quercetin), several tannins, saponine and phytosterols. In Suriname, an herbal tea made from the leaves has been prescribed against dysentery and diarrhea. The leaves may contain agents for prevention of cancers (although they have no demonstrated anticarcinogenic properties) and antioxidants, as well as anticlastogenic characteristics (Dukes, 2008).

**Classification**

Kingdom –Plantae

Division – Magnoliophyta

Class – Magnoliopsida

Subclass – Rosidae

Order – Myrtales

Family – Combretaceae

Genus – *Terminalia*

Species – *catappa* L.

**1.7: Genus: *Nerium***

*Nerium oleander* most commonly known as oleander or nerium, is a shrub or small tree cultivated worldwide in temperate and subtropical areas as an ornamental and landscaping plant. It is the only species currently classified in the genus *Nerium*, belonging to subfamily Apocynoideae of the dogbane family Apocynaceae (Sunset, 1995).

**1.7.1: *Nerium oleander* L**

It is so widely cultivated that no precise region of origin has been identified, though it is usually associated with the Mediterranean Basin. *Nerium* grows to 2–6 metres (7–20 feet) tall. It is most commonly grown in its natural shrub form, but can be trained into a small tree with a single trunk. It is tolerant to both drought and inundation, but not to prolonged frost. White, pink or red five-lobed flowers grow in clusters year-round, peaking during the summer. The fruit is a long narrow pair of follicles, which splits open at maturity to release numerous downy seeds.



## **Uses**

Oleander is a vigorous grower in warm subtropical regions, where it is extensively used as an ornamental plant in parks, along roadsides and in private gardens. It is most commonly grown in its natural shrub form, but can be trained into a small tree with a single trunk. Hardy versions like white, red and pink oleander will tolerate occasional light frost down to  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ), though the leaves may be damaged.

The plant is tolerant of poor soils, intense heat, salt spray, and sustained drought – although it will flower and grow more vigorously with regular water. Although it does not require pruning to thrive and bloom, oleander can become unruly with age and older branches tend to become gangly, with new growth emerging from the base (Saabiya and Tulika, 2018).

## **Classification**

Kingdom - Plantae

Division – Magnoliophyta

Class – Magnoliopsida

Subclass – Asteriadae

Order – Gentianales

Family – Apocynaceae

Genus – Nerium

Species - oleander L.

**1.8: Statement of current research**

Against this back ground air pollution is one of the severe problem world is facing today. Over the years, there has been a continuous growth in human population, road transportation, vehicular traffic and industries which increases the concentration of gaseous and particulate pollutants. Plants that are continuously exposed to pollutants leads to accumulation of pollution, integration of pollutants in to their own system, thereby altering the nature of leaf and make them more sensitive. Thus this sensitivity of plants can be used to measure various biochemical changes and finally to air pollution tolerance index.

**1.9: Research objectives**

- 1) Collection of five commonly available plants material from two different location of Takula Chikodi
- 2) Assessing the air pollution tolerance index of plants collected from two different locations of Takula Chikodi

## CHAPTER 2: REVIEW OF LITERATURE

India is a developing country and as the economy is growing, air pollution levels are also increasing. Rising air pollution is one of the major problems emerging due to rapid industrialization. The degradation of air quality is a major environmental problem that affects many urban and industrial sites and the surrounding regions worldwide (Kuddus et al., 2011). Environment Protection Agency (EPA) has established national ambient air quality standards (NAAQS) for six of the most common air pollutants carbon monoxide, lead, ground-level ozone (O<sub>3</sub>), particulate matter (PM), nitrogen dioxide (NO<sub>2</sub>), and sulphur dioxide (SO<sub>2</sub>). These are known as “criteria” air pollutants and their presence in ambient air is generally due to numerous diverse and widespread sources of emissions. Most of the Indian cities are facing extremely high level of urban air pollution particularly in the form of CO, SO<sub>2</sub>, NO<sub>2</sub>, PM and Respirable Suspended Particulate Matter (RSPM).

Transport sectors contributes a major share to environmental pollution (around 70%) such as CO, which is one of the major pollutants contributing 90% of total emission followed by hydrocarbons (Shrivastava et al., 2013). India is a developing country and as the economy is growing, air pollution levels are also increasing. Rising air pollution is one of the major problems emerging due to rapid industrialization. The degradation of air quality is a major environmental problem that affects many urban and industrial sites and the surrounding regions worldwide (Kuddus et al., 2011).

The APTI based on four parameters including leaf total chlorophyll, ascorbic acid leaf extract pH, and relative water content (RWC) is used for identifying tolerance levels of plant species (Beg et al.,1990; Chauhan, 2010; Singh and Rao, 1991). Air pollutants affect plant growth adversely (Rao, 2006; Bhatia, 2006; Sodhi, 2007; Horsfall and Spiff (1998). Landscapers

use the APTI to select tolerant plant species (Liu and Ding, 2008). APTI has also been used to rank plant species in their order of tolerance to air pollution (Raza and Murthy, 1988; Singh and Rao, 1983). With the help of extensive studies on APTI of different plants, the response of plant species towards air pollution can be determined. Currently, many plant species are known to have effective APTI values, but this review study provides information about the commonly growing plant species such as *Mangifera indica*, *Azadirachta indica*, *Saraca indica*, *Ficus religiosa*, *Ficus benghalensis*, *Shorea robusta*, and *Bougainvillea* spp., as these species are widely distributed throughout India and have been studied with respect to their APTI values.

### **2.1: APTI as an air pollution monitoring tool**

Tolerance level of plants can be evaluated by calculating an index known as air pollution tolerance index (APTI) based on four biochemical and physiological parameters viz. chlorophyll, ascorbic acid, pH, relative water content (Singh and Rao, 1983, Dwivedi *et al.*, 2007). APTI is an empirical relation which evaluates the tolerance level of plant species towards air pollution by considering leaf biochemical parameters such as total chlorophyll, ascorbic acid, leaf extract pH, and relative water content (RWC). APTI has been used in studies like green belt development (Shannigrahi *et al.*, 2004), traffic noise reduction (Pathak *et al.*, 2011) and pollution mitigation along roadsides and around industries. Different plants respond differently to air pollution and it has been observed that plants growing in the apparently polluted environment have higher APTI than the ones growing in a lesser polluted environment (Agbaire and Esiefarienrhe, 2009).

Plants have the ability to absorb the atmospheric dust and can also dilute gaseous pollutants concentration in atmosphere by changing them to harmless metabolites after absorption of pollutants. They absorb gaseous pollutants through the leaf pores and remove them. Twigs, leaves and stems attenuate particulate matter and wash them to the ground by

precipitation. CO and NO are less soluble gases and plants do not uptake them; while SO<sub>2</sub> dissolves in the cells to give bisulphite and sulphite ions. Sulphite is toxic and at low concentrations it is metabolized by chloroplasts to sulphate, which is nontoxic and at sufficiently low concentrations, bisulphite and sulphite are effectively detoxified by plants and SO<sub>2</sub> air pollution then provides a sulphur source for the plant (Zeiger, 2006). At lower concentrations, NO<sub>2</sub> stimulates plant growth and causes reduction in plant growth at higher concentration by inhibiting photosynthesis. APTI is a method suggested by Singh and Rao (1983) to screen out the tolerant species from the sensitive ones. This index takes into account all the important biochemical and physiological parameters of plants. It is calculated according to the following formula:

$$\text{APTI} = \frac{\text{AA}(\text{TCH} + \text{pH}) + \text{RWC}}{10}$$

Where, AA = Ascorbic Acid content (mg/g); pH = Leaf extract pH; TCH = Total chlorophyll content (mg/g); RWC = Relative Water Content (%). The plant species having APTI values falling in the range of 30-100 are regarded as tolerant, those of 17- 29 as intermediately tolerant. The APTI of sensitive plant species ranges from 1-16 and the plant species having APTI values less than 1 are considered as highly sensitive. The four parameters of APTI (ascorbic acid content, total chlorophyll content, leaf extract pH, and RWC) play a significant role in determining the tolerance of plants to air pollutants (Bakiyaraj and Ayyappan, 2014; Gharge and Menon, 2012; Liu and Ding, 2008).

The air pollutants settled on plants may cause injury to tolerant plants to a lesser extent whereas in sensitive plants injury might be higher. Sensitive plants can be used as early warning indicators of air pollution. Ascorbic acid is an antioxidant found in the growing parts of plants

and influences the resistance to adverse environmental conditions, including air pollution (Keller and Schwager, 1977). Its activity is pH controlled and thus the ascorbic acid content is generally greater at higher pH and smaller at lower pH, therefore, higher levels of leaf-extract pH mean more tolerance of air pollution (Singh and Verma, 2007). Ascorbic acid, a natural antioxidant in plants has been shown to play an important role in pollution tolerance (Joshi and Swami, 2007).

Since it is a strong reductant, it protects chloroplast against SO<sub>2</sub> induced H<sub>2</sub>O<sub>2</sub>, O<sub>2</sub><sup>-</sup> and OH<sup>-</sup> accumulation and also protects the enzymes of the CO<sub>2</sub> fixation cycle and chlorophyll from inactivation (Tanaka *et al.*, 1982). Chaudhary and Rao (1977) and Varshney and Varshney (1982) are of the opinion that higher ascorbic acid of plants is a sign of their tolerance against sulphur dioxide pollution and other pollutants which are normally affecting the roadside vegetation.

Relative Water Content (RWC) of a leaf is the water present in it relative to its full turgidity and is associated with protoplasmic permeability in cells which causes loss of water and dissolved nutrients, resulting in early senescence of leaves (Agarwal and Tiwari, 1997). Total Chlorophyll Content (TCH) of plants signifies its photosynthetic activity as well as the growth and development of biomass.

It varies from species to species with the age of leaf along with the pollution level and other biotic and abiotic conditions (Katiyar and Dubey, 2000). Chlorophyll pigments exist in highly organized state and may undergo several photochemical reactions under any stress induced such as oxidation, reduction, pheophytinisation and reversible bleaching. Hence any alteration in chlorophyll concentration may change the morphological, physiological and biochemical behaviour of the plant.



## **2.2: Air pollution monitoring by plants**

Air pollutants affect the physiology of the plants which results in abnormal growth. Plants respond variably to different pollutants individually and in combination (Emberson *et al.*, 2001). Sensitive plants behave as early warning system and can be used to assess the extent of pollution in the milieu (Nouchi, 2002).

Air pollution can be defined as the fluctuation in any atmospheric constituent from the value that would have existed without human intervention and is considered as one of the most serious problems the world is facing today. The ever increasing human population has led to serious damages to the environment. It is more complex than other existing environmental challenges of the world, since the air pollutants are more easily dispersed than other type of pollutants and no physical or chemical method is available to ameliorate the aerial pollutants at a large scale.

The only methods to control the pollutants include by making technological improvements like designing more efficient auto-mobiles and instruments which contribute to air pollution to a lesser extent. The other alternatives to mitigate air pollution include the interventions such as biological methods. Plants are the primary receptors of a large number of air pollutants. They provide an enormous leaf area for impingement, absorption and accumulation of air pollutants to reduce the level of air pollution.

The major air pollutants include oxides of nitrogen (NO<sub>x</sub>), oxides of sulphur (SO<sub>x</sub>), oxides of carbon (CO, CO<sub>2</sub>), hydrocarbons and PM. The main sources leading to these air pollutants include industries, burning of fossil fuels and transportation. The air pollutants emitted out of motor vehicles are one of the major culprits for stress induced changes in plants. Air pollution may directly affect the plants via leaves or indirectly via soil acidification. So the study

of APTI of plant species is important so that they can be recommended for the plantation near high traffic roads and near pollution causing industries. There may be changes in canopy area, plant height, plant biomass, chlorophyll content, ascorbic acid, relative water content, nitrogen content etc. in plants growing at sites which receive higher pollution.

They show visible or subtle changes depending upon their sensitivity level. It has been reported that when exposed to the air pollutants, most plants experience physiological changes before exhibiting visible changes in the leaves. Leaves are generally used as an experimental material since they take up large amount of pollutants. The response of plants towards air pollution is assessed by the APTI developed by Singh and Rao during the Symposium of Air Pollution Control held in 1983 at IIT, Delhi.

**Table 1: Categories of plant species based on air pollution tolerance index** (Bharti et al, 2018; Ogunkunle et al, 2015).

<b>Sr.No</b>	<b>APTI values</b>	<b>Response</b>
1	1 – 11	Sensitive
2	12- 16	Intermediate
3	$\geq 17$	tolerant

### **2.3: Significance of APTI in green belt development**

Studies conducted by various researchers suggest that APTI is an efficient tool for green belt development. In a study conducted by Kour and Raina, 2014; while observing the APTI values of various plant species, *Ficus religiosa* was found to be comparatively more tolerant and displayed the highest APTI value ( $4.76 \pm 0.16$ ) whereas *Pterospermum acerifolium* was found to be more sensitive to air pollution with minimum APTI value ( $1.65 \pm 0.19$ ). The order of

tolerance observed for the species studied was *Ficus religiosa* > *Polyalthia longifolia* > *Thevetia peruviana* > *Pterospermum aceri-folium*. The chlorophyll content (Chlorophyll A, Chlorophyll B and Total chlorophyll content) was found to be less in plant species growing at the polluted site as compared to the species growing at the control site. Reduction in pH and ascorbic acid content values was observed in all the plant species growing at the polluted site. Reduction in values of RWC in the plants. Various studies have indicated that plants are affected by increased atmospheric pollution (Gaikwad *et al.*, 2006).

In experiments conducted for the study of air pollution induced changes in the photosynthetic pigments of plant species, a reduction in Chlorophyll A, B and carotenoid has been noticed in the leaf samples collected from the polluted areas as compared to the ones collected from control areas and thus, it has been concluded that vehicular air pollution causes a reduction in the concentration of photosynthetic pigments in the trees which are exposed to roadside pollution (Joshi and Swami, 2007). In a study conducted by Joshi and Swami (2007), higher APTI values were recorded for *Shorea robusta* (9.02) and lowest for *Mangifera indica* (6.76) at a polluted site of Haridwar.

In a study along the Coimbatore-Ooty Highway in Tamil Nadu, it was found that among the 27 species, *Azadirachta indica* (among trees), *Ricinus communis*, *Bougainvillea spectabilis* and *Calotropis gigantea* (among shrubs), *Datura stramonium* and *Amaranthus viridis* (among herbs) and *Cucurbita pepo* (among climbers) showed a high degree of APTI (Karthiyayini *et al.*, 2005).

The APTI values of various plant species were studied by Bora and Joshi (2014) such as *Saraca indica* (13.71), *Azadirachta indica* (12.98), *Shorea robusta* (12.64), *Eucalyptus spp.* (12.61), *Ficus religiosa* (12.61) and *Tectona grandis* (13.33), which suggested that all the given

plant species justifies the APTI and hence prove themselves as pollution reducers and should be recommended for roadside plantation.

While studying the impacts of air pollution in plants around a cement industry in Coimbatore, Radhapriya *et al.* (2012) observed that significant variation in individual parameters and APTI was noticed in all the plant species studied and all the plants surrounding the cement industry were indicative of high pollution exposure as compared to the results obtained from plants at the control site. Out of the 27 plant species studied, 37% of the plants were tolerant to air pollution, 5% were immediately tolerant and 33% were highly susceptible to air pollution. The tolerant species were *Mangifera indica*, *Psidium guajava* and *Bougainvillea* spp. Thambavni and Maheshwari (2012) studied APTI values of fifteen tree species and found that *Mangifera indica* and *Ficus religiosa* were the most tolerant species and suggested plantation of these tree species along roadsides and in areas with heavy traffic flow. Bhattacharya *et al.* (2013) studied the seasonal variation in APTI values in Baroda city and observed that APTI values showed insignificant seasonal variation in all the plant species except *Acacia arabica*. It was observed that the highest APTI value, irrespective of the season, was found to be in the following order: *Polyalthia longifolia* > *Azadirachta indica* > *Ficus benghalensis* > *Acacia Arabica* > *Peltophorum pterocarpum* > *Mangifera indica*.

## CHAPTER 3: MATERIAL AND METHODS

### 3.1: Study area and sampling location

Chikodi city is located in Belgaum district of Karnataka state. Chikodi city lies between 16.32 to 16.42 North latitude and 74.22 to 74.49 east longitude. The area of the Taluka is 12695 square km. The maximum temperature ranges from 36<sup>0</sup>C during summer and minimum temperature is between 22<sup>0</sup>C to 28<sup>0</sup>C during the winter. The average rainfall is about 632.8mm receiving during rainy season from June to the end of September.

Sampling sites located in Chikodi city are Basaveshwara circle (location 1) with high peak hour vehicular traffic volume and the area of B. K. college (location 2) with less vehicular traffic volume were selected to study APTI.

### 3.2: Collection of plant material

The present work was designed to assess the effects of air pollution on plants; hence five commonly available plants exposed to vehicular emission along the roadside were selected for the study. The plants collected were *Polyalthia longifolia* (sonn.)Thwaites, *Azadirachta indica* A. Juss, *Muntingia calabura* L., *Terminalia catappa* L. and *Nerium oleander* L.

All selected plants were identified by Dr. Vidya Viswas Kamble, P.G. Department of Botany, B. K. College, Chikodi. Three samples from healthy and fully matured leaves of each plant gathered through the random selection from the lowermost position of a canopy at the height of 1.8-2.1m from ground level. The further analysis was carried out in the laboratory. All collected leaf samples were washed with the running tap water, rinsed with distilled water and then used for further analysis.

### 3.3: Biochemical studies

The collected leaf samples from both sites were analysed for different biochemical parameters like  $p^H$ , relative water content, ascorbic acid analysis.

#### 3.3.1: Leaf extract $p^H$

One gram of fresh leaves were homogenized in 10ml of deionized water. The extract was filtered and the  $p^H$  of leaf extract was determined by digital  $p^H$  meter (Singh SK & Rao DN, 1983).

#### 3.3.2: Relative water content

Relative water content of leaf sample was determined following the method of the Singh (1997). Fresh weight of about 5gm was obtained by weighing the fresh leaves. The leaves were then immersed in water over night, blotted dry and then weighed to get the turgid weight. The leaves were then dried overnight in an oven at  $70^0$  and reweighed to obtain the dry weight. Leaf relative water content was determined and calculated with the formula.

$$RWC = \frac{FW - DW}{TW - DW} \times 100$$

Where

FW = Fresh weight

DW = Dry weight

TW = Turgid weigh

#### 3.3.3: Total ascorbic acid content

Ascorbic acid content was measured by titrimetric method described by Sadasivam (1987). Oxalic acid 4% was prepared. Dye solution was prepared by using 42 g sodium bicarbonate into a small volume of distilled water. Dissolve 52 mg 2, 6-dicholorophenol indophenol in it and make up to 200ml with distilled water. Stock standard solution was prepared



by dissolved 100 mg ascorbic acid in 100ml of 4% oxalic acid solution in a standard flask (1mg/ml). Working standard was prepared by diluting 10ml of stock solution with 100ml of 4% oxalic acid. The concentration of working standard is 100µg/ml. Then calculate the ascorbic acid content using formula.

Amount of ascorbic acid mg/100ml sample:  $0.5\text{mg}/V_1\text{ml} \times V_2\text{ml}/5\text{ml} \times 100\text{ml}/\text{weight of the sample} \times 100$

### **3.3.4: Estimation of total chlorophyll**

Total chlorophyll content was measured by using method described by Arnon (1949). One gram of finely cut fresh leaves were taken and grind with 20-40ml of 80% acetone. It was then centrifuged at 5000-10000 rpm for few minutes. The supernatant was transferred and the procedure was repeated till the residue become colorless. The absorbance of the solution was read at 645nm and 663nm for chlorophyll a, b and 480nm, 580nm for carotenoid using micro controller based visible spectrophotometer and total chlorophyll is calculated with the following formula :

$$\text{Total chlorophyll} = 20.2(A_{645}) + 8.02(A_{663})$$

$$\text{Chlorophyll a} = 12.7(A_{663}) - 2.69(A_{645})$$

$$\text{Chlorophyll b} = 22.9(A_{645}) - 4.68(A_{663})$$

$$\text{Carotenoid} = 7.6 \times 480 \text{ OD} - 1.49 \times 510$$

### **3.3.5: Air pollution tolerance index (APTI) determination**

The air pollution tolerance indices were determined by the following method by Singh and Rao (1983).

$$\text{APTI} = A (T+P) + R/10$$

Where,

A= Ascorbic acid content(mg/g)

T= Total chlorophyll (mg/g)

P= pH of leaf extract

R= Relative water content of leaf (%)

## CHAPTER 4: RESULTS AND DISCUSSION

### 4.1: pH

The pH observed was found to be slightly different for all the plant leaves studied at two selected locations. The pH of the *Polyalthia longifolia* was found to be 4.9 at location 1 and 5.1 at location 2. The pH of *Azadiracta indica* was found to be 5.4 at location 1 and 5.1 at location 2. The pH of *Muntingia calabura* was found to be 5.5 at location 1 and 5.3 at location 2. The pH of the *Terminalia catappa* was found to be 4.5 at location 1 and 5.4 at location 2. The pH of the plant *Nerium oleander* was found to be 5.3 at location 1 and 5.2 at location 2. Thus maximum acid pH was found in *Terminalia catappa* and lowest pH was found in *Muntingia calabura* (Fig.1).

The current results are in not agreement with previous result given by Krishna et al, 2014. A lower leaf extract pH can be observed in the plants exposed to acidic pollutants such as SO<sub>x</sub>, NO<sub>x</sub>, CO. The activity of ascorbic acid is also pH-dependent which is high at higher pH and low at lower pH. Therefore, high leaf extract pH makes plants more tolerant of air pollution (Karmakar et al, 2021; Singh et al, 1991).

### 4.2: Relative water content (RTC) %

The relative water content was found to be high in *Polyalthia longifolia* with 81.26 % of relative water content from location 1 and 72.31 % from location 2. *Nerium oleander* has shown the relative water content of 80.78 % from location 1 and 71.48 % from location 2. The relative water content in other plants from location 1 range between 36.71 to 67.33 % and 36.43 to 75.82 % from location 2 (Fig. 2).

Similar results have been found by Krishna et al, 2014. Where the relative water content in the plants has shown 20.25 to 78.90% in location 1 and 19.61 to 87.49% from location 2

High RWC helps plant species to survive in long dry seasons (Tyree et al, 1991). In contrast to the results of the present study, Kanwar et al. 2016, report high RWC in *Thuja* sp. (92.3%). The observed differences could be because of the differences in the sampling period, site, irradiance, temperature, humidity and soil salinity (Ksenzhek and Volkov, 1998). A decrease in RWC lowers stomatal conductance and hence CO<sub>2</sub> assimilation (Lawlor, 2002). Net CO<sub>2</sub> exchange, CO<sub>2</sub> assimilation and photosynthetic potential become zero at very small RWC (approx. 40%). Under stressed conditions, such as exposure to air pollution, transpiration rates of plants could increase. A higher RWC gives plants a better tolerance capacity against air pollution (Singh, 1991).

#### **4.3: Total chlorophyll content**

The total chlorophyll content level was found to higher in *Azadiracta indica* with 54.31 mg/ml, 30.12 mg/ml of chl a and 43.43 mg/ml of chl b from location 1. Likewise it was high in *Terminalia catappa* and *Nerium oleander* and found to be low in *Polyalthia longifolia* and *Muntingia calabura*.

The chlorophyll content level in location 2 was found to higher in *Muntingia calabura* with 71.08 mg/ml, 31.7 mg/ml of chl a and 39.40 mg/ml of chl b from location 2. *Terminalia catappa*, *Nerium oleander*, *Polyalthia longifolia* and *Muntingia calabura* has shown low chlorophyll content (fig. 3).

Thus the total chlorophyll content was found to higher in location 1 as compared to location 2. Similar results have been found by Krishna et al, 2012; 2013; 2014. Total chlorophyll is considered as an index of photosynthetic activity, growth and biomass productivity (Joshi and Swami, 2009; Pavlovic et al, 2014). Degradation of photosynthetic pigments has been widely used as an indicator of air pollution, and a decrease in chlorophyll content shows that plants are

more sensitive to air pollution (Woo and Je, 2006). Chlorophyll is an index of productivity of plant (Raza and Murthy, 1988).

Certain pollutants increase the total chlorophyll content (Allen et al, 1987), other decreases it. In the present study, it has been observed that plants from both location contain more chlorophyll. The relative water content in a plant body helps in maintaining its physiological balance under stress conditions of air pollution (Dedio, 1975). This is responsible for the higher level of relative water.

#### **4.4: Carotenoid content**

The carotenoid content was found to be higher in *Nerium oleander*, *Muntingia calabura* and *Azadiracta indica* were has it was low in *Terminalia catappa* and *Polyalthia longifolia* in the location 1. The range of carotenoid content in location 1 was 13.88 to 20.9 mg/g. The carotenoid content in location 2 was found high in *Azadiracta indica*, *Polyalthia longifolia* and *Terminalia catappa* were has it was found to be low in *Nerium oleander* and *Muntingia calabura*. The range of carotenoid content in location 2 was 14.88 to 20.67 mg/g ( fig. 4).

Thus the carotenoid content in location 1 and 2 was found to be in similar range. The results are similar to the work done by Krishna et al, 2012; 2013; 2014.

#### **4.5: Ascorbic acid content**

In location 1, the ascorbic acid content was high in *Azadiracta indica* and *Terminalia catappa*. The range of ascorbic acid content in location 1 was 0.1 to 0.6 mg/g ascorbic acid. The range of ascorbic acid in location 2 was between 0.20 to 1.4 mg/g ascorbic acid. *Azadiracta indica* and *Terminalia catappa* from location 2 has shown highest ascorbic content than the other plants (fig.5). Thus the ascorbic acid content was found to be high in location 2 as compared to location 1.

The current work is in agreement with Krishna et al, 2012; 2013; 2014. Ascorbic acid is an antioxidant that provides resistance to plants in a stressed condition. With the increase in pollution, ascorbic acid content also increases to combat the stressed condition (Bharti et al, 2018). It acts as a powerful reductant (Rudolph and Bukatsch, 1966), electron donor, scavenges free oxygen radicals, facilitates the reduction of sulphite to hydrogen sulphide and reduces the toxicity of SO<sub>2</sub>. Plants having high ascorbic acid possess resistance to SO<sub>2</sub> (Varshney and Varshney, 1984). So, *C. camphora*, *A. julibrissin*, *N. oleander* might have a better capacity to combat air pollution. Ascorbic acid helps in the defense mechanism and tolerating the ill effects of air pollutants Keller, 1977,

#### 4.6: Air pollution tolerance index (APTI) determination

The air pollution tolerance index of plants analysed in both the locations are shown in Fig. The air pollution tolerance index for the location 1(Basaveshwara circle) ranges from 3.69 to 7.27 is given here in the decreasing order: *Polyalthia longifolia* < *Nerium oleander*< *Azadiracta indica*< *Terminalia catappa*< *Muntingia calabura*.

Likewise, the air pollution tolerance index of plants studied at second location 2 (B. K. college) ranges from 4.03 to 8.41. The increase in index value is given as follows: *Muntingia calabura*> *Terminalia catappa*> *Nerium oleander*> *Polyalthia longifolia* >*Azadiracta indica*

From the above result is clear that *Polyalthia longifolia*, *Nerium oleander* and *Azadiracta indica* have the high APTI in location 1 and 2. The least APTI index is observed in *Muntingia calabura* and *Terminalia catappa* in both the location. Thus the changes observed at location 1 and 2 are due to the pollutants causing leaf injury stomatal damage, early senescence, decreased photo synthetic activity, disturbed membrane permeability and condensed growth, yield in sensitive plant species (Tiwari, 2006).



An overview of the entire result obtained from this study reveals that different plants respond differently to air pollution; hence the different indices it is observed that plants growing in apparently polluted environment have higher APTI than from less polluted environment. From the result obtained, it has been observed that among all the plants selected for the present study *Azadiracta indica* have the highest APTI value is found to be sensitive to air pollution. *Polyalthia longifolia*, *Nerium oleander* and *Terminalia catappa* are also found to be sensitive to air pollution (Bharti et al, 2018; Ogunkunle et al, 2015).

## CHAPTER 5: CONCLUSION

The present study reveals that the plants which are continuously exposed to pollutants leads to accumulation of pollution, integration of pollutants in to their own system, thereby altering the nature of leaf and makes them more sensitive. This sensitivity is measured through various biochemical changes and finally to air pollution tolerance index. In our study, all the plants were found to be sensitive species.

APTI index value of five selected plants is almost similar for both the location 1 and location 2. Thus the selected plants are indicating sensitivity towards air pollution.

## REFERENCES

1. **Kuddus M., Kumari R and Ramteke P.W. (2011).** Studies on air pollution tolerance of selected plants in Allahabad city, India. *Journal of Environmental Research and Management*, 2(3): 042-04
2. **Shrivastava, R.K., Saxena, N. and Gautam, G. (2013).** Air pollution due to road transportation in India: A review on assessment and reduction strategies. *Journal of Environmental Research and Development*, 8(1): 69-77
3. **Beg, M.U., Farooq, M., Bhargava, S. K., Kidwai, M.M. and Lal, M.M. (1990).** Performance of trees around a thermal power station. *Environment and Ecology*, 8(3): 791-797
4. **Chauhan, A. (2010).** Photosynthetic pigment changes in some selected trees induced by automobile exhaust in Dehradun, Uttarakhand. *New York Science Journal*, 3(2): 45-51
5. **Singh, S.K., Rao, D.N., Agrawal, M., Pandey, J. and Naryan, D. (1991).** Air pollution tolerance index of plants. *Journal of Environmental Management*, 32(1): 45-55
6. **Rao, C.S. (2007).** *Environmental Pollution Control Engineering*. New Age International
7. **Bhatia, S.C. (2006).** *Environmental Chemistry*. CBS Publishers and Distributors
8. **Sodhi, G.S. (2005).** *Fundamental concepts of environmental chemistry*. Alpha Science International Limited
9. **Horsfall, M. and Spiff, A.I. (1998).** *Principles of Environmental pollution with physical chemical and biological emphasis*. Port Harcourt, Metropolis Limited, 62-124

10. **Liu, Y.J. and Ding, H. (2008).** Variation in air pollution tolerance index of plants near a steel factory: Implication for landscape-plant species selection for industrial areas. *WSEAS Transactions on Environment and Development*, 4(1): 24-32
11. **Raza, S.H., Murthy, M.S.R. and Ahmed, A. (1988).** Air pollution tolerance index of certain plants of Nacharam Industrial Area, Hyderabad. *Indian Journal of Botany*, 11(1): 91-95
12. **Singh, S.K. and Rao, D.N. (1983).** Evaluation of plants for their tolerance to air pollution. In *Proceedings of symposium on air pollution control*. Indian Association for Air Pollution Control. New Delhi, 218-224
13. **Dwivedi, A.K. and Tripathi, B.D. (2007).** Pollution tolerance and distribution pattern of plants in surrounding area of coal-fired industries. *Journal of Environmental Biology*, 28(2): 257-263
14. **Shannigrahi, A.S., Fukushima, T. and Sharma, R.C. (2004).** Anticipated air pollution tolerance of some plant species considered for green belt development in and around an industrial/urban area in India: an overview. *International Journal of Environmental Studies*, 61(2): 125-137.
15. **Pathak, V., Tripathi, B.D. and Mishra, V.K. (2011).** Evaluation of anticipated performance index of some tree species for green belt development to mitigate traffic generated noise. *Urban Forestry and Urban Greening*, 10(1): 61-66.
16. **Agbaire, P.O. (2009).** Air pollution tolerance indices (APTI) of some plants around Erhoike-Kokori oil exploration site of Delta State, Nigeria. *International Journal of Physical Sciences*, 4(6): 366-368.

17. **Zeiger E., (2006).** The Effect of Air Pollution on Plants, Plant Physiology, Fourth Edition (On line), Editors Lincoln Taiz and Eduardo Zeiger, 2006.
18. **Bakiyaraj, R. and Ayyappan, D. (2014).** Air Pollution Tolerance Index of some terrestrial plants around an industrial area. International Journal of Modern Research and Reviews, 2(1): 1–7.
19. **Gharge, S. and Menon, G.S. (2012).** Air Pollution Tolerance Index (APTI) of certain herbs from the site around Am-bernath MIDC. Asian Journal of Experimental Biological Sciences, 3(3): 543–547.
20. **Keller, T. and Schwager, H. (1977).** Air pollution and ascorbic acid. European Journal of Forest Pathology, 7(6): 338–350.
21. **Singh, S.N. and Verma, A. (2007).** Phytoremediation of Air Pollutants: A Review. In: Environmental Bioremediation Technologies, Springer, Berlin Heidelberg, 293–314.
22. **Joshi, P.C. and Swami, A. (2007).** Physiological responses of some trees under roadside automobile pollution stress around city of Haridwar, India. Environmentalist, 27: 365-374.
23. **Tanaka, K., Otsubo, T. and Kondo, N. (1982).** Participation of Hydrogen Peroxide in the Inactivation of Calvin-cycle SH Enzymes in SO<sub>2</sub>-fumigated Spinach Leaves, Plant Cell Physiology, 28: 1009-1018.
24. **Chaudhary, C.S. and Rao, D.N. (1977).** Study of some factors in plants controlling their susceptibility to SO<sub>2</sub> pollution. Proceedings of Indian National Science Academy, 43: 236–241.
25. **Varshney, S.R.K and Varshney, C.K. (1985).** Response of peroxidase to low levels of SO<sub>2</sub>. Environmental and Experimental Botany, 25: 107–114.

26. **Agarwal, S.K. and Tiwari, S.L. (1997).** Susceptibility level of few plants on the basis of air pollution tolerance index. *Indian Forester*, 123: 319–322.
27. **Katiyar, V. and Dubey, P.S. (2000).** Growth behaviour of two cultivars of maize in response to SO<sub>2</sub> and NO<sub>2</sub>. *Journal of Environmental Biology*, 21(4): 317–323.
28. **Emberson, L. D., Ashmore, M. R., Murray, F., Kuylenstier-na, J. C. I., Percy, K. E., Izuta, T., and Agrawal, M. (2001).** Impacts of air pollutants on vegetation in developing countries. *Water, Air, and Soil Pollution*, 130(1-4): 107-118.
29. **Nouchi I. (2002).** Plants as bioindicators of air pollution. *Air Pollution and Plant Biotechnology*, 11: 41–60.
30. **Kour, B. and Raina, A.K. (2014).** Assessment of air pollution tolerance levels of some plant species of Jam-mu. *Environment Conservation Journal*, 15(1/2): 89-93.
31. **Gaikwad, U.S., Ranade, C.D. and Gadgil, J.M. (2006).** Plants as bio-indicators of automobile exhaust pollution- a Case study of Sangli City. *Journal of the Institution of Engineers (India), Part EN, Environmental Engineering Division*, 86: 26-28.
32. **Karthiyayini, R., Ponnammal, N.R. and Joseph, R. (2005).** Air pollution tolerance index of certain plants of Coim-batore-Ooty highways, near ITI area, Coimbatore, Tamilnadu. *Pollution Research*, 24(4): 801-80.
33. **Radhapriya, P., Gopalakrishnan, A.N., Malini, P. and Rama-chandran, A. (2012).** Assessment of air pollution tolerance levels of selected plants around cement industry, Coimbatore, India. *Journal of Environmental Biology*, 33(3): 635.-641.
34. **Thambavni, D.S. and Maheshwari J. (2012).** Evaluation of Anticipated Performance Index of certain tree species in Virudhnagar, India. *International Congress on Informat-*



ics, Environment, Energy and Applications-IEEA, IP-CSIT Vol. 38. IACSIT Press, Singapore.

35. **Bhattacharya, T., Kriplani, L. and Chakraborty, S. (2013).** Seasonal variation in air pollution tolerance index of various plant species of Baroda city. *Universal Journal of Environmental Research and Technology*, 3(2): 199-201.
36. **Chauhan, A. (2010).** Photosynthetic pigment changes in some selected trees induced by automobile exhaust in Dehradun. *Journal of New York Sciences* 3(2): 45-51.
37. **Joshi, N., Chauhan, A and Joshi, P. C (2009).** Impact of industrial air pollutants on some biochemical parameters and yield in wheat and mustard plants. *Environmentalists* 29: 398-404.
38. **Chauhan SV, Chaurasia B & Rana A (2004)** Impact of air pollution on floral morphology of *Cassia siamea* Lam. *Journal of Environmental Biology* 25(3): 291–297.
39. **Joshi PC & Swami A (2009)** Physiological response of some tree species under road side automobile pollution stress around city of Haridwar, India. *The Environmentalist* 27(3): 365–374.
40. **Liu YJ & Ding H (2008)** Variation in air pollution tolerance index of plants near a steel factory: implication for landscape – plant species selection of industrial areas. *Wseas Transaction on Environment and Development* 4: 24–32.
41. **Tiwari S, Agrawal M & Marshall FM (2006)** Evaluation of ambient air pollution impact on carrot plants at a sub urban site using open top chambers. *Environmental Monitoring and Assessment* 119: 15–30.
42. **Plants of the World Online (POWO): *Monoon longifolium* (Sonn.) B.Xue & R.M.K.Saunders (retrieved 30 August 2020).**

43. **Krishna v., marimuthu and lavanya k.( 2014).** Air pollution tolerance index of plants a comparative study. International journal of pharmacy and pharmaceutical science. 6(5):
44. **Krishnaveni M, Chandrasekar R, Amsavalli L, Madhiyan P, and Durairaj S (2013).** Air pollution tolerance Index of plants at Perumal Malai Hills, Salem, Tamil Nadu, India. Int. J. Pharm. Sci. Rew. Res; 20: 234-239.
45. **Krishnaveni M (2013).** Biochemical changes in plants indicating Air pollution International journal of pharmacy and pharmaceutical Science; 5: 585-586.
46. **Krishnaveni M, Madhaiyan P, Durairaj S, Chandrasekar R and. Amsavalli L (2013).** Pollution induced changes in plants located at chinnatirupathi, Salem, Tamil Nadu, India. International Journal of Pharmaceutical Sciences and Research; 4: 3192-3195.
47. **Krishnaveni M, Usha S, Kowsalya R (2012).** Evaluation of air pollution tolerance index of selected herbal tree and plant species (leaves) with in the Periyar University campus, Salem, Tamil nadu, India. Journal of Pharmacy Research; 5: 3219-3222.
48. **Krishnaveni M, Amsavalli L, Chandrasekar R, Durairaj S, and Madhiyan P (2013).** Biochemical changes in Medicinal plant leaves as a Biomarker of pollution. Research journal of pharmacy and Tech; 6:537-543.
49. **Krishnaveni M, Durairaj S, Madhiyan P, Amsavalli L, Chandrasekar R (2013),** Impact of Air Pollution in Plants near Thermal Power Plant, Mettur, Salem, Tamilnadu, India. Int. J. Pharm. Sci. Rev. Res; 20: 173-177.
50. **Tyree MT, Snyderman DA, Wilmot TR, Machado JL (1991).** Water relations and hydraulic architecture of a tropical tree (*Schefflera morototoni*): data, models, and a

comparison with 2 temperate species (*Acer Saccharum* and *Thuja occidentalis*). *Plant Physiol*;96:1105–13.

51. **Ksenzhek OS, Volkov AG. Plant energetics. 2nd ed. Amsterdam: Elsevier;( 1998).**
52. **Lawlor DW (2002).** Limitation to photosynthesis in water-stressed leaves: stomata vs. metabolism and the role of ATP. *Ann Bot*;89:871–85.
53. **Singh SK, Rao DN, Agrawal M, Pandey J, Narayan D (1991).** Air-pollution tolerance index of plants. *J Environ Manag* ;32:45–55.
54. **Joshi PC, Swami A (2009).** Air pollution induced changes in the photosynthetic pigments of selected plant species. *J Environ Biol*;30:295–8.
55. **Pavlovic D, Nikolic B, Durovic S, Waisi H, Anelkovic A, Marisavljevic D (2014).** Chlorophyll as a measure of plant health: agroecological aspects. *Pestic Phytomed*; 29:21–34.
56. **Woo SY, Je SM (2006).** Photosynthetic rates and antioxidant enzyme activity of *Platanus occidentalis* growing under two levels of air pollution along the streets of Seoul. *J Plant Biol*; 49:315–9.
57. **Kanwar K, Dhamala MK, Maskey-Byanju R (2016).** Air pollution tolerance index: an approach towards the effective green belt around Kathmandu metropolitan city, Nepal. *Nepal J Environ Sci*; 4:23–9.
58. **Bharti SK, Trivedi A, Kumar N (2018).** Air pollution tolerance index of plants growing near an industrial site. *Urban Clim*; 24:820–9.
59. **Keller T, Schwager H (1977).** Air pollution and ascorbic acid. *Eur J Forest Pathol*; 7:338–50.

60. **Rudolph E, Bukatsch F (1966).** The protochlorophyll (ide) transformation and its relation to the photooxidation of ascorbic acid in etiolated seedlings. *Planta*;69:124–34.
61. **Varshney SRK, Varshney CK.(1984)** Effects of SO<sub>2</sub> on ascorbic acid in crop plants. *Environ Pollut A*;35:285–90.
62. **Bates L, Waldren RP, Teare ID. (1973).** Rapid determination of free proline for water-stress studies. *Plant and Soil*, 39, 205-207.
63. **Bora, M. and Joshi, N. (2014).** A study on variation in bio-chemical aspects of different tree species with tolerance and performance index. *The Bioscan*, 9(1): 59-63.
64. **Bharti SK, Trivedi A, Kumar N.( 2018).** Air pollution tolerance index of plants growing near an industrial site. *Urban Clim*; 24:820–9.
65. **Ogunkunle CO, Suleiman LB, Oyedeji S, Awotoye OO, Fatoba PO. (2015).** Assessing the air pollution tolerance index and anticipated performance index of some tree species for biomonitoring environmental health. *Agroforest Syst*; 89:447–54.
66. **Karmakar D, Deb K, Padhy PK.( 2021).** Ecophysiological responses of tree species due to air pollution for biomonitoring of environmental health in urban area. *Urban Clim*; 35:100741.
67. **Singh SK, Rao DN, Agrawal M, Pandey J, Narayan D. (1991).** Air-pollution tolerance index of plants. *J Environ Manag.* 32:45–55.
68. **McCann, Charles (1959).** 100 Beautiful Trees of India: A Descriptive and Pictorial Handbook. D.B. Taraporevala Sons & Co. Private Ltd. p. 32.
69. *"Azadirachta A.Juss."* Plants of the World Online. Royal Botanic Gardens, Kew. Retrieved 2023-03-27.

70. **Smith Jr., C.E. (1965).** "Elaeocarpaceae. In: Flora of Panama, part VI". Annals of the Missouri Botanical Garden. 52 (4): 494–495.
71. "*Terminalia L.*" Plants of the World Online. Royal Botanic Gardens, Kew. Archived from the original on (29 January 2023). Retrieved (17 April 2021).
72. **Sunset Books (1995).** Sunset Western Garden Book. Sunset Publishing Corporation. pp. 606–607. ISBN 978-0-376-03850-0.
73. **Bhagwati U (2003).** Utilization of medicinal plants by the rural women of Kulu, Himachal Pradesh. Indian J Trad Know.; 2: 366– 70.
74. **Girish K. and Shankara B.S (2008).** Neem – A Green Treasure. Electronic Journal of Biology., 4(3), 102-111.
75. **Mahmood ND, Nasir N, Rofee MS, Tohid S, Ching SM, Teh LK (2014).** Muntingia calabura: A review of its traditional uses, chemical properties, and pharmacological observations. Pharm Biol.;52(12):1598–1623.
76. **Dukes (2008).** Phytochemical and Ethnobotanical Database. p. 11.
77. **Saabiya Farooqui, Tulika Tyagi (2018).** nerium oleander: it's application in basic and applied science: a review.. nternational journal of pharmacy and pharmaceutical sciences. 10 (3): 1-4.

**MORPHOPHYSIOLOGICAL DORMANCY IN *EMBELIA RIBES*  
*BURM F.*: A MEDICINALLY IMPORTANT LIANA**



A PROJECT REPORT SUBMITTED TO  
**RANI CHANNAMMA UNIVERSITY BELAGAVI**

FOR PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE OF

**MASTER OF SCIENCE**

IN

**BOTANY**

SUBMITTED BY

MISS. AKSHATA A. KULKARNI

MISS. GEETA P. MANNIKERI

MISS. PADMASHRI P. NALAVADE

MISS. RANI J. PATIL

MISS. SIFFA A. ALLAN

UNDER THE GUIDANCE OF

DR. VIDYA V. KAMBLE M.Sc., Ph.D.

DEPARTMENT OF POST GRADUATE STUDIES IN BOTANY  
KLE SOCIETY'S, BASAVAPRABHU KORE ART'S, SCIENCE AND COMMERCE  
COLLEGE, CHIKODI, BELAGAVI- 591 201

**2023**



**MORPHOPHYSIOLOGICAL DORMANCY IN *EMBELIA RIBES*  
*BURM F.*: A MEDICINALLY IMPORTANT LIANA**



A PROJECT REPORT SUBMITTED TO

**RANI CHANNAMMA UNIVERSITY BELAGAVI**

FOR PARTIAL FULFILLMENT OF THE AWARD OF THE DEGREE OF

**MASTER OF SCIENCE**

IN

**BOTANY**

SUBMITTED BY

**MISS. AKSHATA A. KULKARNI**

Reg. No: P15DM21S0002

**MISS. GEETA P. MANNIKERI**

Reg. No: P15DM21S0008

**MISS. PADMASHRI R. NALAVADE**

Reg. No: P15DM21S0011

**MISS. RANI J. PATIL**

Reg. No: P15DM21S0013

**MISS. SIFFA A. ALLAN**

Reg. No: P15DM21S0016

UNDER THE GUIDANCE OF

**DR. VIDYA V. KAMBLE** M.Sc., Ph.D.

**DEPARTMENT OF POST GRADUATE STUDIES IN BOTANY,  
KLE SOCIETY'S, BASAVAPRABHU KORE ART'S, SCIENCE AND COMMERCE  
COLLEGE, CHIKODI, BELAGAVI- 591 201**

**2023**

# RANI CHANNAMMA UNIVERSITY BELAGAVI



## CERTIFICATE

This is to certify that; this project entitled "**Morphophysiological Dormancy in *Embelia ribes* Burm f.: A Medicinally Important Liana.**" is being submitted here with for the partial fulfillment of award of the Degree of Master of Science in Botany, Rani Channamma University, Belagavi. The work reported in this report is based upon the results of the original work carried out by **Miss. Akshata A. Kulkarni, Miss. Geeta P. Mannikeri, Miss. Padmashri R. Nalavade, Miss. Rani J. Patil and Miss. Siffa A. Allan** under my supervision and guidance.

Place: Chikodi

Date: 22/11/23

*Dr. Vidya V. Kamble*  
20/11/2023  
Dr. Vidya V. Kamble  
Research Supervisor

  
Co-ordinator  
Post Graduate of Department Botany

**THE CO-ORDINATOR**  
**P. G. Department of Botany**  
**B. K. College, Chikodi.**

## DECLARATION

We hereby declare that this project work entitled “**Morphophysiological Dormancy in *Embelia ribes* Burm f.:A. Medicinally Important Liana**” completed and written by us has not previously formed. This report is based on the results carried out by us.

Place: Chikodi

Date: 22/11/23

**MISS. AKSHATA A. KULKARNI**

**MISS. GEETA P. MANNIKERI**

**MISS. PADMASHRI R. NALAVADE**

**MISS. RANI J. PATIL**

**MISS. SIFFA .A. ALLAN**

## ACKNOWLEDGMENTS

*We have taken efforts in doing this project. However it would not have been possible without the kind support and help. We would like to extend my sincere thanks to all of them. We thank, Shri. Udaysingh R. Rajput, Principal, Basavaprabhu Kore College, Chikodi and Shri R. R. Naik, Co-ordinator, P. G. Department of Botany for their encouragement and administrative support during the present work.*

*We are highly indebted to Dr. Vidya Kamble for their guidance and constant supervision as well as for providing necessary regarding the project and also for their support in completing the project. Her constant guidance willingness to share her vast knowledge made us understand this project and it's manifestation's in great depth's and helped us to complete the assigned task on time.*

*We take this opportunity to thank teaching faculty of our Department Dr. Sujata Shiragave Patil, Mr. Aditya Jain Lengade for their advice and cooperation throughout the study period. We would like to express my gratitude toward's my parent's and group member's for their kind cooperation and encouragement which help us in completion of this project on the topic of Morphophysiological dormancy in *Embelia ribes* Burm f.: a medicinally important liana. Our sincere thanks are also due to all our dear friends for their constant help and encouragement.*

*We owe our special thanks to non-teaching staff members of Botany Department Mr. Vinod and Mr. Anand whose co-operation during the present work was valuable. Finally, we are grateful to all our well-wishers.*

*Miss. Akshata Kulkarni*

*Miss. Geeta Mannikeri*

*Miss. Padmashri Nalavade*

*Miss. Rani Patil*

*Miss. Siffa Allan*

## Content

Sr. No.	Title	Page No.
<b>1.0</b>	<b>Introduction</b>	<b>1-10</b>
1.1	In general	
1.2	Seed germination	
1.2.1	Types of seed germination:	
1.3	Seed dormancy	
1.4	Plant growth hormone	
1.4.1	ABA	
1.4.2	Ethylene	
1.4.3	Gibberellins	
1.4.4	IAA	
1.5	Status of <i>Embelia ribes</i> Burm.F.	
1.6	Distribution and Taxonomy of <i>Embelia ribes</i> Burm.f.	
1.7	Taxonomy of <i>Embelia ribes</i> Burm.f.	
1.8	Statement of current research	
1.9	Research objectives	
<b>2.0</b>	<b>Review of literature</b>	<b>11-14</b>
2.1	In general	
2.2	Traditional uses of <i>Embelia ribes</i>	
2.3	Seed germination and vegetative propagation	
<b>3.0</b>	<b>Materials and methods</b>	<b>15-18</b>
3.1	Collection of Plant material	
3.2	Physical characteristics of mature seeds with seed coat and seeds without seed coat	
3.3	Embryo growth and germination	
3.4	Permeability	
3.5	Seed germination studies	
3.5.1	Germination test in the soil and sand	

3.5.2	Germination test in the coco peat	
3.5.3	Physical scarification	
3.5.4	Boiling water treatment	
3.5.5	Hot water treatment	
3.5.6	Effect of Conc. H <sub>2</sub> SO <sub>4</sub> on seed germination	
3.5.7	Effect of Conc. HCl on seed germination:	
3.6	Growth hormone treatment:	
3.6.1	Influence of GA <sub>3</sub> on germination of intact seeds:	
3.6.2	Influence of GA <sub>3</sub> on germination in the seeds without seed coat.	
<b>4.0</b>	<b>Results and discussion</b>	<b>19-23</b>
4.1	Physical characterization of mature seed of <i>Embelia ribes</i>	
4.2	Embryo growth and germination	
4.3	Physiological components (PD) of dormancy	
4.4	Seed germination studies	
4.4.1	Germination test in the coco peat, soil and sand	
4.4.2	Physical scarification	
4.4.3	Boiling water treatment	
4.4.4.	Hot water treatment	
4.4.5	Effect of Conc. H <sub>2</sub> SO <sub>4</sub> on seed germination	
4.4.6	Effect of Conc. HCl on seed germination	
4.5	Growth Hormone treatment	
4.5.1	In Influence of GA <sub>3</sub> on germination in the seeds without seed coat.	
4.5.2	Influence of GA <sub>3</sub> on germination in the seeds without seed coat.	
<b>5</b>	<b>Conclusions</b>	<b>24-25</b>
<b>6</b>	<b>Bibliography</b>	<b>26-34</b>



# CHAPTER 1: INTRODUCTION

## 1.1: In General

Seed germination is important to know the germination pattern of a plant, more particularly the medicinal ones that might need to bring under cultivation for the primary healthcare system. The significance of the seedling in plant population ecology has long been recognized. The germination response pattern of seeds is also regarded as a key characteristic in plant life history strategy (Angevine and Chabot, 1979; Mayer and Poljak off-Mayber, 1989). The variation in seed dormancy and the subsequent patterns of seedling emergence are controlled by environmental conditions. Important factors controlling the variation in seed dormancy within species include the environment of the mother plant during the time of seed maturation and environmental conditions after the seeds have been released (Liebst and Schnell, 2008). Certain environmental conditions may be required to break dormancy and other conditions are often required to permit germination after dormancy is broken (Bewley, 1997).

Seeds of many species require days, weeks, or months at low temperatures to break dormancy (Vleeshouwers *et al.*, 1995), whereas others require warm temperatures for after-ripening to germinate when permissive conditions arrive (Baskin and Baskin, 1972). Many attempts have been made to investigate seed germination and seedling emergence of different annual and perennial species including medicinal plants (Baskin *et al.*, 1993; Hassan and Fardous, 2003; Chauhan and Johnson, 2008; Liebst and Schnell, 2008; Liza *et al.*, 2010).

## 1.2: Seed germination

Seed germination is a very complex process as it involves many biochemical, physiological and morphological changes within a seed. For germination to be initiated, three conditions must be fulfilled First, the seed must be viable i.e the embryo should be alive and capable of germination. Second, the seed should be non-dormant i.e there should not be any dormancy or any chemical barrier for germination. Third, the environmental conditions like moisture, temperature, air (O<sub>2</sub>) and light must be available in appropriate amount. If all these conditions are fulfilled, the quiescent embryo in the seed will resume growth, thus initiating the process of germination. In the early stages of growth, the embryo draws nutrients from the stored food material in the cotyledons or the endosperm of Later, new shoot/leaves are developed, which produce their own photosynthetic system (Rupendra Kumar, 2019)

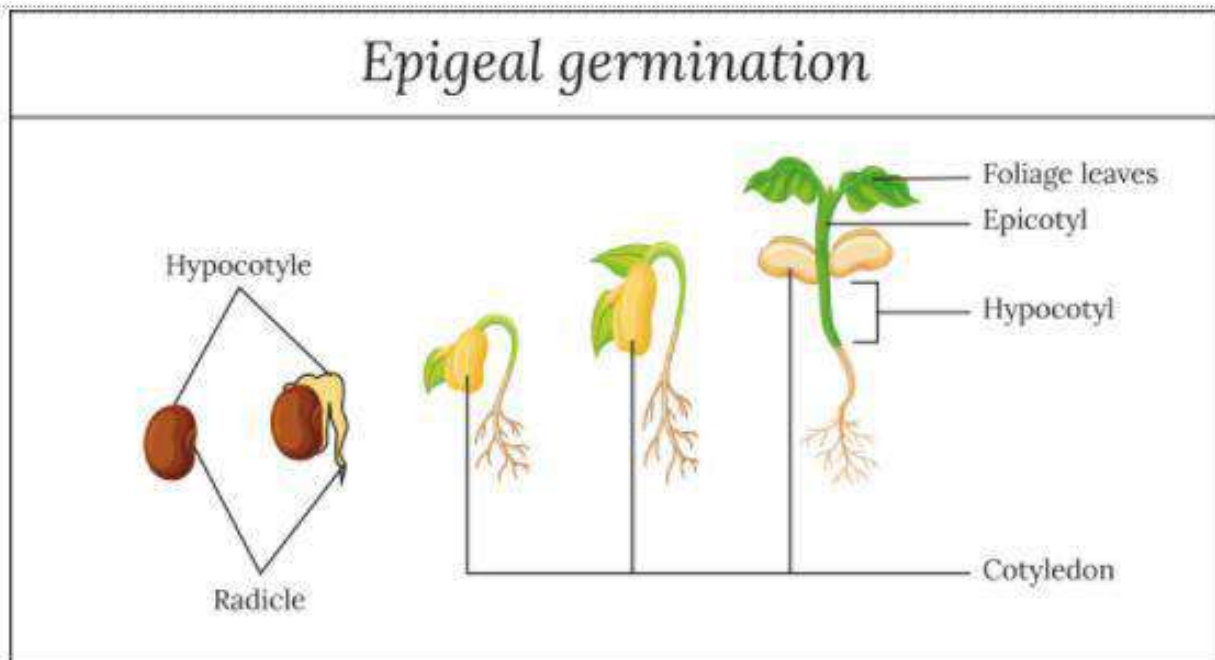
### 1.2.1: Types of seed germination:

The radicle, the growing point of root emerges from the base of the embryo axis and the plumule, the growing point of shoot is at the upper end of embryo axis, above the cotyledons. The section of seedling stem above the cotyledons is called as epicotyl and below the cotyledons is called as hypocotyl (Rupendra Kumar, 2019).

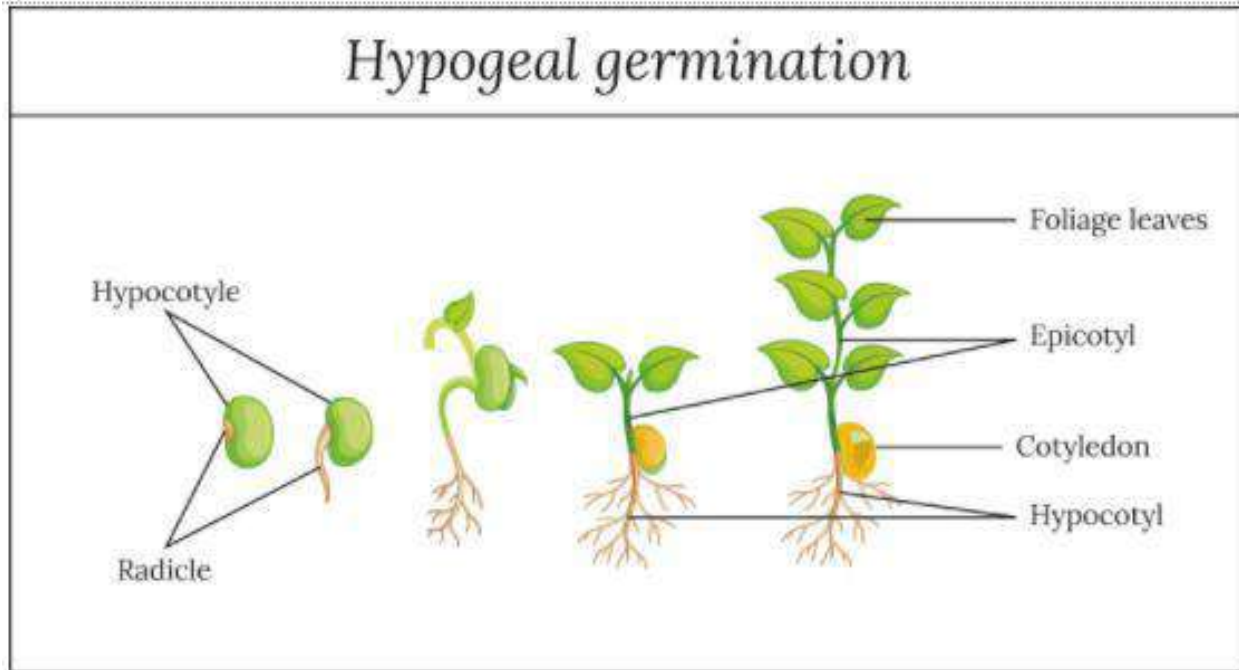
**Two types of germination are commonly found in cultivated plants.**

1. **Epigeal germination:** Seed germination in dicots in which the cotyledons come above the soil surface. In this type, the hypocotyl elongates and raises the cotyledons above the ground surface, it is called as epigeous or epigeal germination. This type of germination is very common in beans, gourds, castor, tamarind and onion etc (Figure 1).
2. **Hypogeal germination:** Seed germination in dicots in which the cotyledons remain below the soil surface. In this type, the epicotyl elongates and the hypocotyl does not raise the cotyledons above ground, which is called as hypogeous or hypogeal germination. This type of germination is common in mango, custard apple, pea, gram, lotus and maize etc (Figure 2).

3.



**Figure 1: Epigeal germination**



**Figure 2: Hypogeal germination**

Seed germination is a mechanism, in which morphological and physiological alterations result in activation of the embryo. Before germination, seed absorbs water, resulting in the expansion and elongation of seed embryo. When the radicle has grown out of the covering seed layers, the process of seed germination is completed (Hermann et al., 2007). Many researchers have evaluated the processes involved in seed germination, and how they are affected by plant hormones in a range of plant families, such as the Brassicaceae (Muller et al., 2006; Hermann et al., 2007).

Seeds contain protein storages, such as globulins and prolamins, whose amounts are increased during seed maturation, especially at the mid- and late-stages of seed maturation, when seeds absorb larger amounts of nitrogen. These proteins are located in the cell membrane or other parts of the seed. During the time of protein translocation into different parts of the seed, negligible amounts of protein are turned into other products. The activation of enzymes such as proteinase results in the mobilization of storage proteins (Wilson, 1986)

Storage proteins are also found in the seedling radicle and shoot (Tiedemann et al., 2000). The mobilization of storage proteins does not take place at the same time in different parts of the

seed. The other enzymes, which are activated during the mobilization of proteins, are carboxypeptidase and aminopeptidase.

Among the most important parameters controlling the process of seed dormancy are changes at molecular levels, including the protein and hormonal alterations, and the balance between ABA and gibberellins (Ali-Rachedi et al., 2004; Finch-Savage and Leubner-Metzger 2006; Finkelstein et al., 2008; Graeber et al., 2010). Parameters such as the related genes, chromatin related factors, and the processes, which are non-enzymatic, affect seed dormancy. The genes, which control dormancy, include the maturing genes, hormonal and epigenetic regulating genes, and the genes, which control release from dormancy (Graeber et al., 2012).

### **1.3: Seed dormancy**

Seed dormancy is a mechanism by which seeds can inhibit their germination in order to wait for more favorable conditions (secondary dormancy) (Finkelstein et al., 2008). However, primary dormancy is caused by the effects of abscisic acid during seed development. Such seeds may never germinate (Bewley, 1997). Usually freshly harvested seeds of plants like barley (*Hordeum vulgare* L.) are not able to germinate at temperatures higher than 20 °C (Corbineau and Come, 1996; Leymarie et al., 2007). In barley the process of dormancy is due to the fixation of oxygen by glumellae during the oxidation of phenolic products, resulting in the limitation of oxygen supplement to the embryo. The resulting hypoxia may also interfere with ABA activities in the seed (Benech-Arnold et al., 2006). Gibberellins are able to activate dormant seeds, although the hormone does not control seed dormancy (Bewley, 1997; Miransari and Smith, 2009). ABA can inhibit corn germination by affecting the cell cycle. This is the reason for the more rapid germination of seeds that are deficient in ABA. Inhibition of the cell cycle by ABA is related to activation of a residual G1 kinase, which becomes inactivated in the absence of ABA (Sanchez et al., 2005).

By affecting hormonal balance in the seed, environmental parameters including salinity, acidity, temperature and light, can influence seed germination (Ali-Rachedi et al., 2004; Alboresi et al., 2006). Nitrate (NO<sub>3</sub><sup>-</sup>) and gibberellins are able to enhance seed germination. NO<sub>3</sub><sup>-</sup> can act as a source of N and a seed germination enhancer. Similarly, gibberellins enhance seed germination by inhibiting ABA activity. It is caused by the activation of catabolizing enzymes and inhibition of the related biosynthesis pathways, which also decreases ABA amounts (Toyomasu et al., 1994; Atia et al., 2009). Enzymes including nitrite reductase, nitrate reductase,

and glutamine synthetase assimilate  $\text{NO}_3^-$  into amino acids and proteins. Salinity decreases seed germination by affecting the seed nitrogen (N) content and hence embryo growth. This indicates how N compounds can alleviate the stress of salinity on seed germination (Atia et al., 2009). N can also inhibit seed dormancy by decreasing the level of ABA in the seed (Ali-Rachedi et al., 2004; Finkelstein et al., 2008).

The unfavorable effects of salinity on seed germination include: (1) decreasing the amounts of seed enhancer products including  $\text{NO}_3^-$  and gibberellins, (2) enhancing ABA amounts, and (3) altering membrane permeability and water behavior in the seed (Khan and Ungar, 2002; Lee and Luan, 2012). ABA and gibberellins are necessary for dormancy initiation and seed germination, respectively (Groot and Karssen, 1992; Matilla and Matilla-Vazquez, 2008).

Although seed dormancy is under the influence of plant hormones, seed morphological and structural characteristics such as endosperm, pericarp and seed coat properties can also affect seed dormancy (Kucera et al., 2005). Both ethylene and gibberellins affect radicle growth, with gibberellins being the most important hormone. Although gibberellins are necessary for the production of mannanase, which is necessary for seed germination, ethylene is not (Wang et al., 2005a,b). However, in gibberellin deficient mutants, ethylene can act similar to gibberellins, because the seeds are able to germinate completely in such a situation (Karssen et al., 1989; Matilla and Matilla-Vazquez 2008).

#### **1.4: Plant growth hormone**

##### **1.4.1: ABA**

While ABA positively affects stomatal activity, seed dormancy and plant activities under stresses such as flooding (abiotic) and pathogen presence (biotic) (Moore, 1989; Davies and Jones, 1991; Weyers and Paterson 2001; Popko et al., 2010), it adversely affects the process of seed germination. For example, concentrations of 1–10 M can inhibit seed germination in plants like *Arabidopsis thaliana* (Kucera et al., 2005; Muller et al., 2006). However, other plant hormones including gibberellins, ethylene, cytokinins, and brassinosteroids, as well as their negative interaction with ABA, can positively regulate the process of seed germination (Kucera et al., 2005; Hermann et al., 2007). Under stress ABA can be quickly produced as a -glucosidase (Lee et al., 2006). Additionally, it has been indicated that phosphatase regulators can also act as ABA receptors (Ma et al., 2009).

The movement of ABA across the cellular membrane is under the influence of pH and cellular compartment. Hence, it is likely to predict the hormone concentration in different cellular compartments, according to its cellular pH and compartment. Different experiments have demonstrated that the receptors for ABA and IAA are located outside the plasma membrane (Weyers and Paterson, 2001), indicating that sometimes the apoplast may be the important compartment.

#### **1.4.2: Ethylene**

Compared with the other plant hormones, ethylene has the simplest biochemical structure. However, it can influence a wide range of plant activities (Arteca and Arteca, 2008). Similar to cytokinin, the perception of ethylene is by a kinase receptor, which is a two component protein. However, for ethylene the receptor is located in the membrane of endoplasmic reticulum (Kendrick and Chang, 2008; Santner et al., 2009). Although ethylene can affect different plant activities, including tissue growth and development, and seed germination, however it is not yet understood how ethylene influences seed germination.

#### **1.4.3: Gibberellins**

Gibberellins are diterpenoid, regulating plant growth. They are commonly used in modern agriculture and were first isolated from the metabolite products of the rice pathogenic fungus, *Gibberella fujikuroi*, in 1938 (Yamaguchi 2008; Santner et al., 2009). The biosynthesis of gibberellins is from geranyl diphosphate through a pathway including several enzymes. Gibberellins are adversely regulated by DELLA proteins, with a C-terminal GRAS domain in their structure, which are eventually degraded by the E3 ubiquitin ligase SCF (GID2/SLY1) (Itoh et al., 2003; Schwechheimer 2008).

#### **1.4.4: IAA**

Auxin is a plant hormone, which plays a key role in regulating the following functions: cell cycling, growth and development, formation of vascular tissues (Davies, 1995) and pollen (Ni et al., 2002), and development of other plant parts (He et al., 2000a). The growth and development of different plant parts, including the embryo, leaf and root is believed to be controlled by auxin transport (Liu et al., 1993; Xu and Ni, 1999; Rashotte et al., 2000; Benjamins and Scheres, 2008; Popko et al., 2010). Such kind of regulation is by affecting the transcriptional factors (Hayashi, 2012).



Auxin is bound to AFB receptors as the subunits of ligase complex of SCF ubiquitin. The specificity of auxin regulated genes is determined by the following: the related proteins, the regulation of their post transcripts, their related stability and the affinity between the related proteins. The protein ABP1 is the auxin binding protein, which can act as a receptor in the non-transcriptional signaling of auxin. ABP1 is also able to mediate the genes regulating the activity of AFB receptors. Hence, both ABP1 and AFB are able to regulate the physiological activities of auxin. Another important function defined for auxin is elongation of cell, which is done nontranscriptionally with the help of ABP1 activating the expression of AUX/IAAs genes. Such kind of receptors regulates the signaling responses of auxin during cell cycling. Gibberellins can also similarly affect cell cycling in plant (Hauvermale et al., 2012a,b).

The most important plant hormones for seed germination are ABA and gibberellines, which have inhibitory and stimulatory effects on seed germination, respectively. Br and ethylene also have enhancing effects on seed germination. Although IAA by itself may not be important for seed germination, its interactions and cross talk with gibberellins and ethylene may influence the processes of seed germination and establishment (Fu and Harberd, 2003; Chiwocha et al., 2005). Alteration of the auxin signaling pathway, by altering auxin response factor, increases seed sensitivity to ABA, as mRNA60 may affect the ABA responsive gene by repressing auxin response factor (Liu et al., 2007a, b).

Auxin can influence seed germination, when ABA is present (Brady et al., 2003). Accordingly, mRNA60 is able to regulate the cross-talk between IAA and ABA. However, the molecular mechanism regulating the interactions and cross-talk between IAA and ABA is not known yet. IAA is also able to affect seed germination by affecting the activity of enzymes for example, in germinating pea seeds, the activity of glyoxalase I was regulated by IAA, resulting in higher rates of cell growth and development (Thornalley, 1990; Hentrich et al., 2013).

### **1.5: Status of *Embelia ribes* Burm.F.**

*Embelia ribes* Burm. f. is commonly known as Vidanga or Vavding in Ayurveda is a Red listed species. The species is also reported to be vulnerable in the Western Ghats of Tamil Nadu and Karnataka states of India and at lower risk in Kerala state (Ravikumar and Ved, 2000). It is a dioecious woody liana belongs to family Primulaceae.

It is listed in the “Priority Species List” for cultivation by the National Medicinal Plant Board and the Maharashtra State Horticulture and Medicinal Plant Board (MSHMPB) (<http://nmpb.nic.in/index1.php?level=2&sublinkid=688&lid=246>) (Mhaskar *et al.*, 2011).

The plant is used as component in about 75 traditional ayurvedic drug formulations. Dried berries are the main source of an ayurvedic drug. Ripening and timely harvesting are also an important factor for the effectiveness of this herb. The plant contains embelin, quercitol and fatty ingredients, an alkaloid, christembine, tannins and minute quantities of a volatile oil (Krishna and Verma, 1941). Embelin occurs in golden yellow needles. It is insoluble in water and soluble in alcohol, chloroform and benzene. It is reported to be useful against tapeworm but not against roundworm or hookworm.

The plant is reported as analgesic, antipyretic (Atal *et al.*, 1984), antibacterial (Narang *et al.*, 1961), antifertility (Seshadri and Venkataraghavan, 1981) and anthelmintic (Chopra *et al.*, 1966) in different parts of India. In North East India, *Embelia ribes* is used for liver disorder and for removal of worms from subtropical region of Arunachal Pradesh. Sinha (1996) and Mahanti (1994) reported this plant from Manipur and Mizoram as anthelmintic, astringent, carminative and stimulant used in constipation as purgative, fever and skin diseases. Root bark is effective for cough and diarrhoea, and young leaves are effective for abdominal pain. Mahanti (1994) added the use of *Embelia ribes* for scorpion sting and snake bite.

Due to its various medicinal uses *Embelia ribes* is over exploited. To fulfill supply of raw material, huge amount of the plant parts (seed and roots) are required and this exerts pressure on the natural population of the species which are narrowly distributed in Western Ghats. Indiscriminate collection of mature and immature seeds has stopped natural regeneration of the plant through seeds, at the same time vegetative propagation of the plant is difficult which resulted into decrease in rate of natural regeneration of the plant and difficulties in raising plants and bring under cultivation. Considering the medicinal importance of *Embelia ribes*, its market demand and status in the Western Ghats, immediate steps need to be taken for its conservation and multiplication (through both conventional and tissue cultural tools). So, the government should take program on conservation of this vulnerable species and highlight more on research. Development of *in vitro* propagation may play an important role in conserving this species.

### 1.6: Distribution and Taxonomy of *Embelia ribes* Burm.f.

The genus *Embelia* previous belongs to family Myrsinaceae (order Ericales) which is one of the “primuloid” families (Ma and Saunders, 2003). But currently the genus is placed under family Primulaceae (APG III, 2009). It is mainly distributed in warmer regions of northern and southern hemisphere. Genus *Embelia*, represented by more than 100 species, is distributed in Tropical Asia, Africa and Australia and Pacific islands. *Embelia ribes* and *Embelia basaal* are known for their medicinal use since thousands of years in Southeast Asia. *Embelia ribes* is Indo Malayan specie. It is distributed in India, Sri Lanka, Singapore, Malaysia and South China. It is sparsely distributed in the evergreen to moist deciduous forests of Arunachal Pradesh, Andhra Pradesh, Assam, Maharashtra, Karnataka, Kerala and Tamil Nadu. Nowadays confined to sacred groves, restricted to a few remnant forest pockets and Medicinal Plant Conservation Areas established by Forest Department.

Within India, it is found up to an altitude of 1750 m in these regions. It is Status of the plant is Vulnerable-VU in Karnataka and Tamil Nadu, Near Threatened-NT in Arunachal Pradesh and Kerala and Data Deficient-DD in Assam, Meghalaya, Sikkim and Maharashtra. In Karnataka, *Embelia ribes* is distributed in evergreen forests. In northern parts of Western Ghats, *Embelia ribes* is distributed on edges of disturbed evergreen and semi evergreen forests (Mhaskar *et al.*, 2011).

### 1.7: Taxonomy of *Embelia ribes* Burm.f. (APG IV, Chase *et. al.* 2016)

Kingdom: Plantae

Clade: Angiospermae

Clade: Eudicots

Clade: Asterids

Order: Ericales Bercht. & J. Presl

Family: Primulaceae Batsch ex Borkh.

Genus: *Embelia* Burm.f.

Species: *E. ribes* Burm.f.

### 1.8: Statement of current research

Against this back ground of *Embelia ribes* which exhibit anticancer, antidiabetic and anthelmintic activities. Due to its high medicinal value the plant is over exploited. The plant has very poor vegetative regeneration. Seed germination is also poor due to abortive embryos.

Thus taking in to consideration all these point study will be conducted with reference to their seed germination and dormancy break. The present study will be help in conservation of the vulnerable medicinal plant *Embelia ribes*.

**1.9: Research objectives**

- 1) Collection of *Embelia ribes* seeds from the Western Ghats.
- 2) To conduct the seed germination studies in *Embelia ribes* by using various physical and Chemical methods
- 3) To determine the type of seed dormancy in *Embelia ribes*.

## CHAPTER 2: REVIEW OF THE LITERATURE

### 2.1: In general:

*Embelia ribes* Burm f. belongs to family Myrsinaceae (Hooker, 1882; Troup, 1921; Gamble, 1922) but recently this genus is included under the family Primulaceae (The Plant List, 2013). In India the family Myrsinaceae consist of 10 genera and 108 species (Haridasan and Rao, 1987) while genus *Embelia* represent 18 species in India and 60 species in the tropics (Hooker, 1882).

*Embelia ribes* is been represented in number of floras including regional and state (Hooker, (1882); Cooke, (1906); Gamble, (1922, 1935); Kanjilal *et al.*, (1939); Saldanha and Nicolson, (1976); Talbot, (1976); Patel, (1982); Mathew, (1983); Saldanha, (1984); Haridasan and Rao, (1987); Ramachandran and Nair, (1988); Vajravelu, (1990); Mohanan and Henry, (1994); Saxena and Brahman, (1995); Chauhan *et al.*, (1996); Mudgal *et al.*, (1997); Pullaiah and Moulali, (1997); Sivarajan and Mathew, (1997); Singh *et al.*, (2001); Yadav and Sardesai, (2002); Sharma *et al.*,(2005); Khanna *et al.*, (2005); Nayar *et al.*, (2006); Giri *et al.*, (2008)).

### 2.2: Traditional uses of *Embelia ribes*

*Embelia ribes* Burm. f., is been used from the ancient times as important ingredient in number of ayurvedic formulations (Warrier, 2001). It is found to be used in all the three ancient Indian ayurvedic texts such as, Sushurta Samhita, Ashtanga hridayam and Charaka Samhita along with Unani, Siddha, homeopathic system of medicine. Embelin is the principal chemical compound present in berries of *Embelia ribes* and it is been included in the Indian Pharmacopoeia as official drug in 1966. They describe dried berries of *Embelia ribes* as the botanical origin of drug embelin (Ved, 2006). *Embelia ribes* possess six different ayurvedic properties is shown in the Table 1 (Syed *et al.*, 2011., Anonymous 2005).

It is been traditionally used in 75 ayurvedic formulation, some of the formulations are listed in the Table 2 (Anonymous 2001). Over 5000 years *Embelia ribes* is been traditionally used as blood detoxifier, contraceptive, dental care, skin disease. It is used against constipation,

indigestion, vomiting, gastritis, bloating and weight loss. It is been found to be effective in the management of ascariasis (Anonymous., 1952).

**Table 1:-** Six different Ayurvedic properties shown by *Embelia ribes*

Sr no.	Properties of <i>Embelia ribes</i>	Description
1	Rasa (taste)	Katu (pungent in taste), kashaya (Astringent in taste)
2	Guna (qualities)	Laghu (airiness), Rusha (sere), Teekshna (stinging, strong)
3	Virya	Ushna (torrid potency)
4	Vipaka	katu (Undergoes nippy taste conversion after digestion)
5	Prabhava(special effect)	Krumighna (Alleviate worm infestation)
6	Tridosha	Due to torrid potency, it balances Kapha and Vata Doshas.

**Table 2:-** list of some commonly used Ayurvedic formulations with *Embelia ribes* as basic component.

Sr.no	Formulations	Uses
1	Adhmanahara	Alleviate bloating
2	Agnimandyahara	Alleviate indigestion, weak digestion
3	Artinut	Alleviate pain
4	Aruchihara	Alleviate anorexia
5	Krumihara	Applicable in worm infection
6	Krumikushta	Applicable in infective skin diseases
7	Pramehahara	Applicable in diabetes
8	Sara	Eases the movement of content in intestinal tract
9	Shirorogahara	Applicable in headache
10	Shirovirechana	Used as Nasal drops



11	Shleshma Krumihara	Applicable in worm infestation of Kapha origin
12	Shulahara	Applicable in abdominal colic pain
13	Udarahara	Applicable in abdominal distension, ascites
14	Vahnikara	Amend appetite
15	Vatahara	Balances vata
16	Vibhrantihara	Alleviate dizziness

### Seed germination and vegetative propagation

*Embelia ribes* is reported to show low germination due to abortive embryos. Efforts have been made to increase the germination percentage by applying various pretreatments on freshly harvested and stored seeds. The pretreatment used such as seeds soaked in cow urine, seeds soaked in cow milk and seeds soaked in dung slurry. Same pretreatment were applied to seeds and seeds were stored for three months in the earthen pots (Raghu et al., 2016).

Seed germination of *Embelia ribes* using various concentrations of GA<sub>3</sub> and vegetative propagation through stem cutting applying growth hormones such as IBA, NAA and combination of IBA and NAA was carried out. The seed treated with 750 ppm GA<sub>3</sub> has shown highest germination rate of 2.07% with seedling vigour, seedling height (44.57 cm), number of leaves (23.33) the vegetative propagation of stem cutting was obtained at 3000 mg/L IBA (Shruthi et al., 2016). Vegetative propagation of *Embelia ribes* is affected by the type of cutting, retention of leaves and time of the year in which cuttings is done along with the effect of growth hormones such as IBA and NAA is been studied.

Semihard cutting of *Embelia ribes* treated with IBA, 3000 mg/L concentration in the from January to April shown successful method for vegetative propagation (Saumya et al., 2014). Decoated seeds pretreated with 500 ppm GA<sub>3</sub> for 16h have shown 90 to 95% germination within 6 to 7 days. The seed with seed coat has shown 80 to 85% germination with 20 to 25 days (Dhavalala et al., 2013). The seed treated with 10% H<sub>2</sub>SO<sub>4</sub> for 10 min and 4000 ppm GA<sub>3</sub> has shown 40% germination. Vegetative propagation with help of 200 ppm IBA and commercial

quick root solution was achieved showing 10% stem cutting sprouting immediately further the rooting was obtained after 35 to 45 days of treatment (Patwardhan *et al.*, 2014).

## CHAPTER 3: MATERIAL AND METHODS

### 3.1: Collection of Plant material

The plant material of *Embelia ribes* was collected through extensive field tours during June-July 2022 Nagavelli, Karnataka, Western Ghats of India. The plant material was identified and authenticated by Prof. S. R. Yadav, Department of Botany, Shivaji University, Kolhapur.

### 3.2: Physical characteristics of mature seeds with seed coat and seeds without seed coat

To assess *Embelia ribes* for the possible presence of dormancy, physical characteristics of its mature berries with seed coat and berries without seed coat were studied. Immediately after harvesting four replicates of 100 seed with seed coat and of 100 seeds without seed coat were weighed. Also, three replicates of 20 seed with seed coat and 20 seeds without seed coat were measured, and average dimensions were determined. The length and width of entire seed, as well as those that had been cut transversally or longitudinally, were measured using a dissecting microscope equipped with a micrometer (Baskin et al, 1993).

### 3.3: Embryo growth and germination

As the physical characteristics of *Embelia ribes* seeds suggested the presence of dormancy, we conducted preliminary germination assays to evaluate directly the presence of dormancy and gain insights into the overall class of dormancy present. The embryo length:seed length (E:S) ratio was determined for 50 freshly matured seeds collected in July and cut longitudinally. Fresh mature seeds were placed in four sowing trays (25 seeds per tray) on a 1:1 soil:peat substrate, covered with a 4 mm layer of vermiculite and incubated at 25 °C (corresponding to the average diurnal temperature in *Embelia ribes* natural habitat) on a greenhouse sowing table. Intact and longitudinally cut mature seeds were photographed after 90 days, and the E:S ratio was determined from 20 mature seeds that were beginning to break open (Baskin et al, 1993).

### 3.4: Permeability

To elucidate the basis of dormancy in *Embelia ribes* seeds, we tested the water permeability of the mature seeds. The seed with seed coat and seeds without seed coat (pericarp /sclerified mesocarp) from three replicates of 20 seeds were weighed before and after soaking for 24 h in distilled water and means were compared using the excel. Seeds were imbibed in 1 %

(w/v) aqueous methylene blue dye and dissected to determine the path of water entry, as described by Orozco-Segovia et al. (2007).

### **3.5: Seed germination studies**

Germination studies was carried out by using various methods with 20 seed per replicate along with control

#### **3.5.1: Germination test in the soil and sand**

Randomly selected mature seeds were surface sterilized with 0.1 % HgCl<sub>2</sub> for 5 minutes followed by 4 to 5 washes of distilled water. Then the seeds were sown in the plastic pots containing garden soil and sand. The pots were arranged in the double shade net. Moist culture conditions were maintained by watering as per the need. Observations were recorded daily till the last germination occurs. Emergence of cotyledons above the soil was considered as germinated seed.

#### **3.5.2: Germination test in the coco peat**

Randomly selected mature seeds were surface sterilized with 0.1 % HgCl<sub>2</sub> for 5 minutes followed by 4 to 5 washes of distilled water. Then the seeds were sown in the plastic pots containing autoclaved coco peat. The pots were arranged in the double shade net. Moist culture conditions were maintained by watering as per the need. Observations were recorded daily till the last germination occurs. Emergence of cotyledons above the soil was considered as germinated seed. Experiment was carried in three replicates.

#### **3.5.3: Physical scarification**

Seeds were surface sterilized by using 0.1 % HgCl<sub>2</sub> for 5 minutes followed by 3 distilled water wash. The seeds were blotted dry with tissue paper. The seeds were placed in zero grade sandpaper and slight force was applied manually for scarification. Seeds were placed in the petriplate lined with moist germination paper and observed for germination. Intact seed were used for the control experiment. Experiment was carried in three replicates

#### **3.5.4: Boiling water treatment**

For induction of seed germination using boiling water, the surfaced sterilized seeds were immersed in the 100 ml glass beaker containing boiling water for 1, 2, 3, 4, 5 and 6 minutes. Seeds were placed in the petriplate lined with moist germination paper and observed for germination. Intact seeds were used for the control experiment.

### **3.5.5: Hot water treatment**

For induction of seed germination using hot water, the surfaced sterilized seeds were immersed in the 100 ml glass beaker containing hot water. The beaker with distilled water was kept in a water bath for 40<sup>0</sup>C, 50<sup>0</sup>C, 60<sup>0</sup>C, 70<sup>0</sup>C, 80<sup>0</sup>C, and 90<sup>0</sup>C for 5 minutes. Seeds were placed in the petriplates lined with moist germination paper and observed for germination. Intact seeds were used for the control experiment.

### **3.5.6: Effect of Conc. H<sub>2</sub>SO<sub>4</sub> on seed germination**

Surfaced sterilized seeds were immersed in 40 ml of conc. H<sub>2</sub>SO<sub>4</sub> for 5, 10, 15, 20, 25 and 30 minutes. The seeds immersed in the 40 ml of acid were stirred manually in the beaker for 2-3 times. After each treatment the seed were washed with distilled water for 4 to 5 times. Seeds were kept in the petriplates with single layer of germination paper. Intact seed were used for the control experiment.

### **3.5.7: Effect of Conc. HCl on seed germination:**

Surfaced sterilized seeds were immersed in 40 ml of Conc. HCl for 5, 10, 15, 20, 25 and 30 min. The seeds immersed in the 40 ml of acid were stirred manually in the beaker for 2-3 times. After each treatment the seed were sterilized with distilled water for 4 to 5 times. Then they were kept in the petriplates with single layer of germination paper. Intact seed were used for the control experiment.

## **3.6: Growth hormone treatment:**

### **3.6.1: Influence of GA<sub>3</sub> on germination of intact seeds:**

Randomly selected mature seeds were subjected to different treatment with presoaking in GA<sub>3</sub> at different concentration such as 150 ppm, 250 ppm, 500 ppm, 750 ppm and 1000 ppm for the time interval of 48 hrs. Seeds were placed in the petriplates lined with moist germination paper and observed for germination. Seeds soaked in distilled water for same time were considered as control.

### **3.6.2: Influence of GA<sub>3</sub> on germination in the seeds without seed coat.**

Randomly selected mature seeds were surface sterilized with 70 % alcohol for 30sec followed by three distilled water wash for 3 to 4 min. Then the seed coat was removed manually with help of forceps. 0.1 % HgCl<sub>2</sub> treatment was given for 5 minutes followed by 4 to 5 washes of distilled water. Then the seed were subjected to GA<sub>3</sub> treatment at the different concentrations such as 150 ppm, 250 ppm, 500 ppm, 750 ppm and 1000 ppm for the time interval of 48 hrs.

Seeds were placed in the petriplate lined with moist germination paper and observed for germination. The seeds soaked in the distilled water for same time were considered as control.

## CHAPTER 4: RESULTS AND DISCUSSION

### 4.1: Physical characterization of mature seed of *Embelia ribes*

To assess *Embelia ribes* for the possible presence of dormancy, we first studied the physical characteristics of its mature seed. Immediately after harvesting four replicates of 100 fresh and dry seeds were weighed. Also, three replicates of 20 fresh and 20 dry seeds were measured, and average dimensions were determined. The length and width of entire fresh seed, as well as those that had been cut transversally or longitudinally, were measured using a dissecting microscope equipped with a micrometer. The average length of fresh berries is  $3.35 \pm 0.01$  mm and average width is  $3.03 \pm 0.01$  mm was observed. The average length of dry berries was  $3.00 \pm 0.01$  mm and average width of  $2.99 \pm 0.01$  mm was observed. The water content observed berries of *Embelia ribes* was  $3.32 \pm 0.02$  (Table 3).

### 4.2: Physiological components (PD) of dormancy

To elucidate the mechanistic basis of the PD component in *E. ribes* dormancy, we began by testing the water permeability of the mature berries. When soaked in water for 24 h, the mass of both the seed with seed coat and seed without seed coat increased (Table 4), indicating that the seed was water permeable. We therefore attempted to evaluate whether the PD component in *E. ribes* was due to mechanical resistance of the pericarp–mesocarp envelope, surrounding the seed. To do this, we compared the time course of germination in seed with seed coat and seed without seed coat. The dry seeds with seed coat were soaked in water for 24 h there was  $0.81 \pm 0.25$  g mass increased was observed. Also for the seed without seed coat has shown the mass increase of  $1.27 \pm 0.45$  g for 20 replicates (Table 4)

### 4.3: Embryo growth and germination

Preliminary study on embryo growth and germination indicated that *E. ribes* seeds have a level of simple MPD. There was swelling of the seed was observed after a minimum of approx. 90 days incubation at 25 °C. At this stage, the embryo was small and rudimentary, as in the freshly matured seed. The enlargement of the seed must have been due to endosperm swelling, rather than to embryo growth. Following this, the embryo formed two well-developed cotyledons, and radicle protrusion occurred after a further 90 day. After radicle emergence, the cotyledons continued to grow inside the seed, digesting the endosperm reserves and emerged on average after the emergence of the radicle. The number days required between radical protrusion



and cotyledon emergence is 30 days. After 750 ppm of GA<sub>3</sub> treatment the number of days required between radical protrusion and cotyledon emergence is 15 days (Table 5).

The minimum incubation period of greater than 90 days are required for the radicle emergence clearly indicate the presence of seed dormancy in *E. ribes*. The absence of embryo development for at least the first 90 days of incubation indicated the presence of a physiological component to that dormancy, while the incompletely developed (heart-stage) embryo, following the breakage of physiological dormancy, revealed the additional presence of morphological dormancy. We therefore concluded *E. ribes* must have a form of MPD. MPD is divided into the two principal sub-classes of ‘simple MPD’, in which the embryo requires warm (15°C) temperatures to grow and ‘complex MPD’ in which embryo requires cold (0–10°C) temperatures to grow. Our preliminary observations clearly indicated the former scenario, and we therefore concluded the presence of a form of simple MPD in *E. ribes*.

#### **4.4: Seed germination studies**

##### **4.4.1: Germination test in the coco peat, soil and sand**

Seed germination percentage was calculated for physical and chemical methods. Seeds of *Embelia ribes* have shown 40 % germination in sand and soil treatment between 90 to 140 days. The germination percentage in coco peat was 42 % and the germination started from 90 days and continued upto 140 days (Figure 3).

##### **4.4.2: Physical scarification**

Physical scarification by using sand paper has shown 44 % of seed germination. The germination started from 35 days and continued up to 60 days from the treatment (Figure 3).

##### **4.4.3: Boiling water treatment**

In boiling water treatment seeds has shown 42 % of seed germination for 6 minutes between 30 to 35 days. Seed germination with 38 % for 5 min between 30 to 35 days and 34 % for 4 min between 35 to 50 days was observed (Figure 4).

##### **4.4.4: Hot water treatment**

For hot water treatment seeds have shown 40 % of seed germination at 90 °C for 5 minutes, the germination started from 30 days of treatment and continued up to 35 days. At 80 and 70 °C treatment for 5 minutes the seed showed 36% and 32% of seed germination respectively. The germination started from 30 days of treatment at 80 °C and continued up to 35

days. While at 70 °C treatment germination started from 35 days and continued up to 50 days (Figure 4).

#### **4.4.5: Effect of Conc. H<sub>2</sub>SO<sub>4</sub> on seed germination**

For Conc. H<sub>2</sub>SO<sub>4</sub> treatment seeds have shown 18 % of seed germination for 30 minute treatment, the seed germination started from 30 days of treatment and continued up to 35 days. For 25 and 20 minutes of Conc. H<sub>2</sub>SO<sub>4</sub> treatment seeds have shown 26 % and 38 % of seed germination and germination started from 30 day continued up to 35 days. For 15 minutes of H<sub>2</sub>SO<sub>4</sub> treatment seed have shown 46 % of seed germination. The germination started from 30 day and continued up to 35 days of treatment. For 10 minute and 5 minutes of H<sub>2</sub>SO<sub>4</sub> treatment seed have shown 42 % and 36 % of germination. The germination for 10 minutes of H<sub>2</sub>SO<sub>4</sub> treatment started from 30 days and continued up to 35 days, similarly for 5 minutes of H<sub>2</sub>SO<sub>4</sub> treatment germination initiated from 35 day and continued up to 50 days (Figure 5).

#### **4.4.6: Effect of Conc. HCl on seed germination**

For Conc. HCl treatment seeds have shown 25 % of seed germination for 30 minutes, the seed germination started from 30 days of treatment and continued up to 35 days. For 25 and 20 minutes of Conc. HCl treatment seed has shown 28 % and 36 % of seed germination, germination started from 30 day and continued up to 35 days. For 15 minutes of HCl treatment seeds have shown 44% of seed germination. The germination started from 30 day and continued up to 35 days of treatment. For 10 minute and 5 minutes of conc. HCl treatment seeds have shown 32% and 23% of germination. The germination for 10 minutes of conc. HCl treatment started from 30 days and continued up to 35 days, similarly for 5 minutes of conc. HCl treatment germination initiated from 35 day and continued up to 50 days (Figure 6).

### **4.5: Growth Hormone treatment**

#### **4.5.1: Influence of GA<sub>3</sub> on germination of intact seeds**

GA<sub>3</sub> treatment was given to seeds with and without seed coat at different concentration. Seed has shown 36% of seed germination with seed coat at 150 ppm for 48 h of treatment, germination started from 80 day of treatment and continued up to 95 days. 38% and 44% of seed germination was observed at 250 ppm and 500 ppm for the same time period of treatment as that of 150 ppm. Germination for 250 ppm started from 65<sup>th</sup> day of treatment and continued up to 80 days. For 500 ppm germination have been observed at 40<sup>th</sup> day of treatment and continued up to 60 days. At 750 ppm seeds have shown 40 % of seed germination for

soaking in GA<sub>3</sub> for 48 hours. For 750ppm germination started from 40<sup>th</sup> days of treatment and continued up to 65 days. 36% of seed germination was observed for 1000 ppm. For 1000 ppm germination started from 40 days of treatment continued up to 70 days (Figure 7).

#### **4.5.2: Influence of GA<sub>3</sub> on germination in the seeds without seed coat.**

In case of GA<sub>3</sub> treatment for the seeds without coat, 36 % of seed germination was observed at 150 ppm for 48 hours of treatment. 38 % and 48 % of seed germination was observed at 250 ppm and 500 ppm. For 750 ppm 42% of seed germination was observed for soaking in GA<sub>3</sub> for 48 hours. 40% of seed germination was observed for 1000 ppm. Germination started from 5<sup>th</sup> day of treatment and continued up to 15 days at the different concentration. 48 % of highest seed germination was observed for GA<sub>3</sub> treatment without seed coat at 500 ppm (Figure 7). It was observed that seed without seed coat treated with GA<sub>3</sub> has shown lowest survival rate of 5 %.

Most of the seed without seed coat treated with GA<sub>3</sub> has not shown further growth and development. It was observed that the radical was detached from the seed soon after germination. Healthy growth of seed was observed in the seed with seed coat treated with GA<sub>3</sub> and the duration required for germination was also reduced. Seed germination is necessary to understand the germination pattern of plants especially medicinally important which might need to bring under commercial cultivation for the health care system. Mechanical scarification has lead to increase in seed germination along seedling growth is reported in *Abelmoschus moschatus* and *Cassia angustifolia* (Okunlola *et al.*, 2011). GA<sub>3</sub> is reported to be prominent growth regulator widely used in cultivated and wild plants. Highest percent germination is observed in the *Teucrium polium* when treated with 500 – 2500 ppm GA<sub>3</sub> concentration (Nadjafi *et al.*, 2006). Effect of hot water treatment in breaking seed dormancy is studied in *Afzelia africana* (Amusa, 2011). Acid scarification is found to effective in breaking seed dormancy by leading to water permeability (Nikolaeva, 1969). Sulphuric acid is reported to soften hard seed coat (Hopkins, 1923). Pre sowing treatment of 10 % H<sub>2</sub>SO<sub>4</sub> for 10 min + GA<sub>3</sub> (4000 ppm) was the best treatment for *Embelia ribes* and by this method, 40 percent seed germination can be achieved successfully (Scharpf and Parmeter, 1962). The percent seed germination was inversely proportional to their storage period, as storage reduces moisture contents and in turn viability of seeds (Anonymous. 1953). GA<sub>3</sub> is reported to promote germination *Embelia ribes* in a short period after collection of seeds (Geetha *et al.*, 2016).

The period of time (approx. 90 days) required to break the physiological component of Morphophysiological dormancy (MPD) in *Embelia ribes* is closely comparable with that in numerous species displaying non-deep simple MPD, rather than the alternative deep simple MPD (Baskin and Baskin, 2014), suggesting the presence of the former dormancy type. To confirm this hypothesis, we used a discriminatory test using exogenous GA3. The percentages of germination after 145 day and the rapidity of germination of non-scarified DWFP were significantly increased by incubation in GA3 solutions of 150 or 1000 ppm, though higher concentrations of 700 or 1000 ppm GA3 were inhibitory to germination. These data, taken together with our observations that seeds only require incubation at temperatures of  $\geq 15$  °C for dormancy break and germination, confirmed the presence of non-deep PD in seeds of *Embelia ribes* and thus the presence of non-deep simple MPD.

## CHAPTER 5: CONCLUSION

Present study describes the seed germination studies in *Embelia ribes* Burm f. from Western Ghats of India. It provides a significant protocol of seed germination and determines the type of seed dormancy in *Embelia ribes*.

*Embelia ribes* Burm f. belongs to family Primulaceae is found in semi-evergreen to evergreen forests of India at altitudes above 400 to 1,200 m. It is reported to be vulnerable in Western Ghats of India due to its indiscriminate use. *Embelia ribes* have been recognized for the presence of a major bioactive and marker compound called embelin (2, 5-dihydroxy-3-undecyl-1,4-benzoquinone). From pharmaceutical point of view *Embelia ribes* contains embelin, fatty ingredients, quercitol, an alkaloid christembine, tannins and volatile oils. Because of its great requirement in Ayurvedic preparations and pharmaceutical industry there is a tremendous pressure on natural populations from the Western Ghats of India. In addition, premature harvesting for trading, habitat degradation, dioecious nature of plant and no response for vegetative propagation has made its population highly fragmented and scattered.

Berries of *Embelia ribes* were collected from Western Ghats of India. Seed germination studies were carried out by using conventional methods. Seed without seed coat treated with 500 ppm GA<sub>3</sub> for 48 h has shown 48 % response and seed with seed coat treated with 500 ppm GA<sub>3</sub> for 48 h has shown 44 % response. However the seed without seed coat have shown poor growth and development compared to seed with seed coat treated with 500 ppm GA<sub>3</sub> for 48 h.

The period of time (approx. 90 days) required to break the physiological component of Morphophysiological dormancy (MPD) in *Embelia ribes* is closely comparable with that in

numerous species displaying non-deep simple MPD, rather than the alternative deep simple MPD, suggesting the presence of the former dormancy type. To confirm this hypothesis, we used a discriminatory test using exogenous GA<sub>3</sub>. The percentages of germination after 145 day and the rapidity of germination of non-scarified seed were significantly increased by incubation in GA<sub>3</sub> solutions of 150 or 1000 ppm, though higher concentrations of 700 or 1000 ppm GA<sub>3</sub> were inhibitory to germination. These data, taken together with our observations that seeds only require incubation at temperatures of  $\geq 15$  °C for dormancy break and germination, confirmed the presence of non-deep physiological dormancy in seeds of *Embelia ribes* and thus the presence of non-deep simple Morphophysiological dormancy.

## REFERENCES

- 1) **Hermann K., Meinhard J., Dobrev P., Linkies A., Pesek B., Heß B., Machackova I., Fischer U and Leubner-Metzger G. ( 2007).** 1-Aminocyclopropane-1-carboxylic acid and abscisic acid during the germination of sugar beet (*Beta vulgaris* L.) - A comparative study of fruits and seeds. *Journal of Experimental Botany*. 58: 3047–3060
- 2) **Muller K., Tintelnot S and Leubner-Metzger G. (2006).** Endosperm limited Brassicaceae seed germination: abscisic acid inhibits embryo-induced endosperm weakening of *Lepidium sativum* (cress) and endosperm rupture of cress and *Arabidopsis thaliana*. *Plant Cell Physiology*. 47: 864–877
- 3) **Wilson, K.A., (1986).** Role of proteolytic enzymes in the mobilization of protein reserves in germinating dicot seeds. In: Dalling, M.J. (Ed.), *Plant Proteolytic Enzymes*, Vol. II. CRC Press Inc., Boca Raton, Florida, pp. 20–47.
- 4) **Tiedemann, J., Neubohn, B., Muntz, K., (2000).** Different functions of vicilin and legumin are reflected in the histopattern of globulin mobilization during germination of vetch (*Vicia sativa* L.). *Planta* 211, 1–12.
- 5) **Finch-Savage, W., Leubner-Metzger, G., (2006).** Seed dormancy and the control of germination. *New Phytologist*. 171, 501–523.
- 6) **Finkelstein, R., Reeves, W., Ariizumi, T., Steber, C., 2008.** Molecular aspects of seed dormancy. *Annual Review Of Plant Biology*. 59, 387–415
- 7) **Graeber, K., Linkies, A., Muller, K., Wunchova, A., Rott, A., Leubner-Metzger, G., 2010.** Cross-species approaches to seed dormancy and germination: conservation and biodiversity of ABA-regulated mechanisms and the Brassicaceae DOG1 genes. *Plant Molecular Biology*. 73, 67–87.



- 8) **Graeber, K., Nakabayashi, K., Miatton, E., Leubner-Metzger, G., Soppe, W., (2012).** Molecular mechanisms of seed dormancy. *Plant Cell Environment*. 35, 1769–1786.
- 9) **Bewley, J.D., (1997).** Seed germination and dormancy. *Plant Cell* 9, 1055–1066.6
- 10) **Corbineau, ., Come, D., (1996).** Barley seed dormancy. *Bios Boissons Conditionnement*. 261, 113–119
- 11) **Leymarie, J., Bruneaux, E., Gibot-Leclerc, S., Corbineau, F., (2007).** Identification of transcripts potentially involved in barley seed germination and dormancy using cDNA-AFLP. *J Experimental Botany*. 58, 425–437.
- 12) **Benech-Arnold, R.L., Gualano, N., Leymarie, J., Come, D., Corbineau, F., (2006).** Hypoxia interferes with ABA metabolism and increases ABA sensitivity in embryos of dormant barley grains. *Journal Experimental Botany*. 57, 1423–1430.
- 13) **Miransari, M., Smith, D.L., (2009).** Rhizobial lipo-Chito oligosaccharides and gibberellins enhance barley (*Hoedum vulgare* L.) seed germination. *Biotechnology*. 8,270–275.
- 14) **Sanchez, M., Gurusinghe, S., Bradford, K.J., Vazquez-Ramos, J., (2005).** Differential response of PCNA and Cdk-A proteins and associated kinase activities to benzyladenine and abscisic acid during maize seed germination. *Journal Experimental Botany*. 56,515–523
- 15) **Alboresi, A., Gestin, C., Leydecker, M.T., Bedu, M., Meyer, C., Truong, H.N., (2006).** Nitrate a signal relieving seed dormancy in *Arabidopsis*. *Plant Cell Environment*. 28,500–512.

- 16) **Toyomasu, T., Yamane, H., Murofushi, N., Inoue, Y., (1994).** Effects of exogenously applied gibberellin and red light on the endogenous levels of abscisic acid in photoblastic lettuce seeds. *Plant Cell Physiology*. 35, 127–129.
- 17) **Atia, A., Debez, A., Barhoumi, Z., Smaoui, A., Abdelly, C., (2009).** ABA GA<sub>3</sub>, and nitrate may control seed germination of *Crithmum maritimum* (Apiaceae) under saline condition. *Comptes Rendus Biology*. 332, 704–710.
- 18) **Ali-Rachedi, S., Bouinot, D., Wagner, M.H., Bonnet, M., Sotta, B., Grappin, P., Jullien, M., (2004).** Changes in endogenous abscisic acid levels during dormancy release and maintenance of mature seeds: studies with the Cape Verde Islands ecotype the dormant model of *Arabidopsis thaliana*. *Planta*. 219, 479–488.
- 19) **Finkelstein, R., Reeves, W., Ariizumi, T., Steber, C., (2008).** Molecular aspects of seed dormancy. *Annual Review of Plant Biology*. 59, 387–415.
- 20) **Khan, M.A., Ungar, I.A., (2002).** Role of dormancy relieving compounds and salinity on the germination of *Zygophyllum simplex* L. *Seed Science Technology*. 30, 16–20.
- 21) **Lee, S.C., Luan, S., (2012).** ABA signal transduction at the crossroad of biotic and abiotic stress responses. *Plant, Cell and Environment* 35, 53–60.
- 22) **Groot, S.P.C., Karssen, C.M., (1992).** Dormancy and germination of abscisic acid deficient tomato seeds: studies with the sitiens mutant. *Plant Physiology*. 99, 952–958
- 23) **Matilla, A.J., Matilla-Vazquez, M.A., (2008).** Involvement of ethylene in seed physiology. *Plant Science*. 175, 87–97.
- 24) **Kucera, B., Cohn, M.A., Leubner-Metzger, G., (2005).** Plant hormone interactions during seed dormancy release and germination. *Seed Science Research*. 15, 281–307.

- 25) **Wang, A.X., Wang, X.F., Ren, Y.F., Gong, X.M., Bewley, J.D., (2005)** a. Endo  $\beta$ -mannanase and  $\beta$ -mannosidase activities in rice grains during and following germination, and the influence of gibberellin and abscisic acid. *Seed Science Research*. 15,219–227.
- 26) **Wang, X., Li, X., Meisenhelder, J., Hunter, T., Yoshida, S., Asami, T., Chory, J., (2005)** b. Autoregulation and homodimerization are involved in the activation of the plant steroid receptor BRI1. *Developmental Cell* 8, 855–865.
- 27) **Karssen, C.M., Zaorski, S., Kepczynski, J., Groot, S.P.C., (1989)**. Key role for endogenous gibberellins in the control of seed germination. *Annals of Botany*. 63, 71–80.
- 28) **Moore, T.C., (1989)**. *Biochemistry and Physiology of Plant Hormones*, 2nd edn. Springer-Verlag, New York U.S.A.
- 29) **Davies, W.J., Jones, H.G., (1991)**. *Abscisic acid: physiology, biochemistry*. BIOS. Scientific Publishers Ltd., Cambridge, UK.
- 30) **Weyers, J.D.B., Paterson, N.W., (2001)**. Plant hormones and the control of physiological processes. *New Phytologist*. 152, 375–407.
- 31) **Popko, J., Hänsch, R., Mendel, R., Polle, A., Teichmann, T., (2010)**. The role of abscisic acid and auxin in the response of poplar to abiotic stress. *Plant Biology*. 12, 242–258.
- 32) **Kucera, B., Cohn, M.A., Leubner-Metzger, G., (2005)**. Plant hormone interactions during seed dormancy release and germination. *Seed Science Research*. 15, 281–307.
- 33) **Muller, K., Tintelnot, S., Leubner-Metzger, G., (2006)**. Endosperm limited Brassicaceae seed germination: abscisic acid inhibits embryo-induced endosperm weakening of *Lepidium sativum* (cress) and endosperm rupture of cress and *Arabidopsis thaliana*. *Plant And Cell Physiology*. 47, 864–877.

- 34) **Hermann, K., Meinhard, J., Dobrev, P., Linkies, A., Pesek, B., Heß, B., Machackova, I., Fischer, U., Leubner-Metzger, G., (2007).** 1-Aminocyclopropane-1-carboxylic acid and abscisic acid during the germination of sugar beet (*Beta vulgaris* L.) - A comparative study of fruits and seeds. *Journal of Experimental Botany*. 58, 3047–3060.
- 35) **Lee, K.H., Kim, H.-Y., Piao, H.L., Choi, S.M., Jiang, F., Hartung, W., Hwang, I., Kwak, J.M., Lee, I.-J., Hwang, I., (2006).** Activation of glucosidase via stress-induced poly-merization rapidly increases active pools of abscisic acid. *Cell*. 126, 1109–1120.
- 36) **Ma, Y., Szostkiewicz, I., Korte, A., Moes, D., Yang, Y., Christmann, A., Grill, E., (2009).** Regulators of PP2C phosphatase activity function as abscisic acid sensors. *Science* 324, 1064–1068.
- 37) **Weyers, J.D.B., Paterson, N.W., (2001).** Plant hormones and the control of physiological processes. *New Phytologist*. 152, 375–407.
- 38) **Arteca, R., Arteca, J., (2008).** Effects of brassino steroid, auxin, and cytokinin on ethylene production in *Arabidopsis thaliana* plants. *Journal of Experimental Botany*. 59, 3019–3026.
- 39) **Kendrick, M.D., Chang, C., (2008).** Ethylene signaling: new levels of complexity and regulation. *Current Opinion in Plant Biology*. 11, 479–485.
- 40) **Santner, A., Calderon-Villalobos, L., Estelle, M., (2009).** Plant hormones are versatile chemical regulators of plant growth. *Nature Chemical Biology*. 5, 301–307.
- 41) **Yamaguchi, S., (2008).** Gibberellin metabolism and its regulation. *Annual Review of Plant Biology*. 59, 225–251.
- 42) **Itoh, H., Matsuoka, M., Steber, C.M., (2003).** A role for the ubiquitin-26S proteasome pathway in gibberellin signaling. *Trend Plant Science*. 8, 492–497.

- 43) **Schwechheimer, C., (2008).** Understanding gibberellic acid signaling—are we there yet? *Current Opinion Plant Biology*. 11, 9–15.
- 44) **Hassan, M.A. and Fardous, Z. (2003).** Seed germination, pollination and phenology of *Gloriosa superba* L. (Liliaceae). *Bangladesh Journal of Plant Taxonomists*. **10**(1): 95-97.
- 45) **Chauhan, B.S. and Johnson, D.E. (2008).** Influence of environmental factors on seed germination and seedling emergence of *Eclipta* (*Eclipta prostrata*) in a tropical environment. *Weed Science*. **56**: 383-388.
- 46) **Liebst, B. and Schneller, J.S. (2008).** Seed dormancy and germination behavior in two *Euphrasia* species (Orobanchaceae) occurring in the Swiss Alps. *Botanical Journal of the Linnean Society*. **156**: 649-656.
- 47) **Liza, S.A., Rahman, M.O., Uddin, M.Z., Hassan, M.A. and Begum, M. (2010).** Reproductive biology of three medicinal plants. *Bangladesh Journal of Plant Taxonomists*. **17**(1): 69-78.
- 48) **Angevine, R. and Chabot, B.F. (1979).** Seed germination syndromes in higher plants. *In: Solbrig, O.T., Jain, S. Johnson, G.B. and Raven, P.H. (eds), Topics in Plant Population Biology*, Columbia University Press, New York, pp. 188-206.
- 49) **Mayer, A.M. and Poljakoff-Mayber, A. (1989).** The germination of seeds. Pergamon Press, New York, NY. Bewley, J.D. 1997. Seed germination and dormancy. *Plant Cell* **9**: 1055-1066.
- 50) **Vleeshouwers, L.M., Bouwmeester, H.J. and Karszen, C.M. (1995).** Redefining seed dormancy: an attempt to integrate physiology and ecology. *Journal of Ecology*. **83**:1031-1037.+?.,M NBVC

- 51) **Baskin, J.M. and Baskin, C.C. (1972).** Ecological life cycle and physiological ecology of seed germination of *Arabidopsis thaliana*. Canadian Journal of Botany **50**: 353-360.
- 52) **Baskin, C.C., Chesson, P.L. and Baskin, J.M. (1993).** Annual seed dormancy cycles in two desert winter annuals. Journal of Ecology. **81**: 551-556.
- 53) Dr. Rupendra Kumar Jhade, JNKVV, College of Horticulture, Chhindwara (M.P.)  
B.Sc.(Hons) Horticulture- 1 st Year, II Semester 2019-20 Course: Plant Propagation and Nursery Management Lecture No. 11 Topic: Types and Stages of Seed Germination
- 54) **Rabier J, Laffont-Schwob I, Notonier R, Fogliani B, Bourai`ma-Madje`bi S. (2008).** Anatomical element localization by EDXS in *Grevillea exul var. exul* under nickel stress. Environmental Pollution 156: 1156–1163.
- 55) **Okunlola A. I., Adebayo R. A. and Orimogunje A. D. (2011).** Journal of Horticulture and Forestry. 3(1):1-6.
- 56) **Nadjafi F., Bannayan M., Tabriz L. and Rastgoo M. (2006).** Seed germination and dormancy breaking techniques for *Ferula gummosa* and *Teucrium polium*. Journal of Arid Environments. 64(3):542-547.
- 57) **Amusa T. O. (2011).** Effects of three pre-treatment techniques on dormancy and germination of seeds of *Afzelia Africana*. Journal of Horticulture and Forestry. 3(4):96-103
- 58) **Nikolaeva M. G. (1969).** Physiology of deep dormancy in seeds. IPST Press, Jerusalem, 220.
- 59) **Scharpf R. F. and Parmeter J. R. (1962).** The collection, storage and germination of seeds of a dwarf mistletoe. Journal of Forestry. 60: 551-552.
- 60) **Anonymous. (1953).** New methods for the determination of forest tree seed germinability. Journal of Forestry. 51: 34-35.

- 61) **Geetha S., Haridasan K. and Pandala R. C. (2016).** Comparison between traditional and conventional methods of seed storage and pretreatment in *Embelia ribes* - A threatened medicinal plant. *Journal of Traditional and Folk Practices*. 2, 3, 4(1):135 – 146
- 62) **Ravi K. K. and Ved D. K. (2000).** Illustrated field guide: 100 Red Listed Medicinal plants for Conservation Concern in Southern India. Foundation for Revitalization of Local Health Traditions, Bangalore, India. p. 467.
- 63) **Atal C. K., Siddiqui M. A., Zutshi U., Amla V., Johri R. K., Rao P. G. and Kour S. (1984),** Non-narcotic orally effective, centrally acting analgesic from an Ayurvedic drug. *Journal of Ethnopharmacology*. 11(3):309-17.
- 64) **Mhaskar M., Joshi S., Chavan B., Joglekar A., Barve N. and Patwardhan A. (2011).** Status of *Embelia ribes* Burm f. (Vidanga), an important medicinal species of commerce from northern Western Ghats of India. *Current Science*. 100:547-552.
- 65) **Krishna S. and Verma K. S. (1941).** *Embelia ribes*. *Indian Forest Bulletin*: N. S. No. 102.
- 66) **Narang G. D., Garg L. C. and Mehta R. C. (1961).** Preliminary studies on antibacterial activity of *E. ribes* (Myrsinaceae). *Journal of Veterinary and Animal Husbandary Research*. 5:73-79.
- 67) **Seshadri C. and Venkataraghavan S. (1981).** Effect of aqueous and alcoholic extract of *E. ribes* on liver plasma and reproductive organs in male rats, a preliminary study. *Indian Journal of Pharmacology*. 13:88.
- 68) **Sinha S. C. (1996).** Medicinal Plants of Manipur, Mass and Sinha, Manipur Cultural Integration Conference, Imphal p.69.
- 69) **Mahanti N. (1994).** Tribal ethnobotany of Mizoram. *Tribal studies of India series T 171*. Inter India Publication, New Delhi p.64.
- 70) **Ma O. S. W. and Saunders R. M. K. (2003).** Comparative floral ontogeny of *Maesa* (Maesaceae), *Aegiceras* (Myrsinaceae) and *Embelia* (Myrsinaceae): taxonomic and phylogenetic implications. *Plant Systematics and Evolution*. 243:39-58.
- 71) **Angiosperm Phylogeny Group. (2009).** An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG III". *Botanical Journal of the Linnean Society*. 161:105–121.



- 72) **Chase M. (2016).** An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG IV. *Botanical Journal of the Linnean Society*. 181:1-20.

**Table 3: Characteristics of *Embelia ribes* fresh and dry berries.**

<b>Berries of <i>Embelia ribes</i></b>	<b>Average weight (g ± s.d.)</b>	<b>Average length (mm ± s.d.)</b>	<b>Average width (mm ± s.d.)</b>	<b>Water content (%± s.d.)</b>
<b>For 100 fresh berries without</b>	<b>7.98 ± 0.03</b>	<b>3.35 ± 0.01</b>	<b>3.03 ± 0.01</b>	<b>3.32 ± 0.02</b>
<b>For 100 dry berries</b>	<b>4.66 ± 0.01</b>	<b>3.00 ± 0.01</b>	<b>2.99 ± 0.01</b>	<b>-</b>

**Table 4: Permeability of *Embelia ribes* seed with seed coat (SWSC) and Seed without seed coat estimated by mass increase after 24 h, compared with controls, i.e. before imbibition**

<b>Parts (mean of three replicates of 20 seeds)</b>	<b>Mass of control (mg ± sd)</b>	<b>Mass after 24h</b>	<b>Mass increase</b>
Seed with seed coat	0.95 ± 0.03	1.76 ± 0.29	0.81 ± 0.25
Seed without seed coat	0.32 ± 0.05	1.59 ± 0.30	1.27 ± 0.45

**Table 5: Time required for radicle and cotyledon emergence form *Embelia ribes* seeds and the effects on this process of GA<sub>3</sub>**

<b>Treatment (24h) incubation</b>	<b>Mean no. of days required for radical emergence</b>	<b>Sub- treatment on 5mm long rootlets</b>	<b>Mean. No of days between radical protrusion and cotyledon emergence</b>
Water (n= 20)	90 days (n=20)	Untreated control (n=20)	30 (n=20)
750 ppm GA <sub>3</sub> (n= 20)	65 days (n= 20)	GA <sub>3</sub>	15 (n=20)

- n= number of replicates.