



# Saurashtra University

Re – Accredited Grade 'B' by NAAC  
(CGPA 2.93)

Ramanuj, Nandkumjar K., 2012, “*Measuring the total performance of Reliance Communications - through balanced scorecard*”, thesis PhD, Saurashtra University

<http://etheses.saurashtrauniversity.edu/id/eprint/760>

Copyright and moral rights for this thesis are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the Author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the Author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

Saurashtra University Theses Service  
<http://etheses.saurashtrauniversity.edu>  
repository@sauuni.ernet.in

“MEASURING THE TOTAL PERFORMANCE OF  
RELIANCE COMMUNICATIONS –THROUGH  
BALANCED SCORECARD”

:: SUBMITTED TO::

SAURASHTRA UNIVERSITY

FOR THE AWARD OF THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
UNDER THE FACULTY OF MANAGEMENT

BY

NANDKUMAR K. RAMANUJ

(Registration No.: 3830 Dated: 28<sup>th</sup> February 2008)

UNDER THE SUPERVISION OF

Dr. HITESH J. SHUKLA

PROFESSOR

DEPARTMENT OF BUSINESS MANAGEMENT  
SAURASHTRA UNIVERSITY, RAJKOT – 360 005

INDIA

May - 2012

## **Structure of The Thesis**

Certificate by The Guide	iii
Declaration by Research Scholar	iv
Acknowledgement	v
Executive Summary	vi
List of Abbreviations	xi
Contents	xiii
List of Tables	xiv
Details of Thesis	1-254
Annexure: Questionnaire	i-vi

## **Certificate by The Guide**

This is to certify that Mr. Nandkumar K. Ramanuj has carried out the research study as presented in this thesis under my supervision and the presentation is his contribution. It is a standard piece of work, which embraces a fresh approach towards analysis and interpretation of facts, which provides the candidate's capacity for critical examination and sound judgment over the problem studies by him.

He has devoted himself to the conduct of this research study under my guidance and supervision as per the stipulated norms of Saurashtra University, and this work has not been submitted for the award of any degree to any other university.

Date:

Place: Rajkot

DR. HITESH J. SHUKLA

Professor,

Department of Business Management,

MBA Program,

Saurashtra University,

Rajkot – 360 005

## **Declaration by Research Scholar**

I, the undersigned Mr. Nandkumar K. Ramanuj, a research student of Doctor of Philosophy, Department of Business Management, Saurashtra University, Rajkot here by declare that the research work embodied in this thesis is the outcome of my endeavor and it was supervised by Dr. Hitesh J. Shukla, Professor, Department of Business Management, Saurashtra University, Rajkot.

I further declare that this thesis not in any form has been submitted to any other institution of higher learning for the award of any degree or diploma.

Date:

Nandkumar K. Ramanuj

Place: Rajkot

## **Acknowledgement**

First of all, I acknowledge the grace of God, to make me always charged whenever my strength goes down.

How can I express my sincere and informal thanks to my guide, really there is no word or there are no words that to say heartily “Thanks” to my guide Dr. Hitesh J Shukla, Professor, Department of Business Management, Saurashtra University, Rajkot. I have really no meaning of subject without his continuous, valuable and strong conceptual base guidance. No doubt it was my dream to reach to this level but there was only hope, he is the only person who has shown me real path and ladder to reach to the level of this kind and generated learning desire in me. His ability to motivate me and make me understand about such difficult and current topic has triggered my desire of undertaking research. I am really thankful for his guidance.

I would like to express my deep sense and guidance to Prof. Pratapsinh L.Chauhan, Professor, Department of Business Management, Saurashtra University, Rajkot. Prof. D C Gohil, Head, Department of Commerce and Business Administration, Saurashtra University, Rajkot and Dr. Sanjay J. Bhayani, Professor, Department of Business Management, Saurashtra University.

I am indeed thankful to all members of Reliance Communications. I have received due support from Mr.Ruchir Vyas (General Manager) and Mr. Kaushik Thakker (Sr. Manager) from RCOM. I thank my all colleagues and team members of Reliance Communications, with whom I have worked. I thank to Dr. Haresh Tank, for his support in analysis.

I am also thankful to my parents, wife, son, sisters and brothers without their kind support this cannot be possible.

Nandkumar K. Ramanuj

## **Executive Summary**

In today's competitive environment, markets are becoming more international, dynamic and customer-driven. Customers are demanding more variety, and better quality and service, including both reliability and faster delivery. To achieve this, companies require innovative methods of performance measurement.

Performance measurement is a mean of assessing progress against stated goals and objectives in a way that is unbiased and quantifiable. It is a process of developing indicators that report on the accomplishment and progress of the organization. It includes both the setting of targets for designed performance and review of performance against these targets. There are four purposes of performance measurement as follow: (1) to gauge success in achieving goals.(2) to provide recommendations for organizational change.(3) to give feedback to management.(4) to assess internal inputs and outcomes.

The performance measurement systems have been mainly on the design of different types of such systems where measurement frameworks have been advocated to have specific key characteristics in helping organizations identify appropriate measurement sets in assessing their performance. Before 1990, most organizations used only financial measures or indicators for the performance measurement. But financial data typically reflect an organization's past performance. Therefore, they may not accurately represent the current state of the organization or what is likely to happen to

the organization in the future. Traditional financial measures do not cover intangible assets, but the management of intangible assets such as skills and knowledge of employees, customer relationship, and innovative process became the major sources of competitive advantage.

Consequently, there have been various attempts to solve this problem by developing new performance measurement techniques, such as Strategic Measurement and Reporting Technique – SMART (Lynch and Cross, 1991), the Balanced Scorecard (Kaplan and Norton, 1992) and the European and Foundation for Quality Management’s (EFQM) Excellence Model (Lewis, 1999).

The Balanced scorecard retains the traditional financial measures and complements them with measures that are drivers of future performance. The objectives and measures of the scorecard are derived from an organizations vision and strategy and these view organizational performance from four perspectives: financial, customer, internal business process and learning and growth. These four perspectives provide the framework for the Balanced Scorecard.

The first chapter gives an overview of performance measurement system and Balanced Scorecard. It discusses objectives of performance measurement system, a review of major reference model in performance measurement system and why Balanced Scorecard as a total performance management system. Finally the chapter describes about Balanced Scorecard, evolution of the concept, definitions, approaches and criticism of



the Balanced Scorecard. The chapter also contains Balanced Scorecard application in the industry and BSC is used by Fortune 500 companies.

The second chapter is about the telecom industry and Reliance Communications. It discusses global telecom industry, current scenario of global telecom industry and Indian telecom industry. History of Indian telecom industry from first operational land lines in year 1851 to launched 3G service in year 2011. There is growth story of Indian telecom industry, subscriber growth during the past decade (2000-2010) and details of major telecom players in India. This chapter also contains about Reliance Communications from starting phase to current position of the company.

The third chapter is about research plan and procedure. It includes the research problem, review of literature and objectives of the study. The broader objective of the study is to measure total performance of Reliance Communications through Balanced Scorecard, which is sub divided into; (1) To Measure Customer Perspective of RCOM, (2) To Measure Learning and Growth Perspective of RCOM, (3) To Measure Internal Business Process Perspective of RCOM and (4) To Measure Financial Perspective of RCOM. Researcher has used primary and secondary data. This data is collected from various sources especially from published annual reports of the sample company and structured questionnaire. The period for measurement of financial performance is from FY 2006-07 to 2010-11 and other related data are collected through structured questionnaire filled up by customers and employees of Reliance Communications respectively at Mumbai and working at head quarter (Mumbai). The collected data are then classified

and used statistical tools like F-test, T-test and Chi-square technique was used.

The fourth chapter analyses customer perspective measurement of RCOM. Based on structure questionnaire, collect the data from 317 RCOM customers at Mumbai city for measuring customer satisfaction score. Hypotheses are also tested using various techniques.

The fifth chapter analyses learning and growth perspective and internal business process perspective measurement of RCOM. Based on structure questionnaire, collect the data from 100 employees of RCOM working at head quarter Mumbai for measuring job satisfaction score and organizational perception score. Hypotheses are also tested using various techniques. Hypotheses are also tested using various techniques.

The sixth chapter is about the measuring financial performance RCOM. The researcher has considered key financial performance indicator for measure financial performance. Key indicators are Return on Asset, Return on Equity, Return on Investment, Earnings per Share and Market value of the firm.

The seventh chapter is overall summary, findings and conclusion. Finally researcher provides Balanced Scorecard of Reliance Communications. The chapter also contains study of customer perspective, study of learning and growth perspective, study of internal business process and study of financial

perspective. Finally the chapter describes overall conclusion of the study. As an outcome of the study the researcher provides Balanced Scorecard of RCOM as below:

<b>RELIANCE COMMUNICATIONS LIMITED</b>		
<b>FINANCIAL PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
By 2015, be amongst the top 3 most valued Indian companies	ROA	189.81%
	ROE	6.16%
	ROI	5.68%
	EPS	9.24
	Market Value	Rs. 56762.81 cr
<b>CUSTOMER PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
Customer experience	Customer Satisfaction Score	76%
<b>LEARNING AND GROWTH PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
Employees centercity	Job Satisfaction Score	76%
	Organizational Perception Score	75%
<b>INTERNAL BUSINESS PROCESS PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
Customer experience	Connection with good voice quality	98.14%
	Resolution of billing / charging / validity complaints	100%
	Accessibility of call center / customer care	95.23%

## **List of Abbreviations**

VAS :	Value Added Service
WAP :	Wireless Application Protocol
DoT :	Department of Telecom
TRAI :	Telecom Regulatory Authority of India
EPS :	Earning Per Share
RCOM:	Reliance Communications
IRT :	Indian Radio Telegraph Company
PTT :	Post, Telephone and Telegraph
VSNL :	Videsh Sanchar Nigam Limited
MTNL:	Mahanagar Telephone Nigam Limited
BSNL :	Bharat Sanchar Nigam Limited
NTP :	National Telecommunications Policy
GSM :	Global System for Mobile Communications
CDMA:	Code Division Multiple Access
COAL :	Cellular Operators Association of India
GCC :	Global Calling Card
WLL:	Wireless Local Loop
VPN:	Virtual Private Network
NLD:	National Long Distance
WAN:	Wide Area Network
ISP:	Internet Service Provider
WI-Fi:	Wireless Fidelity

DEL:	Direct Exchange Line
FDI:	Foreign Direct Investment
IP:	Internet Protocol
VAS:	Value Added Services
VASP:	Value Added Services Provider
SMS:	Short Message Service

## Contents

<u>Titles</u>	<u>Page No.</u>
Chapter : 1 Performance Measurement System	01 - 63
Chapter : 2 Telecom Industry and Reliance Communications	64 - 130
Chapter : 3 Research Plan and Procedure	131 - 151
Chapter : 4 Customer Perspective Measurement	152 - 170
Chapter : 5 Learning and Growth and Internal Business Process Perspective Measurement.	171 - 206
Chapter : 6 Financial Perspective Measurement	207 - 227
Chapter : 7 Summary, Findings and Conclusion	228 - 242
Bibliography	243 - 254
Annexure	i - vi

## List of Tables

Table No.	Particulars	Page No.
2.1	Quick Facts	77
2.2	Yearly Revenue of Indian Telecom Industry	77
2.3	Financial Performance of RCOM	114
4.1	Age Group of RCOM Customers	154
4.2	Occupation of Customers	155
4.3	Sex of Customers	156
4.4	Information about Customer Satisfaction Level	157
4.5	Age and Customers' Satisfaction	160
4.6	Occupation and Customers' satisfaction	162
4.7	Gender and Customers' Satisfaction	164
4.8	Types of Mobile Technology and Customer's Satisfaction	165
4.9	Types of Mobile Connection and Customers' Satisfaction	167
4.10	Time Period of Mobile Connection and Customers' Satisfaction	169
5.1	Departments wise Employees in RCOM	174
5.2	Designation wise Employees in RCOM	175
5.3	Level wise Employees in RCOM	175
5.4	Educational Qualification of RCOM Employees	176
5.5	Length of service of RCOM Employees	177
5.6	Marital status of RCOM Employees	178
5.7	Information about Employees' Job Satisfaction Level	180
5.8	Age and Employees' satisfaction	182
5.9	Department and Employees' satisfaction	183
5.10	Designation and Job satisfaction	185
5.11	Educational qualification and Job satisfaction	187
5.12	Length of services and job satisfaction	189
5.13	Information about employees' Organizational Perception Level	192
5.14	Age and Organizational Perception	194
5.15	Department and Organizational Perception	196
5.16	Designation and organizational Perception	198
5.17	Educational qualification and Organizational Perception	200
5.18	Length of Services and Organizational Perception	202
5.19	Strategic measures and Benchmark	205
5.20	Strategic measures and Performance of RCOM	206
6.1	Trends of Return on Assets	210
6.2	Trends of Return on Equity	214

6.3	Trends of Return on Investment	217
6.4	Trends of Earnings per Share	221
6.5	Trend of Market Value	224
7.1	Balanced Scorecard of RCOM	230



## **Chapter 1**

### **Performance Measurement System**

#### 1.1 Performance Measurement: Introduction

- Performance measurement from management literature and understanding

#### 1.2 Performance Measurement System

- Objective of performance measurement system
- A review of major reference model in performance measurement system
- Different types of performance measurement tools
- Balanced Scorecard as a total performance measurement system

#### 1.3 Balanced Scorecard: An Understanding

- Evolution of the concept
- Definitions
- The Balanced Scorecard approaches
- The Balanced Scorecard as a measurement & management system
- The Balanced Scorecard as a medium for communication
- Criticism of the Balanced Scorecard
- Balanced Scorecard application in the industry

#### 1.4 Conclusion

#### References

## **1.1 PERFORMANCE MEASUREMENT: INTRODUCTION**

The concept of performance measurement is straight forward: you get what you measure, and you cannot manage a system unless you measure it.

The U.S.General Accounting Office (GAO) provides the following definition: <sup>1</sup>

“Performance measurement is the ongoing monitoring and reporting of program accomplishments, particularly progress towards pre-established goals. It is typically conducted by program or agency Management. Performance measures may address the type or level of program activities conducted (Process), the direct products and services delivered by a program (outputs), and/or the results of those Products and services (outcomes). A Program may be any activity, project, function, or policy that has an identifiable purpose or set of objectives”.

Moullin defined performance measurement: <sup>2</sup>

“Performance measurement is evaluating how well organizations are managed and the value they deliver for customers and other stakeholders”

In definition “evaluating how well” means not only measuring but also making a judgment. In order to evaluate performance we need not only to measure it but also to know the context in which that performance has been achieved. Performance measurement can be considered a sort of primary process and can be part of larger and different processes: we measure performance to evaluate the performance of the organization inside, to evaluate the performance from outside, and to manage the performance. So the aims of performance measurement could be quite different.

For years organizations have sought ways to effectively measure their performance against plan and to then clearly understand the meaning and cause for any resulting variances. Over time this requirement has been transformed from ad hoc approaches to the development and adoption of formal methodologies for performance measurement. Performance measures are tools to understand, manage, and improve organization activities.

Effective performance measures can know as:

- How well we are doing? (Correct process representation);
- Are we meeting our goals? (Identification of the goals and the reference standards);

- Are our customers satisfied? (Control of the process development);
- Are our processes in control? (Control organization effectiveness and efficiency parameters);
- Where improvements are necessary? (Identification and correction of problems).

They provide us the information necessary to make intelligent decisions about what we do. A performance measure is composed of a number and a unit of measure. The number gives us a magnitude (how much) and the unit gives the number a meaning (what). Performance measures are always tied to a goal or an objective (the target).

**• PERFORMANCE MEASUREMENT FROM  
MANAGEMENT LITERATURE AND  
UNDERSTANDING<sup>3</sup>**

Despite the importance of accurately measuring organizational performance in most areas of academic research, there have been very few studies that have directly addressed the question of how overall organizational performance is or should be measured. Perhaps more importantly, none of these studies seems to have

significantly influenced how overall organizational performance is actually measured in most of the empirical research that uses this construct as dependent measures.

In total, seven empirical studies on the measurement of organizational performance were identified during this study: Dess and Robinson (1984), Rawley and Lipson (1985), Chakravarthy (1986), Venkatraman and Ramanujam (1987), Brush and Vanderwerf (1992), Robinson (1995) and Murphy et al. (1996). A brief study of the same is as under.

#### **DESS AND ROBINSON'S RESEARCH<sup>4</sup>**

Dess and Robinson examined the usefulness of subjective performance measures, specifically; they investigated the relationship between objective and subjective measures of return on assets (ROA), growth in sales and global performance measures. This study involved three phases of data collection from 26 manufacturing organizations using onsite interviews of CEOs mail surveys of the top management teams and a mail survey of CEOs. Conclusions were drawn from examining the zero-order correlations between the six variables of interest.

Dess and Robinson found that top management's subjective evaluation of performance was highly correlated with objective

measures, suggesting that researchers may consider using subjective perceptual measures of ROA and sales growth under certain conditions. The conditions include when objective measures are not available and when the alternative is to remove the consideration of performance from the research design. Another finding reported in the study was that there is some evidence that the global measures of organizational performance overlap with subjective and objective measures of ROA and sales growth. However, the amount of unshared variance between the constructs implies that the global measures may capture some broader conceptualization of performance. In other words, there are more dimensions to overall organizational performance than ROA and sales growth.

### **RAWLEY AND LIPSON'S RESEARCH<sup>5</sup>**

Rawley and Lipson examined the relationships among several combinations of performance measures to demonstrate that different common measures of financial performance did not represent the same attributes. Of these comparisons, the only overall performance measures that they found to be related to each other at statistically significant levels were the Q ratio versus cash flow return on investment. The other measures that compared

were clearly discriminate and do not measure the same construct. The Q Ratio was proposed by Callard and Kleinman (1985) as a substitute for Tobin's Q, and is calculated as the ratio of the value of individual business units divided by the inflation-adjusted purchase cost of assets.

### **CHAKRAVARTHY'S RESEARCH<sup>6</sup>**

Chakravarty empirically compared seven exemplar firms with seven 'maladapted' firms in the computer industry, as determined by corporate reputation. The criteria for selecting the samples were criteria proposed by Peters and Waterman (1982)<sup>7</sup> for excellent firms. Chakravarty's hypothesized that the means of the two groups, excellent and non-excellent firms, would differ along common measures of performance. Accordingly, those measures of performance that demonstrated that the means of the two groups were statistically different would be the best measures of performance for use in strategic management research.

### **VENKATRAMAN AND RAMANUJAM'S RESEARCH<sup>8</sup>**

Venkatraman and Ramanujam's empirically examined the degree of convergence across methods of measuring business economic performance and in so doing demonstrated the sales growth, profit growth and profitability were discriminate measures of different

dimensions of business economic performance. The purpose of this study was not to empirically derive the best measures of business economic performance in the context of the variables selected by researchers, but rather to test the convergence of methods used to obtain data on business economic performance.

### **BRUSH AND VANDERWERF'S RESEARCH<sup>9</sup>**

Brush and Vanderwerf<sup>9</sup> examined 34 different studies in the entrepreneurship literature that explicitly used firm performance as the dependent variable. They found that 35 different measures of performance were used in those studies. They indicated that researchers perceived many different dimensions of performance, and that there was no agreement on what measures actually represent overall organizational performance. The most frequently used measures of performance were changes in sales, organizational survival, changes in number of employees and profitability. Multiple objective measures were much more frequently employed than were subjective or perceptual measures of performance. Further, the primary means of data collection was mail survey, and the primary sources of performance information were managers, executives, founders or owners.



Brush and Vanderwerf conclude by stating that they did not attempt to sort out the problem of which performance measures to use. They note that the fact that 35 different performance measures were used in just 34 studies indicates that more work needs to be done to identify measures that make sense for use across the studies.

### **ROBINSON'S RESEARCH<sup>10</sup>**

Robinson examined ten different new venture performance measures to determine which individual measure was the most effective in accurately assessing long-term economic value creation. Each of performance measures were calculated for the three year period.

### **MURPHY, TRAILER AND HILL'S RESEARCH<sup>11</sup>**

Murphy examined the variables used to measure organizational performance in entrepreneurship research in the years 1987-1993. They identified 51 articles published in the Academy of Management Journal, the American Journal of small Business, Entrepreneurship Theory and practice, the Journal of Business venturing and the strategic Management Journal that explicitly used firm performance as dependent variables. They identified 71 different dependent variables used to measure performance in their

sample. They subsequently categorized these variables into eight separate dimensions of performance. They also found that 75 percent of the sample articles used primary data sources, 29 percent used secondary data sources and only 6 percent used both. The high dependence upon primary data sources is typical in entrepreneurship research, since there were generally no publicly available financial data sources for non-public companies. Another finding was that the performance variables used were primarily financial rather than operational.

## **1.2 PERFORMANCE MEASUREMENT SYSTEMS**

The performance measurement systems have been mainly on the design of different types of such systems where measurement frameworks have been advocated to have specific key characteristics in helping organizations identify appropriate measurement sets in assessing their performance. Such frameworks include the use of a) strategy, b) measuring both tangible and intangible factors to build a balanced view of the organization, c) multi-dimensional systems reflecting all areas of performance, d) systems encouraging comparisons between goals and actions, and e) monitoring past and future performance.<sup>12</sup>

There is consensus among researchers that performance measures enable managers to best know their exact position in terms current enterprise progress towards attainment of vision, mission and strategy. Researchers also state that an organization's strategy and performance measures must be in alignment for performance measurement systems to succeed. This alignment occurs when senior managers are able to convey the company's mission and vision, values and strategic direction effectively to employees and other external stakeholders thus giving life to those mission and strategy and making each employee aware of how much they contribute to the success of the company and its stakeholders' measurable expectation.<sup>13</sup>

According to some authors, performance measures can be broken down into a number of individual performance measures and can be generally categorized into one of the following: effectiveness, efficiency, quality, timeliness, productivity, reliability, price, flexibility and safety.<sup>14</sup> However, the importance lies in positioning performance measures in a strategic context as they influence what people do.<sup>7</sup> According to the authors, literature on performance measures is diverse with each individual author

tending to focus on different aspects of performance measurement system design.

- **OBJECTIVE OF PERFORMANCE MEASUREMENT SYSTEM**

1. Performance measurement system improves the bottom line by reducing process cost and improving productivity and mission effectiveness.
2. A performance measurement system allows an agency to align its strategic activities to the strategic plan.
3. Measurement of process efficiency provides a rational basis for selecting what business process improvements to make first.
4. Performance measurement system allows managers to identify best practices in an organization and expand their usage elsewhere.
5. The visibility provided by a measurement system supports better and faster budget decisions and control of processes in the organization. This means it can reduce risk.
6. Visibility provides accountability and incentives based on real data, not anecdotes and subjective judgments. This serves for reinforcement and the motivation that comes from competition.

7. It permits benchmarking of process performance against outside organizations.

8. Collection of process cost data for many past projects allows us to learn how to estimate costs more accurately for future projects.

9. If you are in a US Federal agency, it's the law. The Government Performance and Results Act of 1993<sup>15</sup> require a strategic plan, and a method of measuring the performance of strategic initiatives.

10. Performance measurement system can raise you agency's score, which can serve to increase its long-term chances of survival.

• **A REVIEW OF THE MAJOR REFERENCE MODELS IN PERFORMANCE MEASUREMENT SYSTEM<sup>16</sup>**

Developing a performance system, you should consider a conceptual reference model. Experience has shown that a reference model is particularly important when you are beginning to develop a measurement system for the first time. In literature, you can find different approaches. Following are some of reference models

## **THE BALANCED SCORECARD METHOD<sup>17</sup>**

In 1992, Robert Kaplan and David Norton introduced the Balanced Scorecard concepts as a way of motivating and measuring an organization's performance. The concept takes a systematic approach in assessing internal results, while probing the external environment. It focuses as much on the process of arriving at successful results, as on the results themselves.

The method looks at four interconnected perspective (Dimensions).

These are:

- Financial – How do we look to our stakeholders?
- Customer – How well do we satisfy our internal and external customer's needs?
- Internal Business process: How well do we perform at key internal business processes?
- Learning and Growth: Are we able to sustain innovation, change, and continuous improvement?

The Balanced scorecard provides a way for management to look at the well-being of their organization from the four identified perspectives. Each perspective is directly linked to performance targets.

## **THE “CRITICAL FEW” METHOD<sup>18</sup>**

Managing too many indicators may produce different drawbacks: (1) losing sight of all the indicator impact (2) distracting management’s focus from those indicators that are the most critical to organizational success, (3) no identifying the correlation/influence between two indicators. The process of simplifying and distilling a large number of performance measures across the organization to select a “Critical few” should be viewed as part of the performance measurement process.

The selection of a critical few set of performance indicators highlights the need for a balance between internal and external requirements, as well as financial and non financial measures.

## **PERFORMANCE DASHBOARDS<sup>19</sup>**

A performance dashboard is an executive information system that synthetically captures the performance level of a system. The concept of the basis of performance dashboards is that being good leader is like driving a car. After all, there are not many gauges on the dashboard. While you are driving, you take note of the level of fuel, you watch the water level, and if an emergency light were to come on, you would notice that as well. These all are secondary

observations, however, to the Driver's primary focus of moving the car safely in one direction while watching for obstacles in the road, including other drivers.

That is exactly what a good leader in an organization should be doing. A balanced set of performance indicators is like the gauges on the car; the mission is the destination'. Each of these gauges represents an aggregation of measures, which give an overall indicator of the performance. For example, the temperature gauge could represent customer satisfaction. It is an indicator made up of several components, the number of last costumers, firm reputation, etc.

### **THE EFQM (EUROPEAN FOUNDATION FOR QUALITY MANAGEMENT) MODEL<sup>20</sup>**

The European Foundation for Quality Management (EFQM) is a membership based not for profit organization, created in 1988 by fourteen leading European businesses. Its mission was to be the driving force for sustainable excellence in Europe concerning Quality management.

The EFQM model can be used to assess an organization's progress towards excellence, independently of the organization's type, size, structure and maturity. The model is a no prescriptive



framework and recognizes there are many approaches to achieving sustainable excellence in all aspects of performance. The model is based on nine criteria (dimensions). Five of these are classified as 'Enablers' and four as 'Results'. The 'Enabler' criteria cover what an organization does; the 'Result' criteria what an organization achieves. Feedback from 'Results' help to improve 'Enablers'.

- **DIFFERENT TYPES OF PERFORMANCE MEASUREMENT TOOLS:**

Description –“Approaches are Performance Efforts Depending On How They Are Used”. Any or all of the following approaches will improve organizational performance depending on if they are implemented comprehensively and remain focused on organizational results. Some of the following, e.g., organizational learning and knowledge management, might be interpreted more as movements than organization performance strategies because there are wide interpretations of the concepts, not all of which include focusing on achieving top-level organizational results. However, if these two concepts are instilled across the organization and focus on organizational results, they contribute strongly to organizational performance. On the other hand, the

Balanced Scorecard is deliberately designed to be comprehensive and focused on organizational results.

**Balanced Scorecard:** Focuses on four indicators, including customer perspective, internal-business processes, learning and growth and financials, to monitor progress toward organization's strategic goals

**Benchmarking:** Using standard measurements in a service or industry for comparison to other organizations in order to gain perspective on organizational performance. For example, there are emerging standard benchmarks for universities, hospitals, etc. In and of itself, this is not an overall comprehensive process assured to improve performance; rather the results from benchmark comparisons can be used in more overall processes. Benchmarking is often perceived as a quality initiative.

**Business Process Reengineering:** Aims to increase performance by radically re-designing the organization's structures and processes, including by starting over from the ground up.

**Continuous Improvement:** Focuses on improving customer satisfaction through continuous and incremental improvements to processes, including by removing unnecessary activities and

variations. Continuous improvement is often perceived as a quality initiative.

**Cultural Change:** Cultural change is a form of organizational transformation, that is, radical and fundamental form of change. Cultural change involves changing the basic values, norms, beliefs, etc., among members of the organization.

**ISO-9000:** Is an internationally recognized standard of quality, and includes guidelines to accomplish the ISO-9000 standard. Organizations can be optionally audited to earn ISO9000 certification. Another major quality standard is the Baldrige Award. ISO-9000 is a quality initiative.

**Knowledge Management:** Focuses on collection and management of critical knowledge in an organization to increase its capacity for achieving results. Knowledge management often includes extensive use of computer technology. In and of itself, this is not an overall comprehensive process assured to improve performance. Its effectiveness toward reaching overall results for the organization depends on how well the enhanced, critical knowledge is applied in the organization.

**Talent Management:** Talent management is a complex collection of connected HR processes that delivers a simple fundamental

benefit for any organization. Talent management refers to the skills of attracting highly skilled workers, of integrating new workers, and developing and retaining current workers to meet current and future business objectives. Talent management in this context does not refer to the management of entertainers. Companies engaging in a talent management strategy shift the responsibility of employees from the human resources department to all managers throughout the organization. The process of attracting and retaining profitable employees, as it is increasingly more competitive between firms and of strategic importance, has come to be known as "the war for talent." Talent management is also known as HCM (Human Capital Management).

**Learning Organization:** Focuses on enhancing organizations systems (including people) to increase an organization's capacity for performance. Includes extensive use of principles of systems theory. In and of it, this is not an overall comprehensive process assured to improve performance. Its effectiveness toward reaching overall results for the organization depends on how well the enhanced ability to learn is applied in the organization.

**Management by Objectives (MBO):** Aims to align goals and subordinate objectives throughout the organization. Ideally,

employees get strong input to identifying their objectives, time lines for completion, etc. Includes ongoing tracking and feedback in process to reach objectives. MBO's are often perceived as a form of planning.

**Outcome-Based Evaluation (particularly for nonprofits):**

Outcomes-based evaluation is increasingly used, particularly by nonprofit organizations, to assess the impact of their services and products on their target communities. The process includes identifying preferred outcomes to accomplish with a certain target market, associate indicators as measures for each of those outcomes and then carry out the measures to assess the extent of outcomes reached.

**Program Evaluation:** Program evaluation is used for a wide variety of applications, e.g., to increase efficiencies of program processes and thereby cut costs, to assess if program goals were reached or not, to quality programs for accreditation, etc.

**Strategic Planning:** Organization-wide process to identify strategic direction, including vision, mission, values and overall goals. Direction is pursued by implementing associated action plans, including multi-level goals, objectives, time lines and

responsibilities. Strategic planning is, of course, a form of planning.

**Total Quality Management (TQM):** Set of management practices throughout the organization to ensure the organization consistently meets or exceeds customer requirements. Strong focus on process measurement and controls as means of continuous improvement. TQM is a quality initiative.

**Total Productive Management (TPM):** TPM is a systematic approach to eliminate waste associated with production equipment and machinery. TPM focuses on involving machine operator in the routine checks and cleaning of the machine to detect problems earlier. Other areas of emphasis include minimizing machine "downtime" resulting from unexpected breakdowns, fully utilizing a machine's capabilities, and tracking life cycle cost. TPM is a maintenance process developed for improving productivity by making processes more reliable and less wasteful. TPM is an extension of TQM (Total Quality Management). The objective of TPM is to maintain the plant or equipment in good condition without interfering the daily process. To achieve this objective, preventive and predictive maintenance is required

• **BALANCED SCORECARD AS A TOTAL PERFORMANCE MANAGEMENT SYSTEM<sup>21</sup>**

Many of above improvement models have yielded disappointing results. The models are often fragmented. They may not be linked to the organization's strategy, not to achieving specific financial and economic outcomes. Breakthroughs in performance require major change, and that includes changes in the measurement and management system used by an organization. Navigating to a more competitive, technological and capability – driven future cannot be accomplished merely by monitoring and controlling financial measures of a past performance.

Financial accounting model should have been expanded to incorporate the valuation of a company's intangible and intellectual asset, such as high-quality products and services, motivated and skilled employees, responsive and predictable internal processes, and satisfied and loyal customers. Such a valuation of intangible assets and company capabilities would be especially helpful since for information age companies, these assets are more critical to success than traditional physical and tangible assets. If tangible assets and company capabilities could be valued within the financial accounting model, organization that

enhanced these assets and capabilities could communicate this improvement to employee, shareholders, creditors, and communities.

The collision between the irresistible force to build long-range competitive capabilities and the immovable object of the historical-cost financial accounting model has created a new synthesis: Balanced Scorecard. The Balanced Scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long term capabilities and customer relationship was not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customer, suppliers, employees, processes, technology and innovation.

The Balanced Scorecard complements financial measures of past performance with measures of the drivers of future performance. The objectives and measures of the scorecard are derived from an organization's vision and strategy.



### **1.3 BALANCED SCORECARD: AN UNDERSTANDING**

- **EVOLUTION OF THE CONCEPT**

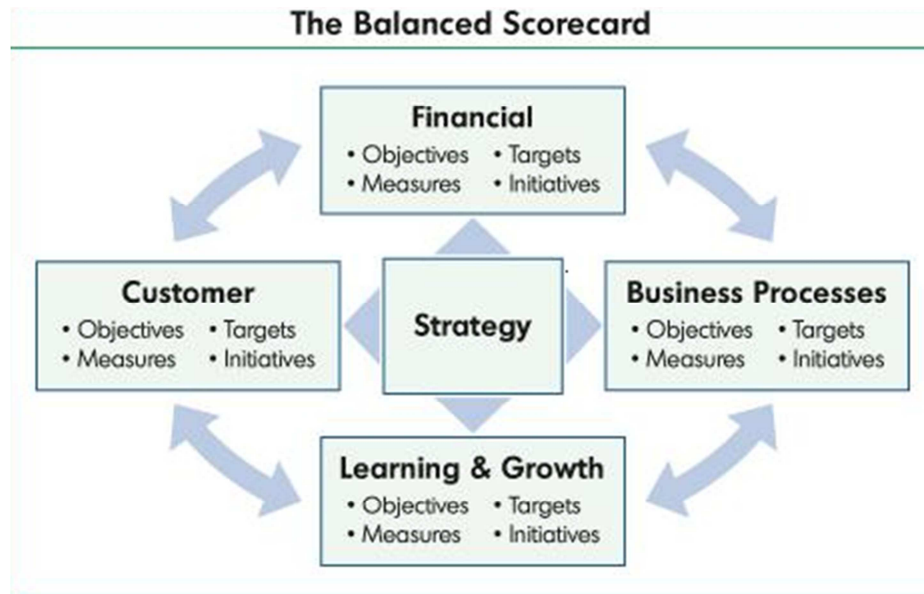
Understanding how the concept of the BSC evolved is helpful in appreciating the thought process of researchers in this field and how the BSC evolved in scope. The Balanced Scorecard builds on some key concepts of management ideas of the past such as the Total Quality Management (TQM) approach, customer defined quality, continuous improvement, employee empowerment as well as the basing of management and feedback on measurement (Balanced Scorecard Institute, 2007).<sup>22</sup> Originating with the work of the American statistician Edwards Deming, the TQM approach encompasses employees and suppliers as well as customers and creates an organization committed to continuous improvement. Quality improvement is achieved through the statistical control and the reduction in variability of business processes. According to the Total Quality Management approach, quality involves everyone and all activities in an organization; must meet agreed requirements, both formal and informal at the lowest cost, first time and every time; and quality must be managed.<sup>23</sup>

The basic idea of the Balanced Scorecard by Kaplan and Norton (1992)<sup>24</sup> was simple and straightforward. Kaplan and Norton

argued that ‘what you measure is what you get’ and that ‘an organization’s measurement system strongly affected the behaviors of its managers and employees’. The evolution of the concept of Balanced Scorecard from a rather radical performance measurement tool to a comprehensive strategic management tool can be understood from the four Harvard Business Review articles published by Norton and Kaplan in 1992, 1993, 1994 and 1996.<sup>25</sup>

According to Norton and Kaplan, the traditional financial accounting measures (eg. ROI and EPS) can give misleading signals for continuous improvement and innovation. To defy the heavy reliance on financial accounting measures, the authors argued that senior managers establish a scorecard taking multiple measures into account. The authors proposed a scorecard that used both financial and non-financial metrics in measuring performance of organizations. They also focused on how managers might identify the best measures in each of the four perspectives and how to communicate it within the organization. Figure 1.1 shows a diagrammatic representation of Kaplan and Norton's original Balanced Scorecard design, based on that which appears in their 1992 article.

**Figure No. 1.1**

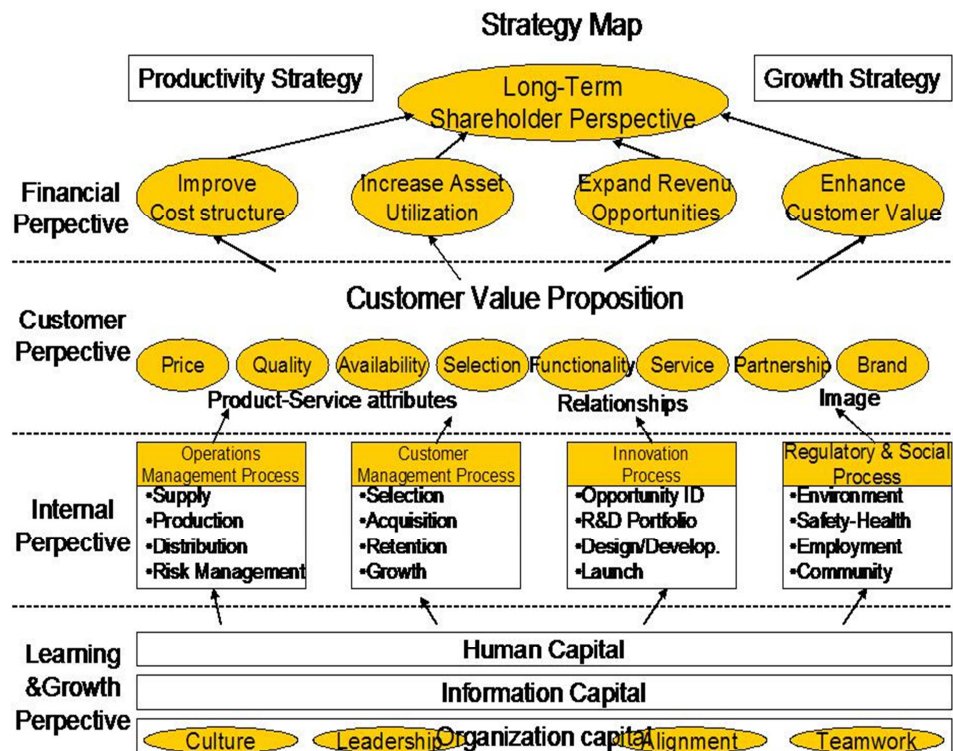


(Source: Robert S. Kaplan and David P. Norton, The Balanced Scorecard – Harvard Business Review, January-February, 1992)

Kaplan and Norton have gradually refined a methodology that seeks to align a balanced set of measures to an organization's strategy. They use a top down method that emphasizes starting with the executive team and defining the organization's strategic goals, and then passing those goals downward, using the Balanced Scorecard. They argue that success results from a Strategy-Focused Organization, which, in turn, results from Strategy Maps and Balanced Scorecards. Figure 1.2 shows provide an overview of a strategy map. Kaplan and Norton claim that this generic map reflects a generalization of their work with a large number of

companies for whom they have developed specific strategy maps. Notice that the four sets of Balanced Scorecard measures are now arranged in a hierarchical fashion, with financial measures at the top, driven by customer measures, which are, in turn, the result of Internal (Process) Measures, and are supported by innovation and learning measures.

**Figure No. 1.2**  
**Strategy Map**



(Source: Strategy Maps by Robert S. Kaplan and David P. Norton, September 2004)

Some authors refer to this Balance Scorecard as the '1st Generation Balanced Scorecard' (Lawrie and Cobbold, 2004).<sup>26</sup>

According Lawrie and Cobbold, Kaplan and Norton's design of the 1<sup>st</sup> Generation Balanced Scorecard had the following attributes;

a) a mixture of financial and non-financial measures, b) a limited number of measures, c) measures clustered into four groups called perspectives, d) measures that are chosen relate to specific goals which are usually documented in tables with one or more measures associated with each goal, e) measures chosen in a way that gains the active endorsement of the senior managers of the organization and, f) some attempt to represent causality between performance driver (lead) measures and outcome (lag) measures.

Figure 1.3 illustrates a scorecard of a hypothetical company discussed in Kaplan and Norton's January-February 1992 article, Electronic Circuits Inc (ECI)

**ECI'S BALANCED BUSINESS SCORECARD<sup>27</sup>**

**Figure No. 1.3**

ECI's Balanced Business Scorecard			
Financial Perspective		Internal Business Perspective	
Goals	Measures	Goals	Measures
Survive	Cash flow	Technology capability	Manufacturing geometry vs. competition
Succeed	Quarterly sales growth & operating income by division	Manufacturing experience	Cycle time, Unit cost, Yield
Prosper	Increased market share and ROE	Design productivity	Silicon efficiency, Engineering efficiency
		New product introduction	Actual introduction schedule vs. plan
Innovation & Learning Perspective		Customer Perspective	
Goals	Measures	Goals	Measures
Technology leadership	Time to develop next generation	New products	Percent of sales from new products, Percent of sales from proprietary products
Manufacturing learning	Process time to maturity	Response supply	On-time delivery (defined by customer)
Product focus	Percent of products that equal 80% sales	Preferred supplier	Share of key accounts' purchases, Ranking by key accounts
Time to market	New product interdiction vs. competition	Customer partnership	Number of cooperative engineering efforts

(Source: Business Process Trends, 2003)

The idea of the Balanced Scorecard came at a time when there was an emphasis on business process re-engineering and taking measurements, but with no specific directions as to how to accomplish it. The Balanced Scorecard was thus well received and accepted among business gurus as a tool to align strategies, processes and measures (Harmon, 2003).<sup>28</sup> The Balanced Scorecard approach rapidly grew into a minor industry with the

authors continuing to write articles and later went on to publish two books.

In course of time the Balanced Scorecard evolved from a simple performance measurement framework to a full strategic planning and management system with the capability of transforming an organization's strategic plan from a mere passive document to a set of daily actions. In their article in the Harvard Business Review in 1993, Kaplan and Norton offered an overview on linking the Balanced Scorecard to corporate strategies. An overview of the proposed approach is given in figure No. 1.4.

Figure No. 1.4

### Linking Strategies to Balanced Scorecard Measures



(Source: Business Process Trends, 2003)

In 1996 Kaplan and Norton proposed that the Balanced Scorecard be used as a strategic management system supporting four management processes namely (Kaplan and Norton, Harvard Business Review 1996).<sup>29</sup>

- a) Translating the vision of the organization – the Balanced Scorecard forced managers to further clarify their vision until they were able to translate their vision into a set of objectives and operational measures on a scorecard,
- b) Communicating and linking strategy – communicating the strategy within the organization and educating those responsible to execute it. The strategy must be translated into measurable goals and performance measures linked to rewards before it can be executed,
- c) Business planning process – strategic initiatives are identified in order to achieve long term objectives and necessary resources allocated to those initiatives,
- d) Feedback and learning process – these are strategies based on assumptions of cause-and-effect relationships. Feedback is gathered and hypothesis on which strategy is based is revisited and necessary changes made (Veltman, 2005).<sup>30</sup>



In the year 2000, Kaplan and Norton<sup>31</sup> published an HBR article and a book in which they suggest what they term “Balanced Scorecard Strategy Maps.” The new hierarchical model which suggested that “some measures contribute to others and are summed up in shareholder value” has been looked at as rather dubious by some authors (Harmon, 2003).<sup>32</sup> According to Harmon, the new model placed financial measures at the top of the hierarchy resulting in increasing reliance on financial measures by senior management, while delegating other non-financial, supportive measures, to subordinates at lower management. Harmon argues that the continual elaboration of the simple idea of the balanced scorecard has resulted in it gradually escaping the control of its authors and that it should have been tied more closely to processes.

Lawrie and Cobbold (2004)<sup>33</sup> refer to these Balanced Scorecards as the 2<sup>nd</sup> Generation Balanced Scorecard. According to the authors, two key enhancements were made by Kaplan and Norton to the 1<sup>st</sup> Generation Balanced Scorecard; a) measures relating to specific strategic objectives were chosen with the aim of identifying about 20-25 strategic objectives of which each were associated with one or more measures and assigned to one of the

four perspectives, b) attempts were made to visually document the major causal relationships between strategic objectives and laying out the results in a 'strategic linkage model' or 'strategy map diagram'.

According to Kaplan and Norton (Harvard Business School Press, 2001)<sup>34</sup>

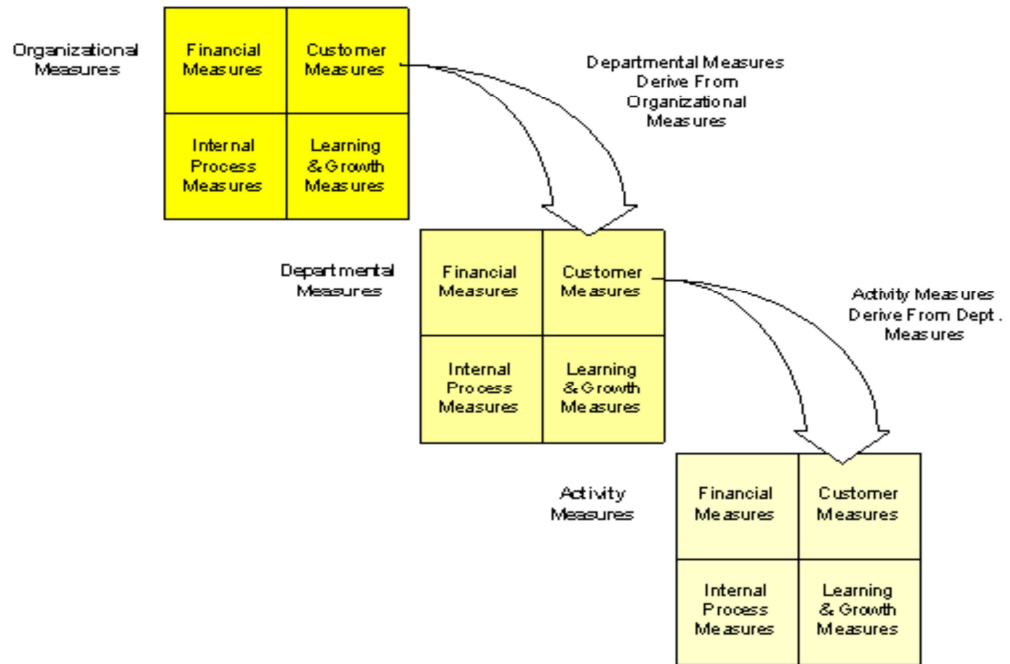
“The evolution from balanced scorecard to strategic balanced scorecard results from a desire to achieve a revitalized strategic focus and alignment. This process is supported by five common principles: (i) translate the strategy to operational terms, (ii) align the organization to the strategy, (iii) make strategy everyone’s everyday job; (iv) make strategy a continual process, and (v) mobilize change through executive leadership.”

The frame work not only provided performance measurements, but helped planners identify what should be done and how it can be measured, thus enabling senior management to clarify their vision and truly execute their strategies. By presenting an innovative management perspective that can be used to translate strategies for growth into operational terms, the balanced scorecard presented a comprehensive and actionable theory of governance.(Hepworth, P, 1998)<sup>35</sup>

Further, using the basic Balanced Scorecard concepts to build an independent process performance measurement system is easier. Consider the basic Balanced Scorecard. It suggests that companies should consider additional measures beyond financial measures. Most companies that have Balanced Scorecard initiatives have created a strategy level scorecard with financial, customer, process and learning and growth goals / measures. In a similar way, most companies have created a hierarchy of scorecards, including division or department scorecards and scorecards for specific functional units and managers. Logically, one should be able to track the goals and measures from the organization's scorecard to the functional unit's scorecard and on down to the specific activity. At each level, the same scorecard that describes the goals and measures for the unit can also serve to describe how the manager responsible for that unit is to be evaluated. Most organizations that have adopted the Balanced Scorecard approach have put this overall alignment structure in place. (See Figure No. 1.5)

Figure No. 1.5

The Beginnings of an Aligned Balanced Scorecard System



(Source: Business Process Trends, 2007)

• DEFINITIONS

Several definitions of the Balanced Scorecard can be found in the literature with some variations in scope. Williams, Haka and Bettner (2004)<sup>36</sup> define:

“The Balanced Scorecard as “a system for performance measurement that links a company’s strategy to specific goals and objectives, provides measures for assessing progress toward those goals, and indicates specific initiatives to achieve those goals.”

The Balanced Scorecard Institute defines it as “a strategic planning and management system used to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organizational performance against strategic goals.” According to McNamara, “the Balanced Scorecard is a performance management approach that focuses on various overall performance indicators, often including customer perspective, internal-business processes, learning and growth and financials, to monitor progress toward organization's strategic goals.” There is consensus in the literature that the Balanced Scorecard is a performance management and measurement system that is used in the strategic planning and the achievement of strategic goals.

According to Bourne and Bourne (2007)<sup>37</sup> the Balanced Scorecard, which started as a simple framework in 1992 to help companies structure their performance measures, rapidly gained popularity over the years and has now been developed into a much more encompassing strategic management and measurement tool. As per the authors, the Balanced Scorecard measures the activities, processes and output that are important to the success of the organization.

- **THE BALANCED SCORECARD APPROACHES<sup>38</sup>**

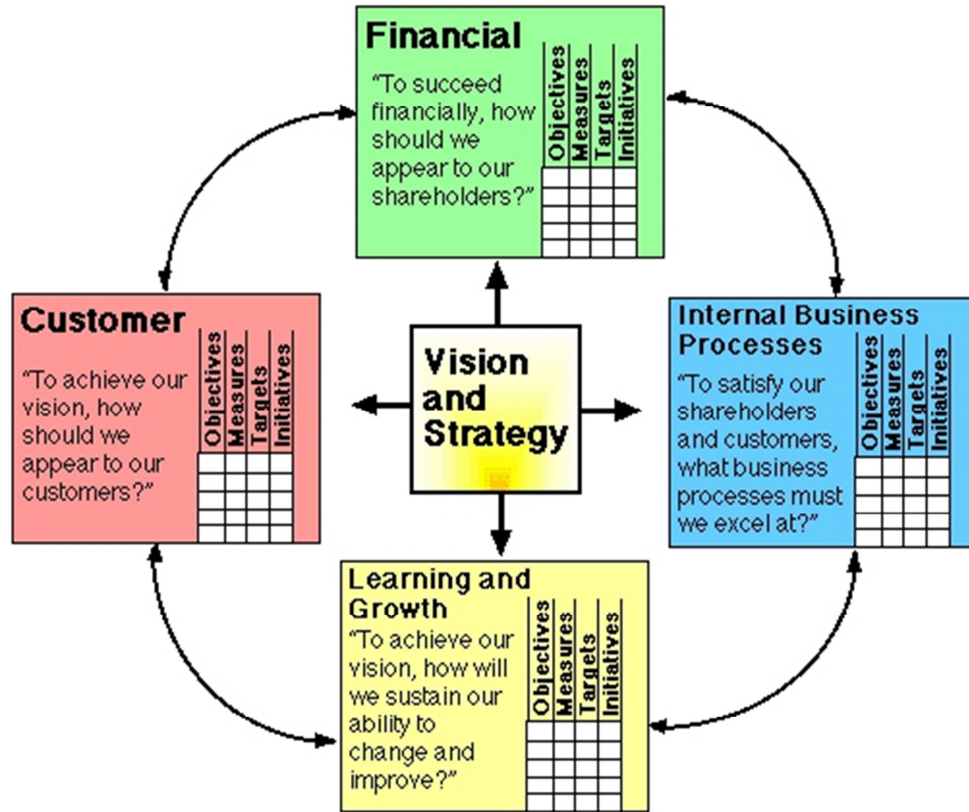
The collision between the irresistible force to build long-range competitive capabilities and the immovable object of the historical-cost financial accounting model has created a new synthesis: the Balanced Scorecard. The Balanced Scorecard retains traditional financial measures, but financial measures tell the story of past events, an adequate story of industrial age companies for which investments in long term capabilities and customer relationship were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customer, suppliers, employees, processes, technology and innovation.

The Balanced Scorecard complements financial measures of past performance with measures of the drivers of future performance. The objectives and measures of the scorecard are derived from an organization's vision and strategy. The objectives and measures view organizational performance from four perspectives: financial, customer, internal business process, and learning and growth. These four perspectives provide the framework for the Balanced Scorecard (Figure 1.5). The Balanced Scorecard provides

executives with a comprehensive framework that translates a company's vision and strategy into a coherent set of performance measures. The BSC emphasizes that financial and non-financial measures must be part of the information system for employees at all levels of the organization. Front-line employees must understand the financial consequences of their decision and actions: senior executives must understand the drivers of long-term financial success. The objectives and the measures for the Balanced Scorecard are more than just a somewhat adhoc collection of financial and no financial performance measures; they are derived from top-down process driven by mission and strategy of the business unit. The Balanced Scorecard should translate a business unit's mission and strategy into tangible objectives and measures. The measures represent a balance between external measures for shareholders and customers, and internal measures of critical business processes, innovation, and learning and growth. The BSC should be used as a communicative, informing, and learning system, and not as a controlling system. The four perspectives of scorecard permit a Balance between short and long-term objectives between outcomes desired and the

performance drivers of those outcomes, and between hard objectives measures and softer, more subjective measures.

Figure No. 1.6



(Source: The Balanced Scorecard Framework, Kaplan and Norton 1996)

### (1) FINANCIAL PERSPECTIVE

The BSC retains the financial perspective since financial measures are valuable in summarizing the readily measurable economic consequences of actions already taken. Financial performance measures indicate whether a company's strategy, implementation,



and execution are contributing to bottom line improvement. Financial objective typically relate to profitability – measured, for example, by operating income, return-on-capital employed, or, more recently, economic value-added. Alternative financial objectives can be rapid sales growth or generation of cash flow.

## **(2) CUSTOMER PERSPECTIVE**

In the customer perspective of the Balanced Scorecard, managers identify the customer and market segments in which the business unit will compete and the measures of the business unit's performance in these targeted segments. This perspective typically includes several core or generic measures of the successful outcomes from a well-formulated and implemented strategy. The core outcome measures include customer satisfaction, customer retention, new customer acquisition, customer profitability, and market and account share in targeted segments. But the customer perspective should include specific measures of the value propositions that the company will deliver to customers in targeted market segments. The segment-specific drivers of core customer outcomes represent those factors that are critical for customers to switch to or remain loyal to their suppliers.

### **(3) INTERNAL-BUSINESS-PROCESS PERSPECTIVE**

In the internal-business-process perspective, executives identify the critical internal processes in which the organization must excel.

These processes enable the business unit to:

- Deliver the value propositions that will attract and retain customers in targeted market segments
- Satisfy shareholders expectations of excellent returns.

The internal-business-process measures focus on the internal processes that will have the greatest impact on customer satisfaction and achieving an organization's financial objectives.

The internal-business-process perspective reveals two fundamental differences between traditional and the BSC approaches to performance measurement. Traditional approaches attempt to monitor and improve existing business processes. They may go beyond financial measures of performance by incorporating quality and time-based metrics. But they still focus on improvements existing processes. The scorecard approach, however, will usually identify entirely new processes at which an organization must excel to meet customer and financial objectives. For example, a company may realize that it must develop a

process to anticipate customer needs or one to deliver new services that target customer's value. The BSC internal business-process objectives highlight the processes, several of which it may not be currently be performing at all, that are most critical for an organization's strategy to succeed.

#### **(4) LEARNING AND GROWTH PERSPECTIVE**

The fourth perspective of the Balanced Scorecard, learning and growth, identifies the infrastructure that the organization must build to create long-term growth and improvement. The customer and internal-business-process perspectives identify the factors most critical for current and future success. Businesses are unlikely to be able to meet their long-term targets for customers and internal processes using today's technologies and capabilities. Also, intense global competition requires that companies continually improve their capabilities for delivering value to customers and shareholders.

Organizational learning and growth come from three principal sources: people, system, and organizational procedures, the financial, customer, and internal-business-process objectives on the Balanced Scorecard typically will reveal large gaps between the existing capabilities of people, system, and procedures and

what will be required to achieve breakthrough performance. To close these gaps, businesses will have to invest in re-skilling employees, enhancing information technology and systems, and aligning organizational procedures and routines. These objectives are articulated in the learning and growth perspective of the Balanced Scorecard.

Kaplan argues that eventually, the balanced scorecard evolved from an innovative measurement system into a proven management system. The balanced scorecard was developed as an innovative business performance measurement system in the belief that the existing approach to performance measurement relied primarily on financial measures and was becoming obsolete. The new approach (the balanced scorecard) was able to incorporate the intangible or ‘soft’ factors that were previously immeasurable and had little value to managers, thus reflecting a balance between short term and long-term goals, tangible and intangible measures, lagging and leading indicators, as well as external and internal performance perspectives. It also has the ability to identify linkages between key business areas and exploit the linkages that deliver success (Hepworth, 1998).<sup>39</sup> According to Bloomquist and Yeager (2008)<sup>40</sup>, an effectively used balanced

scorecard can serve as a component of a measurement-based strategic management and learning system which can be used to further the organization's ability to achieve its strategic objectives. The authors state that the development of the scorecard itself should form part of the strategic planning process with the focus on the full range of issues facing the organization.

There is a tendency to confuse between and also use interchangeably the terms scorecards and dashboards. There are differences in the context in which they are applied and main difference between the two is that "scorecards chart progress toward strategic objectives" while "dashboards monitor and measure processes." According to Schmidt (2005)<sup>41</sup>, dashboard applications grew out of the need to automate the balanced scorecard processes used by organizations to define their goals and quantify, measure, monitor, and report progress over time. The balanced scorecard and its natural subset, the dashboard, can help keep managers focused on the critical areas that affect a hospital's overall performance (O Cleverley and O Cleverley, 2005).<sup>42</sup>

- **THE BALANCED SCORECARD AS A MEDIUM FOR COMMUNICATION**

According to Artley and Stroh (2001)<sup>43</sup>, document the key role played by effective internal and external communications in successful performance measurement. Executives use the measures on a Balanced Scorecard to articulate the strategy of a business, communicate the strategy and thereby help align individual, organizational, and cross departmental objectives to achieve a common goal. In this way the Balanced Scorecard is a means of communication, information, and learning that puts the business strategy at the center. A properly deployed Balanced Scorecard can act as an organization wide communication platform (Amaratunga, Sarshar, and Baldry 2000).<sup>44</sup> This view is shared by Pieper in his statement that in healthcare organizations, the use of balances scorecards can enhance communication with key stakeholder groups from consumers to employees. The author also states that the lack of communication within an organization can have serious implications on the effectiveness of the balanced scorecard. According to Shulver and Antarkar<sup>45</sup>, “the Scorecard framework, and the processes associated with Scorecard design are more fundamentally concerned with communication and

articulation of strategy at operational levels.” The need for clear and timely communication in medical care and the problems of poor communication have been documented by Wicks, Clair and Kinney (2007).<sup>46</sup> It is important that information is made freely and easily available to anyone within the company through internal communication and technological tools that make communication easier (Smith and kim).<sup>47</sup>

Kocakülâh and Austill (2007)<sup>48</sup> state that in measuring performance, there are many financial tools and applications to choose from, but there are very few tools, that can view the organization holistically and strategically. Holistically viewing the organization enables a better understanding of what is happening both inside and outside of the organization. The use of the balanced scorecard as a holistic methodology in converting an organization's vision and strategy into a comprehensive set of linked performance and action measures that provide the basis for successful strategic measurement and management has been documented. Designing a BSC forces management to look at the organization holistically, as part of a larger system, and to determine which factors are critical for success, thereby helping to clarify assumptions and build a shared vision. The inability to

view the organization holistically can result in difficulties in implementing the balanced scorecard. This holistic viewing of the organization makes it conceptually appealing and applicable in the healthcare sector (Ashton).<sup>49</sup>

- **CRITICISMS OF THE BALANCED SCORECARD**

Several authors have criticized the top-down approach to implementing the BSC as a less democratic and rather commanding approach to performance management. The BSC methodology has inconsistencies and the arbitrary nature of the framework results in crucial measures being almost inevitably overlooked. The author continues to say that the BSC lacks a theoretical framework to guide executive input resulting in managers being left to their own devices. Another criticism of the BSC is that the scores are not based on any proven economic or financial theory, which makes the BSC process entirely subjective with no provision to assess quantities like risk and economic value in a way that is actuarially or economically well founded (Jensen, 2001).<sup>50</sup> Jensen states that the BSC does not provide a bottom line score or a unified view with any clear recommendations and hence must be viewed simply as a list of metrics.



Common pitfalls of the BSC have also been highlighted by authors. These include a) the lack of a well-defined strategy, b) only using lagging indicators and c) adopting generic metrics used by other firms. Other potential pitfalls include overlooking costs over benefits of initiatives placed in the BSC, ignoring non-financial measures when evaluating employees, using too many measures, wrongly assuming that cause-and-effect linkages are precise rather than hypothetical, seeking improvements across all measures all the time and using only objective measures and ignoring subjective measures.

Furthermore, over reliance on measures of any type may hamper the application of tacit knowledge and wisdom. With heavily regulated measures, management is restricted in its use of tacit knowledge, as it must justify its decisions by reference to measures. These problems can be avoided simply by not tying measures to performance, and by using measures as guide rather than a straitjacket. However, problems with the BSC model go deeper.

Another criticism of the BSC model is its complexity, the time and cost required for its implementation compared to its “low ease of use.” The complexity and difficulty lie in the choice of effective

measures. Performance measures to be effective they have to be reliable and consistent with the actions of the unit, and with the short-and long-term goals of the whole organization. Finding measures that are specific to the unit, yet general enough to reflect the strategy of the organization, and that incorporate long and short-term views seems to be too optimistic.

- **BALANCED SCORECARD APPLICATION IN THE INDUSTRY**

There is widespread acceptance among researchers and practitioners from different management disciplines that the use of the Balanced Scorecard approach will help organizations build a comprehensive view of its performance and that the balanced scorecard methodology will enable organizations to clarify their vision and strategy and translate them into action. The BSC has been successfully applied across many diverse industries within the private and public sector in the USA and is slowly gaining ground in the UK and across an international audience (Hepworth, 1998)<sup>23</sup>. A modified form of the BSC is being used by the Swedish National Audit Office<sup>51</sup> which is built around four focal points namely; internal (process focus), external (customer focus), historical (results focus) and future (development focus). Several

Australian agencies have successfully adopted the BSC approach in the private and public sector including the Department of Defense. In discussing the applicability of the BSC concept in the public sector have documented examples of several successful applications of the BSC approach in the public sector. Despite its benefits, there are also barriers to its effective use in the public sector (Field, Buchbach and Weert, 2007).<sup>52</sup>

The BSC is used by more than 70% of the Fortune 500 companies. Additionally, numerous studies and BSC implementations have proven the effectiveness of the BSC.<sup>53</sup> For example,

- Mobil Oil (North America) increased cash flow by \$1.2 billion and return on investment from 6% to 16% between years 2 and 5 after implementing the BSC. Within 2 years of implementing the BSC, Mobil moved from last place in industry profitability to first place. Mobil North America held that first place position for 5 straight years, before it was acquired by Exxon.
- United Parcel Service (UPS) increased revenues by 9% and net income by 33% within two years after BSC implementation.
- Three years after implementing the BSC, Wells Fargo Bank increased its customer base by 450% and was rated the Best

Online Bank. Also, as a result of the BSC implementation, the company added 750,000 online customers over a 2-year period and decreased its costs per customer by 22%.

- Chemical Bank increased its group company profits 20-fold over a 4-year period after implementing the BSC. The Chemical Bank vice-chairman, Michael Hegarty<sup>54</sup> stated: “The Balanced Scorecard has become an integral part of our change management process, enabling us to look beyond financial measures and concentrate on factors that create economic value: quality, organizational learning, and focus in our customers. The scorecard has delivered on our major goals in communication, teamwork, learning, and commitment.”
- The world famous advertising firm Saatchi and Saatchi<sup>55</sup> achieved a five-fold increase in market capitalization to \$2.5 billion within 3 years of implementing the BSC. The company—which won major awards at the Cannes International Advertising Festival, the leading industry benchmark—was ranked as the #1 creative agency 2 years in a row after implementing the BSC. William H. Cochrane,<sup>56</sup> Chief Financial Officer, stated:

“The balanced scorecard has not only helped us manage our human capital, it has transformed our agencies into being action-oriented and client-focused. And it has put everyone in the same ballpark with a consistent definition of what we call ‘permanently infatuated clients’ and consistency in measures.”

- Texaco Refining and Marketing increased profitability by \$29 million in 1 year—a 1,500% return on investment from their BSC initiative. Al Derden,<sup>57</sup> Director of Quality and Productivity, stated: “If we truly believed that the only difference between our competition and ourselves was our people, then we had to find a way to tap into what Federal Express CEO Frederick W. Smith described as ‘discretionary effort.’” Texaco used the BSC Methodology’s five principles for creating a strategy focused organization to mobilize and focus this “discretionary effort.”

- Siemens IC mobile increased sales 76% to euro 9 billion within 1 year of BSC implementation. Rudi Lamprecht, member of the managing board at Siemens AG and President of Siemens IC Mobile,<sup>58</sup> stated: “We’ve always had strategies, but through the Balanced Scorecard we bring them to life.”

ACCORDING TO ASHTON (1998),<sup>59</sup>

“Three factors make us believe that this [BSC] management tool can contribute substantial value to healthcare organizations. Firstly, many instances of successful application in service organizations. Second, the approach of developing an integrated set of performance measures is conceptually appealing and would seem to be consistent with the thrust of viewing organizations in a holistic fashion. Third, both top-level healthcare administrators and laboratory administrators who participated in our survey uniformly reported that they see great potential value from implementing this approach in their organizations.”

#### **1.4 CONCLUSION**

In conclusion, chapter one provided a brief review of literature related to our research. This brief chapter also provided a conceptualized frame of reference for the study. The aim of this chapter was to select relevant theories and concepts that will be used in research.

To assess the impact to financial and non-financial perspectives on performance, the approach here is look at the flow in terms of the cause-and-effect framework. That is an organizations with proper learning and growth structures is to able to empower its employees to deliver efficient services, which in term create satisfied

customer, which will result into strong financial performance. This can be summarized below as:

1. Knowledge & skills employees is the foundation of all innovations and improvements;
2. Skilled and empowered employees will improve the way they work;
3. Improved work processes will lead to increased customer satisfaction; and
4. Increased customer satisfaction will lead to better financial results.

**REFERENCES**

1. www.gao.gov/about/index.html
2. Fabrizio Bocci – Bocci consulting – [Fbocci@bociconsulting.it](mailto:Fbocci@bociconsulting.it)
3. Fiorenzo Franceschini, Maurizio Galetto, Domenico Maisano, “Management by measurement” p. 109.
4. Dess, G. G., and Robinson, R. 1984. “Measuring Organizational Performance in the Absence of Objective Measures: The Case of the Privately-Held Firm and Conglomerate Business Unit.” *Strategic Management Journal*, 5: 265–273.
5. Fiorenzo Franceschini, Maurizio Galetto, Domenico Maisano, “Management by measurement” p. 111.
6. IBID
7. Peters and Waterman, 1982, “Industrial Management”,
8. Venkatraman, N., and Ramanujam, V. 1987. “Measurement of Business Economic Performance: An Examination of Method Convergence.” *Journal of Management*, 13: 109–122.
9. Brush, Candida G.; Vanderwerf, Pieter A. (1992): “A Comparison of Methods and Sources for Obtaining Estimates of New Venture Performance”, *Journal of Business Venturing*, 7,157-170.



10. Fiorenzo Franceschini, Maurizio Galetto, Domenico Maisano, “Management by measurement” p. 112.
11. IBID
12. Fitzgerald, L. and Moon, P. (1996). Performance Measurement in Service Industries: Making it Work. London: The Chartered Institute of Management Accountants.
13. Artley, W. and Stroh, A. (2001). The Performance-Based Management Handbook: Establishing an Integrated Performance Measurement System. Retrieved April 9, 2008-
14. Leong, G.K., Snyder, D.L. and Ward, P.T. (1990). Research in the process and content of manufacturing strategy. OMEGA International Journal of Management Science, 18 (2), 109-22.
15. [www.usa.gov/directory/federal/index.shtml](http://www.usa.gov/directory/federal/index.shtml)
16. Performance – based management special interest – Group 2001
17. Kaplan, R. S. and Norton, D. P (1992). The Balanced Scorecard - Measures that Drive Performance. Harvard Business Review, January - February.
18. The Critical Few Method – <http://book.personalmba.com/critical-few/>

19. Performance Dashboards: Measuring, Monitoring and Managing your Business by Wayne W. Eckerson
20. [www.efqm.org/en/tabid/](http://www.efqm.org/en/tabid/)
21. Rampersad, H.K., Total Performance Scorecard; Redefining Management to Achieve Performance with Integrity, Butterworth-Heinemann Business Books, Elsevier Science, Massachusetts, May 2003.
22. [www.balancedscorecard.org](http://www.balancedscorecard.org)
23. Brevis, T., Ngambi, H.C., Vrba, M.J. & Naicker, K.S. (2002). Management principles: A contemporary edition for Africa (P.J. Smit & G.J.de J. Cronje, Eds.). Cape Town: Juta Academic.
24. Kaplan, R. S. and Norton, D. P.(1992). The Balanced Scorecard - Measures that Drive Performance. Harvard Business Review, January - February.
25. Kaplan, R. S. and Norton, D. P. (1996). Using the Balanced Scorecard as a Strategic Management System. Harvard Business Review, January – February, 75-85.
26. Lawrie, G. and Cobbold, I. (2004). Development of the 3rd Generation Balanced Scorecard: Evolution of the Balanced

- Scorecard into an effective strategic performance management tool. Retrieved April 6, 2008,
27. Business Process Trends, 2003.
  28. Harmon, P. (2003). The evolution of the balanced scorecard. Business process trends. Retrieved April 5, 2008.
  29. Kaplan, R. S. and Norton, D. P. (1996). Using the Balanced Scorecard as a Strategic Management System. Harvard Business Review, January – February, 75-85.
  30. Veltman, M. (2005). Balanced Scorecard. Retrieved April 5, 2008.
  31. Kaplan, R. S. and Norton, D. P. (2000). Balanced Scorecard Strategy Maps. Harvard Business Review.
  32. Harmon, P. (2003). The evolution of the balanced scorecard. Business process trends. Retrieved April 5, 2008.
  33. Lawrie, G. and Cobbold, I. (2004). Development of the 3rd Generation Balanced Scorecard: Evolution of the Balanced Scorecard into an effective strategic performance management tool. Retrieved April 6, 2008.
  34. Kaplan, R. S. and Norton, D. P. (2001). The Strategy Focused Organization. Harvard Business School Press.

35. Hepworth, P. (1998). Weighing it up - a literature review for the balanced scorecard. *The Journal of Management Development*, 17 (8), 559.
36. Williams, J. R., Haka, S. F. and Bettner, M.S. (2005). *Financial and Managerial Accounting: the basis for business decisions*. London: McGraw-Hill.
37. Bourne, M. & Bourne, P. (2007). *Instant Manager: Balanced Scorecard*. London: Hodder Arnold.
38. Anthony, R. N. and Govindarajan, V. (2000). *Management Control Systems*. London: McGraw Hill Higher Education.
39. Hepworth, P. (1998). Weighing it up - a literature review for the balanced scorecard. *The Journal of Management Development*, 17 (8), 559.
40. Bloomquist, P. and Yeager, J. (2008). Using Balanced Scorecards to Align Organizational Strategies. *Healthcare Executive*, Jan/Feb, 23 (1), 24-26, 28.
41. Schmidt, C. (2005). The Driver's View. *The Internal Auditor*, 62 (3), 29-31.

42. O Cleverley, W. and O Cleverley, J. (2005). Scorecards and dashboards: using financial metrics to improve performance. *Healthcare Financial Management*, 59 (7), 64-69.
43. Artley, W. and Stroh, A. (2001). *The Performance-Based Management Handbook: Establishing an Integrated Performance Measurement System*. Retrieved April 9, 2008.
44. Amaratunga, D., Baldry, D. & Sarshar, M. (2000). Performance evaluation in facilities management: Using the Balanced Scorecard Approach. COBRA 2000 Conference, University of Greenwich, 30 August to 1 September. Retrieved March 18, 2008.
45. Shulver, M. and Antarkar, N. (2001). *The Balanced Scorecard as a Communication Protocol for Managing Across Intra-Organizational Borders*. Proceedings of the Twelfth Annual Conference of the Production and Operations Management Society, Orlando.
46. Wicks, A. M., St Clair, L. and Kinney, C. S. (2007). Competing Values in Healthcare: Balancing the (Un) Balanced Scorecard/Practitioner Application. *Journal of Healthcare Management*, Sep/Oct, 52 (5), 309-323; discussion 323-324.

47. Smith, H. And Kim, I. (2005). Balanced scorecard at Summa health system. *The Journal of Corporate Accounting & Finance*, 16 (5), 65-72.
48. Kocakülâh, M.C. and Austill, A.D. (2007). Balanced Scorecard Application in the Health Care Industry: A Case Study. *Journal of Health Care Finance*, 34 (1), 72-99.
49. Ashton, C. (1998). Balanced scorecard benefits NatWest Bank. *Human Resource Management International Digest*, 6 (3), 11-13.
50. Jensen, M.C. (2001). Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Journal of Applied Corporate Finance*, 14 (3).
51. [www.nao.org.uk/idoc.ash](http://www.nao.org.uk/idoc.ash)
52. Field, T., Buchbach, R. and Weert, A.V. (2007). Literature review: measuring compliance effectiveness: Balanced scorecard. Australian Taxation Office, Australian Government. Retrieved April 12, 2008.
53. <http://www.balancedscorecard.org/bscresources/examplestories/tabid/57/default.aspx>
54. IBID
55. [http://www.saatchi.com/about\\_saatchi\\_and\\_saatchi](http://www.saatchi.com/about_saatchi_and_saatchi)

56. <http://www.balancedscorecard.org/bscresources/examplessuccessstories/tabid/57/default.aspx>
57. IBID
58. Harvard Business Publishing Newsletters, 2002 3 pages, by Lauren Keller Johnson
59. Ashton, C. (1998). Balanced scorecard benefits NatWest Bank. Human Resource Management International Digest, 6 (3), 11-13.

## **Chapter 2**

### **Telecom Industry and Reliance Communications**

2.1 Global Telecom industry: Introduction

2.2 Global Scenario

2.3 Indian Telecom Industry

2.4 Growth in Indian Telecom Industry

2.5 Major Players in Telecom Sector

2.6 Future Growth in Telecom Segments

2.7 Reliance Communications

2.8 Financial Performance of Reliance Communications

2.9 Business details of Reliance Communications

References



## **2.1 GLOBAL TELECOM INDUSTRY: INTRODUCTION**

Telecom industry is a rapidly expanding industry, proceeding towards a goal of achieving two third of the world's telecom connections. Over the past few years information and communications technology has changed in a dramatic manner and as a result of that world telecom industry is going to be a booming industry. Substantial economic growth and mounting population has enabled the rapid growth of this industry.

The world telecommunications market is expected to rise at an 11 percent compound annual growth rate at the end of year 2012.<sup>1</sup>

Global leading telecom companies like AT&T, Vodafone, Verizon, SBC Communications, Bell South and Qwest Communications are trying to take the advantage of this growth. These companies are working on telecommunication fields like broadband technologies, EDGE(Enhanced Data rates for Global Evolution) technologies, LAN-WAN inter networking, optical networking, voice over Internet protocol, wireless data service etc.

World telecom industry is taking a crucial part of world economy. The total revenue earned from this industry is 3 percent of the gross world products and is aiming at attaining more revenues.

One statistical report reveals that approximately 16.9% of the world population has access to the Internet<sup>2</sup>

Over the last couple of years, world telecommunication industry has been consolidating by allowing private organizations the opportunities to run their businesses with this industry. The Government monopolies are now being privatized and consequently competition is developing. Among all, the domestic and small business markets are the hardest.

## **2.2 GLOBAL SCENARIO**

Until the 1980s the world telecommunications systems had a simple administrative structure. The United States telephone service was supplied by a regulated monopoly, American Telephone and Telegraph (AT&T). Telegraph service was provided mainly by the Western Union Corporation. In almost all other countries both services were the monopolies of government agencies known as PTTs (for Post, Telephone, and Telegraph). In the United States beginning in 1983<sup>3</sup>, AT&T agreed in a court settlement to divest itself of the local operating companies that provided basic telephonic service. They remained regulated local monopolies, grouped together into eight regional companies.

AT&T now offers long distance service in competition with half a dozen major and many minor competitors while retaining ownership of a subsidiary that produces telephonic equipment, computers and other electronic devices. During the same period Great Britain's national telephone company was sold to private investors as was Japan's NTT telephone monopoly. For telegraphy and data transmission, Western Union was joined by other major companies, while many multinational firms formed their own telecommunications services that link offices scattered throughout the world. New technology also brought continuing changes in the providers of telecommunication. Private companies such as Comsat in the United States were organized to provide satellite communication links within the country.

Around the world we are witnessing remarkable changes to the telecoms environment. After years of debate, structural separation is now taking place in many parts of the world including Hong Kong, New Zealand, Singapore and some European markets. Structural separation or at least full-blown operational separation is required to advance the entire industry and to create new business opportunities and innovations which will benefit our society, our economy and ultimately our industry.

The focus is also shifting away from broadband to what it can actually achieve. Next generation telecommunications better describes this new environment and is essential for the emerging digital economy. Important services that depend on NGT include tele health, e-education, e-business, digital media, e-government and environmental applications such as smart utility meters.

In order to meet this burgeoning consumer demand for NGT applications, we are seeing increasing investment in All-IP Next Generation Networks and fiber networks. A proper inventory of national infrastructure assets is required if we want to establish an efficient and economically viable national broadband structure for these services. In the developing markets, next generations telecoms will take the form of wireless (WiMAX).<sup>4</sup>

These are some of the elements of the broader ICT revolution that is unfolding before our very eyes. We are right in the midst of the transition from old communications structures (mainly one-way streets) to new structures that are fully-interactive and video-based.

One of the drivers behind the industry changes are the declining revenues experienced by the telecom companies in their traditional markets. Over the past 10 years or so, fixed-line operators have

been affected by deregulation, a severe industry downturn, declining prices and major inroads by mobile services. In addition, people are drifting to other forms of communication, such as email, online chat, and mobile text messaging instead of the traditional phone.

This has also led to an increased need for bandwidth, which in turn has revived the submarine cable sector. In recent times there have been many cable build-out announcements around the world, and some major systems are again being constructed. Over 25 systems are expected to be built over the next two to three years and network upgrades are also on the agenda for some existing systems.

It is clear that the mobile industry is also undergoing profound changes. The saturated developed markets are forcing the industry to find new revenue streams and we are now seeing other organizations such as media companies, content providers, Internet media companies and private equity companies becoming involved in this market.

For the time being however, voice will remain the killer application for mobile with some data services included as support services and niche market services. 4G (ie, WiMAX) is the real

solution for mobile data and by 2015 it is expected that the majority of mobile revenues will come from data.<sup>5</sup>

With the Internet economy, digital media and other telecommunications activities becoming further established, the need for modern and efficient infrastructure is becoming more critical.

### **2.3 INDIAN TELECOM INDUSTRY**

The Indian telecommunications industry is one of the fastest growing in the world and India is projected to become the second largest telecom market globally by 2012.<sup>6</sup>

India added 225.04 million new customers in 2011<sup>7</sup>, the largest globally. In fact, in April 2008, India had already overtaken the US as the second largest wireless market. To put this growth into perspective, the country's cellular base witnessed 50 per cent growth in 2010, with an average 15 million<sup>8</sup> customers added every month in finance year 2009-10. According to the Telecom Regulatory Authority of India (TRAI), the total number of telephone connections (mobile as well as fixed) had touched 846.32 million<sup>9</sup> as of March 2011, taking the telecom penetration to over 52 per cent.<sup>10</sup> According to CRISIL research estimates,

eight infrastructure sectors, which include the telecom sector, are expected to draw more than US\$ 345.28 billion investment in India by 2012.<sup>11</sup>

With the rural India growth story unfolding, the telecom sector is likely to see tremendous growth in India's rural and semi-urban areas in the years to come. By 2012, India is likely to have 300 million rural telecom connections at a penetration rate of 25 per cent.<sup>12</sup> And according to a report jointly released by Confederation of Indian Industry (CII) and Ernst & Young, by 2012<sup>13</sup>, rural users will account for over 60 per cent of the total telecom subscriber base.

According to Business Monitor International, India is currently adding 12-15 million mobile subscribers every month.<sup>14</sup> It is estimated that by mid 2012, around 75 per cent country's population will own a mobile phone. The overall tele-density in India has reached 70.89 as on 31st March 2011.<sup>15</sup>

• **HISTORY**

<b>Year</b>	<b>Event</b>
<b>1851</b>	First operational land lines were laid by the Government near Calcutta (seat of British power)
<b>1881</b>	Telephone service introduced in India
<b>1883</b>	Merger with the postal system
<b>1923</b>	Formation of Indian Radio Telegraph Company (IRT)
<b>1932</b>	Merger of ETC and IRT into the Indian Radio and Cable Communication Company (IRCC)
<b>1947</b>	Foreign Telecom Companies nationalized to form PTT
<b>1980</b>	Tele-density in 1980-81: 0.3%, Introduction of public pay phones, Private Sector allowed
<b>1986</b>	Conversion of DOT into two wholly government-Owned companies: the Videsh Sanchar Nigam Limited (VSNL) for international telecommunications and Mahanagar Telephone Nigam Limited (MTNL) for Service in India
<b>Early to Mid-90's:</b>	Telecom policy 1994 Basic telephony service to private operators



	49% FDI
<b>Late 90's</b>	Birth of a regulator: TRAI NTP 1999 (New Telecom Policy)
<b>2000+</b>	CAGR of around 85% since 1999 FDI: 74% (2005)
<b>2007-2010</b>	Having the world's lowest call rates the fastest growth In the number of subscribers (45 million in 4 months), The fastest sale of million mobile phones (in a week), The world's cheapest mobile handset, The world's most affordable color phone.
<b>2011</b>	3G service launched in India.

(Source: [www.ibef.org/industry/telecommunications.aspx](http://www.ibef.org/industry/telecommunications.aspx))

## **2.4 GROWTH IN INDIAN TELECOM INDUSTRY**

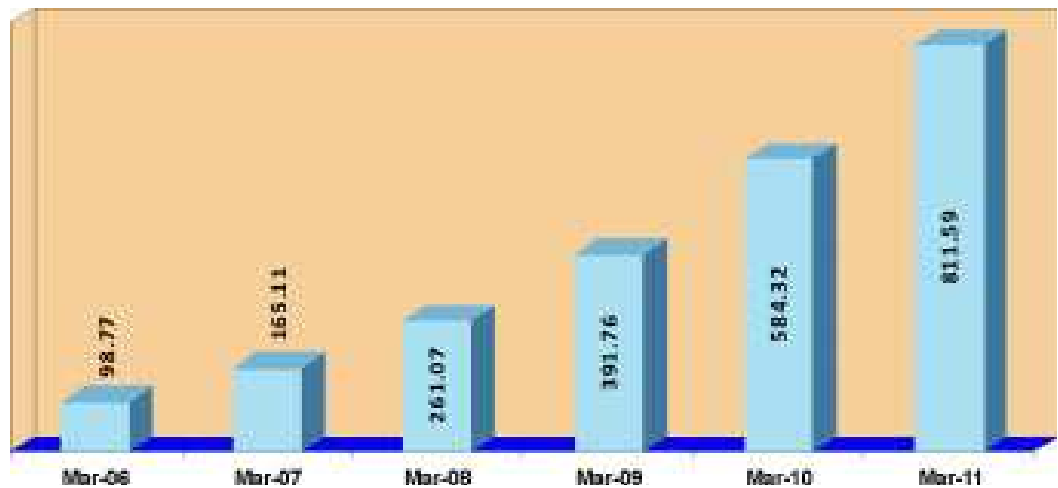
According to a Frost & Sullivan industry analyst, by 2012, fixed line revenues are expected to touch US\$ 12.2 billion while mobile revenues will reach US\$ 39.8 billion in India. Fixed line capex is projected to be US\$ 3.2 billion, and mobile capex is likely to touch US\$ 9.4 billion.<sup>16</sup>

Further, according to a report by Gartner Inc., India is likely to remain the world's second largest wireless market after China in terms of mobile connections. According to recent data released by

the TRAI, Indian telecom operators added a total of 192.56 million wireless subscribers in the financial year 2009-10. Further, the total wireless subscriber base stood at 811.59 million at the end of 31<sup>st</sup> March 2011.<sup>17</sup>

**Chart No. 2.1**

**Growth of Wireless Subscriber (in million)**



(Source: TRAI annual report, 2010-11)

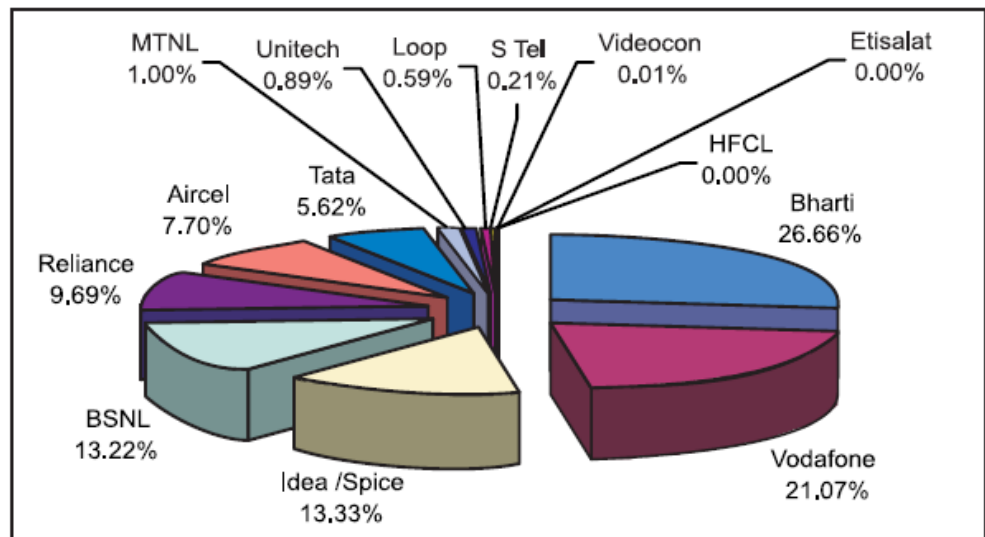
The overall cellular services revenue in India is projected to grow at a CAGR of 18 per cent from 2008-2012 to exceed US\$ 37 billion. Cellular market penetration will rise to 60.7 per cent from 19.8 per cent in 2007.<sup>18</sup>

The Indian telecommunications industry is on a growth trajectory with the GSM operators adding a record 219.39 million new subscribers mark at the end of March 2011, taking the total user

base to 697.98 million, according to the data released by TRAI. In CDMA services, in terms of subscriber base and market share M/s RCOM with 56.05 million subscriber base remains the largest CDMA operator.<sup>19</sup>

**Chart No. 2.2**

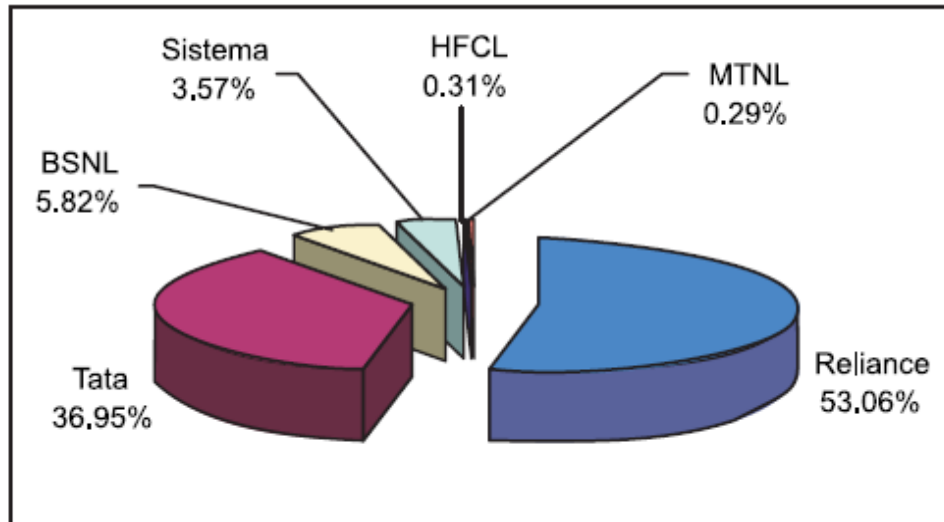
**Market Share (%) of GSM Operators as on 31<sup>st</sup> March 2011**



(Source: TRAI annual report, 2010-11)

Chart No. 2.3

Market Share (%) of CDMA Operators as on 31<sup>st</sup> March 2011



(Source: TRAI annual report, 2010-11)

In Wi-Max, India is slated to become the largest Wi-MAX market in the Asia-Pacific by 2013. A recent study sees India's Wi-MAX subscriber base hitting 14 million by 2013 and growing annually at nearly 130 per cent. And investments in Wi-MAX ventures are slated to top US\$ 500 million in India, according to a report by US-based research and consulting firm, Strategy Analytics.<sup>20</sup>

**Table No. 2.1**

**Quick Facts**

**(As on 31<sup>st</sup> March 2011)**

Total telecom subscribers	846.32 million
Wireless subscribers	811.59 million
Wire line subscribers	34.73 million
Tele density	70.89 per cent
Internet subscribers	19.67 million
No. of Broadband connections	11.89 million
India's Rural Mobile Phone Users	282.23 Million

(Source: [www.trai.gov.in/Content/Annual\\_Report.aspx](http://www.trai.gov.in/Content/Annual_Report.aspx))

**Table No. 2.2**

**Year Revenue (US\$ Billions)**

2002-03	09
2003-04	10
2004-05	11
2005-06	15
2006-07	20
2008-09	32
2009-10	43
2010-11	88

(Source: [www.trai.gov.in/Content/Annual\\_Report.aspx](http://www.trai.gov.in/Content/Annual_Report.aspx))

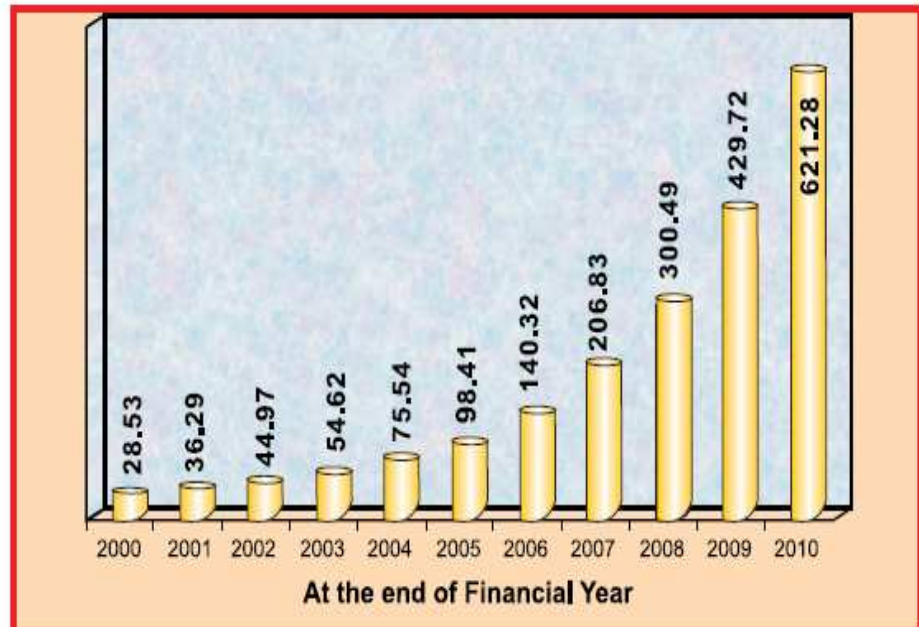
**\*SUBSCRIBER GROWTH**

India added 225.04 million new customers in 2010-11, the largest globally the country's cellular base witnessed close to 40 per cent growth in 2011, with an average 18 million customers added every month.<sup>21</sup>

The overall telephone connection figure stood at 846.32 million at the end of the financial year 2010-11. Out of this the share of wireless subscribers stood at 811.59 million as compared to 584.32 million a year before. The growth was 227.27 million or 38%. The rural market has reached the 282.23 million mark as against 190.88 million in the previous year excluding CDMA which works out to a growth of about 71% over last year. It was reported that 32.67% of total wireless subscribers are now in rural areas. The total numbers of wire line connections were 34.73 million while in the rural areas it stood at 8.69 million. The wire line segment has been stagnating or declining in the last few years but a positive aspect is that the decline has reduced from -3.69% to -2.65%. During the last year, though BSNL and MTNL have registered decline, private operators have jointly had a growth of 11.51% increasing the connections from 5.04 million to 5.62 million. The growth of subscriber base during the past decade (2000-2010) is indicated below.<sup>22</sup>

Chart No.2.4

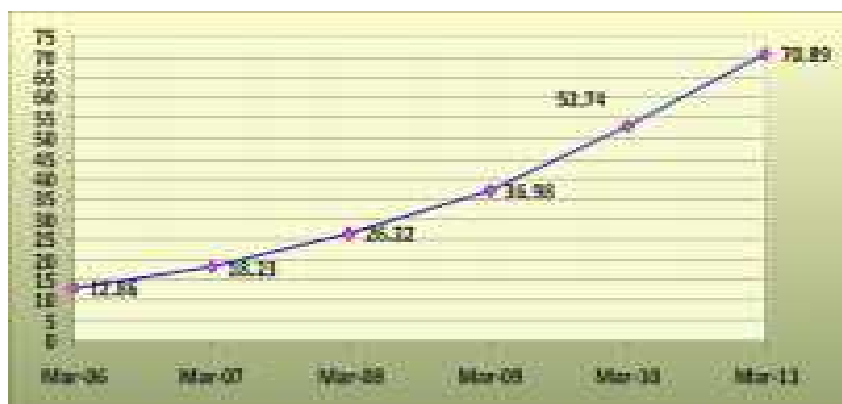
Growth of Telecom Subscriber Base (in million)



(Source: [www.trai.gov.in/Content/Annual\\_Report.aspx](http://www.trai.gov.in/Content/Annual_Report.aspx))

Chart No. 2.5

Growth of Tele-density



(Source: [www.trai.gov.in/Content/Annual\\_Report.aspx](http://www.trai.gov.in/Content/Annual_Report.aspx))

## 2.5 MAJOR PLAYERS IN TELECOM SERVICES

There are three types of players in telecom services:

- State owned companies - BSNL and MTNL
- Private Indian owned companies - Reliance Communication & Tata Teleservices
- Foreign invested companies - Hutchison-Essar, Bharti Tele-Ventures, Idea Cellular, BPL Mobile, Unitech, HFCL, Shyam & Videocon.

**Chart No. 2.6**

**Subscriber Base (figure in millions) of Wireless Services**

Service Providers	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	%age growth over 2008-09 in 2009-10
Bharti	10.98	19.58	37.14	61.98	93.92	127.62	35.87%
Reliance	10.45	17.31	28.01	45.79	72.67	102.42	40.94%
Vodafone	7.8	15.36	26.44	44.13	68.77	100.86	46.66%
BSNL	9.9	17.65	30.99	40.79	52.15	69.45	33.17%
Tata	1.09	4.85	16.02	24.33	35.12	65.94	87.76%
Idea	5.07	7.37	14.01	24.001	38.89	63.82	48.35%
Spice	1.44	1.93	2.73	4.21	4.13		
Aircel	1.76	2.61	5.51	10.61	18.48	36.86	99.46%
MTNL	1.08	2.05	2.94	3.53	4.48	5.09	13.62%
Unitech					0	4.26	
Sistema	0.03	0.03	0.10	0.11	0.60	3.78	530.00%
Loop	2.58	1.34	1.07	1.29	2.16	2.84	31.48%
S Tel					0	1.01	
HFCL	0.05	0.06	0.15	0.30	0.39	0.33	-15.38%
Videocon					0	0.03	
Etisalat					0	0.0004	
Total	52.23	90.14	165.11	261.07	391.76	584.32	49.15%

(Source: [www.traai.gov.in/Content/Annual\\_Report.aspx](http://www.traai.gov.in/Content/Annual_Report.aspx))



- **BHARAT SANCHAR NIGAM LIMITED (BSNL)<sup>23</sup>**

Bharat Sanchar Nigam limited popularly also known as BSNL is an India-based telecommunication service providing company. BSNL operates under the guardianship of the Ministry of Communication, Government of India and Department of Telecommunication, Government of India. Bharat Sanchar Nigam Limited operates according to the telecommunication policy laid as per the Indian Telecommunication Acts and Rules. Bharat Sanchar Nigam Limited was established on 1.10.2000, as a result of the revamping of the erstwhile Department of Telecommunication, Government of India. Bharat Sanchar Nigam Limited is world's seventh largest telecommunications company, with a huge bouquet of telecommunications services. The services offered by BSNL includes wire line, CDMA mobile, GSM Mobile, Internet, broadband, carrier service, MPLS-VPN, VSAT, VoIP services, IN services etc. It is one of the fast growing and most profitable organization of Government of India.

BSNL enjoys market leadership amongst all telecommunication operators in India and has grown in leaps and bounds. This gigantic Indian telecommunication company offers seamless service to its customers and it and enjoys market dominance in the

area of basic telephony, rural telephony and Internet connection. Bharat Sanchar Nigam Limited is dedicatedly working towards bridging the gap between the rural and urban India digital divide in the ICT sector. This Indian telecommunication company is one of the market leaders in the Indian telecommunication industry. Further, it has gain tremendous popularity due to its competitive pricing of tariffs. Further, to retain its market dominance as a market leader it has formulated aggressive plans for expansion of its cellular network as per the policy laid in the tenth telecommunication plan of India. BSNL has one of the widest and deepest telecommunication networks in India. The governing body has ratified a huge budgetary allocation of Rs.733 crore in the next three years for the development of telecommunication infrastructure in India. BSNL is market leader and is vastly experienced in planning, installation, network integration and maintenance of switching and transmission networks. Further the company is equipped with a state-of-the-art Telecommunication Training Institute, which holds ISO 9000 certification. Some of the key notable points about BSNL are as follows:<sup>24</sup>

- Bharat Sanchar Nigam Limited has around 47.3 million line basic telephone capacity

- BSNL has around 4 million WLL capacity and 20.1 million Global System for Mobile Communications (GSM) capacity
- It is equipped with more than 37382 fixed telephone exchanges, 18000 BTS, 287 satellite stations, 480196 Rkm of OFC cable and 63730 Rkm of microwave network
- Its network serves 7330 cities and towns, 602 districts and 5.5 lakh villages across India
- Cell One cellular service has more than 17.8 million subscribers representing around 25% of all mobile users of India
- BSNL has 35.1 million of basic telephony subscribers representing 85% of the landline subscriber base of India
- It has more than 2.5 million WLL customers
- It has 2.5 million Internet subscribers, using access modes like Dial-up, leased line, DIAS, account less Internet

The products and services offered by Bharat Sanchar Nigam Limited are as follows:-

- BSNL Landline, BSNL Mobile, BSNL WLL, BSNL Internet, BSNL Broadband, BSNL MPLS, VPN, ISDN,

- Leased line, Intelligent Network, Video conferencing,
  - Audio conferencing, Enterprise solutions, I-Net, Telegraph,
  - EPABX and Data communication.
- **VIDESH SANCHAR NIGAM LIMITED (VSNL)<sup>25</sup>**

Videsh Sanchar Nigam Limited popularly known as VSNL is an India based telecommunication service providing company. VSNL operates under the guardianship of the Ministry of Communication, Government of India and Department of Telecommunication, Government of India. Videsh Sanchar Nigam Limited operates according to the telecommunication policy laid as per the Indian Telecommunication Acts and Rules. The Government of India holds 75 % of equity shares of the Videsh Sanchar Nigam Limited and the remaining 25 % equity shares are with Tata Teleservices Ltd - the legendary industry conglomerate the 'Tata Group '. Videsh Sanchar Nigam Limited was incorporated in 1986 under the Indian Companies Act, 1956. Soon after its inception, VSNL took over the control of the 'Overseas Communication Services' (OCS) the main Government of India telecommunication company.<sup>26</sup>

This gigantic telecommunication company of India has grown in leaps and bounds and it offers seamless service to its customers

spread around the globe. This Indian telecommunication company is one of the market leaders in the Indian telecommunication industry and enjoys market dominance in the area of basic telephony, rural telephony and Internet connection. Further, it has gain tremendous popularity due to its competitive pricing of tariffs. The company is also into the business of cellular phone connection business and offers code directory multiple access (CDMA) connections for its mobile subscribers. Further, the company is planning to launch GSM mobile connections for its mobile subscribers.

The products and services offered by Videsh Sanchar Nigam Limited are as follows - International Private Leased Circuit (IPLC) Service

- National Private Leased Circuit (NPLC), Internet Leased Line Service, Bandwidth on Demand, Managed Data Network Service, Virtual Private Network Service, Inmarsat (International Maritime Satellite Organization), Broadcast,
- Data Center Services (IDC), Video Conferencing, Corporate Net Telephony, ISDN, Corporate Dial-up Solution,
- Submarine Telecommunication Cables Access

Facilitation, International Long Distance, National Long Distance and Calling Cards.

**MAHANAGAR TELEPHONE NIGAM LIMITED (MTNL)<sup>27</sup>**

Mahanagar Telephone Nigam Limited popularly known as MTNL is an India-based telecommunication service providing company. MTNL operates under the guardianship of the Ministry of Communication, Government of India and Department of Telecommunication, Government of India. Mahanagar Telephone Nigam Limited operates according to the telecommunication policy laid as per the Indian Telecommunication Acts and Rules. MTNL enjoyed virtual market monopoly till the end of the year 2000.

Mahanagar Telephone Nigam Limited operates in two major metro cities of India, Mumbai and Delhi and this giant telecommunication company enjoyed complete market leadership till the aforesaid time. With the entry of private players in the cities of Mumbai and Delhi, Mahanagar Telephone Nigam Limited lost its market monopoly. Competitive tariff schemes and lightning fast services are the main strengths of these private players and they took away with a major chunk of Mahanagar

Telephone Nigam Limited market share of subscribers. This led to lowering of tariff by the Mahanagar Telephone Nigam Limited.

This gigantic telecommunication company of India has grown in leaps and bounds and it offers seamless service to its customers.

This Indian telecommunication company is one of the market leaders in the Indian telecommunication industry and enjoys market dominance in the area of basic telephony, rural telephony and Internet connection. Further, it has gain tremendous popularity due to its competitive pricing of tariffs. Further, to retain its market dominance as a market leader in Mumbai and Delhi, MTNL has aggressive plans of expansions of its cellular network as per the policy laid in the Tenth Telecommunication Plan of India. Furthermore, the company is also planning to expand its Internet services and IT related services to help it grow along the lines of other major telecommunication players operating in India. As per the latest company policy in accordance with the tenth telecommunication plan of India, the company is expected to add 27.56 lakh basic telephone connections along with 11.57 lakh cellular phone connections. Moreover, Mahanagar Telephone Nigam Limited is making in roads in the field of M-commerce,

which will eventually facilitate its customers to transact business via mobile phone or equivalent hand held devices.<sup>28</sup>

The products and services offered by Mahanagar Telephone Nigam Limited are as follows:-

- Triband Broadband, Internet Services ,Internet Express, Bol Anmol Internet Telephony, Leased Line, Dolphin Mobile,
- Garuda WLL, Basic Telephony, ISDN, INET, International Private Leased Circuit (IPLC) Service, National Private Leased Circuit (NPLC),Internet Leased Line Service,
- Managed Data Network Service, Virtual Private Network Service, Broadcast, Data Center Services, Video Conferencing, Corporate Net Telephony, Messaging and Collaboration Services, Ethernet WAN Services,
- International Long Distance, National Long Distance and
- Calling Cards.
  
- **BHARTI AIRTEL**<sup>29</sup>

Bharti Airtel is one of the topmost companies in the telecom sector in India and is under the Bharti Enterprises Group. Airtel Bharti has been ranked as the best performance company in the whole world by the Business Week magazine in 2007.



The Company Bharti Airtel is in India the biggest integrated and also the 1st telephone service provider in the private sector, which has footprint in around 23 telecom circles. Bharti Airtel Limited has been since its very beginning using the latest technology and thus the company has paved the way for the telecom sector in India with its world-class services and products. This has helped Bharti Airtel Company to grow for the number of its customers has increased very rapidly over the years.

The Company Bharti Airtel is divided into 3 business units that are:-

- Broadband & Telephone (B&T) services
- Enterprise services
- Mobile services

Among the various services that the Bharti Airtel Limited Company provides to its customers, the services of broadband and telephone (B&T) are 1 of them. The company provides broadband Internet services of high speed for it has the best network in India. The company Bharti Airtel also provides telephone services in around 94 cities of the country and this helps the people to stay connected with one another. The company plans to expand its

broadband and telephone services by providing IPTV services and DTH operations.

Further Bharti Airtel provides enterprise services to its customers. The services of enterprise provide telecom end-to-end solutions to customers who belong to the corporate sector and also long distance services to international and national carriers. The company Bharti Airtel has more than 35,016 kilometers of optic fiber, a submarine landing station, and is also a member of South East Asia- Middle East- Western Europe- 4. All this has helped the company to provide the best enterprise services to its customers. The company Bharti Airtel Limited plans to expand its enterprise services so that it can achieve the status of a global carrier within a period of 2 - 3 years.

The company Bharti Airtel Limited provides mobile services to its customers. The company provides fixed and mobile wireless services in around 23 telecom circles by using the GSM technology. Bharti Airtel Company has become the biggest mobile service provider in India on the basis of the number of customers. The company in the future plans to expand its network in order to establish its presence in more than 500,000 villages all across the

country by 2012.

Bharti Airtel has become a leading company in the telecom sector in India due to the fact that it has provided the best quality of services to its customers. And this has been possible for the company has a wide telecom network that is of the latest technology. The Company Bharti Airtel Limited in the future also should continue to upgrade its facilities for this will ensure that high grade of services are provided to its customers.

- **VODAFONE<sup>30</sup>**

Vodafone started its operations in India in 1994 and is under the Vodafone Group. The company Vodafone India Limited has become one of the leading companies in the telecom sector in India due to its high standard of services that it provides to its customers.

The company Vodafone has its operations in 16 telecom circles of the country, which covers around 86% of the customer mobile base in India. The company offers both postpaid and prepaid GSM cellular mobile coverage all across India and its hold is especially strong in the metropolitan cities. The company Vodafone India Limited provides services like 2G, which are based on 1800 Mhz

and 900 Mhz GSM digital technology. The company Vodafone also offers voice and data services.<sup>31</sup>

Vodafone India Limited has received many awards over the years such as the best mobile service in India, Most effective and most creative advertiser of the year, and most respected telecom company.

The company Vodafone India Limited plans to spend more than Rs.250 crore in launching low price cell phones in India. The company's objective in doing this is to bring in millions of cheap mobile handsets from around the world into the country and then sell them under the Vodafone brand name in order to maximize sales. It is expected that the company Vodafone India Limited will price the handsets in the range of Rs.666, Rs.999, and Rs.888.

Vodafone India plans to sell the low price handsets from its 4 lakhs distribution outlets. The company will buy the low cost cell phones from the firm ZTE that is located in China. The Company ZTE will ship more than 10 million low cost cell phones to India that will then be sold by the company Vodafone. Vodafone company also has plans to expand in the near future and for this it is planning to take a loan overseas of around US\$ 500 million. The company Vodafone India Limited will use the money to

expand the company's network, better its technology, and open more distribution centers. All these measures will help to increase the customer base of the company Vodafone.

Vodafone is one of the top most companies in the telecom sector in India and is well known for the best quality of products and services offered to its customers. And this is the reason that the customer base of the company Vodafone India Limited has been increasing at a very rapid pace. The company is planning to launch low price cell phones in the country and also expand its operations.

- **RELIANCE COMMUNICATIONS<sup>32</sup>**

Reliance Communications started its operations in 1999 and is under the Anil Dhirubhai Ambani Group (ADAG) of companies. The company Reliance Communications Limited has been set up with the aim of providing communication and information to people at affordable price.

The company Reliance Communications business includes the whole range of services related to the telecom sector such as fixed line telephones and mobiles. The business of the company also includes services like broadband, data services, international and

national long distance services. Reliance Communications also provides to its customers a wide range of value added applications and services.

The company is able to provide such a vast range of services to its customers for it has a high- capacity, reliable, convergent, and integrated digital network.

The company Reliance Communications Limited in order to provide the best quality of services to its customers laid down 60,000 kilometers of optic fiber all across India. The company launched the Reliance mobile services in December 2002 and this has helped to increase the subscriber base of the company. The company Reliance Communications Limited's subscriber base has increased a lot over the years and at present stands at 38 million. The company provides telecommunication services to individuals and enterprises. Reliance Communications Company has become the leading telecommunication integrated company in India and the chairman of the company is Anil Ambani.

Reliance Communications Company's total revenue amounted to Rs.35,260 million in 2005-2006 and the next year, this figure stood at Rs.45,785 million. The net profit of the company amounted to Rs.7,023 million and the next year, this figure

increased to Rs.13,046 million. This shows that the company Reliance Communications Limited's total revenue and net profit has registered a significant growth in one year. The company is listed on the Bombay stock Exchange and National Stock Exchange. The company Reliance Communications Limited added a record number of subscribers in December 2006 that was 1.4 million.<sup>33</sup>

The company Reliance Communications Limited's market capitalization reached the top with Rs.1 lakh crore on the Bombay Stock Exchange in February 2007. The company has bagged the E- Governance project of the West Bengal government in May 2007. The company Reliance Communications has won the Frost and Sullivan market leadership award in October 2005 and also the CDMA industry achievement award for international leadership in October 2004. This shows that Reliance Communications has been doing very good work that has been recognized by the industry. And this is the reason that the company has received so many awards.

Reliance Communications Limited further plans to expand its operations and also plans to upgrade its technology. This is sure to help the company serve its customers better and will also increase

its subscriber base. The company Reliance Communications Limited should always try to provide the best quality of services to its customers for this would lead to customer satisfaction and loyalty. And this will in turn help the company to grow and prosper even more.

- **TATA TELE SERVICES<sup>34</sup>**

Tata Teleservices was set up in 1996 and is under the Tata Group, which is a group worth around US\$ 22 billion and has more than 96 companies. The company Tata Teleservices Limited has been formed with an investment of around US\$ 7.5 billion.

The company Tata Teleservices has helped the Tata Group to have a strong presence in the telecom sector in India and the chairman of the company is Mr. Ratan N. Tata. The company was the 1st company in the country to launch the CDMA mobile services within the state of Andhra Pradesh. Tata Teleservices Limited offers various kinds of telephone services to its customers such as wireless desktop phones, wire line services, mobile services, and public booth telephony. Further the company also offers other services like value added services such as roaming, group calling, voice portal, data cards, and Internet post paid services, 3-way



conferencing, enterprise services, USB modem, Wi-Fi Internet, and calling card services.

Tata Teleservices Company provides certain other products to its customers like new data and voice services which include picture messaging, ring tones, polyphonic, and interactive applications. The company pioneered the CDMA technology in the country and has reliable infrastructure that ensures the quality services received by the customers. The Company Tata Teleservices Limited has provided only high quality services to its customers and this has helped the company to become a market leader in the telephony fixed wireless market. The total subscriber base of Tata Teleservices is more than 3.8 million.

The company Tata Teleservices Limited in order to expand its domain, has acquired the company Hughes Telecoms (India) Limited in December 2002. Further the company has made a total investment of around Rs.19,924 crore in making an all India presence in around 20 telecom circle. The major telecom circles where the Company Tata Teleservices has its presence are Gujarat, West Bengal, Uttar Pradesh, Himachal Pradesh, Rajasthan, Haryana, Punjab, Madhya Pradesh, and Tamil Nadu. The company provides employment to more than 6000 people and

as the company is expanding it is going to create over 20,000 jobs in the near future.

Tata Teleservices Limited launched the scheme of non-stop mobile that allows a subscriber to receive incoming calls free of cost. The company has become the biggest telecom branded retail chain and is also the 1st telecom service provider in India that offers postpaid mobile connections on line. The company Tata Teleservices Limited in order to expand its operations has partnered with Ericsson, ECI Telecom, Lucent, and Motorola so that it can deploy reliable network that is technologically very advanced. The company has become a leading company in the telecom sector in India for the quality of its services that it provides to its customers. And as the company Tata Teleservices Limited is expanding and upgrading its technology it sure will help the company to provide even better services to its customers. Tata Teleservices must continue to provide the best quality of services to its customers for this will lead to customer satisfaction and loyalty and this in turn will help the company to grow and prosper.

- **IDEA CELLULAR<sup>35</sup>**

Idea Cellular started its operations in 1995 and is under the Aditya Birla Group, which holds 98.3% stake in the company. The company Idea Cellular Limited is one of the telephony wireless companies that functions in many states in India.

The company Idea Cellular is the leading mobile services GSM operator in the country. The Company Idea Cellular Limited is the only cellular operator in India to launch EDGE and GPRS. The chairman of the company is Mr.Kumar Mangalam Birla and the managing director is Mr. Sanjeev Aga. Idea Cellular Limited has the license to provide services in 11 telecom circles in the country. The telecom circles where the Company Idea Cellular has operations are Goa, Maharashtra, Andhra- Pradesh, Chattisgarh, Kerala, Haryana, Uttaranchal, Gujarat, Delhi, UP- West, and Madhya Pradesh. The company's footprint at present covers around 45% of the population of India and more than 50% of the telecom market.

Idea Cellular Limited was the 1st cellular company in the country to launch the scheme of music messaging with background tones, cellular jockey, and group talk. The company was also the 1st to launch mobile email services and voice portal. Idea Cellular

Company offers various services to its customers that include prepaid and post paid mobile services. The company also offers roaming, value added services, and call management services to its customers. The Company Idea Cellular Limited has offered revolutionary tariff plans to its customers such as Lifetime Idea, Super Power, Women's Card, Lifelong offer, and Outdoing 2 Minutes Free.

Idea Cellular in call management services offers various services to its customers such as call conference, CLIP, CLIR, call divert, itemized bill, and call wait facilities. The company provides roaming facility to its customers who are very efficient for the company has a very wide network, which covers more than 530 cities in the country and also in around 80 countries across the world. The Company Idea Cellular also provides it customers with the facility that they can pay their mobile bills on line through the company's website. As the company provides the best services to its customers, the subscriber base of the company has increased at a very rapid pace.

The Company Idea Cellular Limited has won the GSM Association Award in the category of Bill Flash. The company is the 1st cellular operator in the country who has won an award on

such a big platform. Idea Cellular Limited in order to expand even more has acquired the Company Escotel in 2004. The number of telecom circles where the company operates has increased with this acquisition and thus it has helped the company to have a pan India presence. The Company Idea Cellular is also planning to upgrade its network that will ensure that the best quality of service is provided to its customers.

Idea Cellular has become the topmost company in the telecom sector in India on the basis of the quality of its services. And so in the future also, the company must continue to provide its customers with better facilities for this will help the company to grow and prosper.

- **AIRCEL<sup>36</sup>**

The Aircel Group is a result of alliance between Maxis Communications Berhad of Malaysia (74% equity) and Apollo Hospital Enterprise Ltd of India (26% equity). The Aircel Group, formed in 1994, offers affordable and outstanding mobile services to a vast subscriber base in India. Aircel has a vision of delighting its customers by giving them the respect they deserve. Aircel commenced operations in 1999. Today, Aircel operates in 18 telecommunication circles and the

company is ready to embark on a dynamic expansion plan, swiftly rolling out in new circles in the near future.

- **VIDEOCON<sup>37</sup>**

Videocon Telecommunications Limited, a Videocon group company offers GSM mobile services GSM service under the brand name Videocon. The services are already up and running in Tamil Nadu, Punjab, Haryana, Mumbai, Gujarat, Kerala, Madhya Pradesh, UP East, UP West, Himachal Pradesh and soon will be present across the country.

The Videocon Group is a \$4 billion, global business conglomerate with a strong presence in Household Consumer Goods, Oil & Gas, Retail, Telecom, DTH and the Power sector.

The Videocon group has constantly leveraged a culture of innovation to develop a range of market re-defining products. The Group has several manufacturing facilities globally and R&D centers spread across Americas, Europe and Australasia that are constantly working towards creating global quality products deploying the most up-to-date technology. The Group is rated among India's Top 15 Business Houses and is listed among the 100 Emerging Giants of the World according to a

Boston Consulting Group study in addition to being rated amongst the Top 15 of India's 'buzziest brands' by agency faqs in 2010.

- **BPL MOBILE COMMUNICATIONS<sup>38</sup>**

BPL Mobile Communications Limited offers GSM wireless facilities in three states of India besides offering broadband facilities via wireless bpl net with an ADSL internet competence.

Based in Bangalore, the firm is the subordinate of Vodafone Essar Ltd. BPL Mobile has had the opportunity of providing the communications requirements of the fiscal center of India for the past 13 years. Later, in the year 2009, BPL Mobile rebranded itself as Loop Mobile and has been operating since then in Mumbai.

Its latest identity, Loop Mobile symbolizes development with stability. The firm incessantly functions towards providing their subscribers an excellent set of connections, inventive products and a better-quality cellular telephony understanding. It pledges to sustain the same focus and dedication in offering the excellent network connectivity, billing precision, and a matchless custom-made client service.

In an attempt to offer best of customer service practices, BPL Mobile Communications Limited have endowed more than Rs 300

crore to improvise to Next Generation IP (NGIP) set-up. This extremely competent network improvisation allows the provider to provide supreme voice clearness and wide-ranging coverage along with prompt data facilities. The firm is the only one in India to have fulfilled the TRAI yardsticks on a set-up and service excellence constraints. BPL Mobile Communications has also been ranked as the best set-up by Voice & Data, a primary Telecom periodical, in their 2008 SAARC mobile users' agreement review.

BPL Mobile Communications Limited has achieved a considerable Mumbai market share of additional subscribers. The importance on expansion is evidently replicated in the firm's increasing subscriber base. In 2009, the brand name changed from BPL mobile to Loop mobile.

## **2.6 FUTURE GROWTH IN TELECOM SEGMENTS**

According to a Frost & Sullivan industry analyst, by 2012, fixed line revenues are expected to touch US\$ 12.2 billion while mobile revenues will reach US\$ 39.8 billion in India. Fixed line capex is projected to be US\$ 3.2 billion, and mobile capex is likely to touch US\$ 9.4 billion.<sup>39</sup>



Further, according to a report by Gartner Inc., India is likely to remain the world's second largest wireless market after China in terms of mobile connections. According to recent data released by the COAI, Indian telecom operators added a total of 10.66 million wireless subscribers in December 2008. Further, the total wireless subscriber base stood at 811.59 million at the end of March 2011.<sup>40</sup>

The overall cellular services revenue in India is projected to grow at a CAGR of 18 per cent from 2008-2012 to exceed US\$ 37 billion. Cellular market penetration will rise to 60.7 per cent from 19.8 per cent in 2007.

The Indian telecommunications industry is on a growth trajectory with the GSM operators adding a record 9.3 million new subscribers in January 2009, taking the total user base to 267.5 million, according to the data released by COAI.<sup>41</sup>

In WiMax, India is slated to become the largest WiMAX market in the Asia-Pacific by 2013. A recent study sees India's WiMAX subscriber base hitting 14 million by 2013 and growing annually at nearly 130 per cent. And investments in WiMAX ventures are slated to top US\$ 500 million in India, according to a report by US-based research and consulting firm, Strategy Analytics.

- **VALUE-ADDED SERVICES IN TELECOM INDUSTRY**

A report by market research firm IMRB stated that the mobile value-added services (MVAS) industry was valued at US\$ 1.15 billion in June 2008, and is expected to grow rapidly at 70 per cent to touch US\$ 2.96 billion by June 2012.<sup>42</sup>

Currently, MVAS in India accounts for 10 per cent of the operator's revenue, which is expected to reach 18 per cent by 2012. According to a study by Stanford University and consulting firm BDA, the Indian MVAS is poised to touch US\$ 3.74 billion by 2012.<sup>43</sup>

Mobile advertising, which is an important VAS segment, offers great potential to become an important revenue source. Marketers are increasingly using MVAS as a step ahead of SMS-based marketing to sell soaps and shampoos, banking, insurance products and also entertainment services, and rural markets are proving to be very receptive for such marketing.

Further, Venture Capitalists like Canaan Partners, Draper Fisher Juvertson, Helion, and Nexus India are also innovating with services like mobile payment options, advertising, voice-based SMS and satellite video streaming.

## **2.7 RELIANCE COMMUNICATIONS**

The Late Dhirubhai Ambani dreamt of a digital India — an India where the common man would have access to affordable means of information and communication. Dhirubhai, who single-handedly built India's largest private sector company virtually from scratch, had stated as early as 1999<sup>44</sup>: “Make the tools of information and communication available to people at an affordable cost. They will overcome the handicaps of illiteracy and lack of mobility.”

It was with this belief in mind that Reliance Communications (formerly Reliance Infocomm) started laying 60,000 route kilometers of a pan-India fiber optic backbone. This backbone was commissioned on 28 December 2002, the auspicious occasion of Dhirubhai's 70th birthday, though sadly after his unexpected demise on 6 July 2002.<sup>45</sup>

Reliance Communications has a reliable, high-capacity, integrated (both wireless and wireline) and convergent (voice, data and video) digital network. It is capable of delivering a range of services spanning the entire infocomm (information and communication) value chain, including infrastructure and services for enterprises as well as individuals, applications, and consulting.

Today, Reliance Communications is revolutionizing the way India communicates and networks, truly bringing about a new way of life.

- **ABOUT ADAG**

Few men in history have made as dramatic a contribution to their country's economic fortunes as did the founder of Reliance, Sh. Dhirubhai H Ambani. Fewer still have left behind a legacy that is more enduring and timeless.

When Dhirubhai embarked on his first business venture, he had a seed capital of barely US\$ 300 (around Rs 14,000). Over the next three and a half decades, he converted this fledgling enterprise into a Rs 60,000 crore colossus—an achievement which earned Reliance a place on the global Fortune 500 list, the first ever Indian private company to do so.

Under Dhirubhai's extraordinary vision and leadership, Reliance scripted one of the greatest growth stories in corporate history anywhere in the world, and went on to become India's largest private sector enterprise.

.Reliance Communications is the flagship company of the Anil Dhirubhai Ambani Group (ADAG) of companies. Listed on the

National Stock Exchange and the Bombay Stock Exchange, it is India's leading integrated telecommunication company with over 100 million customers.

Business encompasses a complete range of telecom services covering mobile and fixed line telephony. It includes broadband, national and international long distance services and data services along with an exhaustive range of value-added services and applications. Our constant endeavor is to achieve customer delight by enhancing the productivity of the enterprises and individuals we serve.

Reliance Mobile (formerly Reliance India Mobile), launched on 28 December 2002, coinciding with the joyous occasion of the late Dhirubhai Ambani's 70th birthday, was among the initial initiatives of Reliance Communications. It marked the auspicious beginning of Dhirubhai's dream of ushering in a digital revolution in India.

Reliance-ADA Group's flagship company, Reliance Communications, is India's largest private sector information and communications company, with over 100 million subscribers. It has established a pan-India, high-capacity, integrated (wireless

and wire-line), convergent (voice, data and video) digital network, to offer services spanning the entire infocomm value chain.

Other major group companies — Reliance Capital and Reliance Infrastructure — are widely acknowledged as the market leaders in their respective areas of operation.

- **VISION OF THE COMPANY**

By 2015, be amongst the top 3 most valued Indian companies, Providing Information, Communication & Entertainment services, and being the industry benchmark in Customer Experience, Employee Centricity and Innovation.

- **CHAIRMAN'S PROFILE**

Regarded as one of the foremost corporate leaders of contemporary India, Shri Anil D. Ambani ,48, is the chairman of all the listed companies of the Reliance ADA Group, namely Reliance Communications, Reliance Capital, Reliance Energy and Reliance Power limited.

He is also Chairman of the Board of Governors of Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat.

Anil D Ambani joined Reliance in 1983 as Co-Chief Executive Officer, and was centrally involved in every aspect of the company's management over the next 22 years. He is credited with having pioneered a number of path-breaking financial innovations in the Indian capital markets. He spearheaded the country's first forays into the overseas capital markets with international public offerings of global depositary receipts, convertibles and bonds. Starting in 1991, he directed Reliance Industries in its efforts to raise over US\$ 2 billion. He also steered the 100-year Yankee bond issue for the company in January 1997.

- **CORPORATE GOVERNANCE**

Organizations, like individuals, depend for their survival, sustenance and growth on the support and goodwill of the communities of which they are an integral part, and must pay back this generosity in every way they can...

This ethical standpoint, derived from the vision of our founder, lies at the heart of the CSR philosophy of the Reliance – ADA Group.

While we strongly believe that our primary obligation or duty as corporate entities is to our shareholders – we are just as mindful of

the fact that this imperative does not exist in isolation; it is part of a much larger compact which we have with our entire body of stakeholders: From employees, customers and vendors to business partners, eco-system, local communities, and society at large.

We evaluate and assess each critical business decision or choice from the point of view of diverse stakeholder interest, driven by the need to minimize risk and to pro-actively address long-term social, economic and environmental costs and concerns.

For us, being socially responsible is not an occasional act of charity or that one-time token financial contribution to the local school, hospital or environmental NGO. It is an ongoing year-round commitment, which is integrated into the very core of our business objectives and strategy.

Because we believe that there is no contradiction between doing well and doing right. Indeed, doing right is a necessary condition for doing well.

- **CODE OF CONDUCT**

Reliance – ADAG continually reviews corporate governance best practices to ensure that they reflect global developments. It takes feedback into account, in its periodic reviews of the guidelines to



ensure their continuing relevance, effectiveness and responsiveness to the needs of local and international investors and other stakeholders.

Our code of conduct and business policies encompasses the following areas:-

- ❖ Values and commitments
- ❖ Code of ethics
- ❖ Business policies
- ❖ Ethics management
- ❖ Prevention of sexual harassment
- ❖ Policy on insider trading

We endeavor to further extend our efforts beyond the traditional value chain by developing and deploying complete telecom solutions for the entire spectrum of society.

## **2.8 FINANCIAL PERFORMANCE OF RELIANCE COMMUNICATIONS**

In RCOM, revenue increased from Rs.107,664 (million) in 2005-06 to Rs. 231,076 (million) in 2010-11 and net profit increased from Rs.4,438 (million) in 2005-06 to Rs. 46,550 (million) in 2009-10.<sup>46</sup>

**Table No.2.3**

### **Financial Performance of RCOM**

<b>Financial Year</b>	<b>Revenue (Rs. Millions)</b>	<b>Net Profit (Rs. Millions)</b>
2005-06	107,664	4,438
2006-07	144,683	31,637
2007-08	190,678	54,011
2008-09	229,485	60,449
2009-10	221,323	46,550
2010-11	231,076	13,457

(Source: Annual Reports of RCOM)

## **2.9 BUSINESS DETAILS OF RELIANCE COMMUNICATION<sup>47</sup>**

### **• MOBILE BUSINESS**

India's leading integrated telecom company Reliance Communications is the flagship company of the Anil Dhirubhai Ambani Group (ADAG) of companies. Listed on the National Stock Exchange and the Bombay Stock Exchange, it is India's

leading integrated telecommunication company with over 100 million customers.

Our business encompasses a complete range of telecom services covering mobile and fixed line telephony. It includes broadband, national and international long distance services and data services along with an exhaustive range of value-added services and applications. Our constant endeavor is to provide an enhanced customer experience and achieve customer satisfaction by upscaling the productivity of the enterprises and individuals we serve.

Reliance Mobile (formerly Reliance India Mobile), launched on 28 December 2002, coinciding with the joyous occasion of the late Dhirubhai Ambani's 70th birthday, was among the initial initiatives of Reliance Communications. It marked the auspicious beginning of Dhirubhai's dream of ushering in a digital revolution in India. Today, we can proudly claim that we were instrumental in harnessing the true power of information and communication, by bestowing it in the hands of the common man at affordable rates.

- **WIRELESS RELIANCE MOBILE**

With over 110 million subscribers across India, Reliance Mobile is India's largest mobile service brand. Reliance Mobile services now cover over 24,000 town, 6 lakh villages and still counting.

What sets Reliance Mobile apart is the fact that nearly 90 per cent of our handsets are data-enabled, and can access hundreds of Java applications on Reliance Mobile World.

Reliance Mobile has ushered in a mobile revolution by offering advanced multimedia handsets to the common man at very affordable rates. This innovative low pricing has increased the number of mobile phone users and its result is clearly reflected in the meteoric rise in India's tele-density over the past four years.

Our pan-India wireless network runs on CDMA 2000 1x technology, which has superior voice and data capabilities compared to other cellular mobile technologies. CDMA 2000 1x is more cost-effective as it utilizes the scarce radio spectrum more efficiently than other technologies do. Enhanced voice clarity, superior data speed of up to 144 kbps and seamless migration to newer generations of mobile technologies is some of its key differentiators.

- **R-WORLD**

With over 150 data applications offering varied services - unique to any wireless service in India - R World is truly a treasure house of knowledge, information, entertainment and commerce.

- **INTERNET**

The successful rolling out of real broadband services across the nation marks the second chapter of Reliance Communications' commitment to usher in a digital revolution in India. Reliance Communications is setting new standards for the world to follow through inventive use of cutting-edge technologies in the field of fibre optics, Ethernet, microwave radios, switching, routing, digital compression and encoding.

The mass roll out of broadband being carried out by Reliance Communications across the length and breadth of the country, offering speeds of up to 100 Mbps to millions of users, in itself is a technological marvel.

The uniqueness of Reliance Communications' broadband initiative lies in the fact that our entire nationwide network is being conceptualized and built from ground zero. It is designed to deliver affordable quality education, drive governance, transform

healthcare, enhance efficiency in business and finally, generate new job opportunities for millions of unemployed Indians.

Reliance Communications' broadband service is set to revolutionize Indian society by removing the traditional bottlenecks of development including lack of capital and weak infrastructure, and help tide over the challenges of distribution in a vast country like India.

- **E-HEALTHCARE**

Reliance broadband is set to offer timely quality healthcare facilities at very affordable rates to large sections of the Indian population irrespective of their geographical location. Our broadband connectivity is committed to usher in a new generation of online healthcare delivery system.

Access to advance medical expertise can no longer be constrained by geography. A patient can seek medical advice sitting in the comforts of home. Doctors can attend to patients anywhere in the world on real-time basis. At the click of the mouse, medical records and documents can be digitally dispatched thousands of miles away.

Recently, the Apollo Group of Hospitals joined hands with Reliance Communications to offer its top-of-the-line healthcare facilities online to the benefits of millions of Indians.

- **INTEGRATED ENTERPRISE SOLUTION**

Reliance Communications' Integrated Enterprise Solution offering is currently being rolled out in 30 cities across India. It consists of an integrated voice, data and video solution. Our target is to expand its service to cover the entire country eventually.

For Indian enterprises, our convergent voice-data-video solution framework, delivered through fibre-to-the-building (FTTB) architecture introduces true broadband connectivity. Our enterprise broadband is delivered using Metro Ethernet technology. However, based on specific customer requirement other high-end technologies including Digital Subscriber Line (DSL), Local Multipoint Distribution Services (LMDS) and Integrated Service Digital Network (ISDN) are also being depl

As per specific requirements of enterprises we provide customized solutions be it a simple voice solution or complex data solutions that involves nationwide networking of all branches, sales and field executives, vendors, suppliers and customers at data speeds

scalable from 64 Kbps to 100 Mbps. Reliance Communications' core broadband products include MPLS based VPN, leased lines, Gigabit Internet connectivity, video conferencing and video telephony.

- **ENTERTAINMENT-IPTV**

Reliance IPTV is powered by Microsoft media room, which is the preferred IPTV Platform world over. Leading IPTV Service Providers like AT&T, BT, DT and SingTel operate on the Media room Platform. Features and functionalities on the Reliance IPTV differentiate us from all the other IPTV Players in the country. Reliance IPTV is uniquely placed to cater to the growing & varied needs of consumers and become India's leading IPTV service provider.

Reliance IPTV comes loaded with unique features and functionalities that are built to provide the user an amazing TV experience.

Following features differentiate Reliance IPTV from competition:

- **LIVE TV**

Reliance IPTV Service has the capability to deliver over 500 Live TV channels and will carry around 200 Channels at launch – the



highest by any Television Service Provider in India. We are targeting to carry at least 250 channels, including 5-10 HD Channels, within a year of launch.

- **VIDEO ON DEMAND**

Reliance IPTV can host over 5,000 hours of VoD at current capacity. Around 500 VoD Titles will be available at launch and the library will be expanded on an ongoing basis. Within a year of launch, we intend to carry at least 1500 Titles.

- **DVR**

Reliance IPTV has functionality to support recording of 3 streams simultaneously while watching Live TV/VOD

- **INSTANT CHANNEL CHANGE (ICC)**

A unique feature of Reliance IPTV which enables channel change over in micro seconds. Typical channel change times are at least 2-4 seconds.

- **TIME-SHIFT TV**

Catch-up TV allows a subscriber to go back in time and watch programs that were screened earlier in the day or in the week.

Reliance IPTV has the capability to allow a subscriber to go back a week in time.

Reliance IPTV has been tested and is running successfully in more than 200 Homes in Mumbai. Initially, our services will be launched in Mumbai and Delhi and then expanded to Pune, Bangalore, Hyderabad and Ahmadabad in the next one year.

• **ENTERPRISE SOLUTION**

Our business encompasses a complete range of telecom services for an Enterprise. These include bouquet of services in the area of telephony, networked telephony, data connectivity, video, Internet and managed services. In a short span of time since its initialization Enterprise Business has become market leader in chosen verticals.

For Enterprises, RCOM created a convergent voice-data-video network – a first in the country’s history, delivered through fibre-to-the-building (FTTB) architecture. This enabled us to offer next generation services based on Metro Ethernet Technology apart from delivering traditional telco services. This unique architecture has enabled Indian enterprise customer to have unlimited capacity available. Network based on cutting edge technologies, backed by systems and processes designed for performance is our strength.

RCOM is the service providers in the country which owns and controls all the three components of connectivity namely – local access, national long distance and international connectivity, thus enabling us to offer meaningful service level commitments to customer.

Our constant endeavor is to achieve customer delight by enhancing the productivity of the enterprises and individuals we serve.

Today, we can proudly claim that we were instrumental in enabling our customers to harness true power of information and communication technology.

• **NETWORKING**

Global network Reliance Communications is a National Long Distance (NLD) and International Long Distance (ILD) service provider, rendering national and international transport links between other telecommunication service providers' networks. It is also an infrastructure provider for end-to-end bandwidth requirements as well as providing dark duct and dark fibre on lease to service providers and companies.

The acquisition of Flag Telecom by Reliance in January 2004 has strengthened the bouquet of our service offerings to national and global service providers and companies.

Our wholesale customers include Indian and international telephony service providers, Internet service providers, long-distance carriers, call centre operators, multinational companies, business process outsourcing (BPO) companies, IT-enabled service (ITES) providers and government and quasi-government organizations.

### **DATA CENETR**

Reliance is India's largest Internet Data Center (IDC) service provider, hosting business critical IT Infrastructure and applications of Indian and foreign blue chip companies, financial institutions and other important organizations. Reliance Internet Data Centers are truly world class Level 3 (highest) IDC facilities, with more than 6, 50,000 sq ft of hosting space. Total of nine IDC's including four IDC's with total hosting space of 256000 sq ft— are functioning in Mumbai, three with hosting space of 1,00,000 sq ft- are functioning at Bangalore, one IDC of hosting space of 56,000 sq ft is functioning in Chennai and one IDC of hosting space of 2,60,000 sq ft is functioning in Hyderabad. Reliance is also setting up world-class data centers in other major

cities in India making a total of more than 1.4 million sq ft of hosting space available over the next year.

Reliance data centers, on a daily basis, manage more than 25,000 servers, 350 firewalls and 1600 terabyte of data transfer. All data center's are internationally benchmarked on all parameters — physical and network security, infrastructure, facilities, network connectivity and operations.

Reliance Internet Data Centers offer a range of standard and advanced managed hosting services. The services range from offering bulk co-location space to fully managed hosting of servers on rent/lease model. Further, a whole range of managed value added services are offered like firewall, intrusion detection, backup, streaming, mailing, system administration, data base administration, load balancing, storage services and disaster recovery / BCP solutions.

Internet Data Centers are critical components of Reliance Communications' vision to herald a digital revolution in India. The Data centers are connected to Reliance's pan-India, optic fibre-based, high capacity IP network. The data center is further connected to 52 countries including US, UK, Mid-east and Asia-Pac through Flag Telecom (A Reliance Communications group

company) backbone and other undersea cable systems. It also has private peering relationship with the largest Tier 1 Internet Service Providers (ISPs) and public peering at more than 15 Internet Exchange points across the globe, apart from peering relationship with domestic ISPs on STM-1 bandwidth.

**REFERENCES:**

1. <http://www.budde.com.au/Research/Global-Industry-An-Introduction-to-Telecommunications.html>
2. <http://www.telecomsmarketresearch.com/research/TMAAATMX-Hot-Telecom-Global-Telecom-Market-Status-Forecast-2008-2013.shtml>
3. Mobile Communications by Joochen Schiller –second edition
4. <http://www.economywatch.com/worldindustries/telecommunications/world-telecom-industry.html>
5. IBID
6. <http://business.mapsofindai.com/indai-industry/telecom.html>
7. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
8. IBID
9. IBID
10. IBID
11. [http://www.crisil.com/CRISIL-ratings\\_indian-telecom-sector-faqs.pdf](http://www.crisil.com/CRISIL-ratings_indian-telecom-sector-faqs.pdf)

12. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
13. [http://www.ey.com/IN/en/Industries/Telecommunications/Telecommunications\\_Overview](http://www.ey.com/IN/en/Industries/Telecommunications/Telecommunications_Overview)
14. [http://store.businessmonitor.com/telecommunications/india\\_telecommunications\\_report/](http://store.businessmonitor.com/telecommunications/india_telecommunications_report/)
15. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
16. [www.ibef.org/industry/telecommunications.aspx](http://www.ibef.org/industry/telecommunications.aspx)
17. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
18. IBID
19. IBID
20. <http://www.telecomsmarketresearch.com/research/TMAAATMX-Hot-Telecom-Global-Telecom-Market-Status-Forecast-2008-2013.shtml>
21. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf), page 20-40
22. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf), page 9-35
23. <http://www.bsnl.co.in/about.htm>



24. <http://www.bsnl.co.in/company/growth.htm>
25. [http://www.tataindicomextra.in/index\\_interim\\_new.html](http://www.tataindicomextra.in/index_interim_new.html)
26. IBID
27. <http://mtnl.net.in/history.htm>
28. <http://mtnl.in/growth/index.htm>
29. <http://www.airtel.in/wps/wcm/connect/about+bharti+airtel/>
30. [www.vodafone.in](http://www.vodafone.in)
31. IBID
32. <http://www.rcom.co.in/Rcom/personal/home/index.html>
33. [http://www.rcom.co.in/Rcom/aboutus/overview/overview\\_relianc  
egroup.html](http://www.rcom.co.in/Rcom/aboutus/overview/overview_relianc<br/>egroup.html)
34. <http://www.tataindicom.com/>
35. [www.ideacelluar.com](http://www.ideacelluar.com)
36. [www.aircel.com](http://www.aircel.com)
37. [Www. videocon.com](http://www.videocon.com)
38. [www.loopmobile.in](http://www.loopmobile.in)
39. <http://www.frost.com/prod/servlet/svcg.pag/IT00>
40. <http://www.gartner.com/technology/research/>
41. <http://www.coai.com/revenue.php>
42. [http://www.imrbint.com/index.](http://www.imrbint.com/index)

43. [www.siliconindia.com/.../Characteristics\\_of\\_Successful\\_MVAS\\_com](http://www.siliconindia.com/.../Characteristics_of_Successful_MVAS_com)

44. [http://www.rcom.co.in/Rcom/aboutus/overview/overview\\_business.html](http://www.rcom.co.in/Rcom/aboutus/overview/overview_business.html)

45. IBID

46. [http://www.rcom.co.in/Rcom/aboutus/ir/ir\\_financials.html](http://www.rcom.co.in/Rcom/aboutus/ir/ir_financials.html)

47. <http://www.rcom.co.in/Rcom/business/HTML/index.html>

## **Chapter 3**

### **Research Plan and Procedure**

- 3.1 Introduction
- 3.2 Research Problem
- 3.3 Review of Literature
- 3.4 Objectives of the Study
- 3.5 Source of the Data
- 3.6 Significant of the Study
- 3.7 Research Methodology
- 3.8 Hypotheses
- 3.9 Sample
- 3.10 Chapter Plan
- 3.11 Limitations
- References

### **3.1 INTRODUCTION**

Research methodology that is the heart of the study that includes the basic assumptions, gap in the existing knowledge and the procedures used by the researcher to fill the gap that even includes data collections, interpretation and reaching to conclusions. It is a basic plan for action, or a series of actions chalked out, in order to accomplish the objective efficiently and effectively within a time framework, without deviating from the original target. In other words; one can say that, where we are at this moment and where we want to go, the process involved is carefully transformed into a blueprint called the research design.

### **3.2 RESEARCH PROBLEM:** for measuring performance we have

various parameters i.e. finance, customers satisfaction, employ satisfaction, and many more areas through that we can measure performance of any organization. In this study researcher tries to find the total performance of the sample unit - Reliance Communications by using the Balance Scorecard. Title of the research is;

**“MEASURING THE TOTAL PERFORMANCE OF RELIANCE COMMUNICATIONS–THROUGH BALANCED SCORECARD.”**

The reason behind selecting the unit is; as Indian telecom industry is passing through critical position and effort to improve the profitability and performance. The year under review witnessed further dramatic drop in telecom tariffs. That forces the units working in this industry to focus on value added services along with their main business. With the help of several new operators in the year 2010-11, the total number of operators in the market stands at No. 15. Hence, analysis of performance of Reliance communications is contemporary. We might need more balanced performance information to fully assess an organization's success. Traditionally, the measurement of all organizations has been financial. To overcome this limitation, the balanced scorecard will be used to give a balanced and holistic approach to assessing performance of Reliance Communications.

Performance measurement can be defined as the process of measuring efficiency, effectiveness and capability, of an action or a process or a system, against given norm or target. Balanced scorecard is a strategic management and measurement system that links strategic objectives to a comprehensive range of key performance indicators, to provide a balanced view.<sup>1</sup>

### **3.3 REVIEW OF LITERATURE**

The Balanced Scorecard has generated much interest since its introduction in the early 1990s. Researchers have used surveys, field research and experiments in the quest to understand the Balanced Scorecard.

Letza (1996)<sup>2</sup> conducted a study that examined companies which designed and implemented the Balanced Scorecard. The companies in this study were: MC-Bauchemie Müller GmbH & Co; Rexam Custom Europe; AT & T EMEA (Europe/Middle East/Africa). He found that there were similarities in the processes adopted by all three companies in the designing and subsequent implementation, of their individual Balanced Scorecard. He added that in all cases it was clear that good communication and building of commitment was of the utmost importance. It was also very clear that the unique culture and existing company philosophy had to be incorporated into the Balanced Scorecard for it to be acceptable to managers. Closely aligned to this was a need to link performance measures with company strategy.

Hoque and James (2000)<sup>3</sup> surveyed 66 Australian manufacturing firms. Balanced Scorecard usage was measured using a 20 items scale similar to that developed by him. This study used the balance attribute to determine Balanced Scorecard use by the responding organization. Hoque and James find support for the hypothesis that larger organizations tend to make more use of the Balanced Scorecard and it suggests that greater Balanced Scorecard usage is associated with improved performance.

Chan and Ho (2000)<sup>4</sup>, in their survey of 121 Canadian hospitals, queried the respondent about their perceptions with respect to Balanced Scorecard. They reported that the Balanced Scorecard implementers made use of all four Balanced Scorecard perspectives and used a relatively balanced mix of outcome measures and performance drivers. They also reported that there was no significant difference between implementers and non-implementers of Balanced Scorecard with respect to the respondent's perceptions about the following two statements: (1) there is a direct link between your organizations long term strategy and performance measures, and (2) the performance measures reflect a clear, articulated strategy. This is meaningful because it is possible that organizations that have not

formally implemented a Balanced Scorecard may already be using at least some of the Balanced Scorecard attributes.

Ittner and Larcker (2003)<sup>5</sup> conducted field research in more than 60 manufacturing and services companies supplemented with survey responses from 297 senior executives. Casual linkages were a major focus of this study which reported that only 23 percentage of the surveyed companies consistently built and verified causal models. They reported that four common mistake companies make when trying to measure nonfinancial performance. These are (1) no linking measures to strategy, (2) not validating the links between the measures, (3) not setting the right performance targets, (4) measuring incorrectly. Further reported that at least 70 percentage of companies use measures that lack statistical validity and reliability.

A Norwegian study by Stemsrudhagen (2004)<sup>6</sup>, surveyed 83 Norwegian manufacturing companies. This study set out to explore the degree to which performance measurement systems have the structural properties which are inherent in the Balanced Scorecard. The study also asked whether the properties of the performance measurement systems in Balanced Scorecard companies are different from properties found in non- Balanced Scorecard companies. Stemsrudhagen reported that the structures of performance



measurement systems comprise many of the measures found in Balanced Scorecard, irrespective of whether or not the companies have in fact implemented this system.

Speckbacher et al. (2003)<sup>7</sup> surveyed publicly traded firms in Germany, Austria and Switzerland on their usage of the Balanced Scorecard. Almost all of these organizations used three of the four Kaplan and Norton Balanced Scorecard perspective: Financial, Customer and Internal Business perspective. Speckbacher et al. (2003) reported that “Improved alignment of strategic objectives with strategy” and Improved company results in the Long-term” were common expected benefits of Balanced Scorecard use.

Malina and Selto (2001)<sup>8</sup> conducted field research in a Fortune 500 company for the purpose of answering the following research question: (RQ1) Is the Balanced Scorecard an (in) effective communication device, creating strategic (non) alignment, (in) effective motivation, and positive organizational outcomes? (RQ2) Is the Balanced Scorecard an (in) effective management control device, creating strategic (non) alignment, (in) effective motivation, and (negative) positive organizational outcomes? They found support for RQ2: Effective management control appears to cause Aligned with strategy and Effective motivation, which in turn appears to cause

positive outcomes. In other words, effective management control appears to contribute to positive motivation of the employees and to an organization working with the organizations strategy which leads to positive results. In summary, they found that in at least one corporate setting, the Balanced Scorecard presents significant opportunities to develop, communicate and implement strategy.

Ittner, Larcker and Meyer (2003)<sup>9</sup> provide, one of the first detailed studies of Balanced Scorecard based compensation plan. The perform field research in one organizations and find that, even in a Balanced Scorecard setting, short-term financial measures are the primary determinant of bonuses. They also find that a large proportion of branch manager' performance evaluations are based on factors other than the Balanced Scorecard measures, even though discretion to consider other factors was not a component of the bonus plan.

### **3.4 OBJECTIVES OF THE STUDY**

The broader objective of the study is to measure total performance of Reliance Communications through Balanced Scorecard, which is sub divided into four main key performance indicators (KPI) as:

- (a) Financial Perspective,
- (b) Customer Perspective,

(c) Internal Business Processes and

(d) Learning and Growth Perspectives.

Under each KPI, the organization must select metrics that will align business performance to its strategic objectives and vision. The reason behind selecting this topic is that the researcher was working at the Reliance Communication at Mumbai and was involved in the team that decides the strategic vision of Reliance Communications Limited. The vision which was decided in the year 2006 is as under<sup>10</sup>:

By 2015, be amongst the top 3 most valued Indian companies, Providing Information, Communication and Entertainment services, and being the industry benchmark in Customer Experience, Employee Centricity and Innovation.

The first objective of the study is:

To Measure customer satisfaction level of Reliance Communication – this objective is in line with customers Perspective of BSC.

As per the vision of the company, RCOM emphasizes on “Customer Experience.” It is an area which can give a sustainable competitive advantage and hence it is one of the key thrust areas for RCOM business. Researcher has taken strategic measures is customer satisfaction level for measurement of customer experience

Second objective of the study is:

To Measure employee satisfaction level and also to Measure organizational perception level of employee. This is in line with the learning and growth perspective of BSC.

As per the vision of the company, RCOM emphasizes on “Employee Centricity” and in this line two strategic measures selected by researcher, employee satisfaction and organizational perception level.

Third objective of the study is:

To Measure Performance of Connection with good voice quality, Performance for Resolution of billing / charging / validity complaints and to Accessibility of call centre / customer care. This objective is to measure Internal Business Process Perspective of BSC. To achieve an efficient internal business processes that deliver services to the customer in a timely fashion and adequately meets the customer’s needs and allow the RCOM to comply with its social responsibilities while meeting all regulatory requirements. As per vision of the company, “Customer Experience” is enhanced through very high standards and quality in all customer interactions. The relevant strategic measures under this perspective are connection with good voice quality, metering and billing credibility and accessibility of call centre / customer care.

Forth objective of the study is:

To measure company’s financial performance in line with the Financial Perspective of BSC.

As per the vision of the company, “By 2015, be among the top 3 most valued Indian companies.” Strategic measures selected by researcher for the purpose are: Earning per share, Return on Assets, Return on equity, Return on Investment and Market value.

### **3.5 SOURCE OF THE DATA**

The methodologies adopted for this study is a combination of quantitative and qualitative methods. For the primary data source, structured questionnaires were designed to collect data on the strategic objectives of the company in order to identify relevant measures being used under the four perspectives of the balanced scorecard. Customers and employees survey of RCOM to collect data on the identified measures in order to calculate them for the purpose of analysis. This was most specifically targeted at collecting data on metrics under customer perspective, the internal business processes and, learning and growth perspectives.

### **3.6 SIGNIFICANT OF THE STUDY**

We might need more balanced performance information to fully assess an organization’s success. It seems that for all we have learned, we remain stuck in the quagmire of financial measurements. Perhaps tradition is serving as a guide unwilling to yield to the present realities. Traditionally, the measurement of all organisations

has been financial. Bookkeeping records that are being used to facilitate financial transactions can be traced back thousands of years. At the turn of the twentieth century, financial measurement innovations were critical to the success of the early industrial giants like General Motors. The financial measures created at that time were the perfect complement to the machinelike nature of the corporate entities and management philosophy of the day. Competition was ruled by scope and economic of scale, with financial measures providing the yardsticks of success.

The situation is not different with what is happening in the Indian telecom industry. The industry has failed to grow with changing times. Performance of RCOM is not up to the mark and profitability of RCOM was decreasing last two year. This is therefore a debilitating factor to assessing true performance of RCOM with respect to their strategies and goals. To overcome this limitation, the Balanced Scorecard will be used to give a balanced and more holistic approach to assessing performance of RCOM. Balanced Scorecard as a carefully set of quantifiable measures derived from an organisation's strategy. The measures selected for the Scorecard represent a tool for leaders to use in communicating to employees and external stakeholders the outcomes and performance drivers by

which the organisation will achieve its mission and strategic objectives. There are three elements to this tool thus it can be implemented as measurement system, strategic management system, communication tool or information tool.

This study will therefore focus on investigating in what respects the balanced scorecard and measures in several dimensions provide stakeholder with additional information regarding performance of RCOM. The use of common measures is to provide for fairness, standardization and ease of presentation on reporting performance of RCOM.

### **3.7 RESEARCH METHODOLOGY**

This study is based on the primary and secondary data. This data is collected from various sources especially from published financial annual report of company and structured questionnaire. The period for measurement of financial performance is from FY 2006-07 to 2010-11 and other related data are collected through Structured Questionnaire filled up by Customers and Employees of Reliance Communications respectively at Mumbai and working at the head quarter of the (Mumbai) sample unit.

For collection of data for total performance measurement, balanced scorecard for an organization, four main key performance indicators

(KPI) which are financial perspective, customer perspective, internal business processes and learning and growth perspective are considered in addition to the main strategic objectives of the organization

Evaluating financial performance is a difficult task for researcher. However the researcher has considered following key financial performance indicator to measure financial performance.

1. Return on Asset (ROA) ;
2. Return on Equity (ROE)
3. Return on Investment (ROI)
4. Earnings Per Share (EPS)
5. Market Value

Those are describing at relevant chapter in details.

### **Questionnaire (for customers and employees perspectives)**

To evaluate three key performance indicators (KPI) which are customer perspective, internal business processes and learning & growth perspective, structured questionnaires for customers and employees of Reliance Communications will be prepared for measuring the performance of above three performance indicators of balanced scorecard. The researcher has prepared a structured questionnaire in five point scaling technique.



For making the study more scientific and accurate, statistical tools like F-Test and T-Test technique will be used.

An F-test is statistical test in which the test statistic has an F-distribution under the null hypothesis. It is most often used when comparing statistical models that have been fit to a data set, in order to identify the model that best fits the population from which the data were sampled.

A t-test is any statistical hypothesis test in which the test statistic follows a Student's t distribution if the null hypothesis is supported. It is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known. When the scaling term is unknown and is replaced by an estimate based on the data, the test statistic (under certain conditions) follows a Student's t distribution.

### **3.8 HYPOTHESES**

Hypothesis is an important for any research work, as it is an assumption in the mind of researcher before starting research. “A hypothesis is a special proposition, formulated to be tested in a certain given situation as a part of research which states what the researcher is looking for.”<sup>2</sup>

In the present study following hypotheses have been tested:

Ho<sub>1</sub>: There is no significant difference in the mean score of customers satisfaction of RCOM.

Ho<sub>2</sub>: There is no significant difference in the mean score of Employees satisfaction of RCOM.

Ho<sub>3</sub>: There is no significant difference in the mean score of Organisational perception of RCOM.

Ho<sub>4</sub>: The financial performance of RCOM is same during the study period.

### **3.9 SAMPLE**

Reliance Communications is one of the big telecom companies in India. It has started its operation activity on December - 2002 on the 70<sup>th</sup> birthday of Late Dhirubhai Ambani. Reliance Communications has a reliable, high-capacity, integrated (Both wireless & Wire line) and convergent (Voice, Data & Video) digital network. It is capable of delivering a range of services spanning the entire Infocomm (Information & Communication) value chain, including infrastructure & services for enterprise as well as individual's application & consulting.<sup>11</sup>

The data collection would be as under:

Current Employee of Reliance Communications: researcher approached 160 employee working at different level of which

final 100 questioners were considered for the study. (Working at Head quarter of Reliance Communications, Mumbai)

Customers of Reliance communications: the researcher has approached 500 customers of Mumbai city and collected data of which 317 customers finally considered for the study.

### **3.10 CHAPTER PLAN**

The present research study is presented in seven chapters, which are as follow:

#### **Chapter One: “Performance Measurement System”**

This chapter covers: Performance Measurement: Introduction – Performance Measurement in Management Literature – Performance Measurement system – Objectives - Major Reference Model in Performance Measurement system: Balanced Scorecard – Balanced Scorecard Approaches – Criticism of the Balanced Scorecard - Balanced scorecard Application in Industry.

#### **Chapter Two: “Telecom Industry and Reliance Communications”**

This chapter covers: Global Telecom Industry – Indian Telecom Industry – Growth in Indian Telecom Industry – Major Players in Telecom Sector: Reliance Communications – Vision of the Company – Financial Performance of Reliance Communications - Business details of Reliance Communications.

**Chapter Three: “Research Plan and Procedure”**

This chapter deals with: Introduction – Research Problem – Review of Literature - Objectives of the Study –Source of the Data – Significant of the Study – Research Methodology – Hypotheses – Chapter Plan – Limitations.

**Chapter Four: “Customer Perspective Measurement”**

This chapter contains: Introduction – Sample Profile – Responses of the Customer regarding Preferences – Hypotheses Testing

**Chapter Five: “Learning and Growth and Internal Business process Perspective Measurement”**

This chapter covers: Introduction: Learning and Growth Perspective Measurement– Sample Profile –Analysis of Job Satisfaction – Hypotheses Testing – Analysis of Organizational Perception – Hypotheses Testing – Introduction: Internal Business Process Perspective Measurement – Analysis of Internal Business Process Perspective.

**Chapter Six: “Financial Perspective Measurement”**

This chapter deals with: Introduction – Financial Perspective measurement

**Chapter Seven: Summary, Findings and Conclusion**

This chapter deals with: Balanced Scorecard of RCOM – Study of Customer Perspective – Study of Learning and Growth Perspective – Study of Internal Business Process Perspective - Study of Financial Perspective – Overall Conclusion

### **3.11 LIMITATIONS**

1. The study is conducted based on secondary data taken from financial published in Annual report, so limitations of data will affect the conclusion of research.
2. Customer perspective and Learning and Growth perspective is measured through primary data, so limitations of data will affect the conclusion of research.
3. Performance measurement is based on employees and customers living in Mumbai, its conclusion may not be applicable for whole market.

**REFERENCES:**

1. Kaplan, R. S. and Norton, D. P. (1996). Using the Balanced Scorecard as a Strategic Management System. *Harvard Business Review*, January – February, 75-85.
2. Letza, S. R. 1996. The design and implementation of the balanced business scorecard: An analysis of three companies in practice. *Business Process Re-engineering & Management Journal* 2 (3): 54-76.
3. Hoque, Z. and James, W. (2000), “Linking balanced scorecard measures to size and market factors: impact on organizational performance”, *Journal of Management Accounting Research*, Vol. 12, pp. 1-17.
4. [www.balancedscorecard.org](http://www.balancedscorecard.org)
5. Ittner, C. D., D. F. Larcker, and M. Meyer. 2003. Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard. *The Accounting Review* 78 (3): 725-758.
6. Kaplan, R. S. and Norton, D. P.(1992). *The Balanced Scorecard - Measures that Drive Performance*. *Harvard Business Review*, January - February.

7. Speckbacher, G., Bischof, J. and Pfeiffer, T. (2003) 'A descriptive analysis on the implementation of Balanced Scorecards in German-speaking countries' *Management Accounting Research*, Vol. 14 Issue 4, p361-389.
8. Malina, M. A., and F. H. Selto. 2001. Communicating and controlling strategy: An empirical study of the effectiveness of the balanced scorecard. *Journal of Management Accounting Research* 13: 47-90.
9. Ittner, C. D., D. F. Larcker, and M. Meyer. 2003. Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard. *The Accounting Review* 78 (3): 725-758.
10. <http://www.rcom.co.in/Rcom/personal/home/index.html>
11. IBID

**Chapter 4**  
**Customer Perspective Measurement**

- 4.1 Introduction
- 4.2 Sample Profile
- 4.3 Responses of the Customers regarding Preferences
- 4.4 Hypotheses Testing



## **4.1 INTRODUCTION**

This chapter deals with one of the important perspective of Balanced Scorecard (BSC), that is, Customer Perspective. For effective implementation of RCOM strategy, strategic objectives are broken down into measurable parameters. As per the vision of the RCOM, customer experience is key strategic objective. If a customer is not happy with the company customer service delivery, that customer may definitely turn to other competitors for better services of same or similar products. Therefore customer satisfaction is relevant measures under this perspective. To measure how the customers see the RCOM, the key performance indicator (KPI) for customer perspective is customer satisfaction level. The customer satisfaction index is the most important because it's directly linked to an organization's profit. Service delivery via various channels of IT applications has emerged as an important attribute in satisfying customers. Therefore, a company with very satisfied customers is able to create sustained profitability and high growth rate. The company also benefits from word of mouth advertising from its satisfied customers thereby reducing its cost of advertising whiles at the same time increasing its customer base. This therefore means that the higher the satisfaction level, the higher the future profitability of an

organization may be. This study is based on a sample of 500 RCOM customers living in Mumbai city out of that 317 respondents has given information.

For this purpose, the researcher has prepared a structured questionnaire regarding personal-individual customers and asking questions mainly in the following areas:

1. Information about different age groups of RCOM customers
2. Awareness about RCOM products
3. Information about which type of mobile technology prefer and use
4. Information about type of mobile connection use
5. Customer satisfaction level

## **4.2 SAMPLE PROFILE**

The researcher has got 317 responses from the customers as under:

**Table No. 4.1**

### **Age Group of Customers**

<b>Age Group</b>	<b>Frequency</b>	<b>Percent</b>
Below 20 Years	55	17.4
20-40 years	209	65.9
Above 40 years	53	16.7
Total	317	100

Table No.4.1 indicates that from 317 respondents, there are 55 respondents from below 20 years, 209 respondents from 20-40 years and remain 37 respondents from above 40 years that is 65.9% from age group of 20-40 years, were below 20 years, 209 customers were age group of 20-40 years and 53 customers were above 40 years.

**Table No. 4.2**

**Occupation of Customers**

<b>Occupation</b>	<b>Frequency</b>	<b>Percent</b>
Student	71	22.4
Professional	6	1.9
Business	77	24.3
Service	151	47.6
Retired	1	0.3
Housewife	11	3.5
Total	317	100

In telecom business, occupation is very important of end users. The occupation of the customers is divided in six groups, viz: students, professionals, businessmen, service People, retired and housewives.

47.6% customers are having services, 24.3% customers are businessmen, 22.4% are students and the rest are others.

**Table No. 4.3**

**Sex of Customers**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	263	83
Female	54	17
Total	317	100

In India, still female customers are less than the male customers in the telecom sector. This is proved here also. Sex wise distribution of sample that 17% are female customers and 83% are male customers.

#### **4.2 RESPONSES OF THE RCOM CUSTOMERS**

As discussed earlier, the researcher has prepared a structured questionnaire regarding different parameters for measuring satisfaction level of RCOM customers'. The answer falls for each parameter in five point scaling technique. The options were highly satisfied, satisfied, can't say, dissatisfied and highly dissatisfied. The responses of RCOM customers regarding different parameters are as under:

**Table No. 4.4**

**Information about Customer Satisfaction Level**

<b>Services</b>		<b>Highly satisfied</b>	<b>satisfied</b>	<b>can't say</b>	<b>dissatisfied</b>	<b>Highly dissatisfied</b>	<b>Total</b>
Customer care	Count	22	179	57	45	14	317
	%	6.94%	56.46%	17.98%	14.19%	4.43%	100%
Network	Count	114	152	4	41	6	317
	%	35.96%	47.94%	1.28%	12.93%	1.89%	100%
Cost	Count	101	175	8	28	5	317
	%	31.86%	55.20%	2.52%	8.85%	1.57%	100%
ISD	Count	11	136	139	29	2	317
	%	3.47%	42.90%	43.84%	9.16%	0.63%	100%
STD	Count	14	150	123	26	4	317
	%	4.41%	47.33%	38.80%	8.20%	1.26%	100%
Local	Count	95	177	13	26	6	317
	%	29.96	55.85	4.1	8.2	1.89	100%
SMS rates	Count	93	83	110	27	4	317
	%	29.33%	26.20%	34.70%	8.51%	1.26%	100%
Voice clarity	Count	83	221	11	18	4	337
	%	26.18%	63.40%	3.49%	5.67%	1.26%	100%
Technology	Count	69	179	53	14	2	317
	%	21.76%	56.46%	16.74%	4.41%	0.63%	100%
Product offer	Count	32	230	43	10	2	317
	%	10.09%	72.55%	13.58%	3.15%	0.63%	100%
Total		634	1662	561	264	49	3170
Avg		63.4	166.2	56.1	26.4	4.9	
Round Avg		64	166	56	26	5	317
scale		5	4	3	2	1	
Avg * scale		320	664	168	52	5	1209
Round Avg/avg*scale				3.81			
				4			

Table No.4.4 shows the responses of customers regarding different types of services provided by RCOM to the customer.

From the sampled RCOM customers, 6.94% customers are highly satisfied regarding customer care service of RCOM, 56.46% are satisfied, 17.98% are can't say, 14.19% are dissatisfied and 4.43 are highly dissatisfied on this services.

- Point No.2 is regarding Network. Here 47.94% are satisfied, 12.93% are dissatisfied.
- Point No. 3 is regarding Cost of service. Here 31.86% and 55.20% customer are respectively highly satisfied and satisfied regarding cost of services and 8.85% are dissatisfied.
- Point No. 4, 5 and 6 is related with call rates of ISD, STD and Local services. In ISD, 42.90% customer are satisfied, 43.84% are can't say and 9.16% customer dissatisfied. In STD, 47.33% customer are satisfied, 38.80% customer are can't say. In Local call rates, 29.96% customers are highly satisfied, 26.20% customers are satisfied and 8.2% customers are dissatisfied.
- Point No. 7 is regarding SMS rates. Here 29.33% customers are highly satisfied, 26.20% customers are satisfied and 8.51% customers are dissatisfied for SMS rates.

- Point No. 8 is regarding voice clarity of mobile services. Here 26.28% customers are highly satisfied, 63.40% customers are satisfied and 8.51% customers are dissatisfied.
- Point No. 9 is regarding technology using by RCOM. Here 56.46% customers are satisfied and 4.41% customers are dissatisfied for Technology.
- Point No. 10 is regarding product offer. Here 10.09% customers are highly satisfied, 72.55% customers are satisfied and 3.15% customers are dissatisfied.

By observing this table, it can be said that most of the customers are almost satisfied with different types of services provided by RCOM and dissatisfied customers are very few.

Considering the overall average about satisfaction, the average scale is 3.81 out of 5; it means customer satisfaction score is 76% for RCOM customers.

### **4.3 HYPOTHESE TESTING**

#### **(1) Age Group and Customers' Satisfaction**

There are three age groups consider in the questionnaire. Different type of age group has a different satisfaction level. This was tested under the following hypothesis:

**Null Hypothesis:**

There is no significant difference in mean score of different age groups and customers satisfaction of RCOM customers.

$H_0: \mu_1 = \mu_2 = \mu_3$

$H_1: \mu_1 \neq \mu_2 \neq \mu_3$

Where  $\mu_1$  = Age group of below 20 years

$\mu_2$  = Age group of 20-40 years

$\mu_3$  = Age group of above 40 years

**Table No. 4.5**

**Age and Customers' Satisfaction**

Age Group	Customer Satisfaction Score			Total
	20 to 40	40 to 60	60 to 80	
Below 20 Years	3	41	11	55
20-40 Years	4	145	60	209
Above 40 Years	2	47	4	53
Total	9	233	75	317

Age Group	N	Mean	SD	Std. Error
Below 20 Years	55	2.15	0.488	0.066
20-40 Years	209	2.27	0.485	0.034
Above 40 Years	53	2.04	0.338	0.046
Total	317	2.21	0.472	0.026

**ANOVA CALCULATIONS**

	SS	Df	MS	F
Between Groups	2.503	2	1.251	5.799
Within Groups	67.756	314	0.216	
Total	70.259	316		



Table value of F = 2.99

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.99 and the calculated value of F is 5.799. As, the calculated value of F is more its table value, null hypothesis is rejected. It means that there is significant difference in customers' satisfaction regarding different age group. Age is a major consideration for customers' satisfaction.

(2) **Occupation and Customers' Satisfaction**

Occupation of customers' is divided in six groups, student, professionals, business class, service class, retired and housewife. If the occupation affects on customers' satisfaction or not, was tested as under:

**Null Hypothesis:**

There is no significant difference in mean score of occupation of the respondents in customers' satisfaction of RCOM customers.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6$$

Where  $\mu_1$  = Student

$\mu_2$  = Professional

$\mu_3$  = Business class

$\mu_4$  = Service class

$\mu_5$  = Retired

$\mu_6$  = Housewife

**Table No.4.6**

**Occupation and Customers' Satisfaction**

Occupation	Customer Satisfaction Score			Total
	20 to 40	40 to 60	60 to 80	
Student	0	45	26	71
Professional	1	5	0	6
Business	2	64	11	77
Service	6	110	35	151
Retired	0	1	0	1
Housewife	0	8	3	11
Total	9	233	75	317

Occupation	N	Mean	SD	Std. Error
Student	71	2.37	0.485	0.058
Professional	6	1.83	0.408	0.167
Business	77	2.12	0.396	0.045
Service	151	2.19	0.486	0.04
Retired	1	2	0	0
Housewife	11	2.27	0.467	0.141
Total	317	2.21	0.472	0.026

**ANOVA CALCULATIONS**

	SS	Df	MS	F
Between Groups	3.386	5	0.677	3.15
Within Groups	66.873	311	0.215	
Total	70.259	316		

Table value of F = 2.21

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.21 and the calculated value of F is 3.15. As, the calculated value of F is more its table value, null hypothesis is rejected. It means that there is significant difference in customers' satisfaction regarding their occupation also. The occupation is major consideration for customers' satisfaction or all types of customers having different occupations have different satisfaction level.

### **(3) Sex and Customers' Satisfaction**

Male and Female customers' may have different satisfaction for the preference of RCOM customers. The customers' satisfaction according to sex was tested as under:

#### **Null Hypothesis:**

There is no significant difference in mean score of customers' satisfaction and gender in RCOM customers.

$$H_0: \mu_1 = \mu_2$$

$$H_1: \mu_1 \neq \mu_2$$

Where  $\mu_1$  = Male customers

$\mu_2$  = Female customers

**Table No. 4.7  
Gender and Customers' Satisfaction**

<b>Gender</b>	<b>Customer Satisfaction Score</b>			<b>Total</b>
	<b>20 to 40</b>	<b>40 to 60</b>	<b>60 to 80</b>	
Male	8	189	66	263
Female	1	44	9	54
Total	9	233	75	317

<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
Male	263	2.22	0.483	0.03
Female	54	2.15	0.408	0.055
Total	317			

Calculated value of  $t = 1.028$

Degrees of freedom = 315

Table value of  $t = 1.960$

Level of Significance = 0.05

Table No.4. 7 reveal that the mean score of male customers is 2.22 and the mean score of female customers' is 2.15 in sampled RCOM customers. Whether the difference is significant or not can be tested by applying t test. The calculated value of t is 1.028, and table value of t is 1.960 at 0.05 level of significance. As the calculated value of t is less than its table value, null hypothesis is accepted. It says that there is a no significance difference in customers' preference regarding the sex of customers.

**(4) Types Of Mobile Technology and Customers' Satisfaction**

There are two types of mobile technology are available in the market, first one GSM and second one is CDMA. RCOM is providing both the types of technology to its customers. If the types of mobile technology affect on customers' satisfaction or not, were tested as under:

**Null Hypothesis:**

There is no significant difference in mean score of types of mobile technology using and customers' satisfaction of RCOM customers.

$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$

Where  $\mu_1 = \text{CDMA}$

$\mu_2 = \text{GSM}$

$\mu_3 = \text{Both Technology}$

$\mu_4 = \text{Don't Know}$

**Table No. 4.8**

**Types of Mobile Technology and Customers' Satisfaction**

Mobile Technology using	Customer Satisfaction Score			Total
	20 to 40	40 to 60	60 to 80	
CDMA	1	51	39	91
GSM	4	142	29	175
Both	4	37	7	48
Don't Know	0	3	0	3
Total	9	233	75	317

<b>Mobile Technology Using</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
CDMA	91	2.42	0.518	0.054
GSM	175	2.14	0.411	0.031
Both	48	2.06	0.48	0.069
Don't Know	3	2	0	0
Total	317	2.21	0.472	0.026

	<b>SS</b>	<b>Df</b>	<b>MS</b>	<b>F</b>
Between Groups	5.886	3	1.962	9.539
Within Groups	64.373	313	0.206	
Total	70.259	316		

Table value of F = 2.60

Level of Significance = 0.05

Table No. 4.8 shows the mean score of different mobile technology using and customers' satisfaction. It seems to be around 2.21. The ANOVA table shows that the calculated value of F is 9.539, which is more than its table value. Hence, null hypothesis is rejected. It means that there is significant difference in customers' satisfaction regarding mobile technology using.

#### **(5) Types Of Mobile Connection and Customers' Satisfaction**

There are two types of mobile connection are providing by RCOM to its customers', Pre-paid and Post-paid connection. If the types of mobile connection affect on customers' satisfaction or not, were tested as under:

**Null Hypothesis:**

There is no significant difference in mean score of types of mobile connection and customers' satisfaction of RCOM customers.

$H_0: \mu_1 = \mu_2 = \mu_3$

$H_1: \mu_1 \neq \mu_2 \neq \mu_3$

Where  $\mu_1$  = Pre-paid type connection

$\mu_2$  = Post-paid type connection

$\mu_3$  = both types of connection

**Table No. 4.9**  
**Types of Mobile Connection and Customers' Satisfaction**

Type of Mobile Connection	Customer Satisfaction Score			Total
	20 to 40	40 to 60	60 to 80	
Pre-paid	7	171	60	238
Post-paid	2	56	13	71
Both	0	6	2	8
Total	9	233	75	317

Type of Mobile Connection	N	Mean	SD	Std. Error
Pre-paid	238	2.22	0.483	0.031
Post-paid	71	2.15	0.436	0.052
Both	8	2.25	0.463	0.164
Total	317	2.21	0.472	0.026

	SS	Df	MS	F
Between Groups	0.265	2	0.133	0.595
Within Groups	69.993	314	0.223	
Total	70.259	316		

Table value of F = 2.99

Level of Significance = 0.05

Table No. 4.9 shows the mean score of different type's mobile connection and customers' satisfaction. It seems to be around 2.21. The ANOVA table shows that the calculated value of F is 0.595, which is less than its table value. Hence, null hypothesis is accepted. It means that there is no significant difference in customers' satisfaction regarding types of mobile connection using.

**(6) Time Period Of Connection and Customers' Satisfaction**

Those are RCOM customers', how long they are using this connection is divided in less than 3 months, 3-6 months, 6-12 months and 1-2 years. If the time period of connection affect on customers' satisfaction or not, were tested as under:

**Null Hypothesis:**

There is no significant difference in mean score of time period connection and customers' satisfaction of RCOM customers.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$$



Where  $\mu_1$  = Less than 3 months

$\mu_2$  = 3-6 months

$\mu_3$  = 6-12 months

$\mu_4$  = 1-2 years

**Table No. 4.10**  
**Time Period of Mobile Connection and Customers' Satisfaction**

Time period of Mobile Connection Using	Customer Satisfaction Score			Total
	20 to 40	40 to 60	60 to 80	
Less than 3 months	1	1	0	2
3-6 months	1	25	20	46
6-12 months	3	41	19	63
1-2 Years	4	166	36	206
Total	9	233	75	317

Time period of Mobile Connection Using	N	Mean	SD	Std. Error
Less than 3 months	2	1.5	0.707	0.5
3-6 months	46	2.41	0.541	0.08
6-12 months	63	2.25	0.538	0.068
1-2 Years	206	2.16	0.413	0.029
Total	317	2.21	0.472	0.026

	SS	Df	MS	F
Between Groups	3.641	3	1.214	5.702
Within Groups	66.618	313	0.213	
Total	70.259	316		

Table value of F = 2.60

Level of Significance = 0.05

Table No. 4.10 shows the mean score of different time period of mobile connection and customers' satisfaction. It seems to be around 2.21. The ANOVA table shows that the calculated value of

F is 5.702, which is more than its table value. Hence, null hypothesis is rejected. It means that there is significant difference in customers' satisfaction regarding time period of mobile connection using.

## **Chapter 5**

### **LEARNING AND GROWTH AND INTERNAL BUSINESS PROCESS PERSPECTIVE MEASUREMENT**

- 5.1 Introduction: Learning and Growth Perspective Measurement
- 5.2 Sample Profile
- 5.3 Analysis of Job Satisfaction
- 5.4 Hypotheses Testing
- 5.5 Analysis of Organizational Perception
- 5.6 Hypotheses Testing
- 5.7 Introduction: Internal Business Process Perspective  
Measurement
- 5.8 Analysis of Internal Business Process Perspective

## **5.1 INTRODUCTION: LEARNING AND GROWTH PERSPECTIVE**

This chapter deals with second perspective of Balanced Scorecard (BSC), that is, Learning and Growth perspective. A learning organization is a knowledgeable organization. An organization that empowers its staff and resource them adequately will surely reap the benefit in term of superior performance and growth. For most organization that has treated their employees as their most critical resource they have often been rewarded with higher and sustained profit. There is a saying that, “You cannot give what you don’t have”. Therefore organizations with dissatisfied employees will often find out that, their customer service efforts are always not without problems. They may have very brilliant customer service framework or model, but will have serious issues implementing it because they have dissatisfied employees. Poor customer service delivery then affects customer satisfaction.

Under the learning and growth perspective, three areas emerged which are human capital, information capital and organizational capital. The framework is aimed at creating the right strategic alignment between employee goals and that of the Rcom so as to create the right synergies to enable the employee deliver superior

service to the customer. As per the vision of the Rcom, Employee centricity is the key strategic objective. The key measures here that are relevant to the RCOM are job satisfaction and organizational perception index which is driven by the main strategic objective. This study is based on a sample survey of 100 RCOM employees working at head quarter in Mumbai city.

For this purpose, the researcher has prepared a structured questionnaire regarding RCOM employees and asking questions mainly in the following areas:

- (1) Information about different age groups of RCOM employees
- (2) Information about education details of RCOM employees
- (3) Information about average length of service of RCOM employees
- (4) Job satisfaction index
- (5) Organizational perception index

## **5.2 SAMPLE PROFILE**

This study is based on sample survey of 100 RCOM employees of 5 departments of organization at Mumbai city. As such has been pointed out in the research methodology, the data were collected by

administering a well structured schedule by the researcher. The sample RCOM employees were chosen by way of the mix of the stratified and the convenience sampling techniques used at multi-stages. Efforts were made to insure the representation of the various departments of the organization and various designation level of the organization.

Out of the 100 sampled employees 47 were sales department, 12 were finance department, 18 from network department, 13 from customer service department and 10 from Human Resources department.

**Table No. 5.1**  
**Departments wise Employees in RCOM**

<b>Departments</b>	<b>Frequency</b>	<b>Percent</b>
Sales	47	47.0
Finance	12	12.0
Network	18	18.0
Customer Service	13	13.0
HR	10	10.0
Total	100	100

Out of the 100 sampled employees 24% are executive level, 17% were senior Executive level, 16% were manager level, 9% were senior manager level, 14% were deputy Manager level, 15% were deputy general manager level and remained 5% were general manager level. As per organization structure employees divided into

four levels L1, L2, L3 and L4. Out of 100 sampled employees 5% were L1 level, 15% were L2 level, 40% were L3 level and 40% were L4 level. Designation and level is one of the important factors that affect the job satisfaction and organizational perception.

**Table No. 5.2**

**Designation wise Employees in RCOM**

<b>Designation</b>	<b>Frequency</b>	<b>Percent</b>
Executive	24	24.0
Senior Executive	17	17.0
Manager	16	16.0
Senior Manager	9	9.0
Deputy Manager	14	14.0
Deputy General Manager	15	15.0
General Manager	5	5.0
Total	100	100

**Table No. 5.3**

**Level wise Employees in RCOM**

<b>Level</b>	<b>Frequency</b>	<b>Percent</b>
L1	5	5.0
L2	15	15.0
L3	40	40.0
L4	40	40.0
Total	100	100

Education has increasingly becoming an important factor in determining the quality of work and performance. In telecom industry academic qualification is important because major

function of telecom industry related with better technology and quick services to customer.

**Table No. 5.4**  
**Educational Qualification of RCOM Employees**

<b>Educational Qualification</b>	<b>Frequency</b>	<b>Percent</b>
Under Graduate	2	2.0
Diploma	6	6.0
Graduate	40	40.0
Post Graduate	52	52.0
Total	100	100

Table No. 5.4 shows that educational qualifications of RCOM sampled employees. According to the table 2% belong to under graduate, 6% to diploma, 40% to graduate and 52% to post graduate.

The experience of employees of the organization is bound to have impact on the quality of professional service and leadership. The contribution of employees whether individually or collectively will be influenced also by their age factor. While the relationship between age and job satisfaction and organizational perception could be complex; it was assumed that the person would grow older; he would get greater satisfaction and favorable organizational perception with his job. So, experience of



employees in a particular job is an important variable in tracing out the association with job satisfaction and organizational perception.

**Table No. 5.5**  
**Length of Service of RCOM Employees**

<b>Length of Service (Years)</b>	<b>Frequency</b>	<b>Percent</b>
1	27	27.0
2	30	30.0
3	21	21.0
4	10	10.0
5	7	7.0
6	3	3.0
7	1	1.0
10	1	1.0
Total	100	100

Above Table No. 5.5 shows that 27% completed 1 year service, 30% completed 2 year service, 21% completed 3 year service, 10% completed 4 year service, 7% completed 5 year service, 3% completed 6 year service and 1% completed 7 year and 10 year service. In overall picture, 88% total staff belongs to below five years of experience and 12% staff belongs to more than five years of experience.

Marital status is also an important phenomenon to study job satisfaction and organizational perception for the married and un-

married people have different behavior at work. Generally, one would assume that with increasing responsibility placed on married individuals, the employees value their jobs little more than an unmarried employees.

**Table No. 5.6**  
**Marital Status of RCOM Employees**

<b>Marital Status</b>	<b>Frequency</b>	<b>Percent</b>
Married	68	68.0
Un-married	32	32.0
Total	100	100

Table No.5.6 shows that all the sampled employees 68% were married and 32% were unmarried.

### **5.3 ANALYSIS OF JOB SATISFACTION**

This part deals with job satisfaction of RCOM employees. It broadly covers the personal characteristics and their association with job satisfaction. Job satisfaction covers four basis factors 1) economic factors, 2) social factors, 3) organizational factors, and 4) personal factors. Economic aspect cover pay, allowances, etc. social factors consider interpersonal relationships, freedom at job, family environment and tension etc. While organizational factors consider authority responsibility, accountability, performance appraisal, works involvement etc. Personal matter includes

education, designation, experience etc. The extent to which the job provides opportunities for meeting economic, social and psychological needs of employees will determine their job satisfaction. Job satisfaction has been analyzed on the basis of several questions which covers most of the aspects of management. An attempt has been made to cover, job satisfaction, with reference to pay and monetary benefits, behavior of subordinates and superior, authority, confidence and trust opportunity to growth and development, clarity to given authority, responsibility and accountability, team efforts, job involvement, welfare, promotion and development, recognition, autonomy, training facilities, conducive and hygienic work environment, grievances handling procedure, incentives, motivational practices, performance evaluation challenges and threats for job, job security and treatment from management.

This part deals with all the aspects to examine the job satisfaction among RCOM employees. For this, the schedule of questions included eighteen questions of the sampled RCOM employees were asked to respond to all these statements on five point scale. Strongly agree with a statement denotes highest job satisfaction

while strongly disagree to least job satisfaction. The responses to the all the statements for all employees are shown Table No. 5.7.

**Table No. 5.7**

**Information about Employees' Job Satisfaction Level**

Sr. No.	Statements	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
1	I am satisfied with my Pay and other Monetary Benefits; I receive for my present job.	25	30	14	23	8
2	I am satisfied with the behavior of my colleagues	33	55	12	0	0
3	I am satisfied with superior authority in the organization	41	44	14	1	0
4	There are enough opportunity of my progress in this organization	26	58	16	0	0
5	My responsibility are clearly known to me in relation to my present job	26	60	0	14	0
6	Promotion are purely based on merit and work skill	30	27	43	0	0
7	I have the resources (materials, equipments, suppliers etc.) necessary to do my job well	19	55	17	9	0
8	I am satisfied with the autonomy given to me to do my work	8	67	22	3	0
9	Work environment is quite conducive and hygienic and I am fully satisfied		90	3	7	0
10	My institution is very popular and I am proud to work in the institution	29	69	1	1	0
11	I am satisfied with the grievance handling procedure and justice given to the employees	3	44	52	1	0
12	I am satisfied with the incentives and other motivational practices adopted by management	3	37	43	17	0
13	I am fully satisfied with the evaluation of performance	16	51	14	19	0
14	My work is full of challenge and I believe in doing such work	57	24	8	11	0
15	I am satisfied with job security given to me	9	32	23	17	19
16	I get dignified treatment from management	9	71	20	0	0
17	I feel free to speak my mind	8	46	26	20	0
18	I enjoy coming to work	11	76	13	0	0
	Total	353	936	341	143	27
	Avg	19.611	52	18.944	7.944	1.5
	Round Avg	20	52	19	8	1
	scale	5	4	3	2	1
	Avg * scale	100	208	57	16	1
	Round Avg/avg*scale			3.82		

Table No. 5.7 indicate 20 strongly agreed employees, 52 agreed, 19 can't say, 8 and 1 remain disagree and strongly disagreed with job satisfaction. Considering the overall average about job satisfaction, the average scale is 3.82 out of 5; it means job satisfaction index is 76% for RCOM employees.

#### **5.4. HYPOTHESE TESTING**

##### **(1) Age Group and Job Satisfaction**

There are four age groups consider in the questionnaire. A different type of age group has a different satisfaction level. This was tested under the following hypothesis:

##### **Null Hypothesis:**

There is no significant difference in mean score of different age groups and job satisfaction of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$$

Where  $\mu_1$  = Age group of 20-30 years

$\mu_2$  = Age group of 30-40 years

$\mu_3$  = Age group of 40-50 years

$\mu_4$  = Age group of 50 - 60 years

**Table No. 5.8**  
**Age and Job Satisfaction**

<b>Age Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
20 to 30 Years	46	2.3	0.986	0.145
30 to 40 Years	49	2.69	0.94	0.134
40 to 50 Years	3	2.67	1.528	0.882
50 to 60 Years	2	2	1.414	1
Total	100	2.5	0.99	0.099

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>
Between Groups	4.186	3	1.395	1.443
Within Groups	92.814	96	0.967	
Total	97	99		

Table value of F = 2.68

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.68 and the calculated value of F is 1.443. As the calculated value of F is less than its table value, null hypothesis is accepted. It means that there is no significant difference in employees' satisfaction regarding different age group.

**(2) Departments and Job Satisfaction**

There are five different departments consider in the questionnaire. Employee working into different departments has a different satisfaction level. This was tested under the following hypothesis:

**Null Hypothesis:**

There is no significant difference in mean score of different departments' employee and job satisfaction of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5$$

Where  $\mu_1$  = Sales department employees

$\mu_2$  = Finance department employees

$\mu_3$  = Network department employees

$\mu_4$  = Customer service department

Employees.

$\mu_5$  = HR department employees

**Table No. 5.9**

**Department and Job Satisfaction**

<b>Departments</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
Sales	47	2.53	0.929	0.136
Finance	12	2.83	0.718	0.207
Network	18	2.22	0.732	0.173
Customer Service	13	2.92	1.256	0.348
HR	10	1.9	1.287	0.407
Total	100	2.5	0.99	0.099

### ANOVA CALCULATIONS

	SS	Df	MS	F
Between Groups	8.697	4	2.174	2.339
Within Groups	88.303	95	0.93	
Total	97	99		

Table value of F = 2.45

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.45 and the calculated value of F is 2.339.

As the calculated value of F is less than its table value, null hypothesis is accepted. It means that there is no significant difference in employees' satisfaction regarding working into different departments.

### **(3) Designation of Employee and Job Satisfaction :**

There are different level of designation consider from executive to general manager in the questionnaire. Employee working at different level of designation so they have a different job satisfaction level. This was tested under the following hypothesis:

#### **Null Hypothesis:**

There is no significant difference in mean score of different level of designation employee and job satisfaction of RCOM employees.



$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$$

Where  $\mu_1$  = Executive level employees

$\mu_2$  = Sr.Executive level employees

$\mu_3$  = Manager level employees

$\mu_4$  = Dy.Manager level employees

$\mu_5$  = Sr.Manager level employees

$\mu_6$  = Dy. Gen.Manager level employees

$\mu_7$  = General Manager level employees

**Table No. 5.10**

**Designation and Job Satisfaction**

<b>Designation</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
Executive	24	2.54	0.977	0.199
Sr. Executive	17	2.12	1.054	0.256
Manager	16	2.75	0.931	0.233
Sr. Manager	9	2.44	0.882	0.294
Dy. Manager	14	2.57	1.016	0.272
Dy. Gen.Manager	15	2.6	0.986	0.254
Gen. Manager	5	2.4	1.342	0.6
Total	100	2.5	0.99	0.099

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>
Between Groups	3.826	6	0.638	0.637
Within Groups	93.174	93	1.002	
Total	97	99		

Table value of  $F = 2.17$

Level of Significance = 0.05

The above ANOVA table shows that the table value of  $F$  at 5% level of significance is 2.17 and the calculated value of  $F$  is 0.637.

As the calculated value of  $F$  is less than its table value, null hypothesis is accepted. It means that there is no significant difference in employees' satisfaction regarding working at different level of designation.

#### **(4) Educational Qualification of Employee and Job Satisfaction**

There are different educational qualification employees' workings into organization and researcher considers four level of educational qualification from under graduate to post graduate into the questionnaire. Different educational groups' employees have a different level of job satisfaction. This was tested under the following hypothesis:

##### **Null Hypothesis:**

There is no significant difference between means scores of different educational groups in job satisfaction of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$$

Where  $\mu_1$  = Under Graduate employees

$\mu_2$  = Diploma Holder employees

$\mu_3$  = Graduate employees

$\mu_4$  = Post Graduate employees

**Table No. 5.11**

**Educational Qualification and Job Satisfaction**

<b>Educational Qualification</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
Under Graduate	2	1	0	0
Diploma	6	1.83	0.983	0.401
Graduate	40	2.63	0.838	0.132
Post Graduate	52	2.54	1.056	0.147
Total	100	2.5	0.99	0.099

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>Df</b>	<b>MS</b>	<b>F</b>
Between Groups	7.869	3	2.623	2.825
Within Groups	89.131	96	0.928	
Total	97	99		

Table value of F = 2.68

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.68 and the calculated value of F is 2.825.

As the calculated value of F is more than its table value, null

hypothesis is rejected. It means that there is significant difference between the mean score of job satisfaction among different educational groups of RCOM employees’.

### **(5) Length of Services and Job Satisfaction**

Different length of services employees has a different level of job satisfaction. This was tested under the following hypothesis:

#### **Null Hypothesis:**

There is no significant correlation between length of services and means scores of job satisfaction of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7 \neq \mu_8$$

Where  $\mu_1$  = One year length of service employees

$\mu_2$  = Two year length of service employees

$\mu_3$  = Three year length of service employees

$\mu_4$  = Four year length of service employees

$\mu_5$  = Five year length of service employees

$\mu_6$  = Six year length of service employees

$\mu_7$  = Seven year length of service employees

$\mu_8$  = Ten year length of service employees

**Table No. 5.12**

**Length of Services and Job Satisfaction**

<b>Length of Service (Years)</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
1	27	2.52	0.849	0.163
2	30	2.6	1.003	0.183
3	21	2.71	1.007	0.22
4	10	2.4	0.843	0.267
5	7	1.43	0.787	0.297
6	3	2	1.732	1
7	1	3	0	0
10	1	4	0	0
Total	100	2.5	0.99	0.099

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>Df</b>	<b>MS</b>	<b>F</b>
Between Groups	12.659	7	1.808	1.973
Within Groups	84.341	92	0.917	
Total	97	99		

Table value of F = 2.02

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.02 and the calculated value of F is 1.973. As the calculated value of F is less than its table value, null hypothesis is accepted. As such it can be concluded that length of services and score of job satisfaction of Rcom employees are not correlated. They are independent to each other.

## **5.5 ANALYSIS OF ORGANIZATIONAL PERCEPTION**

Every person lives in his own world. Human-being is what human-beings experience. It is what the human-beings perceive by feeling, thinking and imagine. Perception is defined as the process by which human-beings screen, select, organize and interpret stimuli into the meaningful picture of the world. The manner in which man perceives in world provides a basis for behavior. To be effective, a manager must understand how people perceive event, objects and other people. It is try that people perceive is some things and the same people differently is not objective reality, Thus, because people act on what they perceive to be true, perception is in a real sense equal in importance to reality.

Perception depends on the interaction of two sets of contributions, those of the environment (in the form of stimuli) and those of the observer. An individual may influence his or her environment as well as influenced by it. Therefore, behavior is a product of the interaction between an environment and individual rather than simply a reaction to an environment.

This part deals with analysis of organizational perception of RCOM employees. In this connection, an attempt has been made to understand RCOM employees perception with respect to co-

operation and support among staff, delegation of authority, opportunity for growth, fear and favor of supervision, promotion, substandard work, operational difficulties and managerial consideration, grievance, intervention, management and control mechanism, team and its performance.

For studying all those aspect the researcher very judiciously selected thirteen different statements and asked the sampled RCOM employees to respond the each statement on a five point scale. Strongly agree to statement denotes most favorable perception while the strongly disagreed denotes the most antarourable perception. The responses for all the statements related to organizational perception for that all employees are shown into following table;

**Table No. 5.13**

**Information about Employees' Organizational Perception Level**

Sr. No.	Statements	Strongly Agree	Agree	Can't Say	Disagree	Strongly Disagree
1	I am free to raise questions and make suggestion and comments in the organization	17	49	23	11	0
2	The authority and responsibility in the organization are well defined	16	44	29	11	0
3	There are enough opportunities in the origination for further growth and development	23	43	25	9	0
4	Supervision is done without any fear or favor	15	48	25	11	0
5	We make opportunities to participate in decision making	5	43	25	27	0
6	We have clear cut idea about who is working under whom	23	56	9	12	0
7	Interpersonal Relationship are good	29	59	8	4	0
8	Merit is the prime consideration for reward	22	42	24	2	10
9	All instruction in organization are effectively communicated	17	47	36		0
10	The management is fully aware and committed to overall welfare of employees	5	37	54	4	0
11	I understand the connection between the work I do and mission and goals of the Organization	18	52	25	5	0
12	I am familiar with Organization Vision and Mission	31	41	15	13	0
13	I am proud to be a part of R-Com	38	57	5		0
	Total	259	618	303	109	10
	Avg	19.9230769	47.538462	23.307692	8.3846154	0.7692308
	Round Avg	20	48	23	8	1
	scale	5	4	3	2	1
	Avg * scale	100	192	69	16	1
	Round Avg/avg*scale			3.78		

As per Table No. 5.13, 20 strongly agreed employees, 48 agreed, 23 can't say, 8 and 1 disagreed and strongly agreed for the different



aspects related to organizational perception. This way the average score of organizational perception at 5 point scale the employees were found 3.78 which shows that on an average the employees have favorable perception of organizational aspects at the job. It means organizational perception index is 76% for RCOM employees.

## **5.6 HYPOTHESES TESTING**

### **(1) Age Group and Organizational perception**

There are four age groups consider in the questionnaire. Different type of age group has a different level of organizational perception. This was tested under the following hypothesis:

#### **Null Hypothesis:**

There is no significant correlation between mean age groups and mean score of organizational perception of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$$

where  $\mu_1$  = Age group of 20-30 years  
 $\mu_2$  = Age group of 30-40 years  
 $\mu_3$  = Age group of 40-50 years  
 $\mu_4$  = Age group of 50 - 60 years

**Table No. 5.14**

**Age and Organizational Perception**

<b>Age Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
20 to 30 Years	46	2.8	0.719	0.106
30 to 40 Years	49	3.06	0.827	0.118
40 to 50 Years	3	3.33	0.577	0.333
50 to 60 Years	2	3	1.414	1
Total	100	2.95	0.783	0.078

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>
Between Groups	2.028	3	0.676	1.105
Within Groups	58.722	96	0.612	
Total	60.75	99		

Table value of  $F = 2.68$

Level of Significance = 0.05

The above ANOVA table shows that the table value of  $F$  at 5% level of significance is 2.68 and the calculated value of  $F$  is 1.105.

As the calculated value of  $F$  is less than its table value, null hypothesis is accepted. It means that there is no correlation between different age groups and organizational perception.

## **(2) Departments and Organizational Perception**

There are five different departments consider in the questionnaire. Employee working into different departments has a different level of organizational perception. This was tested under the following hypothesis:

### **Null Hypothesis:**

There is no significant difference in mean score of different departments' employee and organizational perception of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5$$

Where  $\mu_1$  = Sales department employees

$\mu_2$  = Finance department employees

$\mu_3$  = Network department employees

$\mu_4$  = Customer service department

Employees.

$\mu_5$  = HR department employees

**Table No. 5.15**

**Department and Organizational Perception**

<b>Departments</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
Sales	47	3	0.808	0.118
Finance	12	3	0.603	0.174
Network	18	2.61	0.698	0.164
Customer Service	13	3.31	0.855	0.237
HR	10	2.8	0.789	0.249
Total	100	2.95	0.783	0.078

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>
Between Groups	4.103	4	1.026	1.72
Within Groups	56.647	95	0.596	
Total	60.75	99		

Table value of  $F = 2.45$

Level of Significance = 0.05

The above ANOVA table shows that the table value of  $F$  at 5% level of significance is 2.45 and the calculated value of  $F$  is 1.72. As the calculated value of  $F$  is less than its table value, null hypothesis is accepted. It means that there is no significant correlation between organizational perception and employees' working into different departments.

**(3) Designation of Employee and Organizational Perception**

There are different level of designation consider from executive to general manager in the questionnaire. Employees are working at

different level of designation so they have a different level of organizational perception. This was tested under the following hypothesis:

**Null Hypothesis:**

There is no significant difference in mean score of different level of designation employee and organizational perception of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7$$

Where  $\mu_1$  = Executive level employees

$\mu_2$  = Sr.Executive level employees

$\mu_3$  = Manager level employees

$\mu_4$  = Dy.Manager level employees

$\mu_5$  = Sr.Manager level employees

$\mu_6$  = Dy. Gen.Manager level employees

$\mu_7$  = General Manager level employees

**Table No. 5.16**

**Designation and Organisational Perception**

<b>Designation</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
Executive	24	2.88	0.85	0.174
Sr. Executive	17	2.82	0.883	0.214
Manager	16	3	0.73	0.183
Sr. Manager	9	2.78	0.972	0.324
Dy. Manager	14	3.07	0.616	0.165
Dy. Gen.Manager	15	3.07	0.704	0.182
Gen. Manager	5	3.2	0.837	0.374
Total	100	2.95	0.783	0.078

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>Df</b>	<b>MS</b>	<b>F</b>
Between Groups	1.437	6	0.239	0.376
Within Groups	59.313	93	0.638	
Total	60.75	99		

Table value of F = 2.17

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.17 and the calculated value of F is 0.376.

As the calculated value of F is less than its table value, null hypothesis is accepted. It means that there is no significant difference in organizational perception regarding working at different level of designation.

#### **(4) Educational Qualification of Employees and Organizational Perception**

There are different educational qualification employees' workings into organization and Researcher considers four level of education qualification from under graduate to post graduate into the questionnaire. Different educational groups' employees have a different level of organizational perception. This was tested under the following hypothesis:

##### **Null Hypothesis:**

There is no significant difference between means scores of different educational groups' organizational perception of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$$

Where  $\mu_1$  = Under Graduate employees

$\mu_2$  = Diploma Holder employees

$\mu_3$  = Graduate employees

$\mu_4$  = Post Graduate employees

**Table No. 5.17**

**Educational Qualification and Organisational Perception**

<b>Education Qualification</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
Under Graduate	2	1.5	0.707	0.5
Diploma	6	2.83	1.169	0.477
Graduate	40	2.93	0.764	0.121
Post Graduate	52	3.04	0.713	0.099
Total	100	2.95	0.783	0.078

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>Df</b>	<b>MS</b>	<b>F</b>
Between Groups	4.719	3	1.573	2.695
Within Groups	56.031	96	0.584	
Total	60.75	99		

Table value of  $F = 2.68$

Level of Significance = 0.05

The above ANOVA table shows that the table value of  $F$  at 5% level of significance is 2.68 and the calculated value of  $F$  is 2.695.

As the calculated value of  $F$  is more than its table value, null hypothesis is rejected. It means that there is significant difference in the mean scores of organization perception among different educational groups of RCOM employees'.



### **(5) Length of Services and Organizational Perception**

Different length of services employees has a different level of organizational perception. This was tested under the following hypothesis:

#### **Null Hypothesis:**

There is no significant correlation between length of services and means scores of organizational perception of RCOM employees.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8$$

$$H_1: \mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7 \neq \mu_8$$

Where  $\mu_1$  = One year length of service employees

$\mu_2$  = Two year length of service employees

$\mu_3$  = Three year length of service employees

$\mu_4$  = Four year length of service employees

$\mu_5$  = Five year length of service employees

$\mu_6$  = Six year length of service employees

$\mu_7$  = Seven year length of service employees

$\mu_8$  = Ten year length of service employees

**Table No. 5.18**

**Length of Services and Organizational Perception**

<b>Length of Service (Years)</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>
1	27	2.81	0.736	0.142
2	30	3.1	0.803	0.147
3	21	3	0.707	0.154
4	10	3.1	0.568	0.18
5	7	2.43	1.134	0.429
6	3	2.67	1.155	0.667
7	1	3	0	0
10	1	4	0	0
Total	100	2.95	0.783	0.078

**ANOVA CALCULATIONS**

	<b>SS</b>	<b>Df</b>	<b>MS</b>	<b>F</b>
Between Groups	4.695	7	0.671	1.101
Within Groups	56.055	92	0.609	
Total	60.75	99		

Table value of F =2.02

Level of Significance = 0.05

The above ANOVA table shows that the table value of F at 5% level of significance is 2.02 and the calculated value of F is 1.101.

As the calculated value of F is less than its table value, null hypothesis is accepted. As such it can be concluded that length of services and score of job satisfaction of RCOM employees are not correlated. They are independent to each other.

## **5.6 INTRODUCTION: INTERNAL BUSINESS PROCESS PERSPECTIVE**

This section deals with third perspective of Balanced Scorecard (BSC), that is, internal business process perspective. The various activities under the learning and growth perspective assist to achieve an efficient internal business processes that deliver services to the customer in a timely fashion and that adequately meets the customer's needs. The efficiency of the internal processes of an organization can affect the way the company delivers service to their customers. Operational efficiency and effectiveness therefore allows company to render service to its customers at a lower or reduced cost. It could also be a source of differentiating factor by which the company can create competitive advantage in its industry. Also, a company with good internal processes is able to quickly respond to customer queries and customers' needs. Such a company also reduces the waiting time for the delivery of its services and increase availability of its services to customers through the use of latest technology.

RCOM is India's truly integrated and fully-converged telecommunications service provider. Company operates across the full spectrum of wireless, wire line, voice, data, video and

internet communication services. RCOM customer base exceeds 142 million as on March 31, 2011 and includes over 2.5 million overseas retail customers and 3.5 million Reliance Digital TV customers. Rcom has a own and operate the world's largest next generation IP-enabled connectivity infrastructure, comprising over 277,000 route kilometers of fiber optic cable systems in India, USA, Europe, Middle East and the Asia Pacific region. RCOM has a built India's one of the largest portfolio of multi-tenancy towers offering integrated infrastructure solutions.

### **5.7 ANALYSIS OF INTERNAL BUSINESS PROCESS PERSPECTIVE**

The strategic vision of Reliance communications Limited is giving as: "Providing Information, Communication & Entertainment services, and being the industry benchmark in."

This vision therefore emphasizes on bringing communication services to the doorsteps of its customers with the ultimate objective of dominating the telecom industry in India. The key measures here that are relevant to the RCOM are:

1. Connection with good voice quality
2. Resolution of billing / charging / validity complaints
3. Accessibility of call centre / customer care

Telecom Regulatory Authority of India (TRAI) is set the Quality of service (QoS) parameters for telecom company in India. TRAI has sets benchmark for each parameter. For the above parameters following are the benchmark decided by TRAI:

**Table No. 5.19**

**Strategic Measures and Benchmark**

<b>STRATEGIC MEASURES</b>	<b>BENCHMARK (TRAI)</b>
Connection with good voice quality	<b>≥ 95%</b>
Resolution of billing / charging / validity complains	<b>100% within 4 weeks</b>
Accessibility of call centre / customer care	<b>≥ 95%</b>

As per Table No. 5.19, benchmark of first strategic measures is greater than or equal to 95% for connection with good voice quality, benchmark of second strategic measures is 100% within 4 weeks for resolution of billing / charging / validity complains and benchmark of third strategic measure is greater than or equal to 95% for accessibility of call centre / customer care.

For the above key measure, following is the performance of RCOM to comparison with benchmark decided by TRAI for the telecom company.

**Table No. 5.20**

**Strategic Measures and Performance of RCOM**

<b>STRATEGIC MEASURES</b>	<b>BENCHMARK (TRAI)</b>	<b>PERFORMANCE OF RCOM</b>
Connection with good voice quality	<b>≥ 95%</b>	98.14%
Resolution of billing / charging / validity complaints	<b>100% within 4 weeks</b>	100%
Accessibility of call center / customer care	<b>≥ 95%</b>	95.23%

As per Table No. 5.20, first key measures is connection with good voice quality and performance value for RCOM is 98.14%, which is greater than for benchmark decided by TRAI. Second key measure is resolution of billing / charging / validity complaints and performance value for RCOM is 100%, which is meeting the benchmark decided by TRAI and third key measure is accessibility of call centre / customer care and performance value is 95.23%, which is greater than for benchmark decided by TRAI. For the above performance, this shows that overall internal business processes working effectively and meet the expectation of customer.

## **Chapter 6**

### **Financial Perspective Measurement**

6.1 Introduction

6.2 Financial Perspective Measurement

1. Return on Assets (ROA)
2. Return on Equity (ROE)
3. Return on Investment (ROI)
4. Earnings Per Share (EPS)
5. Market value

Reference

## **6.1 INTRODUCTION**

This chapter deals with one of the important perspective of Balanced Scorecard (BSC), that is, financial perspective. For effective implementation of RCOM strategy, strategic objectives are broken down into measurable parameters. As per the vision of the RCOM, “By 2015, be amongst the top 3 most valued Indian companies” is key strategic objective. To measure financial performance of the RCOM, the following key measures here that are considered,

1. Return on Asset (ROA)
2. Return on Equity (ROE)
3. Return on Investment (ROI)
4. Earnings Per Share (EPS)
5. Market Value

These are good indicators of the financial health of an organization since they measure how efficiently businesses are utilizing their assets and the value they are returning to shareholders on their investments. A business that is financially healthy will consistently return high ROA, ROE, ROI and EPS. These measures will therefore give information to shareholders on the state of the businesses they have invested in.

Thus, the above indicators of a unit can be evaluated with help of trend analysis. It is helpful in making comparative study of the



changes in an item or groups of item over a period of time and to draw conclusion.

## **6.2 FINANCIAL PERSPECTIVE MEASUREMENT**

### **1. Return on Assets (ROA)**

An indicator of how profitable a company is relative to its total assets. ROA provides an idea of how efficient management is at using its assets to generate earnings. It is calculated, as shown here, by dividing a company's annual earnings by its total assets, with ROA displayed as a percentage. Sometimes this is referred to as return on investment. The profitability ratio is measured in terms of the relationship between net profits and assets. The ROA may also be called profit-to-asset ratio.

The formula of Return on Assets =  $\frac{\text{Net Income}}{\text{Total Assets}}$

The assets of the company are made of both debt and equity. Both of these types of financing are used to fund the operations of the company. The ROA figure gives investors an idea of how effectively the company is converting the money it has to invest into net income. The higher the ROA number, the better, because the company is earning more money on less investment.

**Table No. 6.1  
Trends of Return on Assets**

Company	Years					Average
	2006-07	2007-08	2008-09	2009-10	2010-11	
RCOM						
ROA (in %)	100.39	120.35	250.43	244.66	233.26	189.818
Index on the base year	100	119.88	249.46	243.71	232.35	189.08
Trend value	111.808	150.81	189.82	228.82	267.83	189.818
Bharti Airtel						
ROA (in %)	60.17	106.34	145.01	96.24	115.42	104.636
Index on the base year	100	176.73	241.00	159.95	191.82	173.9006
Trend value	84.556	94.60	104.64	114.68	124.72	104.636
Idea cellular						
ROA (in %)	8.4	13.44	36.37	34.59	37.18	25.996
Index on the base year	100	160.00	432.98	411.79	442.62	309.4762
Trend value	10.254	18.13	26.00	33.87	41.74	25.996
Tata Teleservices						
ROA (in %)	-1.78	-1.06	-1.94	-3.51	-3.25	-2.308
Index on the base year	100	59.55	108.99	197.19	182.58	129.6629
Trend value	-1.23	-1.77	-2.31	-2.85	-3.39	-2.308
MTNL						
ROA (in %)	181.07	186.7	189.88	149.97	105.5	162.624
Index on the base year	100	103.11	104.87	82.82	58.26	89.81278
Trend value	200.198	181.41	162.62	143.84	125.05	162.624

(Source: Annual reports of the respective companies)

Table No. 6.1 presents the data related to trends of ROA, its index on the base year and percentage increase over previous year of RCOM and selected telecom company for the period from 2006-07 to 2010-11.

In RCOM, the ROA ranged between 100.39% in 2006-07 and 233.26% in 2010-11 with an average of 189.81%. The ROA showed increase from 2006-07 to 2008-09 and decreased in 2009-10 & 2010-11. Trend value is higher than the base year level. It states the positive trend. It can be said that the earning more

money on less investment and company performance was satisfactory based on ROA.

In Airtel, the ROA ranged between 60.17% in 2006-07 and 115.42% in 2010-11 with an average of 104.63%. The ROA showed increase from 2006-07 to 2008-09 and decreased in 2009-10 and further increased in 2010-11. The ROA was satisfactory. The trend value also indicates the upward trend.

In Idea, the ROA ranged between 8.7% in 2006-07 and 37.18% in 2010-11 with an average of 104.63%. The ROA showed increase from 2006-07 to 2008-09 and decreased in 2009-10 and further increased in 2010-11. The ROA was satisfactory. The value also suggests the upward trend.

The ROA of Tata Teleservices showed declined trend from -1.78% in 2006-07 to -3.25% in 2010-11. The average ROA of the company was -2.30%, which indicated that the Return on Assets was not satisfactory. Trends values average is also lower than the base year level. So, it also says negative trend.

In MTNL, the ROA ranged between 181.07% in 2006-07 and 105.5% in 2010-11 with an average of 162.62%. The ROA showed increase from 2006-07 to 2008-09 and decreased in 2009-

10 & 2010-11. The ROA was satisfactory. The trend value shows the downward trend.

On the basis of above details, it can be concluded that the highest ROA was 189.81% of RCOM, followed by MTNL, Airtel, Idea and Tata Teleservices. We can say that performance of RCOM was better than other telecom company.

The overall result of ROA is determined by viewing the chi-square. The calculated value of chi-square comes out to 32.23 while the critical value of chi-square is 9.488. So, here the calculated value is higher than the critical. It indicates the acceptance of alternative hypothesis instead of null hypothesis. It means, **“There is significant difference in Return on Assets of RCOM”**.

## **2. Return on Equity (ROE)**

Return on equity (ROE) measures the rate of return on the ownership interest of the common stock owners. It measures a firm's efficiency at generating profits from every unit of shareholders' equity (also known as net assets or assets minus liabilities). ROE shows how well a company uses investment funds to generate earnings growth. It is calculated as follows:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. Return on Equity of ROE is an indicator of a company's profitability. It is the most important profitability metrics. Return on equity reveals how much profit a company earned in comparison to the total amount of shareholder equity fund on the balance sheet. Shareholder equity is equal to total assets minus total liabilities. It's what the shareholders "own". Shareholder equity is a creation of accounting that represents the assets created by the retained earnings of the business and the paid-in capital of the owners. A business that has a high return on equity is more likely to be one that is capable of generating cash internally. For the most part, the higher a company's return on equity compared to its industry, the better.

**Table No. 6.2**  
**Trends of Return on Equity**

Company	Years					Average
	2006-07	2007-08	2008-09	2009-10	2010-11	
RCOM						
ROE (in %)	11.74	10.41	9.29	0.94	-1.57	6.162
Index on the base year	100	88.67	79.13	8.01	-13.37	52.49
Trend value	13.38	9.77	6.16	2.55	-1.06	6.162
Bharti Airtel						
ROE (in %)	35.35	30.94	28.13	25.79	17.6	27.562
Index on the base year	100	87.52	79.58	72.96	49.79	77.96888
Trend value	35.692	31.63	27.56	23.49	19.43	27.5602
Idea cellular						
ROE (in %)	23.04	29.48	8.87	9.23	6.87	15.498
Index on the base year	100	127.95	38.50	40.06	29.82	67.26563
Trend value	26.016	20.76	15.50	10.24	4.98	15.498
Tata Teleservices						
ROE (in %)	96.7	62.68	43.33	44.72	-8.09	47.868
Index on the base year	100	64.82	44.81	46.25	-8.37	49.50155
Trend value	93.37	70.62	47.87	25.11	2.36	47.8668
MTNL						
ROE (in %)	4.01	3.45	1.4	-32.42	-42.15	-13.142
Index on the base year	100	86.03	34.91	-808.48	-1051.12	-327.731
Trend value	12.496	-0.32	-13.14	-25.96	-38.78	-13.142

(Source: Annual reports of the respective companies)

The ROE of RCOM and selected telecom company has been presented in table no.6.2. In RCOM, the ROE ranged between 11.74% in 2006-07 and -1.57% in 2010-11 with an average of 6.61%. The ROE showed decreased trend during the study period. It comes on average to 6.162 which are lower than the base year level. The trend value says the downward trend. It can be said that company performance was not satisfactory based on ROE.

In Airtel, the ROE ranged between 35.35% in 2006-07 and 17.6% in 2010-11 with an average of 27.56%. The ROE showed decrease from 2006-07 to 2010-11. The trend value says the downward trend.

In Idea, the ROE ranged between 23.04% in 2006-07 and 6.87% in 2010-11 with an average of 15.49%. In most of years the company was not maintained performance. The value also says the downward trend.

The ROE of Tata Teleservices showed declined trend from 96.7% in 2006-07 to -8.09% in 2010-11. The average ROE of the company was 47.86%, which indicated that company was good but average was not maintained. The value also says the downward trend.

In MTNL, the ROE ranged between 4.01% in 2006-07 and -42.15% in 2010-11 with an average of 13.14%. The ROE showed decrease from 2006-07 to 2010-11. The ROE was not satisfactory. The value also says the downward trend.

On the basis of above details, it can be concluded that the highest ROE was 47.86% of Tata Teleservices, followed by Airtel, Idea,

MTNL and RCOM. We can say that performance of RCOM was not good comparing with others Telecom Company.

The overall result of ROE is determined by viewing the chi-square. The calculated value of chi-square comes out to 2.59 while the critical value of chi-square is 9.488. So, here the calculated value is lower than the critical. It indicates the acceptance of null hypothesis. It means, **“There is no significant difference in Return on Equity of RCOM”**.

### **3. Return on Investment (ROI)**

A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. To calculate ROI, the benefit (return) of an investment is divided by the cost of the investment; the result is expressed as a percentage or a ratio. The return on investment formula:

$$\text{Return on Investment (ROI)} = \frac{\text{Gain from investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

In the above formula "gains from investment", refers to the proceeds obtained from selling the investment of interest. Return on investment is a very popular metric because of its versatility and simplicity. That is, if an investment does not have a positive ROI, or if there are other opportunities with a higher ROI, then the investment should be not be undertaken. The purpose of



the "return on investment" metric is "to measure per period rates of return on rupees invested in an economic entity. Marketers should understand the position of their company and the returns expected. ROI is often compared to expected (or required) rates of returns on rupees invested.

**Table No. 6.3**  
**Trends of Return on Investment**

Company	Years					Average
	2006-07	2007-08	2008-09	2009-10	2010-11	
<b>RCOM</b>						
ROI(in %)	10.96	9.65	4.8	1.97	1.03	5.682
Index on the base year	100	88.05	43.80	17.97	9.40	51.84
Trend value	11.19	8.44	5.68	2.93	0.17	5.682
<b>Bharti Airtel</b>						
ROI(in %)	29.06	27.95	28.4	23.86	15.97	25.048
Index on the base year	100	96.18	97.73	82.11	54.96	86.19408
Trend value	31.102	28.08	25.05	22.02	18.99	25.048
<b>Idea cellular</b>						
ROI(in %)	14.96	16.92	11.2	10.73	7.5	12.262
Index on the base year	100	113.10	74.87	71.72	50.13	81.96524
Trend value	16.484	14.37	12.26	10.15	8.04	12.262
<b>Tata Teleservices</b>						
ROI(in %)	-8.21	1.44	5.09	-1.37	-12.01	-3.012
Index on the base year	100	-17.54	-62.00	16.69	146.29	36.68697
Trend value	-0.93	-1.97	-3.01	-4.05	-5.09	-3.012
<b>MTNL</b>						
ROI(in %)	6.77	6.48	3.43	-35.63	-16.35	-7.06
Index on the base year	100	95.72	50.66	-526.29	-241.51	-104.284
Trend value	10.61	1.78	-7.06	-15.90	-24.73	-7.06

(Source: Annual reports of the respective companies)

The ROI of RCOM and selected telecom company has been presented in table No.6.3. In RCOM, the ROI ranged between 10.96% in 2006-07 and -1.03% in 2010-11 with an average of 5.68%. The ROI showed decreased trend during the study period.

It can be said that company performance was not satisfactory based on ROI. Trend value is 5.682 which is lower than the base year. It states the negative trend of ROI.

In Airtel, the ROI ranged between 29.06% in 2006-07 and 15.97% in 2010-11 with an average of 25.04%. The ROI showed decrease from 2006-07 to 2010-11. The trend value shows downward trend but company maintains the ROI during study period.

In Idea, the ROI ranged between 14.96% in 2006-07 and 7.5% in 2010-11 with an average of 12.26%. In most of years the company was not maintained performance. The trend value of ROI shows an overall downward trend.

The ROI of Tata Teleservices showed declined trend from -8.21% in 2006-07 to -12.01% in 2010-11. The average ROI of the company was 3.01%, which indicated that company was good but average was not maintained. The trend value of ROI shows a downward trend.

In MTNL, the ROI ranged between 6.77% in 2006-07 and -16.35% in 2010-11 with an average of 7.06%. The ROI showed decrease from 2006-07 to 2010-11. The ROI was not satisfactory. The trend value of ROI shows a downward trend.

On the basis of above details, it can be concluded that the highest ROI was 25.04% of Airtel, followed by Idea, MTNL, RCOM and Tata Teleservices. We can say that performance of RCOM was not good comparing with others Telecom Company.

The overall result of ROI is determined by viewing the chi-square. The calculated value of chi-square comes out to 4.84 while the critical value of chi-square is 9.488. So, here the calculated value is lower than the critical. It indicates the acceptance of null hypothesis. It means, **“There is no significant difference in Return on Investment of RCOM”**.

#### **4. Earnings Per Share (EPS)**

The profitability of a firm from the point of view of the ordinary shareholders is the Earning per Share. It measures the profit available to the equity shareholders on a per share basis, i.e. the amount that they can get on every share held. It is calculated by dividing the profits available to the shareholders by the number of the outstanding shares. The profits available to the ordinary shareholders are represented by net profits after taxes and preference dividend. The formula for derivation of this ratio is:

$$\text{Earnings per Share} = \frac{\text{Net Profit available to equity holders}}{\text{No. of Ordinary shares Outstanding}}$$

Earnings per Share are widely used term. Its usefulness in analyzing the effect of a change in leverage on the net operating earnings to the ordinary shareholders and, given the requirements of maximizing Earning Per Share. Earnings Per Share as a measure of profitability of a firm from the owner's point of view should be used cautiously as it does not recognize the effect of increase in equity capital as a result of retention of earnings. In other words, if Earnings Per Share has increased profit to the owner's may be the effect of an enlarged equity capital as a result of retention of earnings. In other words, if Earning Per Share has increased over the years, it does not necessarily follow that the firm's profitability has improved because the increased profits to the owner's may be the effect of an enlarged equity capital as a result of profit retentions, though the number of ordinary shares outstanding still remains constant. It only shows how much "theoretically" belongs to the ordinary shareholders.

**Table No. 6.4**  
**Trends of Earnings per Share**

Company	Years					Average
	2006-07	2007-08	2008-09	2009-10	2010-11	
<b>RCOM</b>						
EPS (in Rs.)	11.78	12.53	23.27	2.32	-3.67	9.246
Index on the base year	100	106.37	197.54	19.69	-31.15	78.49
Trend value	17.468	13.36	9.25	5.14	1.02	9.246
<b>Bharti Airtel</b>						
EPS (in Rs.)	21.27	32.9	40.79	24.82	20.32	28.02
Index on the base year	100	154.68	191.77	116.69	95.53	131.7348
Trend value	30.016	29.02	28.02	27.02	26.02	28.02
<b>Idea cellular</b>						
EPS (in Rs.)	1.94	3.96	3.23	3.19	2.56	2.976
Index on the base year	100	204.12	166.49	164.43	131.96	153.4021
Trend value	2.882	2.93	2.98	3.02	3.07	2.976
<b>Tata Teleservices</b>						
EPS (in Rs.)	-1.72	-0.66	-0.84	-1.57	0.26	-0.906
Index on the base year	100	38.37	48.84	91.28	-15.12	52.67442
Trend value	-1.516	-1.21	-0.91	-0.60	-0.30	-0.906
<b>MTNL</b>						
EPS (in Rs.)	7.4	6.46	2.67	-48.63	-44.47	-15.314
Index on the base year	100	87.30	36.08	-657.16	-600.95	-206.946
Trend value	16.452	0.57	-15.31	-31.20	-47.08	-15.314

(Source: Annual reports of the respective companies)

Table No. 6.4 shows that the ratio of earning per share in RCOM. The ratio showed increased from Rs.11.78 in 2006-07 to Rs. 12.53 in 2007-08. It further rose to Rs.23.27 in 2008-09 and sharply declined to Rs.2.32 in 2009-10.It was Rs.-3.67 in 2010-11. The ratio fluctuated throughout the study period. The trend value also shows the negative trend.

In Airtel, the ratio of earning per share showed the fluctuated trend during the study period. The ratio was Rs.21.27 then it was increased to Rs. 32.9 in 2007-08 showing the improvement in the ratio. The ratio was Rs.40.79 in 2008-09 and Rs. 20.32 in 2010-11. The average ratio of the company was Rs.28.02. The Earning per share was quite satisfactory. The trend value also shows the negative trend.

In idea cellular, the ratio of earning per share showed increase from Rs.1.94 in 2006-07 to Rs.32.9 in 2007-08. It was decreased to Rs.3.23 in 2008-09 to Rs. 3.19 in 2009-10 and Rs.2.56 in 2010-11. It can be said that the profitability of the company was satisfactory based on EPS. The trend value also indicated the positive trend.

In Tata Teleservices, the ratio of earning per shares Rs.-1.72 in 2006-07 and Rs. -0.66 in 2007-08. It was decreased to Rs.-0.84 to Rs.-1.57 in 2009-10. The average ratio of the company was minus Rs.0.906, which indicated that the ratio was not satisfactory. The trend value also shows the negative trend.

The ratio of earning per share of MTNL reveals the trend towards decreasing. The E.P.S was Rs.7.4 in 2006-07 to Rs.6.46 in 2007-08. It further declined to Rs.2.67 in 2008-09. The ratio was

declined to very lower to Rs.-48.63 in 2009-10 and Rs. -44.47 in 2010-11. The average ratio was Rs.15.314. The trend value shows the negative trend.

It can be generalized from the above analysis that the Airtel had the highest E.P.S followed by the MTNL, RCOM, Idea and Tata Teleservices. The E.P.S of Rcom was on third position in telecom industry.

The overall result of EPS is determined by viewing the chi-square. The calculated value of chi-square comes out to 46.23 while the critical value of chi-square is 9.488. So, here the calculated value is higher than the critical. It indicates the acceptance of alternative hypothesis instead of null hypothesis. It means, **“There is significant difference in Earnings per Share of RCOM”**.

## **5. Market value**

The market value, as reflected in the stock market quotations, comprises for estimating the value of a business. The justification of market value as an approximation of true worth of a firm is derived from the fact that market quotations by and large indicate the consensus of investors as to the firm's earning potentials and the corresponding risk. The market value approach is one of the

most widely used in determining value, specially of large listed firm. The market value of a firm is determined by investment as well as speculative factors. It is calculated as follows:

$$\text{Market Value} = \text{No. of shares outstanding} * \text{Current market price of share}$$

**Table No. 6.5**

**Trends of Market Value**

Company	Years (MV at the end of 31st march)					Average
	2006-07	2007-08	2008-09	2009-10	2010-11	
<b>RCOM</b>						
Market Value (Rs. In crores)	85873.83	104852.6	35914.07	35088.46	22085.09	56762.81
Index on the base year	100	122.10	41.82	40.86	25.72	66.10
Trend value	96231.13	76496.97	56762.81	37028.65	17294.49	56762.81
<b>Bharti Airtel</b>						
Market Value (Rs. In crores)	72235.09	78383.58	59225.08	118103.2	135571.8	92703.75
Index on the base year	100	108.51	81.99	163.50	187.68	128.3362
Trend value	59425.14	76064.45	92703.75	109343.10	125982.40	92703.77
<b>Idea cellular</b>						
Market Value (Rs. In crores)	24372.89	26880.68	15500.48	21448.95	22131.92	22066.98
Index on the base year	100	110.29	63.60	88.00	90.81	90.53905
Trend value	24049.72	23058.35	22066.98	21075.62	20084.25	22066.98
<b>Tata Teleservices</b>						
Market Value (Rs. In crores)	3799.94	5301.97	4173.81	4363.55	3225.23	4172.9
Index on the base year	100	139.53	109.84	114.83	84.88	109.8149
Trend value	4590.468	4381.68	4172.90	3964.12	3755.33	4172.9
<b>MTNL</b>						
Market Value (Rs. In crores)	9198	6048	4347	4599	2835	5405.4
Index on the base year	100	65.75	47.26	50.00	30.82	58.76712
Trend value	8240.4	6822.90	5405.40	3987.90	2570.40	5405.4

(Source: Annual reports of the respective companies)

Table No. 6.5 shows that the Market Value of RCOM, The Market Value showed increased from Rs.85873.83 crore in 2006-07 to Rs. 104852.6 crore in 2007-08. Then it sharply declined to



Rs.35914.07 crore in 2008-09 and Rs.35088.46 crore in 2009-10. It was Rs.22085.09 crore in 2010-11. The average Market Value of the company was Rs.56762.81 crore. The Market Value was fluctuated throughout the study period.

In Airtel, the market value showed the fluctuated trend during the study period. The market value was Rs.72235.09 crore in 2006-07 then it was increased to Rs. 78383.58 crore in 2007-08 showing the improvement in the value. The value was Rs.118103.2 crore in 2009-10 and Rs. 135571.8 crore in 2010-11. The average value of the company was Rs.92703.75 crore. The market value was quite satisfactory.

In Idea cellular, the market value showed increase from Rs.24372.89 crore in 2006-07 to Rs.26880.68 crore in 2007-08. It was decreased to Rs.15500.48 crore in 2008-09 to Rs. 21448.95 crore in 2009-10 and Rs.22131.92 crore in 2010-11. It can be said that the performance of the company was stable based on market value.

In Tata Teleservices, the market value Rs.3799.94 crore in 2006-07 and Rs. 5301.97 crore in 2007-08. It was decreased to Rs.4363.55 crore to Rs.3225.23 crore in 2010-11. The average

value of the company was Rs.4172.9 crore, which indicated that the performance of the company was not satisfactory.

The Market Value of MTNL reveals the trend towards decreasing. The market value was Rs.9198 crore in 2006-07 to Rs.6048 crore in 2007-08. It further declined to Rs.4347 crore in 2008-09. The ratio was declined to very lower to Rs.4599 crore in 2009-10 and Rs. 2835 crore in 2010-11. The average value was Rs.5405.4 crore. The market value was not satisfactory.

It can be generalized from the above analysis that the Airtel had the highest market value followed by the RCOM, Idea, MTNL and Tata Teleservices. The Market Value wise RCOM was on second position in telecom industry.

The overall result of MV is determined by viewing the chi-square. The calculated value of chi-square comes out to 20711.84 while the critical value of chi-square is 9.488. So, here the calculated value is much higher than the critical. It indicates the acceptance of alternative hypothesis instead of null hypothesis. It means, **“There is significant difference in Market Value of RCOM”**.

**REFERENCES:**

1. James C. Van Horne : Fundamentals of Financial Management, Prentice Hall of India Pvt. Ltd., New Delhi, III ed., 1978.
2. Chaudhary A.R., “Financial Ratio and Working Capital: Technologist” , Calcutta, 1989.
3. S.C. Kuchhal, “Financial management” An Analytical and Conceptual Approach” ‘Eight edition.
4. Block and Hirt “Foundation of financial management” Richard D. Irwin inc. Homewood, Illinois, 1978.

## **Chapter 7**

### **Summary, Findings and Conclusion**

- 7.1      Balanced Scorecard of RCOM
- 7.2      Study of Customer Perspective
- 7.3      Study of Learning and Growth Perspective
- 7.4      Study of Internal Business Processes Perspective
- 7.5      Study of Financial Perspective
- 7.6      Overall Conclusion

## **7.1 BALANCED SCORECARD OF RCOM**

The modern era is of global competition. In present scenario, telecom companies play vital role in the economy by providing communication facilities to the business as well customers. It has become past where customer pay higher charges for mobile services. Today's market is a customer-oriented that provides better, faster and competitive price to their customers. To facilitate the customers, lots of telecom players present into the market. So, the picture is totally changed now. All types of telecom players offer different and qualitative services to customers for their satisfaction.

As an outcome of the study the researcher provides Balanced Scorecard (BSC) of Reliance Communications:

Table No. 7.1

Balanced Scorecard of Reliance Communications Limited

<b>RELIANCE COMMUNICATIONS LIMITED</b>		
<b>FINANCIAL PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
By 2015, be amongst the top 3 most valued Indian companies	ROA	189.81%
	ROE	6.16%
	ROI	5.68%
	EPS	9.24
	Market Value	Rs. 56762.81 cr
<b>CUSTOMER PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
Customer experience	Customer Satisfaction Score	76%
<b>LEARNING AND GROWTH PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
Employees centercity	Job Satisfaction Score	76%
	Organisational Perception Score	75%
<b>INTERNAL BUSINESS PROCESS PERSPECTIVE</b>		
<b>STRATEGIC OBJECTIVE</b>	<b>STRETEGIC MEASURE</b>	<b>PERFORMANCE</b>
Customer experience	Connection with good voice quality	98.14%
	Resolution of billing /charging / validity complaints	100%
	Accessibility of call centre / customer care	95.23%

From the above table, Reliance Communications Limited has shown performance in terms of learning and growth perspective, internal process perspective, customer perspective and financial perspective.

In financial perspective, Return on Asset (ROA), Return on Equity (ROA), Return on Investment (ROA), Earnings per Share (EPS) and Market Value (MV) are key strategic measures. Performance of ROA recorded 189.91% which was highest among sampled telecom company. Performance of ROE recorded 6.16% which was lower than the other sampled telecom company. ROI of RCOM showed decreasing during study period. EPS of RCOM recorded Rs.9.24, which was third position among sampled telecom company. RCOM recorded average Market Value of Rs. 56762.81 cr and Market Value wise RCOM was on second position in telecom industry but performance of RCOM was decreasing.

In customer perspective, customer satisfaction index is key strategic measures and performance of RCOM was recorded 76% customer satisfaction score. Company should take some proper step for improving customer satisfaction score up to 95%.

In learning and growth perspective, job satisfaction index and organisational perception index are key strategic measures. As per table No. 7.1 showed Balanced Scorecard of RCOM, which was recorded 76% customer satisfaction score and 75% organisational perception score. Employee is most important asset of the company so organisation should take proper step for improving job satisfaction and organisational score up to 95%.

Performance score of internal process recorded 98.14% for connection with good voice quality, 100% for resolution of billing/charging/validity complaints and 95.23% for accessibility of call centre/customer care. It means that internal processes are working properly and resolution of customer complaints timely.

The broader objective of the study is to measure the total performance of Reliance Communications through Balanced Scorecard, which is sub divided into four main key performance indicators (KPI) which is financial perspective, customer perspective, internal business processes and, learning and growth perspective. Under each KPI, the organization selects metrics that align business performance to its strategic objectives and vision. Following are the objectives of the study,

1. To Measure Customer Perspective of RCOM.



2. To Measure Learning and Growth Perspective of RCOM.
3. To Measure Internal Business Process Perspective of RCOM.
4. To Measure Financial Perspective of RCOM.

On the basis of the above objectives, following are the major finding of the study.

## **7.2 STUDY OF CUSTOMER PERSPECTIVE**

By administering the comprehensive structured schedule of question to 317 respondents of RCOM customers the primary data were calculated, classified and tabulated as per the needs of the study. Besides elementary techniques like average percentage, F test and T test.

Keeping in view objective of the study, the researcher could identified following findings.

1. There was a significant difference found in the mean score of customers' satisfaction and age group. It indicates that age is major consideration for Rcom customers' regarding satisfaction level.
2. Regarding occupation, the RCOM customers having different types of occupations like service, business, student or other like student and housewife, have different satisfaction level of RCOM customers', because significant difference was found.

3. Male and female customers have no significance difference in satisfaction level of Rcom customers.
4. The significant difference was found in satisfaction level of RCOM customers regarding types of mobile technology using. It means CDMA and GSM technology users have different level of satisfaction. It indicates that mobile technology is major factor for customer satisfaction level.
5. No significant difference was found in mean score of customers' satisfaction and types of mobile connection using. It indicates that prepaid or postpaid connection is not a major factor for satisfaction of RCOM customers.
6. The significant difference was found in satisfaction level of RCOM customers regarding time period of mobile connection using. It indicates that time period of using service is important factor for satisfaction of RCOM customers.

### **7.3 STUDY OF LEARNING AND GROWTH PERSPECTIVE**

By administering the comprehensive structured schedule of question to 100 respondents of RCOM employees the primary data were calculated, classified and tabulated as per the needs of the study. Besides elementary techniques like average percentage, F test and T test.

Keeping in view objective of the study, the researcher could identified following findings.

1. There was no significant difference between age group and mean scores of job satisfaction of RCOM employees.
2. It was found that there was no correlation between working into different departments and score of job satisfaction.
3. It was found that there was no correlation between working at different level of designation and score of job satisfaction.
4. There was significant differences between academic qualification and means score of job satisfaction.
5. There was no correlation in length of service and mean scores of job satisfaction.
6. There was no correlation between different age groups and mean score of organisational perception.
7. There was no significant difference found between working into different departments and mean scores of organisational perception.
8. There was no correlation between working at different departments and mean score of organisational perception.

9. There was significant difference between academic qualification and level of mean scores of organisational perception.

10. There was no correlation in length of service and mean scores of organisational perception.

#### **7.4 STUDY OF INTERNAL BUSINESS PROCESSES PERSPECTIVE**

The efficiency of the internal processes of an organisation can affect the way the company delivers service to their customers.

**Table No.7.2**

##### **Strategic Measures for Internal Business Processes Perspective**

<b>STRATEGIC MEASURES</b>	<b>BENCHMARK (TRAI)</b>	<b>PERFORMANCE OF RCOM</b>
Connection with good voice quality	<b>≥ 95%</b>	98.14%
Resolution of billing / charging/ validity complaints	<b>100% within 4 weeks</b>	100%
Accessibility of call centre / customer care	<b>≥ 95%</b>	95.23%

There is positive correlation between the performance of a company and the efficiency and effectiveness of its internal processes as evidenced from the data available on above table.

1. First strategic measure for internal processes is connection with good voice quality and performance of RCOM was 98.14%, which is above the benchmark decided by TRAI. It means that Rcom has very good technological support and providing good service to the customers.

2. Second strategic measure for internal processes is resolution of billing / charging / validity complaints and performance of RCOM is 100%, which is above benchmark decided by TRAI. It means that internal processes are working properly and resolution of customer complaints on timely.
3. Third strategic measure for internal processes is accessibility of call centre / customer care and performance of RCOM was 95.23%, which is above benchmark decided by TRAI. It means that company has effective customer care department.

## **7.5 STUDY OF FINANCIAL PERSPECTIVE**

Under financial perspective, the following measures/metrics were considered:

### **Trends of Return on Asset (ROA)**

The trends of ROA registered upward movement in RCOM during the study period. RCOM recorded average ROA of 189.91%, which was the highest among sampled telecom company for the study period. It can be concludes that RCOM used its assets efficiently for generating earnings.

### **Trends of Return on Equity (ROE):**

RCOM recorded ROE of highest index of 88.67% while lowest index was registered -13.37% and it was continuously decreased during the study period. Average ROE for Airtel, Idea, Tata and MTNL was higher than the RCOM. It indicates not favourable

financial position among sampled telecom company. It is recommended that RCOM should focus to improve its ROE.

**Trend of Return on Investment (ROI):**

ROI of RCOM showed decreasing trend during the study period. RCOM recorded ROI of highest index of 88.05% while lowest index was registered 9.40%. It can be concludes that profitability of financial resources employed in business enterprise assets is not good during the study period.

**Trends of Earnings Per Share (EPS):**

EPS of RCOM showed fluctuating during study period. The EPS showed highest index of Rs.197.54 in 2008-09 and lowest index of Rs.-31.15 in 2010-11. It means profitability available to shareholders of RCOM was decreasing and RCOM required increasing profit.

**Market value:**

RCOM recorded average Market value of Rs.56762.81 cr and it was highest of Rs.104852.6 cr in 2008-09 and lowest of Rs.22085.09 cr in 2010-11. It can be concludes that based on market value RCOM was on second position in telecom industry but performance of RCOM was decreasing.

## **7.6 OVERALL CONCLUSION**

As per table No. 7.1 showed Balanced Scorecard of Reliance Communications Limited, which was recorded 76% customer satisfaction score, 76% employee satisfaction score and 75% organisational perception score. Performance score of internal process recorded 98.14% for connection with good voice quality, 100% for resolution of billing /charging / validity complaints and 95.23% for accessibility of call centre / customer care. The additional information the BSC framework has provided in assessing the performance of RCOM is that, it has revealed that there are two sided to its performance, the first being poor financial performance; and the other being the good customer satisfaction, employee satisfaction and effective internal processes. It is clear that company financially may not necessarily be the best in the telecom industry, but other perspective or dimensions are taking into consideration for review.

It is therefore very clear from the study that customer perspective, learning and growth perspective, and internal business perspective affect the assessment of the performance of RCOM to very large extent. With the kind of results that have been gathered through this research, any investor who wants to invest, merge or takeover these company will be better informed with measures in several dimensions in terms of customer perspective, internal business processes perspective (operational structures and controls), and learning and growth perspective all of which affect the long term performance and survival of the RCOM than just looking at their financials alone. Customer perspective, internal business

perspective, and learning and growth perspective therefore play complementary roles in assessing performance of institutions.

As per the Balanced Scorecard of RCOM presented in table No. 7.1, strategic objective decided by RCOM is top 3 most valued Indian companies but organization is not achieving this objective because financial performance is not satisfactory. Performance of RCOM in Customer perspective, learning and growth perspective, and internal business process perspective were satisfactory.

The BSC framework can assist by providing additional information using measures in several dimensions such as customer perspective, internal business processes perspective and learning and growth perspective to managers, shareholders and other interested stakeholders regarding the performance of the RCOM. This will enable RCOM focus on the core strategies in order to create and deliver superior value and returns to their shareholders. This puts the shareholders in an informed position regarding the value the RCOM are delivering to them in the short-run versus the long-run. The additional information the BSC framework is providing could be viewed like a commentary on “facts behind the figures” to reveal the non-financial inputs that went into achieving the financial results and whether the results being reported by the RCOM are sustainable in the long run.

As per Balanced scorecard of the RCOM, financial performance of the company is not satisfactory. Researcher has finding below causes of poor financial performance of RCOM.

1. After a phase of robust growth over the recent past, the Indian telecom sector is slowing down. The sector is now characterized



by an overcrowded market, fragmented industry structure and steep decline in tariffs.

2. Minutes of usage per subscriber in India have declined 465 minutes in 2007 to 349 minutes in 2011.
3. As a result of decline in tariffs and falling minutes of use, Industry – wide Revenue per Minute (RPM) have decreased from INR 1.0 in 2007 to INR 0.4 in 2011. Same time, RCOM revenue per minute has decreased from INR 0.95 in 2007 to INR 0.44 in 2011.
4. Mobile operators currently face the challenge of not only stagnating revenues but also increasing operating expenses. The network expenses of operators are increasing due to the overall high inflationary environment along with their network expansion activities. For instance, in FY2007, network expense as percentage of revenue for RCOM, Airtel and Idea cellular were 7%, 11% and 12% respectively. However, by FY2011, they had increased to 52%, 23% and 31%, It means that RCOM has highest rising network operating expenses as percentage of revenue compared to other telecom company working in this industry.
5. Company is burdened by multiple duties and levies, both at the central as well as the state level. Central levies include annual license fees, annual spectrum fees and service tax. This high burden of fees/levies/duties on mobile industry players has also contributed to the deterioration of profitability. Regulatory charges in India are on the higher side compared with China, Malaysia, Sri Lanka and Pakistan.

From the above causes of the poor financial performance of RCOM, following is action plan for improving financial performance:

1. Focus on mass mobility market through GSM with special focus on rural distribution.
2. Increase revenue from new service streams of value added service and In-roaming revenue.
3. Maximize revenues from existing assets of Towers and Optical fibers so that network operating expenses decreasing.
4. RCOM not only reliant on wireless business for future growth; massive opportunity in newer segments including DTH and expansion of Enterprise business.

**Bibliography**

1. Fabrizio Bocci – Bocci consulting – Fbocci@bocconconsulting.it
2. Fiorenzo Franceschini, Maurizio Galetto, Domenico Maisano, “Management by measurement” p. 109.
3. Dess, G. G., and Robinson, R. 1984. “Measuring Organizational Performance in the Absence of Objective Measures: The Case of the Privately-Held Firm and Conglomerate Business Unit.” *Strategic Management Journal*, 5: 265–273.
4. Fiorenzo Franceschini, Maurizio Galetto, Domenico Maisano, “Management by measurement” p. 111.
5. Peters and Waterman, 1982, “Industrial Management”,
6. Venkatraman, N., and Ramanujam, V. 1987. “Measurement of Business Economic Performance: An Examination of Method Convergence.” *Journal of Management*, 13: 109–122.
7. Brush, Candida G.; Vanderwerf, Pieter A. (1992): “A Comparison of Methods and Sources for Obtaining Estimates of New Venture Performance”, *Journal of Business Venturing*, 7,157-170.
8. Fiorenzo Franceschini, Maurizio Galetto, Domenico Maisano, “Management by measurement” p. 112.

9. Fitzgerald, L. and Moon, P. (1996). Performance Measurement in Service Industries: Making it Work. London: The Chartered Institute of Management Accountants.
10. Artley, W. and Stroh, A. (2001). The Performance-Based Management Handbook: Establishing an Integrated Performance Measurement System. Retrieved April 9, 2008-
11. Leong, G.K., Snyder, D.L. and Ward, P.T. (1990). Research in the process and content of manufacturing strategy. OMEGA International Journal of Management Science, 18 (2), 109-22.
12. Performance – based management special interest – Group 2001
13. Kaplan, R. S. and Norton, D. P (1992). The Balanced Scorecard - Measures that Drive Performance. Harvard Business Review, January - February.
14. The Critical Few Method – <http://book.personalmba.com/critical-few/>
15. Performance Dashboards: Measuring, Monitoring and Managing your Business by Wayne W. Eckerson
16. Rampersad, H.K., Total Performance Scorecard; Redefining Management to Achieve Performance with Integrity, Butterworth-

- Heinemann Business Books, Elsevier Science, Massachusetts, May 2003.
17. Brevis, T., Ngambi, H.C., Vrba, M.J. & Naicker, K.S. (2002). Management principles: A contemporary edition for Africa (P.J. Smit & G.J.de J. Cronje, Eds.). Cape Town: Juta Academic.
  18. Kaplan, R. S. and Norton, D. P.(1992). The Balanced Scorecard - Measures that Drive Performance. Harvard Business Review, January - February.
  19. Kaplan, R. S. and Norton, D. P. (1996). Using the Balanced Scorecard as a Strategic Management System. Harvard Business Review, January – February, 75-85.
  20. Lawrie, G. and Cobbold, I. (2004). Development of the 3rd Generation Balanced Scorecard: Evolution of the Balanced Scorecard into an effective strategic performance management tool. Retrieved April 6, 2008,
  21. Business Process Trends, 2003.
  22. Harmon, P. (2003). The evolution of the balanced scorecard. Business process trends. Retrieved April 5, 2008.

23. Kaplan, R. S. and Norton, D. P. (1996). Using the Balanced Scorecard as a Strategic Management System. *Harvard Business Review*, January – February, 75-85.
24. Veltman, M. (2005). *Balanced Scorecard*. Retrieved April 5, 2008.
25. Kaplan, R. S. and Norton, D. P. (2000). *Balanced Scorecard Strategy Maps*. *Harvard Business Review*.
26. Harmon, P. (2003). The evolution of the balanced scorecard. *Business process trends*. Retrieved April 5, 2008.
27. Lawrie, G. and Cobbold, I. (2004). Development of the 3rd Generation Balanced Scorecard: Evolution of the Balanced Scorecard into an effective strategic performance management tool. Retrieved April 6, 2008.
28. Kaplan, R. S. and Norton, D. P. (2001). *The Strategy Focused Organization*. Harvard Business School Press.
29. Hepworth, P. (1998). Weighing it up - a literature review for the balanced scorecard. *The Journal of Management Development*, 17 (8), 559.
30. Williams, J. R., Haka, S. F. and Bettner, M.S. (2005). *Financial and Managerial Accounting: the basis for business decisions*. London: McGraw-Hill.

31. Bourne, M. & Bourne, P. (2007). *Instant Manager: Balanced Scorecard*. London: Hodder Arnold.
32. Anthony, R. N. and Govindarajan, V. (2000). *Management Control Systems*. London: McGraw Hill Higher Education.
33. Hepworth, P. (1998). Weighing it up - a literature review for the balanced scorecard. *The Journal of Management Development*, 17 (8), 559.
34. Bloomquist, P. and Yeager, J. (2008). Using Balanced Scorecards to Align Organizational Strategies. *Healthcare Executive*, Jan/Feb, 23 (1), 24-26, 28.
35. Schmidt, C. (2005). The Driver's View. *The Internal Auditor*, 62 (3), 29-31.
36. O Cleverley, W. and O Cleverley, J. (2005). Scorecards and dashboards: using financial metrics to improve performance. *Healthcare Financial Management*, 59 (7), 64-69.
37. Artley, W. and Stroh, A. (2001). *The Performance-Based Management Handbook: Establishing an Integrated Performance Measurement System*. Retrieved April 9, 2008.
38. Amaratunga, D., Baldry, D. & Sarshar, M. (2000). Performance evaluation in facilities management: Using the Balanced

- Scorecard Approach. COBRA 2000 Conference, University of Greenwich, 30 August to 1 September. Retrieved March 18, 2008.
39. Shulver, M. and Antarkar, N. (2001). The Balanced Scorecard as a Communication Protocol for Managing Across Intra-Organizational Borders. Proceedings of the Twelfth Annual Conference of the Production and Operations Management Society, Orlando.
40. Wicks, A. M., St Clair, L. and Kinney, C. S. (2007). Competing Values in Healthcare: Balancing the (Un) Balanced Scorecard/Practitioner Application. *Journal of Healthcare Management*, Sep/Oct, 52 (5), 309-323; discussion 323-324.
41. Smith, H. And Kim, I. (2005). Balanced scorecard at Summa health system. *The Journal of Corporate Accounting & Finance*, 16 (5), 65-72.
42. Kocakülâh, M.C. and Austill, A.D. (2007). Balanced Scorecard Application in the Health Care Industry: A Case Study. *Journal of Health Care Finance*, 34 (1), 72-99.
43. Ashton, C. (1998). Balanced scorecard benefits NatWest Bank. *Human Resource Management International Digest*, 6 (3), 11-13.



44. Jensen, M.C. (2001). Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Journal of Applied Corporate Finance*, 14 (3).
45. Field, T., Buchbach, R. and Weert, A.V. (2007). Literature review: measuring compliance effectiveness: Balanced scorecard. Australian Taxation Office, Australian Government. Retrieved April 12, 2008.
46. Harvard Business Publishing Newsletters, 2002 3 pages, by Lauren Keller Johnson
47. Ashton, C. (1998). Balanced scorecard benefits NatWest Bank. *Human Resource Management International Digest*, 6 (3), 11-13.
48. *Mobile Communications* by Joochen Schiller –second edition
49. Kaplan, R. S. and Norton, D. P. (1996). Using the Balanced Scorecard as a Strategic Management System. *Harvard Business Review*, January – February, 75-85.
50. Letza, S. R. 1996. The design and implementation of the balanced business scorecard: An analysis of three companies in practice. *Business Process Re-engineering & Management Journal* 2 (3): 54-76.

51. Hoque, Z. and James, W. (2000), “Linking balanced scorecard measures to size and market factors: impact on organizational performance”, *Journal of Management Accounting Research*, Vol. 12, pp. 1-17.
52. Ittner, C. D., D. F. Larcker, and M. Meyer. 2003. Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard. *The Accounting Review* 78 (3): 725-758.
53. Kaplan, R. S. and Norton, D. P. (1992). *The Balanced Scorecard - Measures that Drive Performance*. Harvard Business Review, January - February.
54. Speckbacher, G., Bischof, J. and Pfeiffer, T. (2003) ‘A descriptive analysis on the implementation of Balanced Scorecards in German-speaking countries’ *Management Accounting Research*, Vol. 14 Issue 4, p361-389.
55. Malina, M. A., and F. H. Selto. 2001. Communicating and controlling strategy: An empirical study of the effectiveness of the balanced scorecard. *Journal of Management Accounting Research* 13: 47-90.

56. Ittner, C. D., D. F. Larcker, and M. Meyer. 2003. Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard. *The Accounting Review* 78 (3): 725-758.
57. James C. Van Horne : *Fundamentals of Financial Management*, Prentice Hall of India Pvt. Ltd., New Delhi, III ed., 1978.
58. Chaudhary A.R., “Financial Ratio and Working Capital: Technologist”, Calcutta, 1989.
59. S.C. Kuchhal, “Financial management” An Analytical and Conceptual Approach” ‘Eight edition.
60. Block and Hirt “Foundation of financial management” Richard D. Irwin inc. Homewood, Illinois, 1978.

**Websites**

1. [www.gao.gov/about/index.html](http://www.gao.gov/about/index.html)
2. [www.usa.gov/directory/federal/index.shtml](http://www.usa.gov/directory/federal/index.shtml)
3. [www.efqm.org/en/tabid/](http://www.efqm.org/en/tabid/)
4. [www.balancedscorecard.org](http://www.balancedscorecard.org)
5. [www.nao.org.uk/idoc.ash](http://www.nao.org.uk/idoc.ash)
6. [www.balancedscorecard.org/bscresources/examplestories/tabid/57/default.aspx](http://www.balancedscorecard.org/bscresources/examplestories/tabid/57/default.aspx)
7. [www.saatchi.com/about\\_saatchi\\_and\\_saatchi](http://www.saatchi.com/about_saatchi_and_saatchi)

8. [www.balancedscorecard.org/bscresources/examplessuccessstories/  
tabid/57/default.aspx](http://www.balancedscorecard.org/bscresources/examplessuccessstories/tabid/57/default.aspx)
9. [www.budde.com.au/Research/Global-Industry-An-Introduction-  
to-Telecommunications.html](http://www.budde.com.au/Research/Global-Industry-An-Introduction-to-Telecommunications.html)
10. [www.telecomsmarketresearch.com/research/TMAAATMX-Hot-  
Telecom-Global-Telecom-Market-Status-Forecast-2008-  
2013.shtml](http://www.telecomsmarketresearch.com/research/TMAAATMX-Hot-Telecom-Global-Telecom-Market-Status-Forecast-2008-2013.shtml)
11. [www.economywatch.com/worldindustries/telecommunications/  
world-telecom-industry.html](http://www.economywatch.com/worldindustries/telecommunications/world-telecom-industry.html)
12. <http://business.mapsofindai.com/indai-industry/telecom.html>
13. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/Anu  
ualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
14. [www.crisil.com/CRISIL-ratings\\_indian-telecom-sector-faqs.pdf](http://www.crisil.com/CRISIL-ratings_indian-telecom-sector-faqs.pdf)
15. [www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualRe  
ports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
16. [www.ey.com/IN/en/Industries/Telecommunications/Telecommuni  
cations\\_Overview](http://www.ey.com/IN/en/Industries/Telecommunications/Telecommunications_Overview)
17. [http://store.businessmonitor.com/telecommunications/india\\_teleco  
mmunications\\_report/](http://store.businessmonitor.com/telecommunications/india_telecommunications_report/)

18. [http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
19. [www.ibef.org/industry/telecommunications.aspx](http://www.ibef.org/industry/telecommunications.aspx)
20. [www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf)
21. <http://www.telecomsmarketresearch.com/research/TMAAATMX-Hot-Telecom-Global-Telecom-Market-Status-Forecast-2008-2013.shtml>
22. [www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf), page 20-40
23. [www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar\\_10\\_11.pdf](http://www.trai.gov.in/WriteReadData/UserFiles/Documents/AnnualReports/ar_10_11.pdf), page 9-35
24. [www.bsnl.co.in/about.htm](http://www.bsnl.co.in/about.htm)
25. [www.bsnl.co.in/company/growth.htm](http://www.bsnl.co.in/company/growth.htm)
26. [www.tataindicomextra.in/index\\_interim\\_new.html](http://www.tataindicomextra.in/index_interim_new.html)
27. <http://mtnl.net.in/history.htm>
28. <http://mtnl.in/growth/index.htm>
29. [www.airtel.in/wps/wcm/connect/about+bharti+airtel/](http://www.airtel.in/wps/wcm/connect/about+bharti+airtel/)
30. [www.vodafone.in](http://www.vodafone.in)
31. [www.rcom.co.in/Rcom/personal/home/index.html](http://www.rcom.co.in/Rcom/personal/home/index.html)

32. [www.rcom.co.in/Rcom/aboutus/overview/overview\\_reliancegroup.html](http://www.rcom.co.in/Rcom/aboutus/overview/overview_reliancegroup.html)
33. [www.tataindicom.com/](http://www.tataindicom.com/)
34. [www.ideacelluar.com](http://www.ideacelluar.com)
35. [www.aircel.com](http://www.aircel.com)
36. [Www.videocon.com](http://Www.videocon.com)
37. [www.loopmobile.in](http://www.loopmobile.in)
38. [www.frost.com/prod/servlet/svcg.pag/IT00](http://www.frost.com/prod/servlet/svcg.pag/IT00)
39. [www.gartner.com/technology/research/](http://www.gartner.com/technology/research/)
40. [www.coai.com/revenue.php](http://www.coai.com/revenue.php)
41. [www.imrbint.com/index.](http://www.imrbint.com/index)
42. [www.siliconindia.com/.../Characteristics\\_of\\_Successful\\_MVAS\\_com](http://www.siliconindia.com/.../Characteristics_of_Successful_MVAS_com)
43. [www.rcom.co.in/Rcom/aboutus/overview/overview\\_business.html](http://www.rcom.co.in/Rcom/aboutus/overview/overview_business.html)
44. [www.rcom.co.in/Rcom/aboutus/ir/ir\\_financials.html](http://www.rcom.co.in/Rcom/aboutus/ir/ir_financials.html)
45. [www.rcom.co.in/Rcom/business/HTML/index.html](http://www.rcom.co.in/Rcom/business/HTML/index.html)

**ANNEXURE: 1**  
**QUESTIONNAIRE FOR CUSTOMER SATISFACTION**

- 1 Age Group
- Below 20 years
- 20 – 40 years
- Above 40 years
- 2 Occupation : \_\_\_\_\_
- 3 Gender :
- Male      Female
- 4 Which of the following RCOM Products are you aware of?
- Reliance Mobile
- Fixed Wireless Phone (FWP)
- High Speed Data Card
- Broadband
- Reliance DTH Services (Big TV)
- 5 Which of the following RCOM Products are you using?
- Reliance Mobile
- Fixed Wireless Phone (FWP)
- High Speed Data Card
- Broadband
- Reliance DTH Services (Big TV)
- 6 Which Technology do you prefer?
- CDMA
- GSM
- Both
- 7 Currently, which type of Mobile Connection are you using?
- Pre-paid
- Post-paid

8 How long have been using this Connection of your Service Provider?

- Less than 3 months
- 3 – 6 months
- 6 – 12 months
- 1 – 2 years
- More than 2 years

9 How much you spend on your Mobile Connection per month?

- Up to Rs. 200
- Rs. 200 to Rs. 500
- Rs. 500 to Rs. 700
- Rs. 700 to Rs. 1000
- More than Rs. 1,000

10 Are you satisfied with the way the Reliance treats you as a Customer ?

Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied

11 With all required documentations provided, are you satisfied with how long it takes for the Reliance to active a new connection for you?

Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied

12 Are you satisfied with how long you have to queue to Bill Payments or Recharge from the Counter?

Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied

13 How, will you rate the Reliance response time to issues you raise ?

Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied



14 Are you satisfied with the behaviour of Customer Care Executives at your Service Provider?

Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied

15 How will you rate (Reliance) response time to issues raised?

Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied

16 Rate the following services on the basis of your satisfaction.

Services	Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied
Customer Care					
Network					
Cost					
ISD					
STD					
Local					
SMS Rates					
Voice Clarity					
Technology					
Product offer					

17 Overall, how would you rate the products the Reliance is offering to you ?

Highly satisfied	satisfied	Can't say	dissatisfied	Highly dissatisfied

18 Would you like to recommend RCOM Service to other?

<input type="checkbox"/>	YES
<input type="checkbox"/>	

**Thank You**

**ANNEXURE: 2**

**QUESTIONNAIRE FOR RCOM EMPLOYEES**

- 1 Name :
- 2 Age :
- 3 Departments :
- 4 Designation :
- 5 Level :
- 6 Education Qualification :  Below Graduates  
 Graduates  
 Diploma  
 Post Graduates
- 7 Date of Joining :
- 8 Date of Last Promotion :
9. Marital Status  Married  
 Unmarried

**JOB SATISFACTION**

No.	Statements	Strongly Agree	Agree	Can't say	Dis Agree	Strongly Dis Agree
01.	I am satisfied with my Pay and other Monetary Benefits, I received for my present job.					
02.	I am satisfied with the behavior of my colleagues					
03.	I am satisfied with superior authority in the organization					
04.	There are enough opportunity of my progress in this organization					
05.	My responsibility are					

	clearly known to me in relation to my present job					
06.	Promotion are purely based on merit and work skill					
07.	I have the resources (materials, equipment, suppliers etc.) necessary to do my job well					
08.	I am satisfied with the autonomy given to me to do my work					
09.	Work environment is quite conducive and hygienic and I am fully satisfied					
10.	My institution is very popular and I am proud to work in the institution					
11.	I am satisfied with the grievance handling procedure and justice given to the employees					
12.	I am satisfied with the incentives and other motivational practices adopted by management					
13.	I am fully satisfied with the evaluation of performance					
14.	My work is full of challenge and I believe in doing such work					
15.	I am satisfied with job security given to me					
16.	I get dignified treatment from management					
17.	I feel free to speak my mind					
18.	I enjoy coming to work					

**ORGANISATIONAL PERCEPTION**

No.	Statements	Strongly Agree	Averagely Agree	Can't say	Dis Agree	Strongly Dis Agree
01	I am free to raise questions and make suggestion and comments in the organization					
02	The authority and responsibility in the organization are well defined and decentralized					
03	There are enough opportunities in the organization for further growth and development					
04	Supervision is done without any fear or favor					
05	We make opportunities to participate in decision making					
06	We have clear cut idea about who is working under whom					
07	Interpersonal Relationship are good					
08	Merit is the prime consideration for reward					
09	All instruction in organization are effectively communicated					
10	The management is fully aware and committed to overall welfare of employees					
11	I understand the connection between the work I do and mission and goals of the organization					
12	I am familiar with Organization Vision and Mission					
13	I am proud to be a part of RCOM					

**Thank You**