

P-1946



**AN ANALYSIS ON THE EFFECTIVENESS OF THE TECHNICAL AND  
BEHAVIORAL TRAINING RENDERED BY SERVICE PROVIDERS IN THE CITY  
OF CHENNAI AND COIMBATORE**

by

**DINAKAR.P.DAS**  
Reg. No. 71205631011

of

Department of Management Studies  
Kumaraguru College of Technology  
Coimbatore

**A PROJECT REPORT**  
Submitted to the

**FACULTY OF MANAGEMENT SCIENCES**

In partial fulfillment of the requirement  
For the award of the degree  
Of

**MASTER OF BUSINESS ADMINISTRATION**

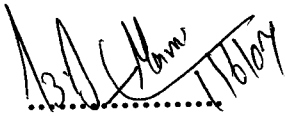
**JUNE, 2007**

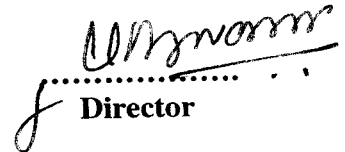


DEPARTMENT OF MANAGEMENT STUDIES  
**KUMARAGURU COLLEGE OF TECHNOLOGY**  
COIMBATORE

**BONAFIDE CERTIFICATE**

Certified that this project titled “AN ANALYSIS ON THE EFFECTIVENESS OF THE TECHNICAL AND BEHAVIORAL TRAINING RENDERED BY SERVICE PROVIDERS IN THE CITY OF CHENNAI AND COIMBATORE” is the bonafide work of **DINAKAR.P.DAS** (Reg. No. 71205631011) who carried out this research under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

  
.....  
Faculty Guide

  
.....  
Director

---

Evaluated and viva-voce conducted on.....03-07-2007.....

  
.....  
Examiner I

  
.....  
Examiner II

## DECLARATION

I hereby declare that this project report entitled as “AN ANALYSIS ON THE EFFECTIVENESS OF THE TECHNICAL AND BEHAVIORAL TRAINING RENDERED BY SERVICE PROVIDERS IN THE CITY OF CHENNAI AND COIMBATORE” has been undertaken for academic purpose submitted to Anna University in partial fulfillment of requirements for the award of the degree of Master of Business Administration. The project report is the record of the original work done by me under the guidance of Dr B. SUBRAMANI MBA, FDPM (IIM-A), Ph.D during the academic year 2006 – 2007. I also declare hereby, that the information given in this report is correct to the best of my knowledge and belief.



DINAKAR.P.DAS

Place: Coimbatore

Date : 01/06/2007



KG Campus,  
365, Thudiyalur Road,  
Saravanampatti,  
Coimbatore - 641 035  
Tel : (0422) 663-4000/01/02  
Fax : (0422) 663-4104  
www.boschindia.com

Date: 25/05/2007

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr.Dinakar.P.Das pursuing his MBA (Marketing & HR) from Kumaraguru College of Technology, Coimbatore has worked as a Project Trainee at our organization from 20<sup>th</sup> Jan 2007 to 30<sup>th</sup> April 2007.

Project Title:

“AN ANALYSIS ON THE EFFECTIVENESS OF THE TECHNICAL AND BEHAVIORAL TRAINING RENDERED BY SERVICE PROVIDERS IN THE CITY OF CHENNAI AND COIMBATORE”

During his tenure, his conduct was good and exhibited enthusiasm to perform on the task assigned.

We wish him all the very best in his future endeavors.

ROBERT BOSCH INDIA LIMITED

A handwritten signature in black ink, appearing to read 'S. Arun Kumar'.

Arun Kumar.S.  
Manager  
Human Resources

# **ACKNOWLEDGEMENT**

---

## ACKNOWLEDGEMENT

I express my sincere gratitude to our beloved correspondent Prof. **Dr. K. Arumugam**, the prime guiding sprit of Kumaraguru College of technology.

I extend my heartfelt thanks to Principal **Dr. Joseph V. Thanikal**, Kumaraguru College of Technology, for providing facilities to do this project.

I express my sincere gratitude and thanks to our Director **Dr. S. Ganesan** for permitting me to carry out the project.

I endeavor my sincere gratitude towards my guiding spirit Senior Lecturer **Dr. B. SUBRAMANI MBA,FDPM (IIM-A), Ph.D** , who has extended his guidance throughout this project.

I extend my sincere thanks and gratitude to **Robert BOSCH India Ltd.** for permitting me to do the project. Specially, I would like to thank **Mr.E.Manikandan**, Officer, Organizational Development and Training Department for extending their co-operation and guiding me to complete this project.

# **Executive Summary**

---

## EXECUTIVE SUMMARY

This project “An Analysis On The Effectiveness Of The Technical And Behavioral Training Rendered By Service Providers In The City Of Chennai And Coimbatore” is a study on the quality of service of the technical and behavioral training rendered by service providers in the city of Chennai and Coimbatore and to recommend the service providers which suits to the requirement of Robert BOSCH India, Coimbatore.

The study is undertaken because the company is exploring training service providers from Chennai and Coimbatore who can deliver quality service at competitive price and availing the service of existent suppliers in Bangalore for the newly established Coimbatore Center’s requirements is not economical.

Hence the main objective of this study is to analyze the quality of service offered by the service providers in the field of corporate training for technical courses such as programming languages like C, C++, Web Application languages like Java, J2ee, Business Computing like oracle & O&S Programming Computing and Behavioral training for Communication Skills, Presentation Skills, Self Organizing and Customer Interaction, Customer handling, Time management, Outbound training, Emotional Intelligence, Managerial Skills etc from Chennai and Coimbatore.

An exploratory study is done on a population of sixty two technical providers and seventeen behavioral service providers by adopting a self administered questionnaire developed on Likert’s Scale and Dichotomous scale and using Census Survey method. Analysis is done using SPSS Package and MS Excel with statistical tools such as Simple Percentage method, Ranking Method using Total Criteria Score.

After the completion of the analysis it was found that all the top five service providers for both technical and behavioral training were from Chennai. It is observed that the quality of service is on higher side as all the Top 5 service providers from both technical and behavioral were already having good exposure and experience working with the top IT firms of India



When analyzing the service providers from Coimbatore, it was observed that the existing players are very few and are either targeting students/individuals or new to corporate training .The corporate training industry required for the IT industry is in the stage of infancy at present in Coimbatore. This scenario in Coimbatore is likely to get changed soon as more IT firms are opening their offices and along with them the training service providers based in Bangalore, Chennai etc starting their support services in Coimbatore.

The detailed analysis and recommendations is given in the following pages of the report.

## CONTENTS

|                          |      |
|--------------------------|------|
| <b>ACKNOWLEDGEMENT</b>   | i    |
| <b>EXECUTIVE SUMMARY</b> | ii   |
| <b>LIST OF TABLES</b>    | vi   |
| <b>LIST OF CHARTS</b>    | viii |

| <b>CHAPTER NO</b> | <b>TITLE</b>                | <b>PAGE NO</b> |
|-------------------|-----------------------------|----------------|
| <b>1</b>          | <b>INTRODUCTION</b>         | 1              |
| 1.1               | BACKGROUND                  | 1              |
| 1.2               | REVIEW OF LITERATURE        | 7              |
| 1.3               | OBJECTIVES OF THE STUDY     | 9              |
| 1.4               | STATEMENT OF THE PROBLEM    | 9              |
| 1.5               | SCOPE OF THE STUDY          | 10             |
| 1.6               | RESEARCH METHODOLOGY        | 10             |
| 1.6.1             | TYPE OF STUDY               | 10             |
| 1.6.2             | SAMPLING DESIGN             | 11             |
| 1.6.3             | METHODS OF DATA COLLECTION  | 11             |
| 1.6.4             | TOOLS OF ANALYSIS           | 11             |
| 1.7               | LIMITATIONS                 | 11             |
| 1.8               | CHAPTERS SCHEME             | 12             |
| <b>2</b>          | <b>ORGANISATION PROFILE</b> | 13             |
| 2.1               | HISTORY OF ORGANIZATION     | 13             |
| 2.2               | MANAGEMENT                  | 13             |
| 2.3               | ORGANIZATION STRUCTURE      | 15             |

|          |  |           |
|----------|--|-----------|
| 2.4      | PRODUCTS PROFILE & MARKET POTENTIAL        | 15        |
| 2.5      | COMPETITIVE STRENGTH OF THE COMPANY        | 16        |
| 2.6      | DESCRIPTION OF FUNCTIONAL AREAS            | 17        |
| <b>3</b> | <b>MACRO-MICRO ANALYSIS</b>                | <b>19</b> |
| 3.1      | MACRO ANALYSIS OF AUTOMOTIVE DESIGN        | 19        |
| 3.2      | THE OFF SHORING CHAIN                      | 19        |
| 3.3      | DESIGN SERVICES OFF SHORED TO INDIA        | 20        |
| 3.4      | INDIA ADVANTAGES                           | 22        |
| 3.4.1    | REDUCED COST                               | 22        |
| 3.4.2    | REDUCED TIME-TO-MARKET                     | 23        |
| 3.4.3    | LARGE NUMBER OF ENGLISH-SPEAKING ENGINEERS | 23        |
| 3.4.4    | PRESENCE OF DESIGN SOFTWARE COMPANIES      | 24        |
| 3.4.5    | DOMAIN EXPERTISE                           | 24        |
| 3.4.6    | GOVERNMENT INITIATIVES FOR AUTOMOBILE R&D  | 25        |
| 3.4.7    | ROBUST AUTO COMPONENT INDUSTRY             | 26        |
| 3.4.8    | KEY FINDINGS                               | 26        |
| 3.5      | MICRO ANALYSIS OF ROBERT BOSCH INDIA LTD   | 27        |
| 3.6      | MICRO ANALYSIS OF BOSCH GROUP              | 28        |
| <b>4</b> | <b>DATA ANALYSIS AND INTERPRETATIONS</b>   | <b>43</b> |
| <b>5</b> | <b>CONCLUSIONS</b>                         | <b>78</b> |
| 5.1      | RESULTS AND DISCUSSIONS                    | 78        |
| 5.1.1    | TECHNICAL SERVICE PROVIDERS                | 78        |
| 5.1.2    | BEHAVIORAL SERVICE PROVIDERS               | 80        |
| 5.2      | CONSIDERED RECOMMENDATIONS                 | 82        |
|          | <b>BIBLIOGRAPHY</b>                        | <b>83</b> |
|          | <b>APPENDIX</b>                            | <b>84</b> |

## LIST OF TABLES

| Table No | Name of the Table   | Page No |
|----------|---|---------|
| 4.1      | Table Showing the Location of the Technical Training Service Providers  | 44      |
| 4.2      | Table Showing the Location of the Behavioral Training Service Providers   | 45      |
| 4.3      | Table Showing the Types of Industry Technical Service Providers are associated  | 46      |
| 4.4      | Table Showing the Types of Industry Behavioral Service Providers are associated   | 48      |
| 4.5      | Table Showing the Gamut of Technical Course Covered By Technical Service providers as per the requirements of Robert Bosch India                                | 50      |
| 4.6      | Table Showing the Gamut of Behavioral Course Covered By Behavioral Service providers as per the requirements of Robert Bosch India                              | 52      |
| 4.7      | Table Showing the Years of Experience in Technical Training Industry by the service Providers   | 54      |
| 4.8      | Table Showing the Years of Experience in Behavioral Training Industry by the service Providers  | 56      |
| 4.9      | Table Showing the Senior Most On-board Faculties Years of Experience in Technical Training offered by Service Providers   | 58      |
| 4.10     | Table Showing the Senior Most On-board Faculties Years of Experience in Behavioral Training offered by Service Providers  | 60      |
| 4.11     | Table Showing the Support offered by both Technical & Behavioral Training Service Providers for the Organizational and Development Department's Three Functions | 62      |
| 4.12     | Table showing the level of satisfaction drawn during the course of interaction (Generic Findings) with the Technical Service Providers                          | 64      |
| 4.13     | Table showing the level of satisfaction drawn during the course of interaction with the Behavioral Service Providers.   | 66      |

| <b>Table No</b> | <b>Name of the Table</b>  | <b>Page No</b> |
|-----------------|---|----------------|
| 4.14            | Table showing the Pricing quoted by Technical Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India.         | 68             |
| 4.15            | Table showing the Pricing quoted by Behavioral Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India.        | 70             |
| 4.16            | Table showing the Top fifteen Ranking of the Technical Service Providers on the basis of Average Feedback from the existing clients.  | 72             |
| 4.17            | Table showing the Top Eight ranking of the Behavioral Service Providers on the basis of Average Feedback from the existing clients.   | 73             |
| 4.18            | Table Showing the Technical Service Providers who are associated Tier I and Tier II IT Industry.  | 74             |
| 4.19            | Table Showing the Behavioral Service Providers who are associated Tier I IT Industry.   | 75             |
| 4.20            | Table showing the three Technical Service Providers who are rated to be highly satisfactory to the set parameters for Generic Findings.   | 76             |
| 4.21            | Table showing the Five Behavioral Service Providers who are rated to be highly satisfactory to the set parameters for Generic Findings.   | 76             |
| 4.22            | Table showing the Top Fifteen Technical service providers which has been Ranked Using total sum of criteria's which can be recommended for further consideration to Robert Bosch India Ltd. | 77             |
| 4.23            | Table showing the Top Eight Behavioral Service Providers which has been Ranked Using total sum of criteria's which can be recommended for further consideration to Robert Bosch India Ltd.  | 78             |

## LIST OF CHART

| <b>Chart No</b> | <b>Name of the Chart</b>  | <b>Page No</b> |
|-----------------|---|----------------|
| 4.1             | Chart Showing the Location of the Technical Training Service Providers  | 44             |
| 4.2             | Chart Showing the Location of the Behavioral Training Service Providers   | 45             |
| 4.3             | Chart Showing the Types of Industry Technical Service Providers are associated  | 47             |
| 4.4             | Chart Showing the Types of Industry Behavioral Service Providers are associated   | 49             |
| 4.5             | Chart Showing the Gamut of Technical Course Covered By Technical Service providers as per the requirements of Robert Bosch India                                | 51             |
| 4.6             | Chart Showing the Gamut of Behavioral Course Covered By Behavioral Service providers as per the requirements of Robert Bosch India                              | 53             |
| 4.7             | Chart Showing the Years of Experience in Technical Training Industry by the service Providers   | 55             |
| 4.8             | Chart Showing the Years of Experience in Behavioral Training Industry by the service Providers  | 57             |
| 4.9             | Chart Showing the Senior Most On-board Faculties Years of Experience in Technical Training offered by Service Providers   | 59             |
| 4.10            | Chart Showing the Senior Most On-board Faculties Years of Experience in Behavioral Training offered by Service Providers  | 61             |
| 4.11            | Chart Showing the Support offered by both Technical & Behavioral Training Service Providers for the Organizational and Development Department's Three Functions | 63             |
| 4.12            | Chart showing the level of satisfaction drawn during the course of interaction (Generic Findings) with the Technical Service Providers                          | 65             |
| 4.13            | Chart showing the level of satisfaction drawn during the course of interaction with the Behavioral Service Providers  | 67             |

| <b>Chart No</b> | <b>Name of the Chart</b>   | <b>Page No</b> |
|-----------------|--|----------------|
| 4.14            | Chart showing the Pricing quoted by Technical Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India.  | 69             |
| 4.15            | Chart showing the Pricing quoted by Behavioral Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India. | 71             |

# Chapter 1

## INTRODUCTION

---



# CHAPTER I

## INTRODUCTION

### 1.1 BACK GROUND

Training industry is a big multibillion industry globally. In the year of 2006 the total budget for training put forwarded alone by the organizations in United States itself was around \$55.8 billion with \$15.8 billion earmarked for external learning products and services. Showing an increase of 7% growth in the training budget. These numbers are up from year's figures, which showed \$51.1 billion in total industry spending and \$13.5 billion in spending on products and services.

This illustrates three important trends: first, the continued growth in the U.S. economy; second, a maturing of investments in e-learning, leading organizations to realize excellent returns on their technology-based training programs; and third, a new focus on talent management and employee development to deal with talent gaps in the global workforce. Most training groups also have added staff over the past 12 months. On average, the number of training-related staff positions has increased 6 percent over last year, to an average of 6.7 training .But although many firms are adding training staff; total payroll spending has not increased proportionally. In fact, training payroll spending over the past five years has been relatively flat. This is due, in part, to the fact that as senior training staffers retire, they are replaced by younger, lower-cost workers. In addition, the mix of job roles within training organizations has been changing in recent years. In the past, organizations were heavily staffed with trainers.

With the rise of e-learning, training groups have hired higher proportions of content developers and technology specialists, roles that come at a lower cost than a senior trainer or instructor. Today's training organizations are younger and more focused on design, e-learning, and service and support activities, and are now outsourcing much of the delivery. Another survey trend is that the proportion of training dollars spent on salaries is declining. A few years ago, more than 70 cents of every training dollar went to payroll. Today the figure is about 65 cents. With the

increase in e-learning, organizations are spending a greater proportion of their training budgets on learning technologies and outside services. They are spending proportionally less on internal staff salaries. The learning and development (L&D) function has grown in stature within organizations over the past few years. Economic growth, new governmental regulations, and the challenges of an aging workforce have made learning and development a strategic business function. More organizations are viewing training as a key component to their long term success, and are increasing L&D funding to invest in the future.

Organizations of all sizes and across nearly all industries reported higher budgets and staffing this year. But the biggest increases are within small businesses (those with fewer than 1,000 employees), in which both training budgets and staffing are up approximately 7 percent over last year. The budgets and staffing within midsize and large organizations also are increasing, albeit more modestly. This trend is reflected in the overall U.S. economy, which is experiencing a general slowdown in economic growth. Large and small companies have fared well over the past year, showing considerable profitability due to economic expansion and recent cost cutting. Mid-sized companies haven't shown as much growth in the overall economy. Comparing industries, the training budgets of healthcare companies have shown the greatest increase, up 20 percent over last year. This growth is driven by small and midsize healthcare and medical organizations, and mirrors the overall U.S. economy, which some say has been largely fueled by significant growth in jobs in the healthcare sector. Technology and financial services companies also reported large budget increases of 10 percent or more.

The only industry experiencing negative growth is the manufacturing sector, whose budgets have dropped an average of 2.9 percent this year. This sector has experienced considerable volatility as of late, with recent cutbacks in spending and payrolls, which is reflected in the training-related numbers. In terms of staffing, the technology sector has the highest proportion of companies reporting training staff increases (70 percent), but this group also has the highest number reporting staff decreases (23 percent). So this sector shows a mixed story, with some training

organizations growing while others are shrinking. A large number (more than 40 percent) of financial services and healthcare companies also reported training staff increases this year. Only a small percentage of organizations in these two sectors reported staff decreases. And like the technology sector, the picture is more mixed for manufacturing and retail firms, where 16 percent to 18 percent of organizations reported training staff decreases this year. However, these declines still are outnumbered by firms reporting staff increases.

Looking across all program areas, sales training and management/supervisory training receive the highest share of funding. About 30 percent of organizations cite these program areas as their top priorities in terms of dollars and resources. Sales skills are currently in hot demand. Corporations are hiring new salespeople and are focusing on training their new as well as existing sales staffs. This typically is an expensive program area to deliver, as it has one of the greatest amounts of face-to-face training and involves learners from all over the globe. In addition, sales training is a fairly continuous process, as the rapid pace of new products and features requires year-round updating of the sales force. All of these factors make sales training one of the top areas for program funding.

Management and supervisory training receives a great deal of funding due, in part, to the aging of the workforce. Census data shows that over the next 10 years there will be a marked increase in retirements, causing a vacuum in the ranks of middle management. Smart companies are acting now to groom current and prospective managers to fill the void. IT and systems training continues to receive a large share of training dollars, with approximately one-quarter of organizations citing it as the top priority in terms of funding/resources. Program priorities indicate heavy focus in these two areas. The third, and continuously important area of focus, is training for mid-managers and executives. As the workforce ages, all organizations realize they must invest in learning and development programs to rebuild and fuel their leadership pipelines. In terms of which employees are getting the lion's share of the funding, more than 60 percent of the funding goes to training employees. Instructor-led classroom training continues to be the delivery method of choice, used

for 62 Percent of all formal training. However, use of self-study e-learning is on the rise, now accounting for 15 percent of all training delivered. This is a two-fold increase from just one year ago, and signifies that e-learning is here to stay as a mainstream training delivery vehicle. Virtual classroom training also remains popular, representing 14 percent of training delivered. Large organizations, in particular, are turning increasingly to online methods. These organizations are more likely to have the budget and technology necessary to accommodate online training. Many small companies still don't have the technology and bandwidth to make online training a reality.

Organizations are gaining tremendous value out of e-learning programs today, leading to a significant reduction in the percent of training delivered through instructor led programs. While instructor-led training will never go away, employees are receiving more and more of their training online. Comparing industries, we find that organizations in the technology and financial services sectors make much greater use of online delivery methods than other industries. Manufacturers, retailers and educational institutions lag behind other sectors in their adoption of e-learning. But although the share of classroom training has dropped (from 70 percent to 62 percent), it still remains the dominant form of training. Online methods are mainly used in conjunction with other modalities in a "blended" learning format—very few training programs rely exclusively on online delivery. Online methods are used most extensively in the area of mandatory or compliance training, in which 35 percent of training is conducted mostly online. Because of the critical nature of compliance programs, many firms are turning to online delivery to make these programs easier to deploy, measure and report.

Online training is used sparingly in the areas of interpersonal (soft) skills, executive development, customer service and sales training, where classroom or face-to-face training still dominates. When online methods are used in these areas, it is primarily as prerequisite or supplemental material to the face-to face training. E-learning has moved beyond its initial applications in IT training. Organizations now use e-learning for customer service training, retail process training and increasingly

for soft skills training. Blended learning approaches are becoming well understood, and organizations continue to focus on blended models.

With the rise of e-learning, technology has become a major part of the training function. As organizations have acquired more learning tools and systems, the technology infrastructure has become increasingly complex. This has made learning technology and infrastructure a top priority among 40 percent of training organizations. According to the research, nearly 40 percent of organizations are using a learning management system (LMS), nearly 60 percent are using a virtual classroom tool, and between 25 percent and 30 percent are using application simulation and rapid e-learning tools. Among large organizations, these numbers nearly double. For many organizations, the primary challenge now is supporting and integrating these disparate technologies. As a result, many organizations are looking to standardize on a single, integrated platform. Faster deployment of learning programs also is a top priority—cited by nearly the same number of organizations. Training groups have been under increasing pressure to roll out programs at an ever-increasing pace. This has driven the tremendous growth in usage of rapid e-learning tools, which can produce online training and communications in a matter of days—or in some cases, even hours. In the past, training departments spent inordinate amounts of time and money producing flashy, eye-catching programs.

Now the focus has turned to meeting the learning gaps quickly, and saving the “stellar” programs for a select few, company-wide initiatives. This emphasis on rapidly filling organizational learning gaps has caused training groups to rethink how they develop and deliver learning programs. Emerging category that is poised to revolutionize how learning is conducted in the enterprise. Learning on demand implies that information and digital learning assets are made immediately available—just as the learner needs them. These solutions today include online support materials, agents and electronic performance support systems (EPSS). Pod casting still is in its infancy but is growing in usage as a method to provide real-time training and information to mobile learners. Organizations are recognizing that monolithic courseware that takes weeks to deliver is not the answer for many learning challenges.

Learning on demand is the next step in the evolution of e-learning. Training organizations are always experimenting with new technologies to deliver learning media. Today the most important trends are toward audio and remote access to learning, which is available for on-demand or performance support applications.

The widespread use of global telecommunications and the Internet has enabled tremendous growth in the outsourcing of business services. Traditionally, top functions for outsourcing have been in the areas of payroll, HR management, customer service, call centers and technology. Now we are seeing growth in the outsourcing of corporate training functions. Instruction has always been a popular area for outsourcing, as organizations turn to outside professionals for facilitation and teaching. Today, 44 percent of organizations report using external instructors to deliver at least some of their training. Additionally, approximately 30 percent of organizations turn to external vendors for custom content development. In large organizations, outsourcing in this area is particularly prevalent—71 percent of large companies use external vendors to produce some or all custom content. In many cases, organizations turn to third party providers because they don't have the internal expertise or bandwidth to do it themselves. But content development can be expensive, which is why 11 percent of organizations have turned to offshore providers for their custom content needs.

Use of offshore firms varies considerably by organization size, with large companies much more likely to offshore than small organizations, and by industry, where offshoring is beginning to catch on among technology and financial services/insurance firms but is most nonexistent in most other sectors. Offshoring can be an attractive option for projects that are easily communicated and where the volume of work can take advantage of the lower labor costs overseas. Overall outsourcing (using both offshore and onshore vendors) of custom content development will continue to grow, as 14 percent of firms plan to outsource more custom content development in the next 12 months. This is due in part to increased pressures to quickly fill learning gaps and the desire to offload many of the non-strategic learning activities to external providers.

Another area that has seen significant growth is LMS hosting. Currently 30 percent of organizations report using an external provider to operate or host their LMS. The use of hosted providers will continue to grow, as organizations seek solutions that are less costly and require fewer internal resources to maintain. Fifteen percent of organizations that participated in the survey say they plan to outsource more of their LMS operations in the coming year. The major obstacle now is the security issue, but many companies are coming to realize their data can actually be more secure when hosted outside the firewall. The traditional “out-tasking” model will continue to grow: that is, hiring consultants and vendors to deliver specific solutions, particularly in the areas of custom content development and LMS hosting. Few firms are outsourcing their entire training function.

## **1.2 REVIEW OF LITERATURE**

Training is the most important function that directly contributes to the development of human resources. If human resources have to be developed, the organization should incorporate effective training that would create conditions in which people would acquire new knowledge and skills and develop healthy patterns of behavior and styles. The training imparted should be such that it starts from changing attitudes, pass through improvement in knowledge and ends with the development of skills among the trainees.

Singh (1995) defined training as the process of changing attitudes, improving knowledge and developing skills of the person/ employees of an organization, so as to enable them to perform their jobs effectively.

Lynton and Pareek (1967) describe, “Training consists largely of well organized opportunities for participants to acquire, necessary understanding and skills”. He separated the whole training process under pre-training, training and post-training phase.

Pre-training refers to the training needs assessment phase. It is the base for the whole training process. It is the most critical activity for the whole training and

development process. Training is effective, provided it is based on systematic assessment of training needs. Training needs assessment is the means to find out who needs training and what kind of training is needed.

In the previous years, lots of studies have been undertaken for identification of training needs. Organizations differ in their methods of identifying needs. They may identify the training needs from the performance appraisal forms, competency framework, potential appraisal, customer satisfaction surveys and past training records etc. Some of the research carried out for training needs identification are as follows:

Interra software developed a 360 Degree Feedback Questionnaire for top management, with the help of TVRLS (T.V.Rao Learning Systems), This was done with active participation of an internal task force appointed by Interra. The questionnaire was modeled after RSDQ model and mainly identified the training needs of the top management. A total of 27 participants were profiled and a feedback workshop was conducted for meeting the gaps and exhibiting the desired behavior. Individual coaching sessions were also given to the participants.

Dhananjay Savarkar, head of the training department, L&T Infotech, asserts that in no two organizations can competency frameworks be the same; it will vary over time even in one organization. It is not timeless, it is contextual. "We call it the DNA of success...it is what makes star performers work in a particular way. Isolate the DNA and make it available to ten others," says Savarkar. "Behavioral competencies do not change every month. In L&T Infotech, two appraisals are done subsequently, every project-end for skills, and annual for behavioral competencies." By appraising the individuals, their training needs are identified. Introduction of competency mapping has involved introducing skill appraisals in performance appraisals. This has also led to training people on how to assess subordinates on competencies.



### **1.3 OBJECTIVE OF THE STUDY**

#### **PRIMARY OBJECTIVE**

To analyze the effectiveness with which technical and behavioral training are rendered by training providers.

#### **SECONDARY OBJECTIVE**

To analyze the profile of service providers for both Technical and Behavioral Training exclusively for the IT Industry.

To analyze the generic findings for technical and behavioral training with respect to Coimbatore and Chennai.

To examine the capability of the service providers based on the feedback from existing clients.

To offer suggestions to Robert BOSCH India Ltd. to identify the viable service providers in technical and behavioral aspects required.

### **1.4 STATEMENT OF THE PROBLEM**

The main motivating factor that lead to Robert BOSCH India to set up its new center at Coimbatore is seeing the large human talent pool and a part of their cost cutting risk mitigation strategy. And Bosch is exploring locally available technical training suppliers who can deliver quality service at competitive price. Since availing the service of existent suppliers in Bangalore for Coimbatore requirements is not economical. So this has made the researcher to make “An Analysis on the Effectiveness of the Technical and Behavioral Training Rendered by Service Providers in the City of Chennai And Coimbatore”

## **1.5 SCOPE OF STUDY**

The scope of my study is restricted to in-depth analysis and evaluation of technical and behavioral training suppliers in Coimbatore and Chennai. Which deals with programming languages like C, C++.etc. Web Application languages like Java, J2ee, Business Computing like oracle etc & O&S Programming Computing on technical side. On the Behavioral part dealing with programs such as Communication Skills, Presentation Skills, Self Organizing and Customer Interaction, Customer handling, Time management, Outbound training, Emotional Intelligence, Managerial Skills etc. and has the potential to deliver the demands of the corporate world with respect to competitive price and quality service.

## **1.6 RESEARCH METHODOLOGY**

### **1.6.1 TYPE OF STUDY**

The present study is an exploratory study done by adopting questionnaires developed on Likert's Scale & Dichotomous scale. Parameters for Quality Service considered are the type of industry to which training is offered previously. High ratings are given for client base consisting of multi national corporations and reputed IT companies which are categorized by NASSCOM (National Association of Software and Services Companies) as Tier I, Tier II and Tier III on the basis on annual turnover. Feed back from the existent clients is rated according to the fulfillment regarding clarity of presentation, possibility of using the program input at the Work place, overall Impression of the trainer's program. Methodology of Training adopted is rated according Lecture quality, discussions, individual exercises, group work, role playing, and use of Media. The extent to which gamut of courses put forwarded by BOSCH is covered. Faculty Qualification is being taken into account and high ratings are given to more qualified and experienced. Generic findings such as the extent to which the supplier is will to negotiate price, promptness in responding to the queries put forward, eagerness to do business and professionalism and

measured in likert's five point scale and whether the supplier can be a prospective single source vendor providing all ORG (Organization And Employee Development) departmental requirements. Pricing is taken into account and is compared with that of the pricing quotes of existing service providers and assessment is based on five Point Likert's Scale

### **1.6.2 SAMPLING DESIGN**

The present study is taken from the universe consisting of 90 Technical Training and 30 Behavioral Service Providers from Coimbatore and Chennai. Out of the universe, 62 technical and 17 Behavioral service providers were short listed according to the company requirements and Census survey was conducted.

### **1.6.3 METHOD OF DATA COLLECTION**

The primary data is collected through structured questionnaire to draw information about the profile of the service provider, feedback from the existent clients, course coverage and pricing. Secondary Data is collected over the internet, magazine ads, and references. The survey was conducted through Electronic mail, Telephonic Interview and Personal interviews.

### **1.6.4 TOOLS OF ANALYSIS**

Data is tabulated by means of Simple Percentages and Total Score method.

## **1.7 LIMITATIONS**

**Time Constraints:** Since the project has to be completed in a stipulated time period, thus proving limitation to the in depth analysis of the study.

**Financial Constraints:** The Trainers are dispersed over a vast geographical area and due to financial constraints some of the trainers were contacted through electronic mailing service and through telephone.

Biased Information: The feedback information collected from the references can be biased as it seemed that the trainers were informing them well in advance about the interview from the researchers' side.

Vendors not willing to pass on the client's information for reference: Certain companies were reluctant to handover the data about the existing client's details, fearing a compromise on the data security.

Since the reference given are corporate employees by the trainers. Hence there were instances when few of the feed back from references had to be compromised because of their hectic schedule.

## **1.8 CHAPTER SCHEME**

The report of the study is divided into five chapters. They are:

### **CHAPTER – I**

The First chapter deals with the introduction, Review of literature, Statement of the problem, Scope, Objectives, Limitations of the study, Research Methodology and Chapter Schemes.

### **CHAPTER – II**

The Second Chapter deals with Robert Bosch India Ltd Company profile.

### **CHAPTER – III**

The Third chapter deals with Macro – Micro Analysis.

### **CHAPTER – IV**

The Fourth chapter presents the data analysis and interpretation.

### **CHAPTER – V**

The Fifth chapter is summaries with findings, suggestions and conclusions of the study.

# Chapter 2

## ORGANIZATION PROFILE

---

## **CHAPTER 2**

### **ORGANIZATIONAL PROFILE**

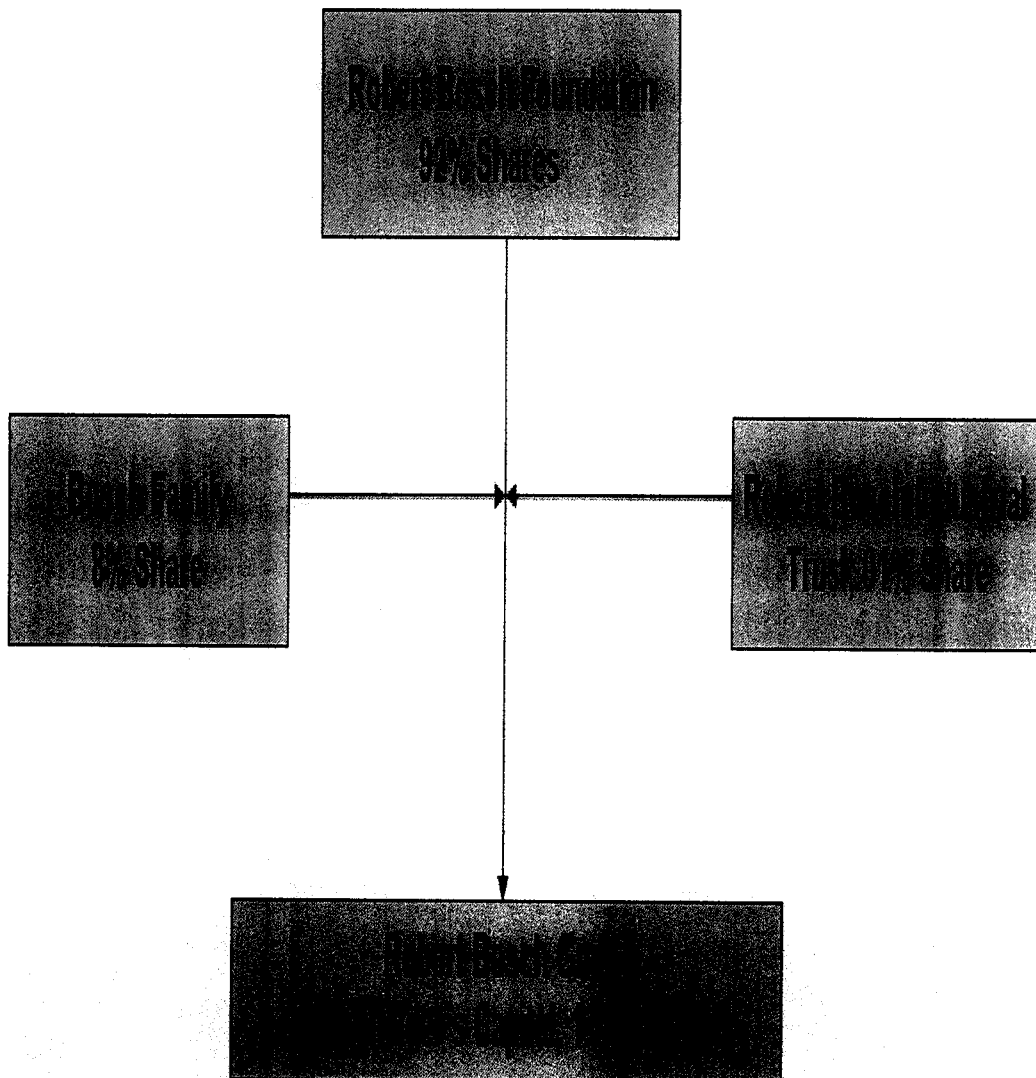
#### **2.1 HISTORY OF THE ORGANIZATION**

RBIN (Robert Bosch India Pvt Ltd) enable the advantages of India to work for your benefit –cost effectiveness, stringent quality processes, friendly government policies, a service oriented attitude and most importantly, a large, qualified and technically skilled base of professionals. It was started in 1990 with a few engineers from the software department of MICOBOSCH providing onsite support, in Germany, for Diesel Systems. After about 2 years these engineers brought the activities back to Bangalore to start offshore development as early as 1992 itself. Bosch India was formed on 1st January 1998. In a short span of 14 months RBIN had obtained the first of our quality certifications. RBIN is now the largest software development center of Bosch outside Germany. RBIN's relationship with various business divisions have grown to reflect the value we bring to the table. For example, with Diesel Systems, Bosch India is not only responsible for the software maintenance of the Electronic Diesel Control Platform EDC16 but also has complete project responsibility for Emerging Markets as part of the international Bosch development network. In the area of Car Multimedia, Bosch India is not only responsible for complete software product lines but has full responsibility for Travel Pilot S1 in car after-market systems, and we are the competence center of configuration tools for ST locations worldwide. Bosch India is the official Niedrigkostenstandort (NKS), or low cost development center of CS. As RBIN progressed, the efficiency build-up has been considerable.

#### **2.2 MANAGEMENT**

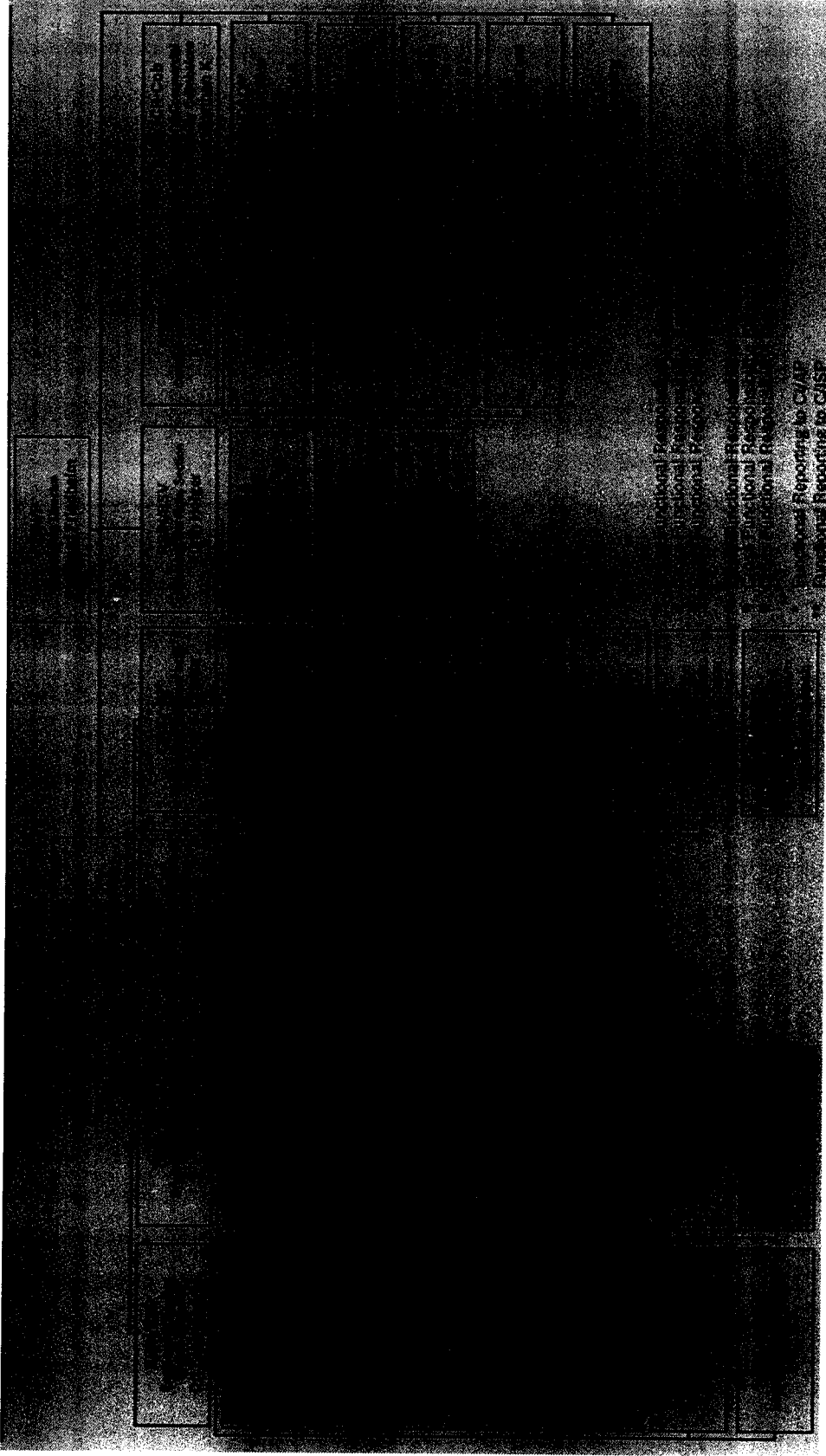
Robert Bosch GmbH, including its wholly owned subsidiaries such as Robert Bosch LLC in North America, is unusual in that it is an extremely large, privately owned corporation that is almost entirely (92%) owned by a charitable foundation. Thus while most of the profits are ploughed back into the corporation to build for the

future and sustain growth, nearly all of the profits distributed to shareholders are devoted to humanitarian causes.



As shown in the diagram (above), the Robert Bosch Foundation holds 92% of the shares of Robert Bosch GmbH, but no voting right. The Robert Bosch Industrial Trust, with old members of the company management, agents of the Bosch family and other eminent people from the industry, have 93% of the votes but no shares. The remaining 8% of shares and 7% of voting-rights are held by the descendants of the company founder Robert Bosch.

## 2.3 ORGANIZATION STRUCTURE





## **2.4 PRODUCT PROFILE AND MARKET POTENTIAL**

**Automotive Development:** RBIN develops embedded software for control units, tools and diagnostics. We handle complete ECU projects including hardware, software, & system development.

**Industrial:** RBIN offers integrated system solutions in the areas of manufacturing automation, drives and controls, PLC engineering support and vision system. RBIN range of services along the Industrial automation vertical (Real time, Information processing and business layer) is horizontally integrated through all the stages of engineering life cycle.

**Consumer Goods and Building Technologies:** RBIN offers software and engineering support services in this area. Significant areas of expertise are Firmware for Magic Panels, OPC Servers, PC and PDA based support, embedded software, Wireless security networks and Test Automation.

**Business and Commercial Solutions:** Bosch India offers application development & maintenance based on Microsoft, Oracle, Java, and IBM technologies. RBIN develop web based solutions, and also offer functional and technical support for SAP R/3 implementation.

**Software Process Consulting:** RBIN offer software process consulting to Bosch divisions and factories. Mechanical Engineering Services RBIN are involved in Finite Element Analysis, simulations, drawings and CAD modeling. We also support our customers for administration and conversion of drawings.

**Electronic Design Services:** RBIN develops integrated circuits in BCD technology.

**Shared Services Accounting:** RBIN supports our customers in the areas of Accounting that includes Accounts Payable, Accounts Receivable, General Ledger & Asset Management Processes.

**Translation and Documentation Services:**RBIN offers support in the translation of documents between German & English, Japanese & English, and French & English. We also assist in the documentation of technical documentation, user manuals, customer documentation, and brochures. We take up maintenance of Intranet and Internet pages.

**Support for Factories:** RBIN supports manufacturing plants across the globe to help improve their cost competitiveness.

## **2.5 COMPETITIVE STRENGTH OF THE COMPANY**

Cost Advantage through proven offshore development centre and cost advantage will stay for at least 10 - 20 years. Time to Market is less as 3600 competent associates are available. And ease of recruiting domain experts. Experience of more than 15 years with Germany and US and 10 years with Japan. Process Leadership with ISO 9001 certification and first Bosch unit to be appraised at CMMI Level 5. Confidentiality is maintained as RBIN is 100% Bosch subsidiary and by this the core know-how is retained within Bosch

## 2.6 DESCRIPTION OF VARIOUS FUNCTIONAL AREAS

Personal Department takes care of recruitment, policy deployment, performance management and compensation and benefits

Controlling, Finance and Administration is taking care of Sales and Fund Management, Travel, Payables, Controlling, Payroll

Data Security Officer is responsible for the overall co-ordination and monitoring of Information Security and Privacy for all Bosch units in India. Towards this goal, he is assisted by a network of DSCs and DSPs. DSO provides consultation, as well as support to the responsible persons when defining suitable and appropriate ISP measures, as well as controlling their implementation. DSO also takes care that users and operators are made aware of the risks and that security gaps are detected and remedied.

Facilities Management And Constructions – FCM takes care of Space planning and creation of facilities ,Co-ordination for construction of new buildings ,Office equipment planning ,Maintenance of building and facilities, Maintenance of Gardening ,Security ,Post and Courier system ,Reception, Inter-location Transportation ,Fire protection, Safety and Environment protection ,Canteen Services ,Taxi Services.

Org - Organization And Employee Development deals with department specific Domain Knowledge improvement plan is followed up systematically. Knowledge Management: Practice strengthened and employee basis. Competence. Identifying Trainers, doing induction programme new associate with an opportunity to meet the senior members of management, an overview on the Bosch corporate culture, values, History, Business, Technology, Quality, innovation and information. Leadership programs (LeaD) ,Teambuilding programs, Behavioural Programs and Higher Education.

# Chapter 3

## MACRO -MICRO ANALYSIS

---

## CHAPTER 3

### MACRO-MICRO ANALYSIS

#### 3.1 MACRO ANALYSIS OF AUTOMOTIVE DESIGN OFFSHORING TO INDIA

The intense competitive pressures in the automobile industry, especially in the US and Europe, have created a set of enabling factors or drivers that are forcing OEMs and ancillaries to explore outsourcing and offshoring options.

**Rising costs.** Increasing labor costs, especially in North America, are resulting in a surge in overall costs.

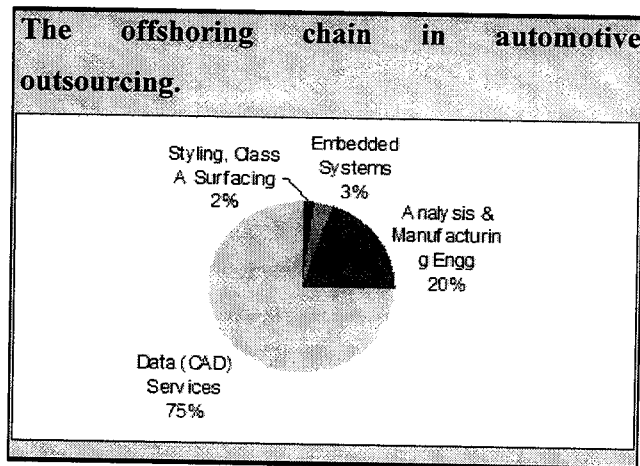
**Shorter product cycles.** Growing pressure on auto companies to launch new models and variants within a short span of time.

**Dropping profitability.** New and emerging players are adding fresh capacity, which is, in turn, leading to price competition and hence affecting profitability of companies.

**Expansion of capabilities and winning non-domestic business.** Stagnant growth in home markets is forcing players to focus on expanding capacities and capabilities in emerging markets. Given the cost advantages, many of these centres are being leveraged to serve other markets.

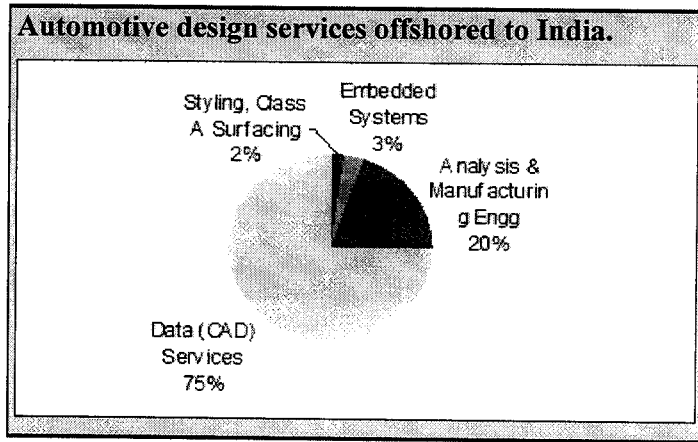
#### 3.2 THE OFFSHORING CHAIN

Various automotive original equipment manufacturers (OEMs) and Tier I suppliers have started offshoring design and engineering services to India. Typically, OEMs outsource design and manufacturing of certain components or systems to their Tier I suppliers. Both, OEMs and ancillaries, establish offshore captive centers, some of whom are involved in high-end design and engineering services. In addition, the OEMs and Tier I suppliers tend to offshore low-end services to third party providers initially, before moving up to high-end services. The typical offshoring chain is shown in Figure.



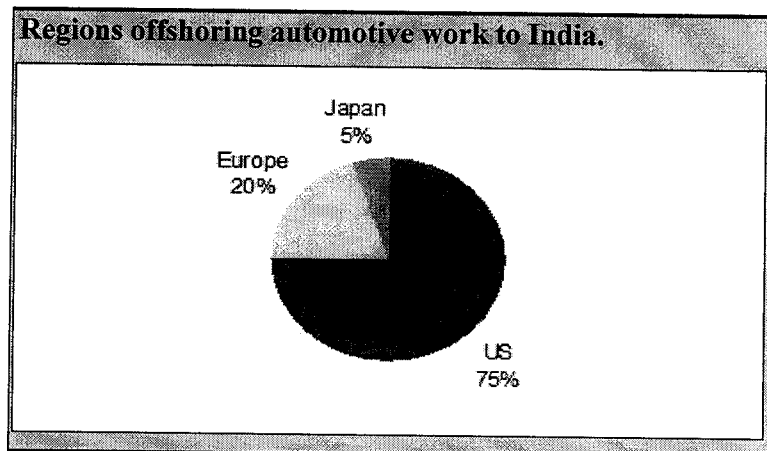
### 3.3 DESIGN SERVICES OFFSHORED TO INDIA

The design and engineering services offshored to India are mainly of the mechanical type. These mechanical design services include data, analysis/validation and manufacturing engineering services. Electronics design services, which include embedded systems, are not so easily offshored. However, with the electronics content increasing in vehicles, this area offers significant growth potential for vendors with the requisite capabilities. Automotive design and engineering services currently offshored to India are estimated to be in the range of USD\$270 to \$300 million in 2005. Data services are most commonly offshored, followed by analysis and manufacturing engineering services. In the case of analysis, meshing is more easily offshored than the analysis for structure, noise, vibrations, harshness, heat and impact. Very little work in concept design (styling/surfacing and mock-ups) or in electronics design (embedded systems) is currently offshored to India.



Concept design is the core intellectual property of OEMs and ancillaries. IPR concerns prevent them from offshoring concept design. In addition to this, India has almost no experience in designing new vehicles or systems or components. Concept design requires close interactions and involves numerous iterations. As such, concept design work is rarely offshored and design centers physically close to the companies are preferred.

Companies from the United States, Europe and Japan offshore design and engineering services to India. The US is the largest contributor, accounting for about 75% of the total services offshored, followed by Europe. Germany, UK, France and Italy are the major destination countries in Europe.



Japanese auto majors are much more conservative when it comes to offshoring. The small amount of work they offshore is either to their own centers or a dedicated partner. They rarely work with third-party vendors.

**3.4 INDIA ADVANTAGES**

**3.4.1 REDUCED COST**

The cost savings resulting from off shoring auto design and engineering services to India are as high as 40% to 50%, primarily due to the significantly lower cost of engineers. Typically, the design and engineering firms in the US and Europe specialize in a few niche areas and have a small but highly specialized employee base. Expertise in select niches makes such firms expensive, and auto companies tend to outsource high-end work to these firms. On the other hand, Indian (offshore) design and engineering companies offer a wide range of services, with a large number of

| <b>Average starting salary, India and US.</b> |                               |                                  |
|---|-------------------------------|----------------------------------|
| <b>Occupations</b>                            | <b>Avg. annual salary, US</b> | <b>Avg. annual salary, India</b> |
| Bachelors in Engineering<br>(Mechanical)      | \$50,236                      | \$6,000                          |
| Masters in Engineering<br>(Mechanical)        | \$59,880                      | \$8,000                          |
| PhD in Engineering                            | \$68,229                      | \$10,000                         |



employees proficient in different automotive areas. This makes them ideally suited for a range of lower-end design jobs.

### 3.4.2 REDUCED TIME-TO-MARKET

By sending work to India, companies can establish a 24/7 engineering schedule. Design is typically a combined effort between the team of the outsourcer and that of the service provider. Due to the time zone differences between India and the US/Europe, work can be done on a continuous basis.

### 3.4.3 LARGE NUMBER OF ENGLISH-SPEAKING ENGINEERS

India produced an estimated 215,000 engineering graduates in 2004. This number is rising with the shifting demographics towards younger people and a greater private presence in education. The number of engineering graduates by degree and specialization is given in the next Table.

| <b>Engineering graduates in India, 2004</b>   |                  |
|---|------------------|
| <b>Degree Field</b>   | <b>Graduates</b> |
| Total Bachelors and Subbaccalaureate Engineering, Computer Science (CS) and Information Technology (IT) Degrees | 215,000          |
| Bachelors Degrees   | 112,000          |
| Engineering (excluding CS and Electrical)   | 17,000           |
| CS, Electrical and IT   | 95,000           |
| Subbaccalaureate Degrees*   | 103,000          |
| Engineering   | 57,000           |
| CS and IT   | 46,000           |

Earlier, many non-IT engineering graduates couldn't find good opportunities in engineering and ended up working in the IT sector. With engineering and design services gaining momentum, these engineers now have exciting opportunities to work in their areas of specialization. Many engineering colleges have included CAD in their curriculum. There are also a number of design institutes offering industrial and product design courses. In June 2006, the National Institute of Design (NID) began a two-and-a-half-year course, "Diploma in Transportation and Automobile design." NID is also seeking an agreement with Domus Academy, a design school based in Italy. As a part of the Italy tie-up, NID intends to send its students for six months or one year training at Domus. The training program in Italy may also include industry training, wherein students may get an opportunity to understand and gain from the design experience of the top companies there. However, at the time of this writing, talks with Domus haven't concluded. In addition to the technical qualifications, English is spoken as a second language by over 200 million Indians, a factor that enables all forms of offshoring.

#### **3.4.4 PRESENCE OF DESIGN SOFTWARE COMPANIES**

Design software companies such as Autodesk and PTC have established a significant presence in India. Realizing the need for trained manpower (and its impact on the sale of their software), these companies started partnering with local institutions for imparting CAD training to students. This ensures a readily available resource pool for the industry to source trained manpower.

#### **3.4.5 DOMAIN EXPERTISE**

India has demonstrated growing capabilities in auto manufacturing and is well known for its expertise in IT. Despite much skepticism, Indian OEMs Mahindra & Mahindra and TATA Motors have successfully designed and built new vehicles. Maruti Udyog jointly designed its small car Swift with Suzuki's engineers in Japan. This makes India one of the few countries outside of the US, Europe, Japan and Korea with a proven capability to design and build automobiles.

### 3.4.6 GOVERNMENT INITIATIVES FOR AUTOMOBILE R&D

The Indian government announced a 150% tax cut in R&D investments by automobile manufacturers in the 2004 budget. This initiative has led to many auto majors setting up research centers or expanding existing ones.

The government, in partnership with the Indian automotive industry has initiated the National Automotive Testing and R&D Infrastructure Project (NATRIP) to create state-of-the-art testing, validation and R&D infrastructure in the country.

The project involves an investment of about USD\$380 million in setting up the following facilities:

- Full-fledged testing and homologation centres within the automotive hubs of north and south India at Manesar and Oragadam, respectively.
- Up gradation of existing testing and homologation facilities in the western hub at the Automotive Research Association of India (ARAI), Pune and at the Vehicle Research and Development Establishment (VRDE), Ahmednagar.
- A world-class proving ground on 4,098 acres of land in Central India at Pithampur.
- A centre for testing of tractors and off-road vehicles in the Northern region of the country, with a national facility for accident data analysis and specialized driving training at Rae Bareilly.
- A specialized hill area driving training centre and a vehicle management center in the North Eastern region at Silchar.

The launch of NATRIP will provide a major boost to India's fast growing automotive industry. It will result in better use of India's strengths in the areas of automotive engineering, information technology and electronics by achieving a high degree of convergence. The infrastructure under NATRIP will offer a wide range of product development and validation services for both domestic and global automotive

industry. The objective is to help India become a major force in global product development.

### **3.4.7 ROBUST AUTO COMPONENT INDUSTRY**

India has a well-established auto component manufacturing industry that supplies to leading global OEMs and ancillaries. OEMs are now involving Indian suppliers more closely in the design process, hoping that their design skills will improve and they'll eventually evolve into full service suppliers. These are responsible for designing and manufacturing of entire automotive systems. Indian vendors, for their part, are investing in setting up design centers to move up the learning curve. Their strategy involves establishing design subsidiaries for procuring global engineering work. Further in the area of electronics design, India is better positioned to narrow the gap between manufacturing and engineering and design expertise because of the availability of high quality IT talent.

### **3.4.8 KEY FINDINGS**

- The automotive design and engineering services outsourcing market is currently estimated to be USD\$11 billion.
- India, China, Russia and Eastern European countries are some of the offshore destinations for design and engineering services. India, with revenues in the range of USD\$270 million to \$300 million in 2005 is expected to cross USD\$1 billion by 2010.
- The current employee strength of India-based automotive design vendors is approximately 12,000 and is expected to reach 40,000 by 2010.
- Indian auto part and automobile companies are best positioned to cater to this market, provided they can allay client concerns about intellectual property and can handle non-compete issues. We expect many new entrants from this group, as well as from IT services firms looking to leverage on their software/embedded systems

capabilities. Consolidation will intensify and independent engineering and design firms will be attractive acquisition targets.

### **3.5 MICRO ANALYSIS OF ROBERT BOSCH INDIA LTD.**

Robert Bosch India Limited, a wholly owned subsidiary of Robert Bosch GmbH, develops software and engineering solutions for all business sectors within the Bosch world in more than 15 nations across Europe, USA, Asia and Australia. Robert Bosch India is an integral part of CRDi technology and also the Bosch world's largest technical support of automotive technology.

Robert Bosch India did a turnover of Rs.3889.870 crores by the year ending 2005 an 82% growth when compared to 2004 turnover of Rs2137.899 crores. This led to a net profit of Rs565.641 crores a 154% increase when compared Rs 222.592 crores Robert Bosch India plans to invest 325 million euro (Rs. 1,800 crore) between 2007 and 2009. A large part of the investment will go into setting up facilities for the manufacture of common rail direct injection systems, a key component for new generation diesel engines. The group sees tremendous opportunities in the area of clean, eco-friendly diesel systems, as India is already tightening its emissions legislations since 2000, following the pattern set by Europe as the expansion of India's infrastructure is accompanied by increasing motorization.

In 2006 the Bosch group announced investments of upto Rs1,000 crore in the Indian market. Hence the total investments the company would make in India add upto Rs1,800 crore till 2008. Of the total funds infusion, about Rs550 crore would be invested in the large-scale series production of high-pressure common-rail systems with technology from Robert Bosch India. As part of its expansion plans, Bosch India will add 1,000 employees to its India operations every year with the aim of reaching a headcount of 6,000 by 2010 from the current level of 3500.

Ever since the Indian government decided to introduce stricter emission norms, from April last year, most diesel vehicle makers have begun turning to CRDi

technologies to comply with the norms. Hyundai fits CRDi diesel engines in its Accent and Elantra models, and DaimlerChrysler in its Mercedes range.

Bosch therefore places great importance on driving forward technological progress in accident prevention and environmental protection. Its automotive technology business unit spends more than nine per cent of its sales revenue on research and development - far more than the average for the industry.

Robert Bosch India is spending nearly 6 to 7 % of its sales revenue for training its associates and keeping them up to date with the current technologies available in the market and a dedicated department Org - Organization and Employee Development deals with department specific Domain Knowledge improvement plan is followed up systematically. Knowledge Management: Practice strengthened and employee basis. Competence. Identifying Trainers, doing induction programme new associate with an opportunity to meet the senior members of management, an overview on the Bosch corporate culture, values, History, Business, Technology, Quality, innovation and information. Leadership programs (LeaD), Team building programs, Behavioural Programs and Higher Education.

### **3.6 MICRO ANALYSIS BOSCH GROUP**

Strong growth in Asia and in the two business sectors Consumer Goods and Building Technology as well as Industrial Technology

- Research and development expenditure remains high
- Global headcount increases to roughly 260,000

The Bosch Group has reached its growth target for 2006. Global sales grew by more than five percent to 43.7 billion euros. Return, by contrast, was slightly down. The pre-tax result is expected to have been at the lower end of the target corridor of between seven and eight percent of sales. Once again, the growth drivers were the Asia Pacific region and the Consumer Goods and Building Technology business sector, as well as the Industrial Technology business sector. "Our long-term strategy is paying off. We have been able to significantly expand our presence in Asia, and to

strongly grow our business outside of automotive technology," said Franz Fehrenbach, chairman of the Bosch board of management, at the press briefing on the preliminary figures for 2006 in Stuttgart.

All the business sectors of the Bosch Group made a positive contribution to growth and result in 2006, but the level of year-on-year growth of those contributions varied considerably. The Automotive Technology business sector, the main pillar of business at Bosch with a 62 percent share of total sales, grew by 3.5 percent to nearly 27.2 billion euros. Without consolidation effects, growth was one percentage point less. The highest growth was recorded by the Consumer Goods and Building Technology business sector, where sales grew by roughly 10 percent to nearly 11 billion euros. The Industrial Technology business sector also developed positively, growing by more than seven percent. However, it only discloses sales growth of a good five percent to 5.5 billion euros, as its brake-disk business has been transferred to the Automotive Technology business sector.

In regional terms, Bosch grew very strongly in Asia, with a plus of 13 percent. In China and India, Bosch sales grew by significantly more than 20 percent. Business in Latin America and in eastern Europe grew by 14 and 13 percent respectively. The increase in sales in North America and western Europe was more moderate by comparison (4.5 and 3 percent respectively). The development of headcount in the Bosch Group reflected this growth of business in the regions. At the end of 2006, some 260,000 associates were employed at Bosch – compared with 251,000 in 2005. It was above all in the growth regions that these new jobs were created. In Germany, the number of associates remained stable, at around 110,000. Research and development expenditure remained on a high level: in 2006, it came to 3.3 billion euros, or the equivalent of 7.6 percent of sales, compared with 7.4 percent in 2005.

Automotive Technology: conditions continue to worsen. The business environment in 2006 was, in Fehrenbach's words "a mixed bag" – there was "tailwind, but also plenty of headwind." In Automotive Technology in particular, conditions worsened significantly: the selling prices that could be demanded in the market fell by an

average of three to four percent. At the same time, Bosch was faced with a further 240 million-euro increase in already high raw materials prices, especially for noble and nonferrous metals. In addition, capacity utilization fell, especially in the North American plants, due to the considerable sales difficulties experienced by the major U.S. automakers. It was not possible to completely compensate for these developments with the strong growth in business in Asia and with cost reductions.

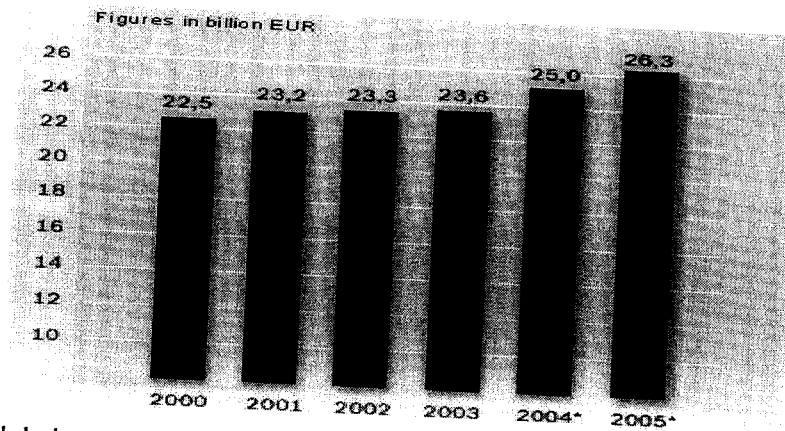
Bosch is currently working with Indian automakers in roughly 30 engineering projects for the application of diesel injection systems – and in China, there are as many as 50 such projects. In North America, too, the "clean diesel" has promising potential. High fuel prices and the reintensified environmental debate will provide a significant boost to demand for diesel in the United States. Bosch also expects ESP, its Electronic Stability Program, to show improved figures: the share of vehicles in the U.S. equipped with ESP is expected to double from 36 percent in 2006 to 72 percent in 2010. In the same period, Bosch intends to triple its annual sales of ESP in the United States to some three million units per year.

Consumer Goods and Building Technology as well as Industrial Technology remain on growth course. All the divisions in the Consumer Goods and Building Technology business sector made a contribution to the business sector's positive development – from household appliances, to power tools, to Thermotechnology and security systems. At the end of January 2007, Bosch acquired FHP Manufacturing Company, a leading U.S. manufacturer of electrical heat pumps. "This step fits into our strategy: it strengthens our Consumer Goods and Building Technology business sector, reinforces our presence in the United States, and positions us in the growing area of renewable energies," Fehrenbach said. In 2007, Bosch had already bolstered its activities with a series of shrewd acquisitions. They include companies such as Telex Communications, Purolator, and the TeleAlarm Group. Bosch is also successfully launching new products. To take the example of power tools: 12 out of 15 of the best-selling power tools in German DIY stores are made by Bosch. The Ixo alone – a handy cordless drill/driver based on lithium-ion technology – has so far been sold six million times the world over.



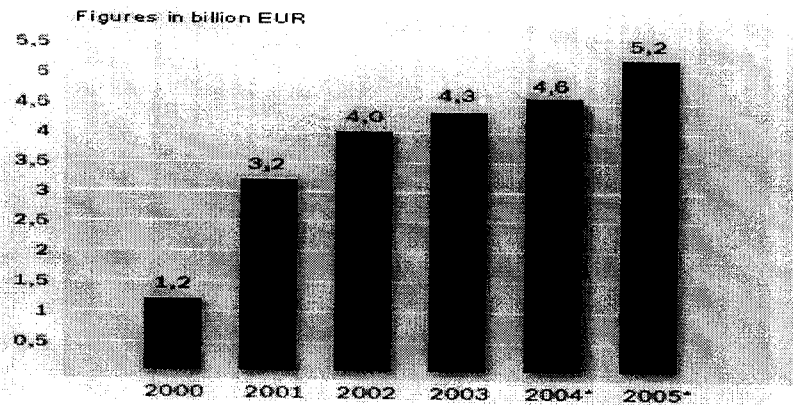
In the Industrial Technology business sector, Bosch Rexroth grew strongly once more, while Packaging Technology stabilized its position. Positive stimuli for the business with industrial technology came from Europe – especially Germany – and from Asia. In China alone, Bosch Rexroth sales grew by some 30 percent. It was in China, too, that Bosch Rexroth was awarded a prestigious contract: the hydraulic drive for the world's biggest Ferris wheel, which will go into operation in time for the Beijing Olympics in 2008, will be provided by Bosch Rexroth.

### AUTOMOTIVE TECHNOLOGY: SALES FIGURES



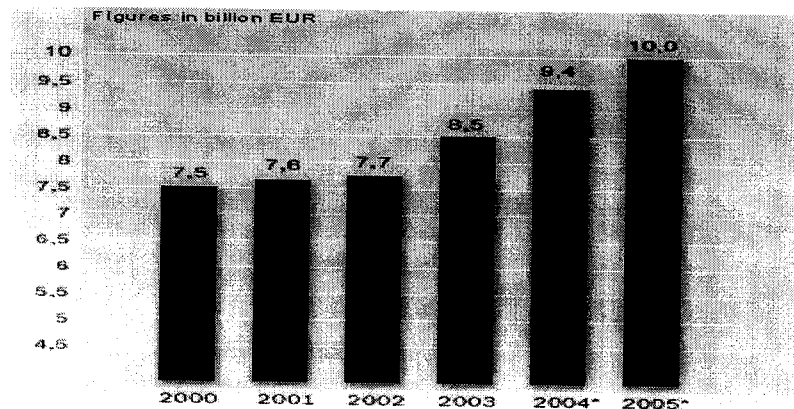
In 2005, global automobile production increased by just under 3 %. Over the same period, our sales of automotive technology rose by 5.4 % to 26.3 billion euros. Some 158,000 associates work in this sector. In order to be prepared for the challenges that lie ahead, we invested some 10% of our automotive technology sales in research and development last year – far more than the average in our industry.

## INDUSTRIAL TECHNOLOGY: SALES FIGURES



The global economic situation for capital goods remains healthy, and our Industrial Technology business sector benefited accordingly. Sales rose by 12.5 % to 5.2 billion euros. Disregarding consolidation effects, the increase was 6.8 %. Business received an especially strong boost from the robust growth in the global market for mechanical engineering products in Asia and the U.S.

## CONSUMER GOODS AND BUILDING TECHNOLOGY: SALES FIGURES



Consumer Goods and Building Technology business sector showed gratifying development in 2005. Sales reached 10 billion euros, 6.1% higher than the previous year. All the divisions which make up this business sector successfully continued the expansion of their business outside Germany, compensating for weaknesses in the German market.

### **3.7 COMPETITORS OF BOSCH GROUP**

#### **Johnson Controls, Inc.**

Johnson Controls is engaged in the manufacture and marketing of automotive systems and controls. It conducts its business in two operating segments: automotive and controls. The automotive segment designs and manufactures products for motorized vehicles. Seating system products include seats, seating foam pads, mechanisms, metal frames and trim covers. Interior systems products include overhead systems, door systems, floor consoles and instrument panels, with a specialization of electronics integration into vehicle interiors. All automotive systems are sold to original equipment manufacturers, whilst batteries are mainly sold to automotive replacement companies. In addition to its domestic operations, the Automotive Systems Group has seating and interior systems operations in around 500 locations worldwide. The controls segment is a supplier of control systems, services and products, providing energy management, temperature and ventilation control, security and fire safety for non-residential buildings. The company manufactures control systems for sale to original equipment manufacturers, wholesalers and distributors of air-conditioning, refrigeration, commercial and residential heating, water-pumping and gas-burning equipment. Control systems products are manufactured in the US and in other global locations. The controls segment is also a supplier of integrated facility management for commercial buildings and government facilities, with offices in over 35 countries worldwide. The integrated facility management business provides strategic facility management services and workplace consulting, including a wide range of on-site operations and maintenance support.

#### **Siemens AG**

Siemens is an electrical engineering and electronics company. Its operations are divided into six groups: Automation and Control, Information & Communications, Medical, Power and Infrastructure, Transportation, and Services. The Automation and Control group includes products and services relating to automation systems, automotive, building technologies, drives and motors, electrical installation

technology, logistics systems, low-voltage controls and distribution, process automation, and sensors and measuring systems. The Information and Communications group is involved with communication networks, information technology, mobile communication, and telephone and communication systems. The Medical group provides hearing solutions, OEM solutions, medical products and systems, refurbished systems, and medical services. The Power group is concerned with power generation, power supply, and power transmission and distribution. The Transportation group is involved with integrated services, rail automation and electrification, rolling stock, and turnkey systems. The services group is concerned with providing business, energy, financial and industrial services, and training. The company also offers Lighting services through its Osram subsidiary, which provides lamps, electronic control gear, and opto-semiconductors. Siemens conducts its business activities in a number of countries in Europe, America, the Asia-Pacific, Australia, and Africa.

### **Visteon Corporation**

Visteon is a global supplier of automotive systems, modules and components to vehicle manufacturers and the automotive aftermarket. The company operates in two business segments: automotive operations and glass operations. The automotive operations segment provides automotive systems, modules and components in product areas such as climate control, interior, exterior, power train, chassis and electronics. Its products are featured on vehicles built by many automotive manufacturers, including Ford Motor Company, General Motors, Toyota, DaimlerChrysler, Volkswagen, Honda, Renault, Nissan, Hyundai, Peugeot, Mazda and BMW. The glass operations segment designs, produces and distributes automotive glass products for Ford and aftermarket customers, and float glass for commercial architectural and automotive applications. Visteon produces all the major components for an all-wheel-drive system. Major products include front and rear independent suspension and solid-beam axles, prop shafts, half shafts and power transfer units. The company also designs and produces hydraulic power-assisted steering systems, rack and pinion steering gears,

recirculating ball nut steering gears and power steering pumps. In addition, Visteon supplies suspension products, including corner and suspension modules, brake hubs and rotors, knuckles and spindles, and stabilizer bars. It also designs and manufactures catalytic converters and other exhaust system products. The company is also a global supplier of cockpit systems. Its cockpit systems incorporate driver information, entertainment, vehicle controls and climate control features, and package a variety of structural, electronic and safety components. The company's services include advanced engineering and computer-aided design, styling concepts and modelling, and in-sequence delivery of manufactured parts. The company also provides door trim panels and modules, and interior trim products. It supplies console modules that offer consumers customized storage options. Visteon designs and manufactures integrated heating, air conditioning (AC) and power train cooling systems consisting of heat exchangers, air handling modules, heater and AC controls, compressors and front-end modules. Heat exchangers provide the mechanism of heat transfer for automotive air conditioning and powertrain cooling systems. Included in the offering are radiators, condensers, evaporator and heater cores, integrated heat exchangers, cooling modules and intercoolers. Visteon designs and manufactures mechanical and electronic AC and heater controls. Compressor technologies include fixed and variable displacement swash plate designs, and fixed and variable capacity scroll designs.

The company offers products for vehicle engine and power train management, including the power train control module. These products include air charging assemblies and air induction systems, torque enhancement systems, intake manifolds, long-life filtration systems, fuel injectors and rails, mechanical and electronic throttle bodies, and ignition coils. The company also manufactures systems and components to support low-emission vehicles. The principal products in these systems are plastic blow-moulded and thermoformed fuel tanks, fuel pumps and delivery modules, and fuel vapour storage systems. The company also supplies high-tech in-vehicle entertainment, driver information, wireless communication, safety and security electronics. Visteon's offerings in the audio systems and components segment include integrated cassette/compact disk/MP3 radios and amplifiers. The company's

electronics products include digital and satellite radios, high definition radio broadcast tuners, audiophile systems and advanced Bluetooth interface modules integrated with Visteon voice capability. Visteon's MACH digital signal processing is an integrated technology that provides improved performance for entertainment systems and can support branded audio systems such as Boston Acoustics and Sony. The company also designs and builds a range of displays, from analogy electronics to high impact clusters and light-emitting diode (LED) displays. In addition, Visteon has developed products to assist driving and enhance safety, including Visteon Voice Technology, adaptive cruise control, anti-theft systems, remote keyless entry systems and tire pressure monitoring. Visteon is also working with the US Department of Transportation, to develop lane departure warning systems. Visteon provides exterior packages to the automotive customer. It designs and builds a variety of headlamps, rear lamps, high-mount stop lamps and fog lamps using technologies such as LEDs (light emitting diodes) and high intensity discharge and projector headlamps. It also offers bumper systems, fascias and assemblies, and valance panels. The company's glass products include windshields, backlites, moon-roofs and side windows. Visteon also provides glass design, development and manufacturing. The company distributes aftermarket replacement glass products under the Carlite brand name. Architectural glass is distributed under the Versalux brand name.

### **AB Electrolux**

Electrolux is a producer of appliances and equipment for kitchen, cleaning and outdoor use. The company sells about 55 million consumer products annually in more than 150 countries. Electrolux has manufacturing facilities in 97 locations in 25 countries around the world. Electrolux's manufacturing operations consist mainly of the assembly of components and processing of standard raw materials sourced from various third-party manufacturers. Electrolux's products are targeted at both professionals and retail consumers. The company operates under two business areas: consumer durables (inclusive of professional outdoor products) and professional indoor products. The company's garden equipment for the consumer market is a separate segment within consumer durables. The consumer durables business segment

consists of white goods, such as refrigerators, freezers, cookers, dryers, washing machines and dishwashers; other appliances, such as room air conditioners and microwave ovens; floor-care products, and consumer outdoor equipment. Electrolux is a white goods provider in Europe and Australia and has a presence in the US, Brazil and India and China. The company is also a producer of lawn mowers, garden tractors and other portable petrol-driven garden equipment, such as chainsaws and trimmers. The professional outdoor products of Electrolux include chainsaws, clearing saws and lawn and garden equipment. The majority of these products are sold under the Husqvarna brand. This business area also includes the brands Partner Industrial Products, Dimas and Diamant Boart, which comprises power cutters, diamond tools and related equipment for the cutting of hard surfaces, such as cement and stone. The professional indoor products business area consists of foodservices equipment and laundry equipment. Products in foodservices equipment are targeted at hotels, restaurants and institutions. Electrolux manufactures laundry equipment for laundry rooms in apartment buildings, laundrettes and hotels and for other professional users.

#### **Black & Decker Corporation**

Black & Decker Corporation (Black & Decker) is a global manufacturer and marketer of power tools and accessories, hardware and home improvement products, and technology-based fastening systems. The company operates in three reportable business segments: power tools and accessories, hardware and home improvement and fastening and assembly systems. The power tools and accessories segment has worldwide responsibility for the manufacture and sale of consumer (home use) and professional corded and cordless electric power tools, lawn and garden tools, home products, accessories and attachments for power tools, and product service. In addition, this segment has responsibility for the sale of security hardware to customers in Mexico, Central America, the Caribbean, and South America. It is also responsible of the sale of plumbing products to customers outside of the US and Canada; and for sales of household products, principally in Europe and Brazil. Power tools include drills, screwdrivers, impact wrenches, hammers, routers, wet/dry vacuums, planers, lights, radio/chargers, saws, sanders, grinders, pneumatic nailers, bench and

stationary machinery, air compressors, generators, laser products, and WORKMATE(R) project centres and related products. Power tools, lawn and garden tools, home products, and accessories are marketed around the world under the Black & Decker(R) and DEWALT(R) name as well as other trademarks and trade names. Principal manufacturing and assembly facilities of this division are located in Fayetteville, North Carolina and Tampa, Florida in the US and Suzhou, China; Ustinad Labem, Czech Republic; Buchlberg, Germany; Perugia, Italy; Spennymoor and Maltby, England; Reynosa, Mexico; and Uberaba, Brazil. The manufacture and assembly of products for the power tools and accessories segment also occurs at the facility of its 50%-owned joint venture located in Shen Zhen, China. This division also provides product service and operates factory outlet stores. The hardware and home improvement segment has worldwide responsibility for the manufacture and sale of security hardware products (except for the sale of security hardware in Mexico, Central America, the Caribbean, and South America). It also has responsibility for the manufacture of plumbing products and for the sale of plumbing products to customers in the US and Canada. This division manufactures security hardware, general hardware, decorative hardware and plumbing products. The division markets its products under the Kwikset (R), Baldwin(R), Price Pfister (R) and Weiser(R) brands. Principal manufacturing and assembly facilities of this division are located in Denison, Texas; Bristow, Oklahoma; and Reading and Leesport, Pennsylvania in the US and in Mexicali and Nogales, Mexico. The company's product offerings in this segment are sold primarily to retailers, wholesalers, distributors, and jobbers. Certain security hardware products are sold to commercial, institutional, and industrial customers. Sales to The Home Depot and Lowes Home Improvement Warehouse accounted for greater than 10% each of the corporation's consolidated sales for 2003, 2002, and 2001. The company's fastening and assembly systems segment, known as Emhart Teknologies, has worldwide responsibility for the manufacture and sale of an extensive line of metal and plastic fasteners and engineered fastening systems for commercial applications. Principal manufacturing facilities of this division are located in Danbury, Connecticut; Montpelier, Indiana; Campbellsville and Hopkinsville,



Kentucky; and Chesterfield, Michigan in the US and in Birmingham, England; Giessen, Germany; and Toyohashi, Japan. It distributes its products under brand names such as POP(R) blind rivets, Parker-Kalon (R) screws, Gripco (R) locknuts, Heli Coil(R) wire inserts, Dodge(R) inserts, Tucker(R) stud welding equipment, and Warren(R) plastic and metal fasteners.

#### **Valeo S.A.**

Valeo is a French independent industrial group which designs and produces components, integrated systems and modules for cars and trucks. The company operates in 26 countries from 128 production sites, through nine distribution centers and 65 research and development centers. The company is one of Europe's largest car parts suppliers, manufacturing components for most major car and truck manufacturers. The electronics and electrical systems unit makes wiper systems, motors and actuators, security systems, electrical components, electronics, and lighting products. The thermal systems unit offers climate-control and engine-cooling components. The transmissions segment makes clutch systems, torque converters, and friction products. Valeo service is the aftermarket arm of Valeo. It sells replacement parts to automakers and the independent aftermarket. The company's original equipment manufacturing customers include BMW, DaimlerChrysler, Fiat, Ford Motor Company, General Motors, Honda, Hyundai, Porsche, PSA Peugeot Citro Renault-Nissan, Suzuki, Toyota and the Volkswagen Group

#### **Magna International Inc.**

Magna International, through its subsidiaries, supplies automotive systems, components and modules to the global automotive industry. The company operates about 210 manufacturing divisions and 49 product development and engineering centers covering over 22 countries throughout North and South America, Europe and Asia. Magna offers a diverse range of products and services. It designs, develops and manufactures automotive systems, assemblies, modules and components. The company is extensively involved in the engineering and assembly of complete vehicles. It sells primarily to original equipment manufacturers (OEMs) of cars and

light trucks in North America, Europe, Mexico, South America and Asia. Major customers include DaimlerChrysler and BMW. The company's global automotive operations include its automotive systems groups - Decoma International, Intier Automotive, Tesma International, Cosma International, Magna Donnelly and Magna Steyr, as well as its Magna Drive train Group. Decoma International is Magna's global exterior systems group and a supplier of exterior vehicle systems and modules. Decoma is the world's largest supplier of automotive fascias. Intier Automotive is involved in the development and manufacturing of vehicle interior and closure components and systems, for the automotive industry, and vehicle interior integration and program management. Intier supplies the centre console, door panels, pillar trim and sun visors for automobiles. Tesma International is Magna's global engine, transmission and fueling technologies systems group. Cosma International is Magna's wholly owned metal body and structural systems group and the global automotive industry's premier metalforming supplier. Cosma manufactures a comprehensive range of metal body components, assemblies and modules, including complete vehicle frames, chassis systems, exterior body panels and complete body-in-white. Magna Donnelly specializes in integrating sophisticated automotive electronics and communications technology into mirror systems. The group is a leader in integration of electronic features into interior prismatic and electrochromic mirrors as well as exterior mirrors. Interior mirror features include lighting, compasses, telematic interfaces, microphones, garage door openers, wireless electronic toll-collection systems and rain sensors. Exterior mirror features include turn signals, ground illumination and power-fold capability. Magna Steyr is a premier supplier of total vehicle engineering and concept development. The wholly owned group is also a supplier of niche vehicle assembly. Magna Steyr provides initial vehicle concept design, styling and prototype production to final assembly of niche vehicles. Magna Steyr is also a proven manufacturing partner for derivatives, peak-shaving programs and optimization of the end-of-production phase. Magna Drivetrain is a supplier of drivetrain components with a focus on all-wheel-drive vehicles, including transfer cases, power takeoff units, axle differentials, all-wheel-drive couplings, complete chassis modules and mass balancing units. Magna Drivetrain manufactures products

for customers including BMW, Mercedes-Benz, General Motors, LandRover, Renault and the Volkswagen Group.

### **DELPHI-TVS**

DELPHI-TVS is a joint venture between Delphi automotive systems, USA - and T.V. Sundram Iyengar & Sons, India. Delphi is the largest automotive component manufacturer in the world whereas TVS established in 1911, is the largest automotive component manufacturer in India. The company has a track record of sustained growth since it was set up.

Product range consists of

- DPC, DPC-TC, DPCN, STP, SVP pumps,
- Injector
- Filter

Supplied to various leading original equipment manufacturers. Our division is already manufacturing Electronic Rotary Pumps and will soon manufacture the complete Common Rail System which gives much higher fuel and engine efficiency. Delphi-TVS Diesel Systems has been certified under ISO 9001, EAQF 94z, QS 9000. The company employees over 550 technically qualified engineers and managers and have a turnover of over Rs.2200 million.

# Chapter 4

## DATA ANALYSIS & INTERPRETATION

---

## **Chapter – IV**

### **4. DATA ANALYSIS AND INTERPRETATION**

Research is a search endeavor, research is the use of scientific method in the search of knowledge including knowledge of alternate practice and intervention techniques, which would be of direct use to the progression and thus enhance the practice of their methods. Here the research methodology consists of steps, observation, comparison and experiment.

Research refers to systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the factors or data, analyzing the factors and reaching certain conclusion. It is necessary to know the methodology used in this research.

The investigator has made it clear about the methodology in the previous chapter. In this chapter the investigator has presented the collected data and its interpretation by using statistical calculations with the help of Statistical Package for Social Science (SPSS) computer software and Microsoft Excel are used to compute. Each hypothesis was tested as we mentioned earlier in the research methodology on chapter first.

## DATA ANALYSIS & INTERPRETATION

Table – 4.1

**Table Showing the Location of the Technical Training Service Providers**

| Particulars | No. of Respondents | Percent |
|-------------|--------------------|---------|
| Coimbatore  | 07                 | 11.3    |
| Chennai     | 55                 | 88.7    |
| Total       | 62                 | 100.0   |

**Inference:**

The above Table shows 88.7% of the Technical Service Providers are from Chennai and the rest 11.3% are from Coimbatore.

Chart – 4.1

**Chart Showing the Location of the Technical Training Service Providers**

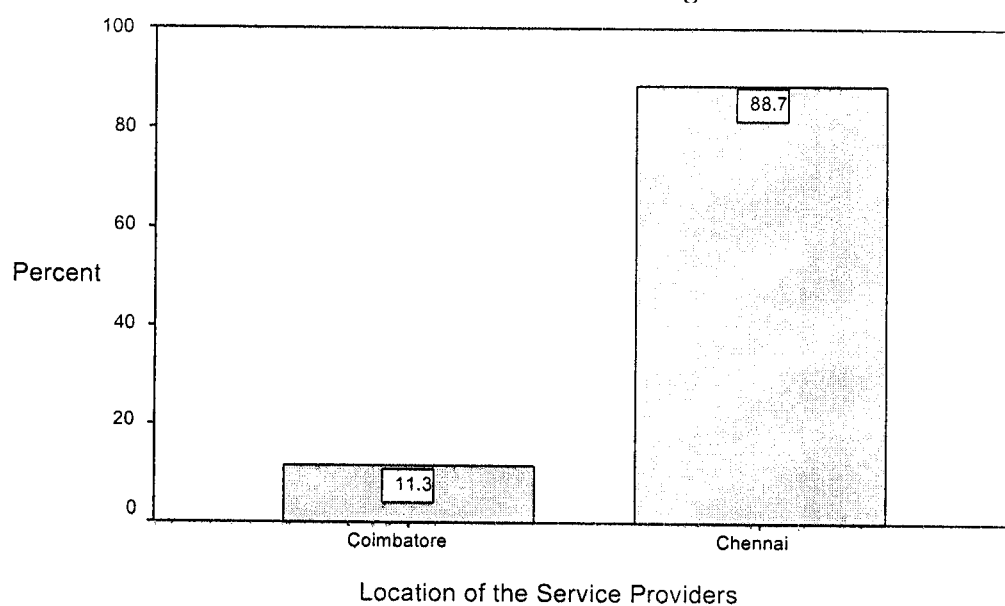


Table – 4.2

Table Showing the Location of the Behavioral Training Service Providers

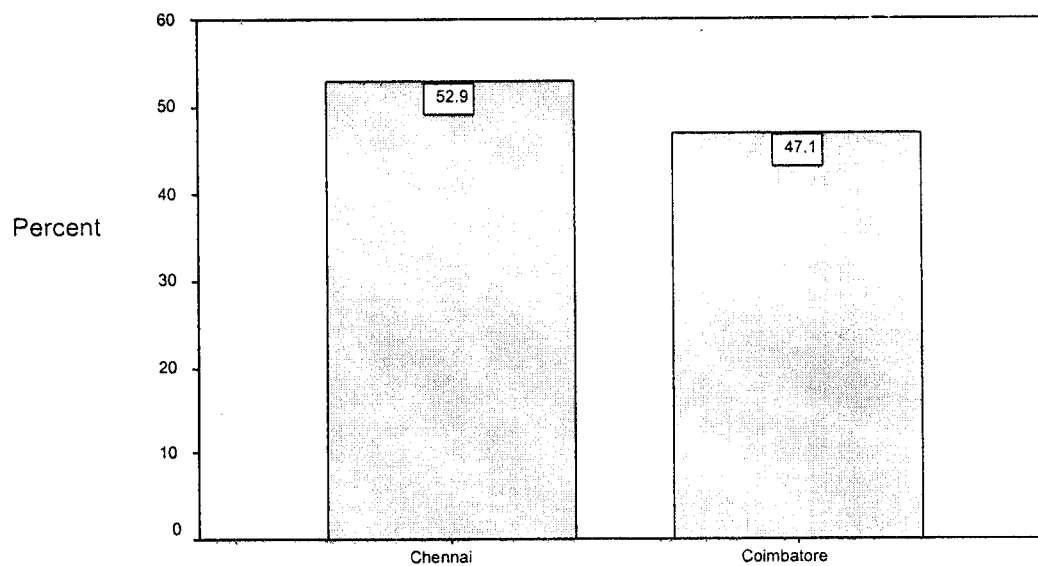
| Particulars  | No. of Respondents | Percent      |
|--------------|--------------------|--------------|
| Chennai      | 9                  | 52.9         |
| Coimbatore   | 8                  | 47.1         |
| <b>Total</b> | <b>17</b>          | <b>100.0</b> |

**Inference:**

The above Table shows 52.9% of the Behavioral Service Providers are from Chennai and the rest 47.1% are from Coimbatore.

Chart – 4.2

Chart Showing the Location of the Behavioral Training Service Providers



Location Of the behavioral service provider

Table – 4.3

Table Showing the Types of Industry Technical Service Providers are associated

| Particulars        | No. of Respondents | Percent      |
|--------------------|--------------------|--------------|
| Retail             | 27                 | 43.5         |
| Manufacturing      | 05                 | 08.1         |
| IT from Coimbatore | 01                 | 01.6         |
| Tier 2 IT Industry | 19                 | 30.6         |
| Tier 1 IT Industry | 10                 | 16.2         |
| <b>Total</b>       | <b>62</b>          | <b>100.0</b> |

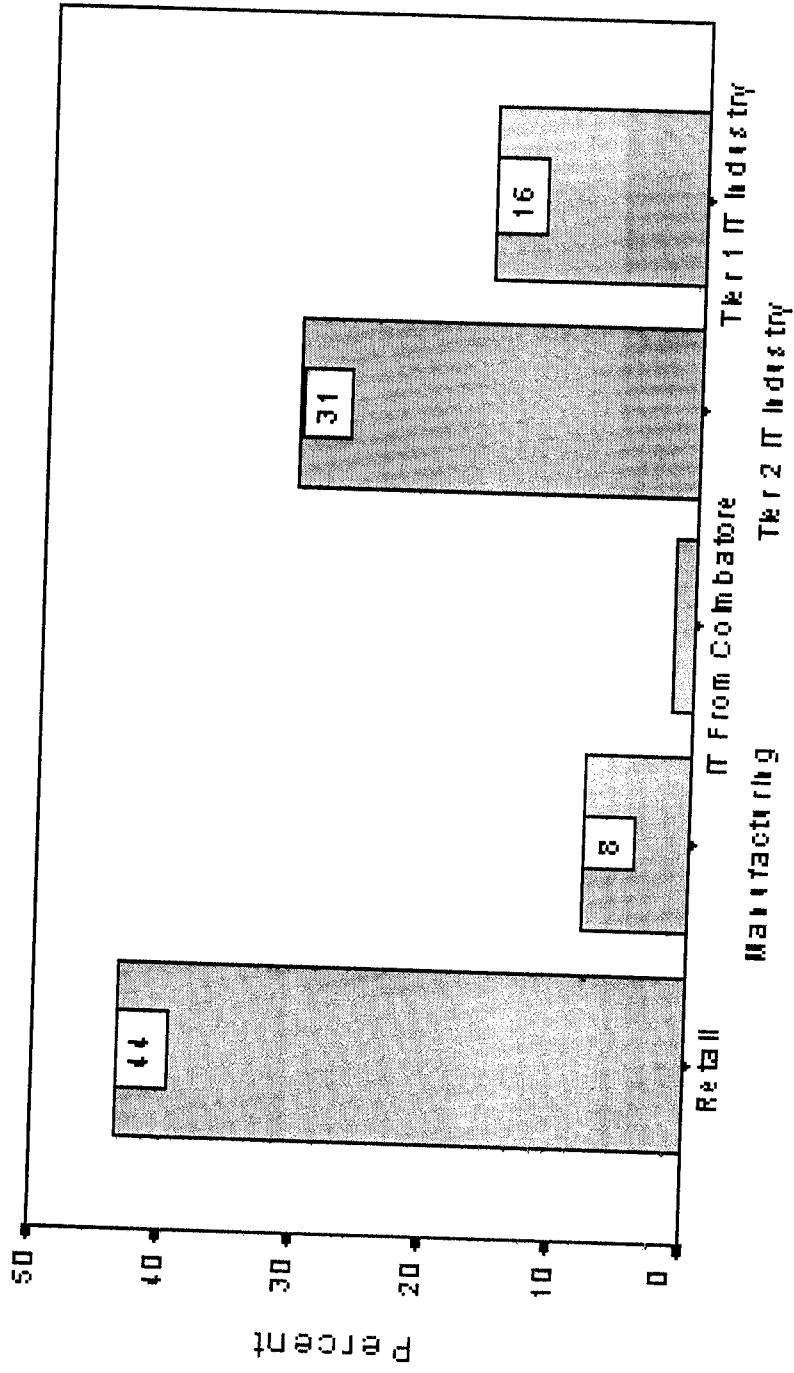
**Inference:**

The above Table shows 43.5 % of the Service Providers are associated with Retail ie. Students and Individuals and 16 and 30.6% are associated with Tier I & Tier II IT Industry respectively.



Chart - 4.3

Chart Showing the Types of Industry Technical Service Providers are associated



Type of industry service providers are associated

Table – 4.4

Table Showing the Types of Industry Behavioral Service Providers are associated

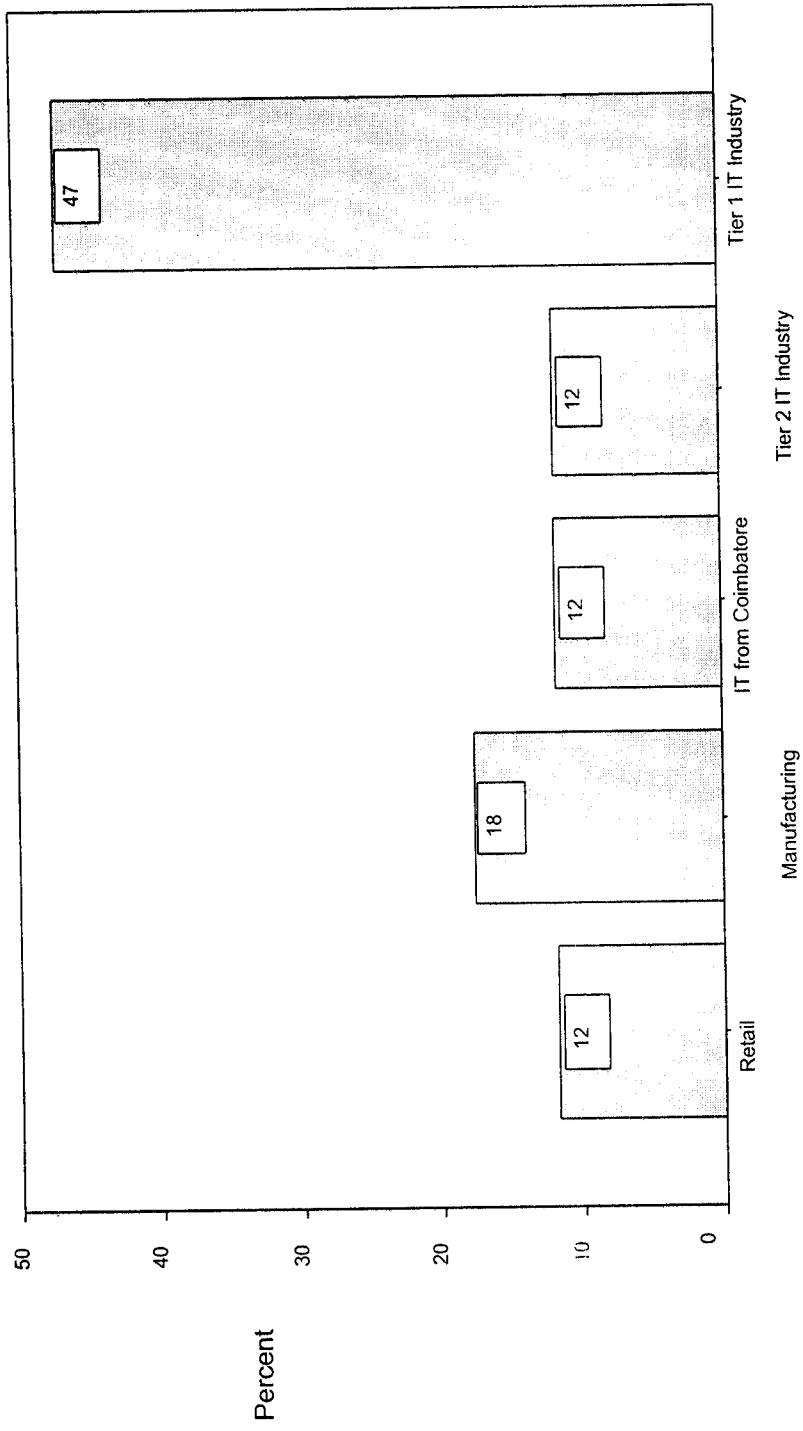
| Particulars        | No. of Respondents | Percent |
|--------------------|--------------------|---------|
| Retail             | 2                  | 11.8    |
| Manufacturing      | 3                  | 17.4    |
| IT from Coimbatore | 2                  | 11.8    |
| Tier 2 IT Industry | 2                  | 11.8    |
| Tier 1 IT Industry | 8                  | 47.2    |
| <b>Total</b>       | 17                 | 100.0   |

**Inference:**

The above Table shows 47.2% of the Behavioral Service Providers are associated with Tier I IT Industry.

**Chart – 4.4**

**Chart Showing the Types of Industry Behavioral Service Providers are associated**



**Types of industry Behavioral Service Providers are associated**

Table – 4.5

Table Showing the Gamut of Technical Course Covered by Technical Service providers as per the requirements of Robert Bosch India

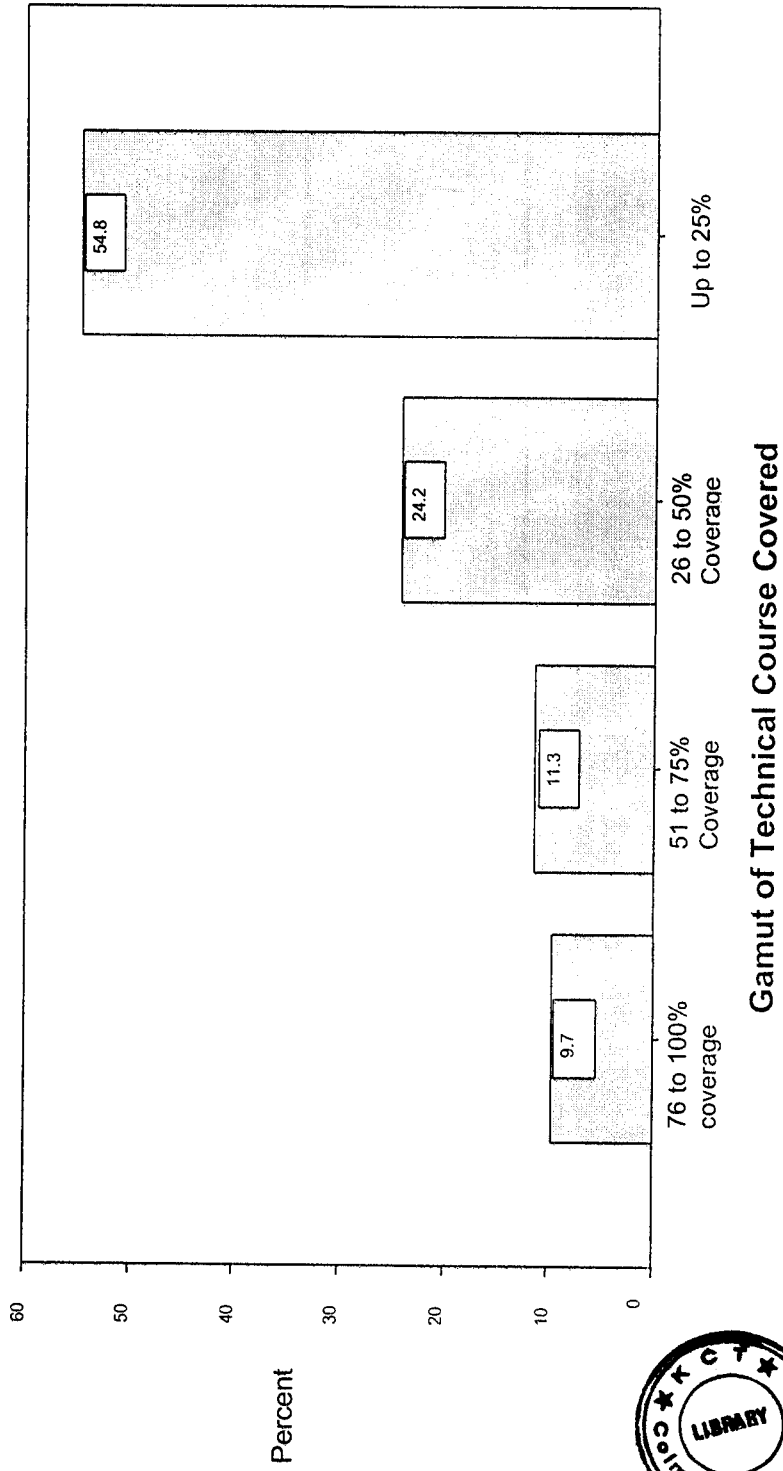
| Extent of course coverage | No. of Respondents | Percent |
|---------------------------|--------------------|---------|
| 76 to 100% Coverage       | 6                  | 09.7    |
| 51 to 75% Coverage        | 7                  | 11.3    |
| 26 to 50% Coverage        | 15                 | 24.2    |
| Up to 25%                 | 34                 | 54.8    |
| <b>Total</b>              | 62                 | 100.0   |

**Inference:**

The above Table shows only 9.7% service providers render more than 75% percent of the Technical Course requirement put down by Robert Bosch India.

Chart 4.5

Chart showing the Gamut of Technical Course Covered by Technical Service providers as per the requirements of Robert Bosch India



P-1946

Table – 4.6

Table Showing the Gamut of Behavioral Course Covered by Behavioral Service providers as per the requirements of Robert Bosch India

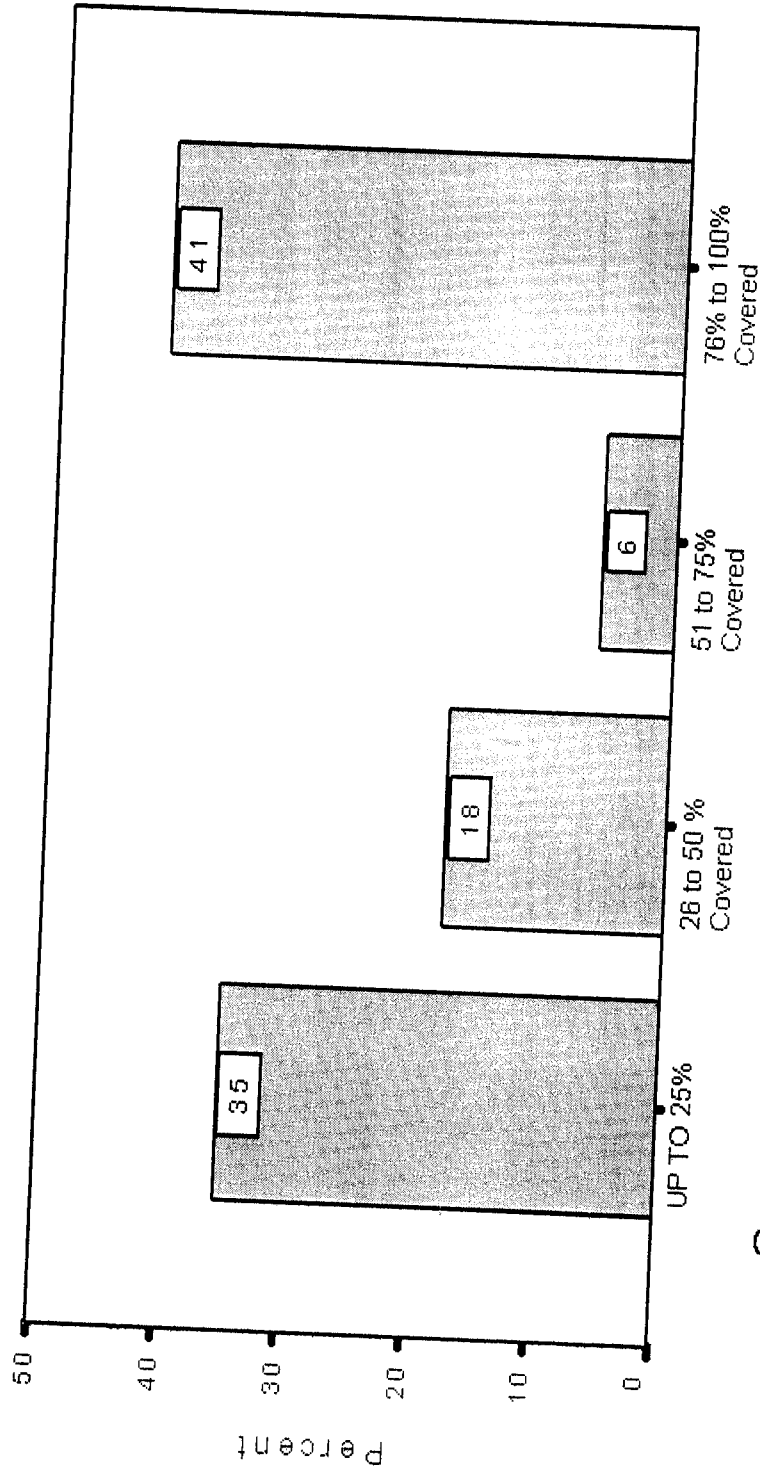
| Extent of course coverage | No. of Respondents | Percent |
|---------------------------|--------------------|---------|
| Up to 25%                 | 6                  | 35.3    |
| 26 to 50% Coverage        | 3                  | 17.6    |
| 51 to 75% Coverage        | 1                  | 05.9    |
| 76 to 100% coverage       | 7                  | 41.2    |
| <b>Total</b>              | 17                 | 100.0   |

**Inference:**

The above Table shows 41.2% service provider's render more than 75% percent of the Behavioral Course requirement put down by Robert Bosch India.

Chart - 4.6

Chart Showing the Gamut of Behavioral Course Covered by Behavioral Service providers as per the requirements of Robert Bosch India



Gamut Of Behavioral Courses Covered

Table – 4.7

Table Showing the Years of Experience in Technical Training Industry by the service Providers

| Years Of experience | No. of Respondents | Percent      |
|---------------------|--------------------|--------------|
| 8 years and above   | 03                 | 04.8         |
| 6 to 7 years        | 08                 | 12.9         |
| 4 to 5 years        | 14                 | 22.6         |
| 2 to 3 years        | 20                 | 32.3         |
| 0 to 1 years        | 17                 | 27.4         |
| <b>Total</b>        | <b>62</b>          | <b>100.0</b> |

**Inference:**

The above Table shows service providers are having Experience in the training industry with 32.3% between 2 to 3 years, 22.6 % between 4 to 5 years, 12.9 % between 6 to 7 years and 4.8% are having 8 years and above years of experience.



Chart - 4.7

Chart Showing the Years of Experience in Technical Training Industry by the service Providers

### Years Of experience in training

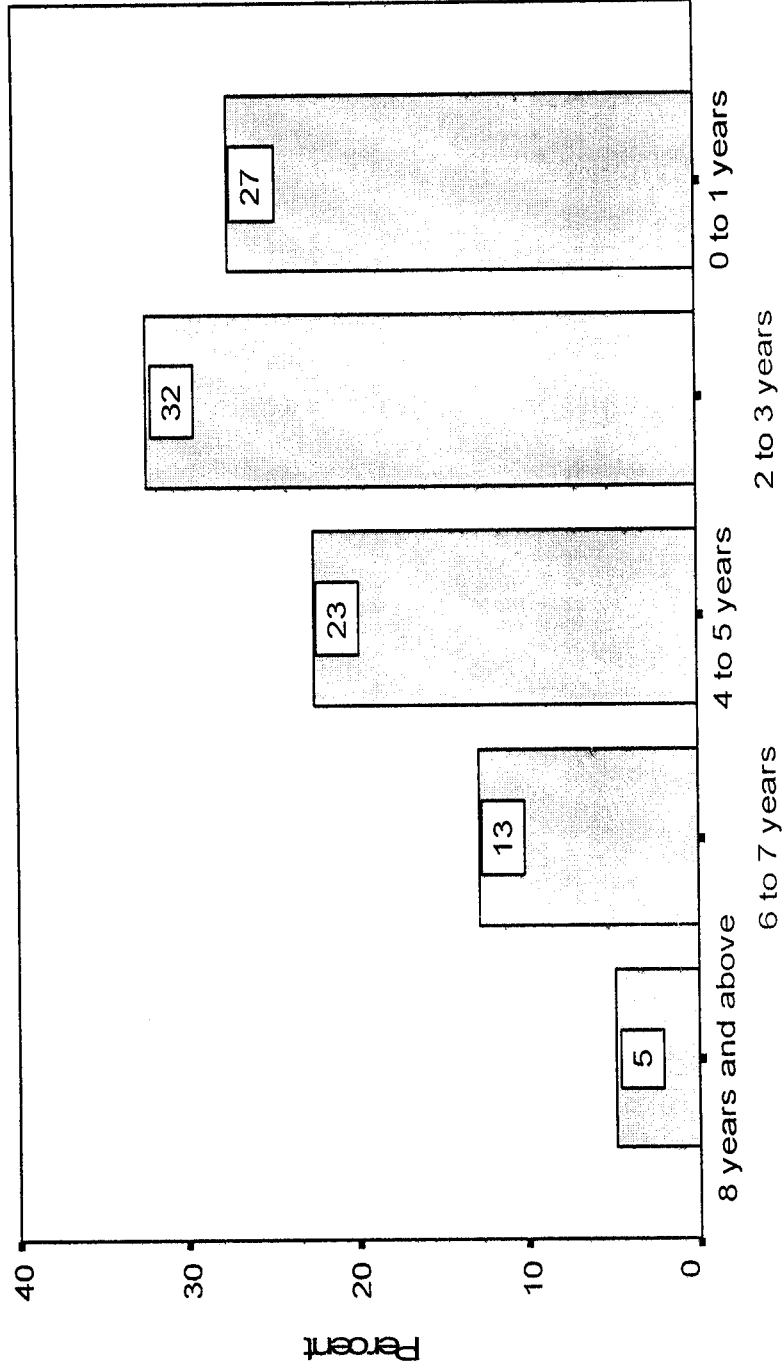


Table – 4.8

Table Showing the Years of Experience in Behavioral Training Industry by the service Providers

| Years Of experience | No. of Respondents | Percent |
|---------------------|--------------------|---------|
| 0 to 1 years        | 3                  | 17.6    |
| 2 to 3 years        | 2                  | 11.8    |
| 4 to 5 years        | 5                  | 29.4    |
| 6 to 7 years        | 6                  | 35.3    |
| 8 years and above   | 1                  | 5.9     |
| <b>Total</b>        | 17                 | 100.0   |

**Inference:**

The above Table shows service providers are having Experience in the training industry with 17.6 % below one year ,11.8% between 2 to 3 years , 29.4 % between 4 to 5 years, 35.3 % between 6 to 7 years and 6% having 8 years and above .

Chart - 4.8

Chart Showing the Years of Experience in Behavioral Training Industry by the service Providers

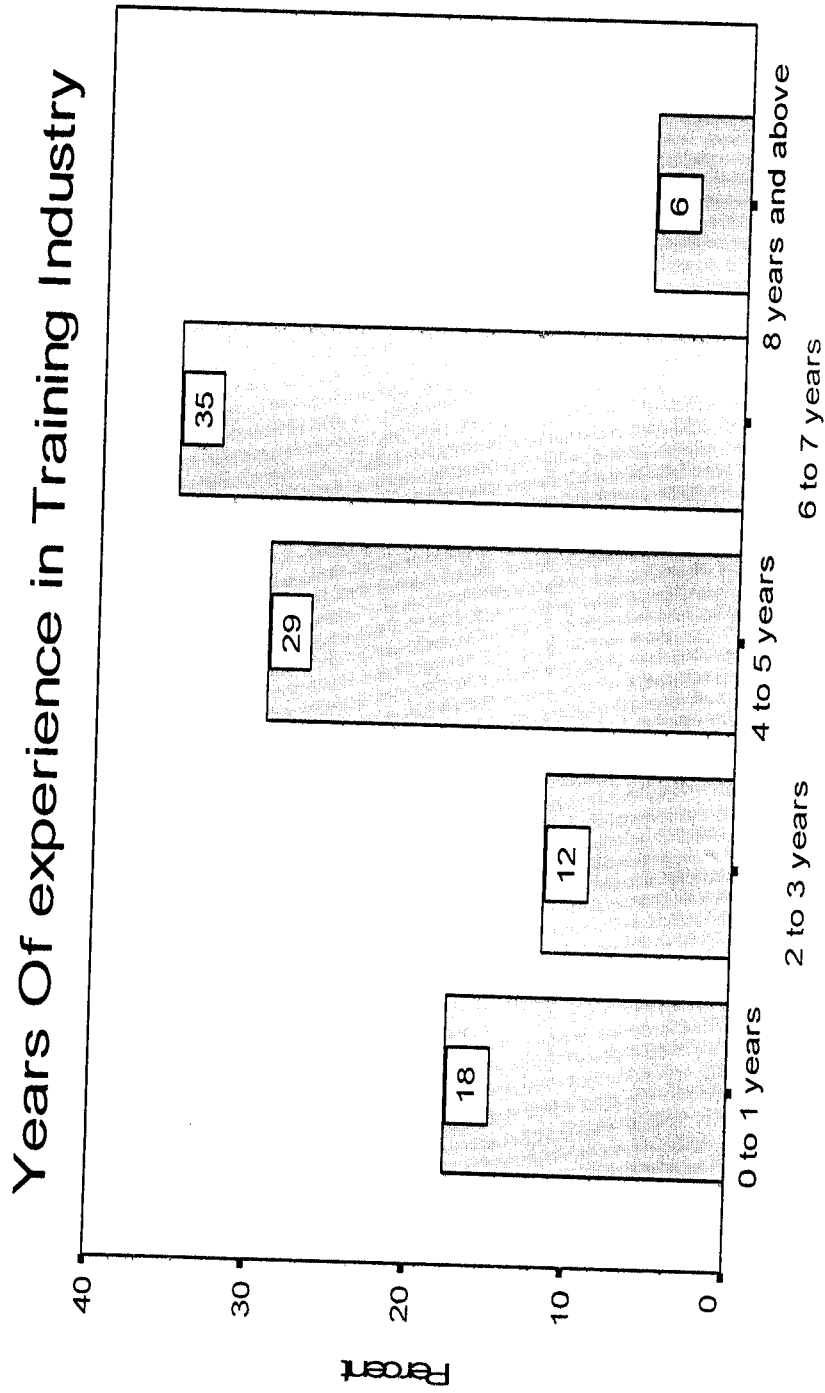


Table – 4.9

**Table Showing the Senior Most On-board Faculties Years of Experience in Technical Training offered by Service Providers**

| <b>Years Of experience</b> | <b>No. of Respondents</b> | <b>Percent</b> |
|----------------------------|---------------------------|----------------|
| 11 years and above         | 1                         | 1.5            |
| 7 to 10 years              | 13                        | 21.0           |
| 3 to 6 years               | 35                        | 56.5           |
| 0 to 2 years               | 13                        | 21.0           |
| <b>Total</b>               | <b>62</b>                 | <b>100.0</b>   |

**Inference:**

The above Table shows 56.5% of service providers are having On-Board trainers with them having 3 to 6 years of experience in technical training, 21% for 7 to 10 years of experience and only one ( Texas Technologies from Chennai) with 11 or more years of experience.

Chart – 4.9

Chart Showing the Senior Most On-board Faculties Years of Experience in Technical Training offered by Service Providers

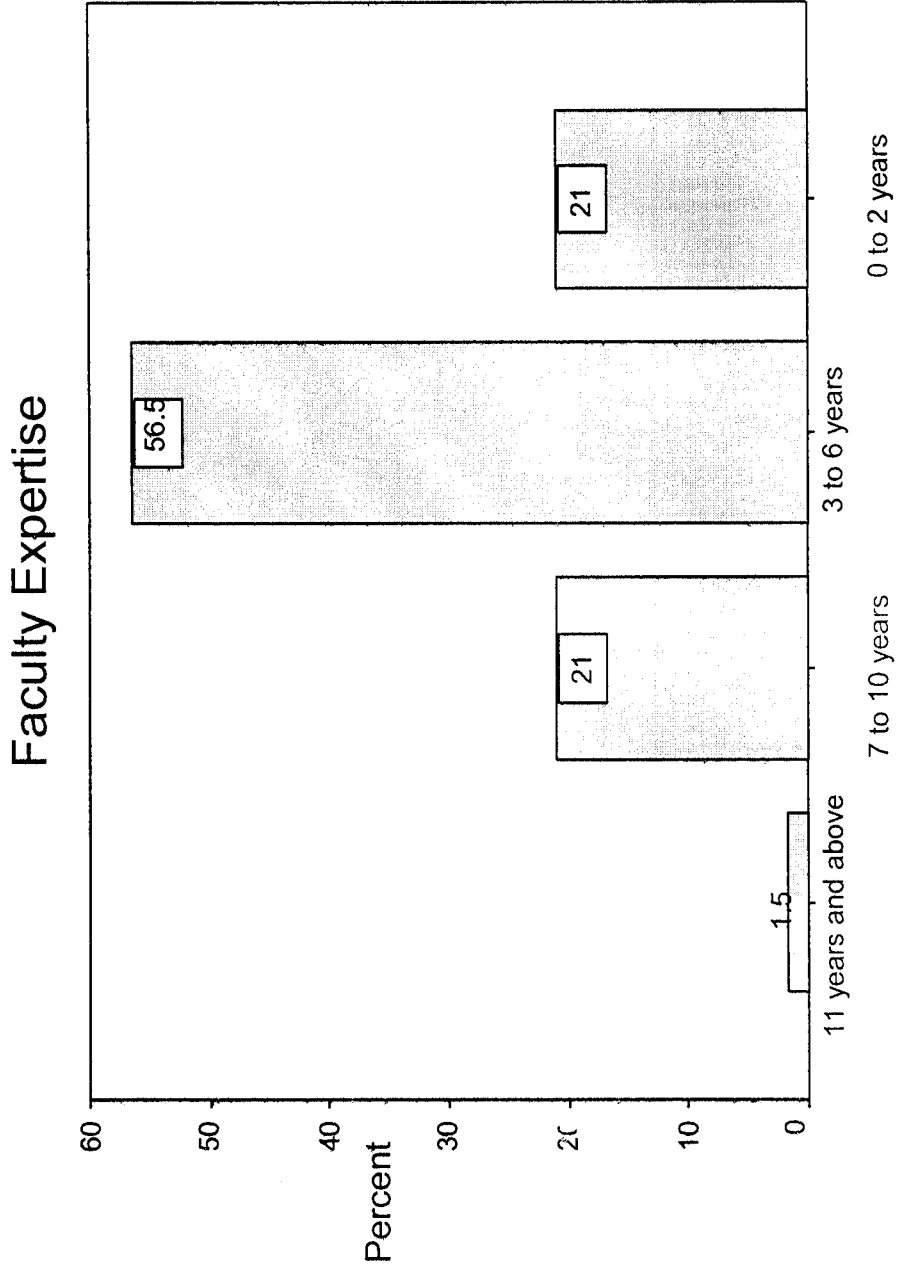


Table – 4.10

Table Showing the Senior Most On-board Faculties Years of Experience in Behavioral Training offered by Service Providers

| Years Of experience | No. of Respondents | Percent      |
|---------------------|--------------------|--------------|
| 0 to 2 years        | 2                  | 11.8         |
| 3 to 6 years        | 6                  | 35.3         |
| 7 to 10 years       | 7                  | 41.2         |
| 11 years and above  | 2                  | 11.8         |
| <b>Total</b>        | <b>17</b>          | <b>100.0</b> |

**Inference:**

The above Table shows 35.3% of service providers are having On-Board trainers with them having 3 to 6 years of experience in Behavioral training, 41.2% for 7 to 10 years of experience and 12% (Karl Kuebel from Coimbatore & Paradigm Shift from Chennai) with 11 or more years of experience.

Chart – 4.10

Chart Showing the Senior Most On-board Faculties Years of Experience in Technical Training offered by Service Providers

### Faculty Expertise

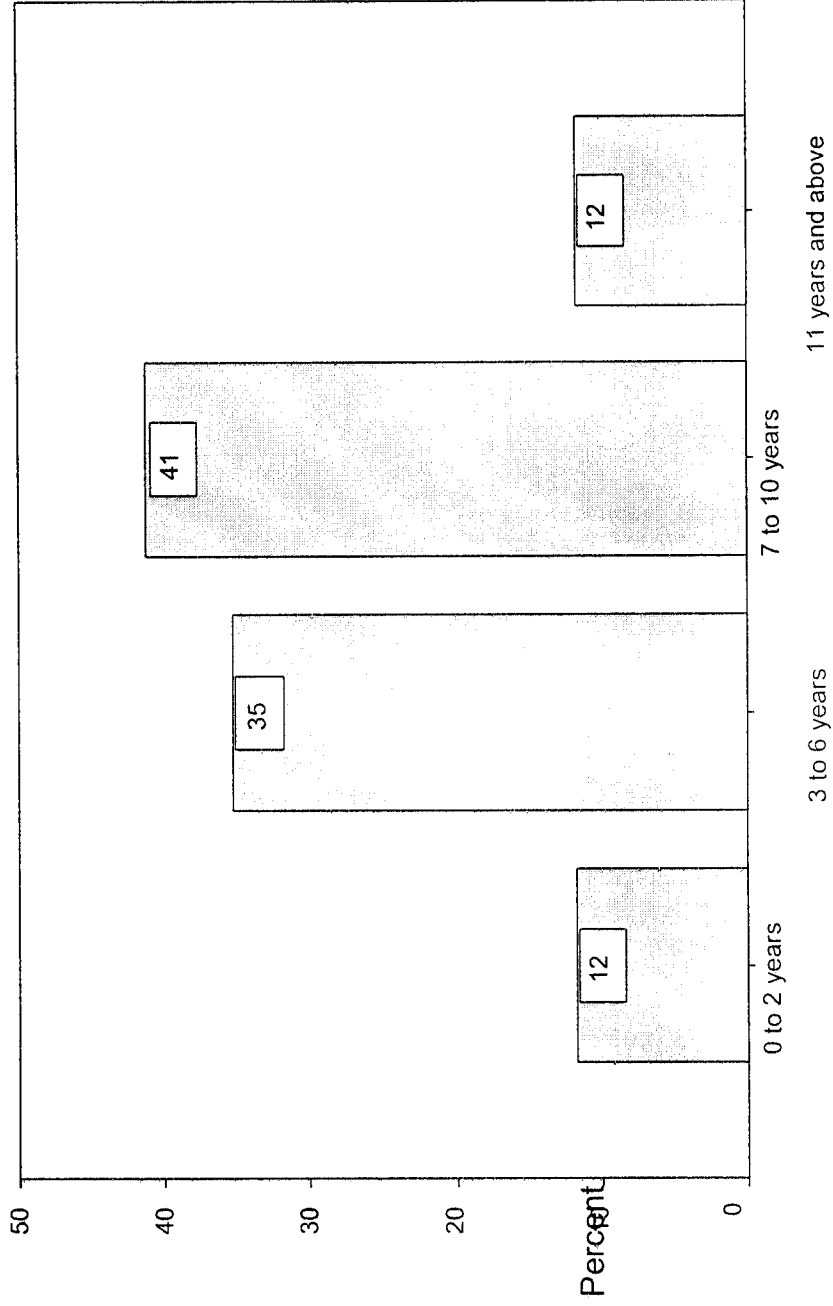


Table – 4.11

Table Showing the Support offered by both Technical & Behavioral Training Service Providers for the Organizational and Development Department's Three Functions (Technical Training, Behavioral Training and Language Training)

| Particulars         | No. of Respondents | Percent      |
|---------------------|--------------------|--------------|
| Only one function   | 68                 | 89.5         |
| Two functions       | 06                 | 07.9         |
| All three Functions | 02                 | 02.6         |
| <b>Total</b>        | <b>76</b>          | <b>100.0</b> |

**Inference:**

The above Table shows that 89.5% of the service providers renders support only one function, followed by 8% offering support to two functions and only two service providers offer support to all the three functions of Organizational and Development Department of Robert Bosch India, Coimbatore.



Chart – 4.11

Chart Showing the Support offered by both Technical & Behavioral Training Service Providers for the Organizational and Development Department's Three Functions (Technical Training, Behavioral Training and Language Training)

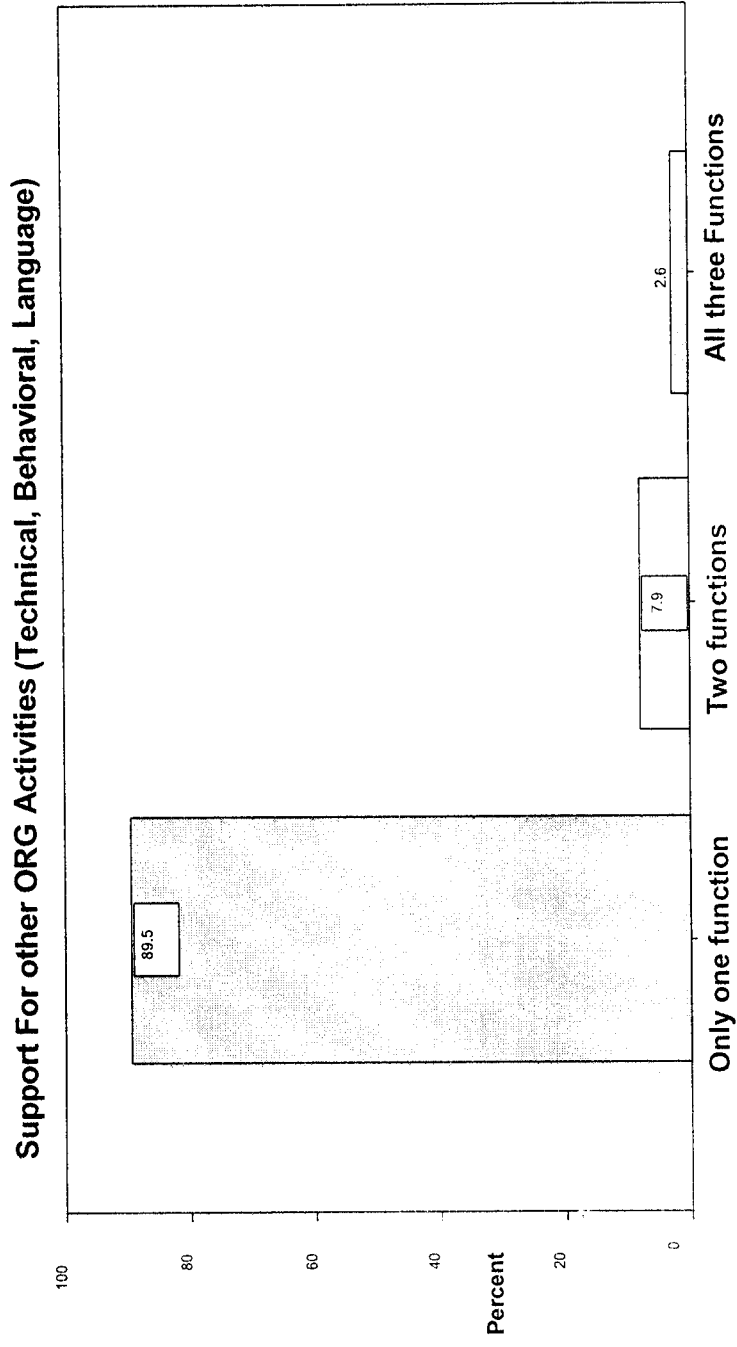


Table – 4.12

Table showing the level of satisfaction drawn during the course of interaction (Generic Findings) with the Technical Service Providers

| Satisfaction Level                   | No. of Respondents | Percent      |
|--------------------------------------|--------------------|--------------|
| Highly Satisfied                     | 03                 | 04.8         |
| Satisfied                            | 17                 | 27.4         |
| Neither Satisfied<br>or Dissatisfied | 13                 | 21.0         |
| Dissatisfied                         | 27                 | 43.6         |
| Highly Dissatisfied                  | 02                 | 03.2         |
| <b>Total</b>                         | <b>62</b>          | <b>100.0</b> |

**Inference:**

The above Table shows that only a cumulative of 32% of the technical service providers satisfies the parameters considered during the course of interaction such as Promptness in replying the queries put forward, Extent to which the Service providers are ready to negotiate, how professional they are in their business and how eager are they to do business with Robert Bosch India.

Chart -- 4.12

Chart showing the level of satisfaction drawn during the course of interaction (Generic Findings) with the Technical Service Providers

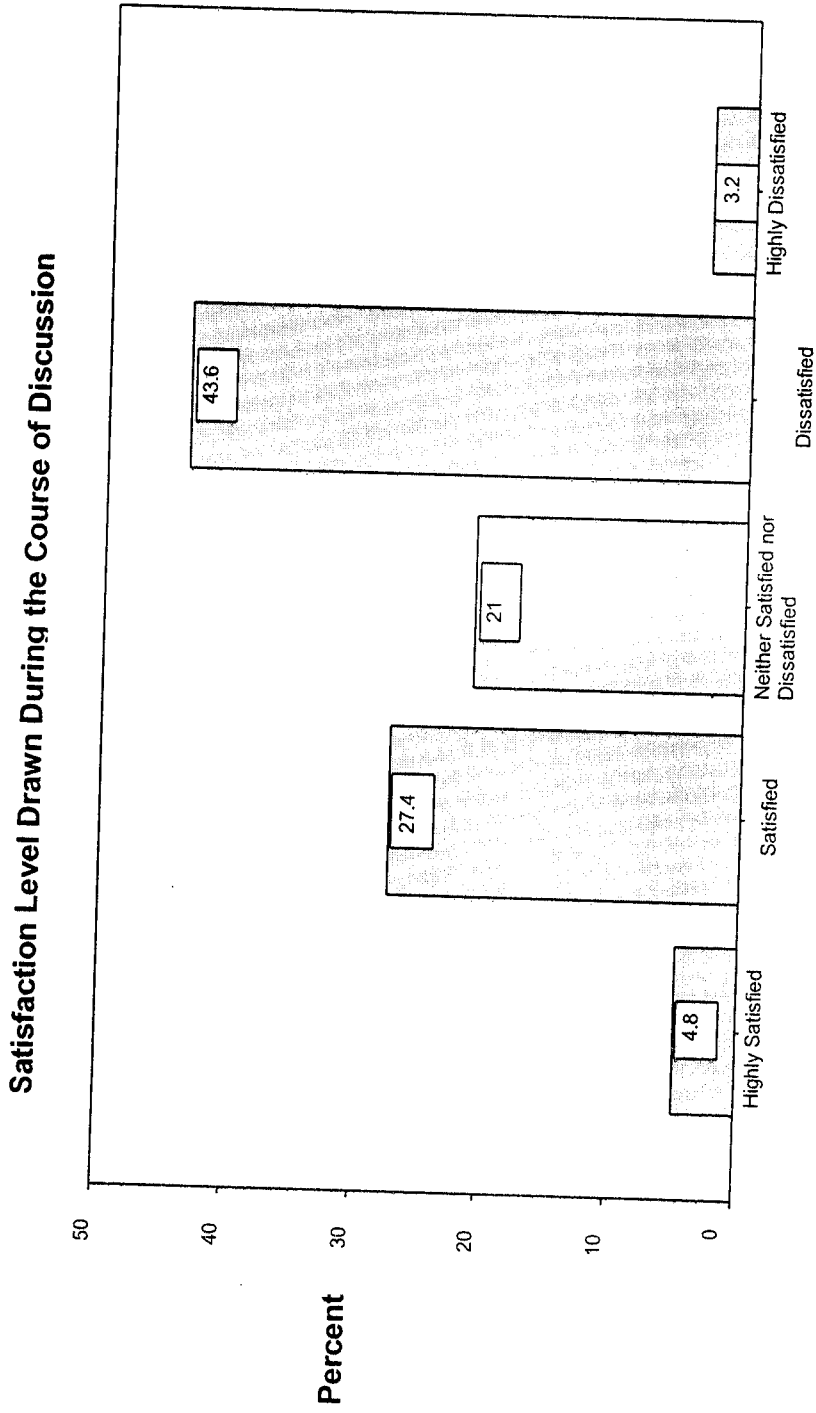


Table – 4.13

Table showing the level of satisfaction drawn during the course of interaction with the Behavioral Service Providers.

| Satisfaction Level                | No. of Respondents | Percent |
|-----------------------------------|--------------------|---------|
| Highly Dissatisfied               | 3                  | 17.6    |
| Dissatisfied                      | 1                  | 05.9    |
| Neither Satisfied or Dissatisfied | 6                  | 35.3    |
| Satisfied                         | 2                  | 11.8    |
| Highly Satisfied                  | 5                  | 29.4    |
| <b>Total</b>                      | 17                 | 100.0   |

**Inference:**

The above Table shows that a cumulative of 23.5% of the Behavioral service providers satisfies the parameters considered during the course of interaction such as Promptness in replying the queries put forward, Extent to which the Service providers are ready to negotiate, how professional they are in their business and how eager are they to do business with Robert Bosch India.

Chart – 4.13

Chart showing the level of satisfaction drawn during the course of interaction (Generic Findings) with the Technical Service Providers

Satisfaction Level Drawn During the Course Of Discussion

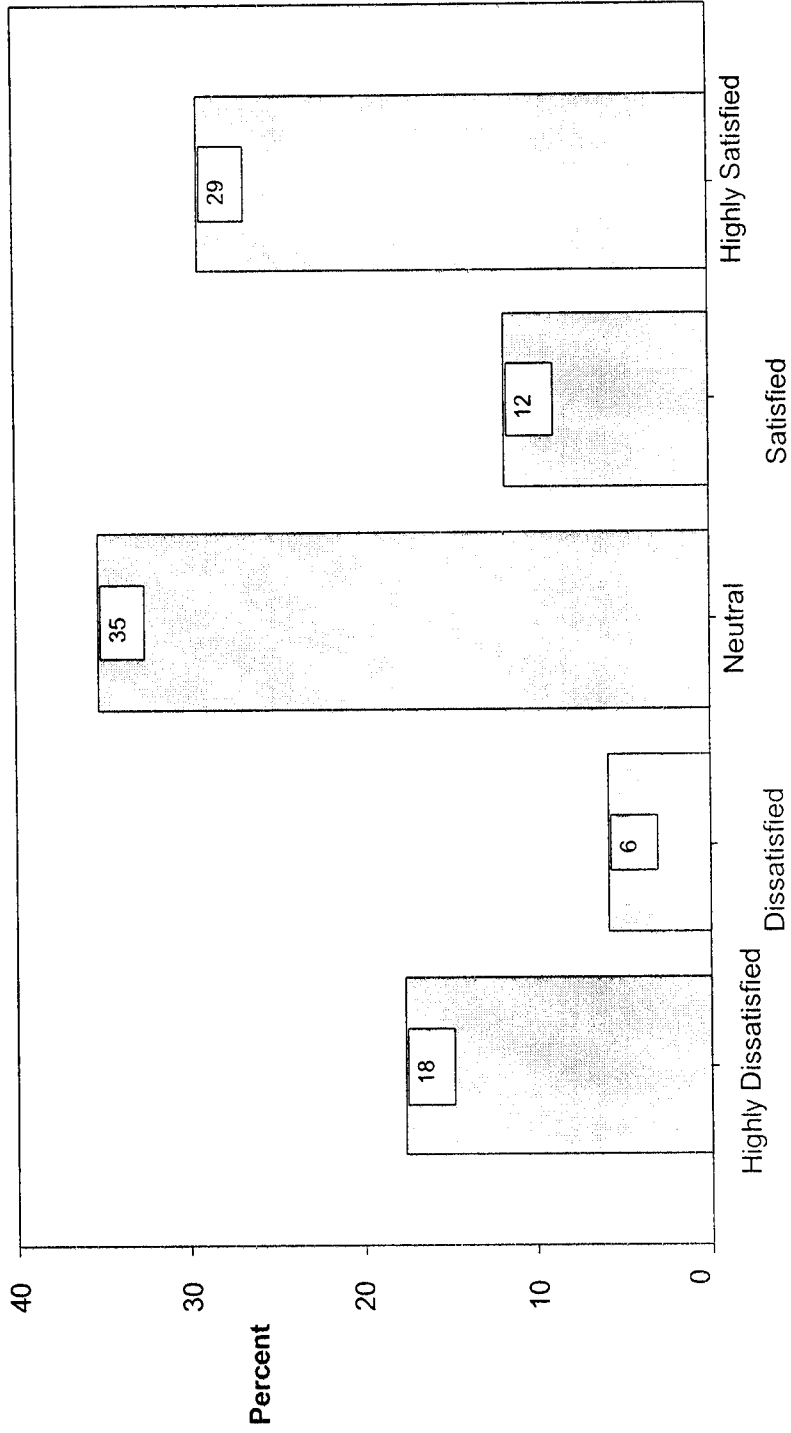


Table – 4.14

Table showing the Pricing quoted by Technical Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India.

| Reasonability Level              | No. of Respondents | Percent      |
|----------------------------------|--------------------|--------------|
| Highly Reasonable                | 01                 | 01.5         |
| Reasonable                       | 04                 | 06.5         |
| Neither Expensive nor Reasonable | 31                 | 50.0         |
| Expensive                        | 22                 | 35.5         |
| Highly Expensive                 | 04                 | 06.5         |
| <b>Total</b>                     | <b>62</b>          | <b>100.0</b> |

**Inference:**

The above Table shows 8% of Technical Service providers seem to be offering services at a reasonable and highly reasonable rate in comparison to the existing service providers to Robert Bosch.

Chart – 4.14

Chart showing the Pricing quoted by Technical Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India.

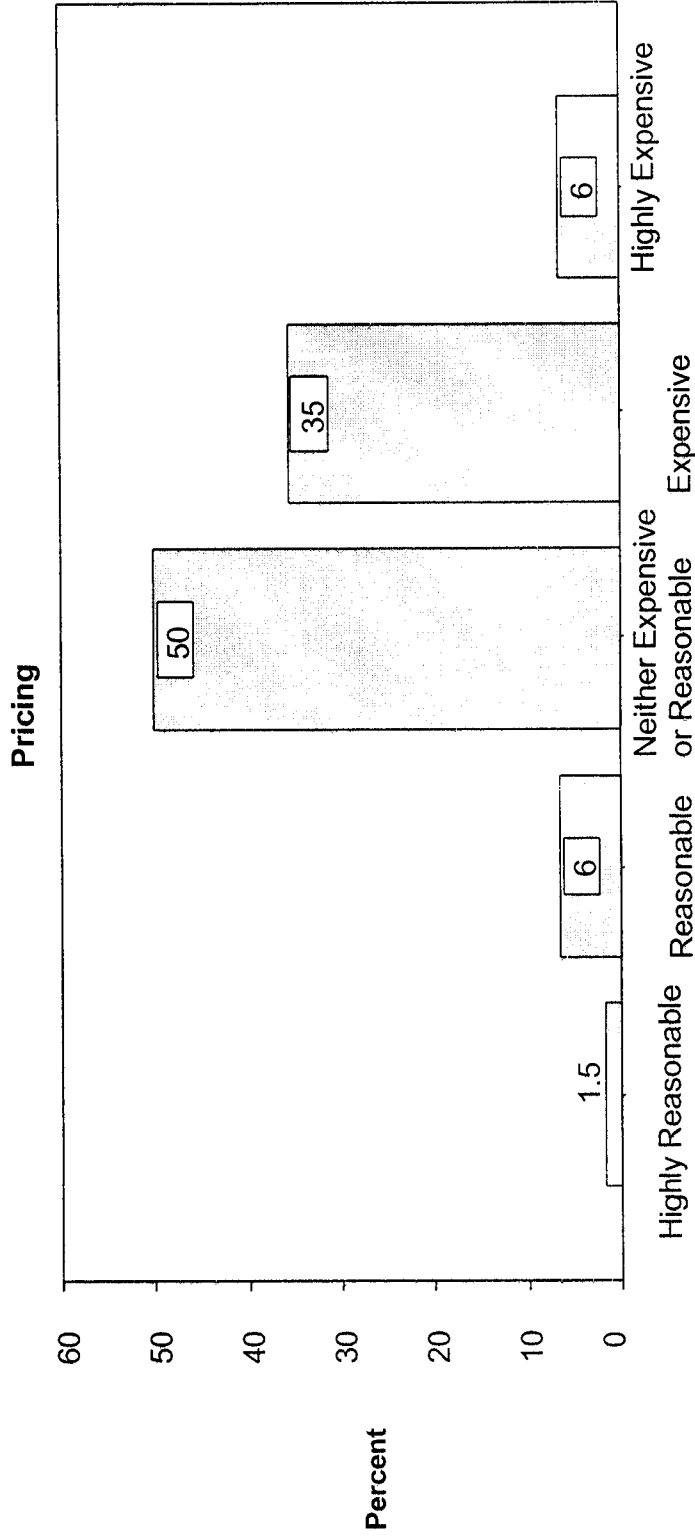


Table – 4.15

Table showing the Pricing quoted by Behavioral Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India.

| Reasonability Level              | No.Of participants | Percent      |
|----------------------------------|--------------------|--------------|
| Highly Expensive                 | 2                  | 11.8         |
| Expensive                        | 7                  | 41.2         |
| Neither Expensive nor Reasonable | 3                  | 17.6         |
| Reasonable                       | 2                  | 11.8         |
| Highly Reasonable                | 3                  | 17.6         |
| <b>Total</b>                     | <b>17</b>          | <b>100.0</b> |

**Inference:**

The above Table shows 29.2% of Behavioral Service providers seem to be offering services at a reasonable and highly reasonable rate in comparison to the existing service providers to Robert Bosch.



Chart – 4.15

Chart showing the Pricing quoted by Behavioral Service Providers and the reasonability level when compared to the quotes given by existing service providers for Robert Bosch India.

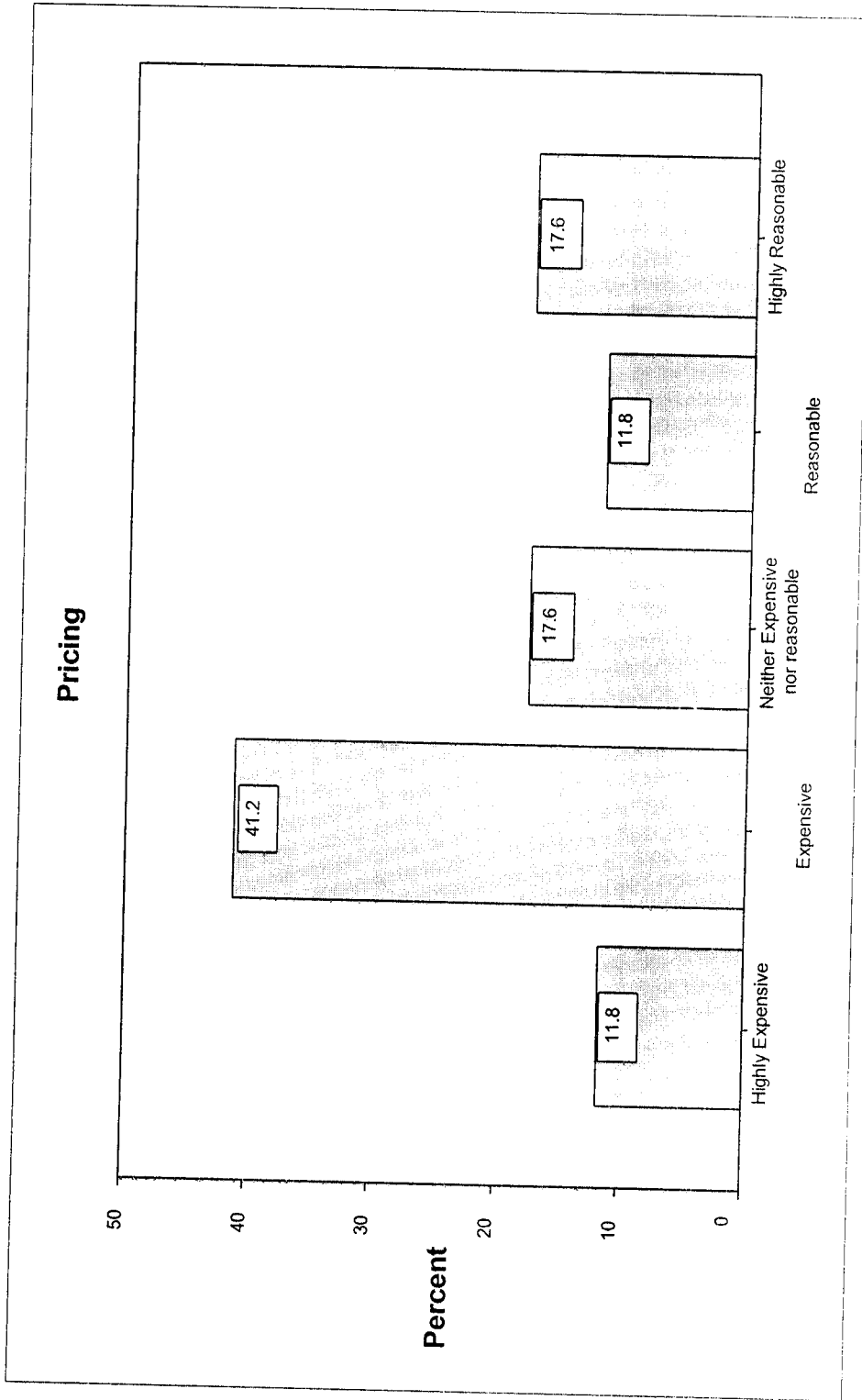


Table – 4.16

Table showing the Top 15 Ranking of the Technical Service Providers on the basis of Average Feedback from the existing clients.

| Rank | Service Provider                        | Location   | Overall Impression<br>(Average of the Eight parameters taken to assess the feed back) |
|------|---|------------|---|
| 1    | Gramar IT Solutions                     | Chennai    | 4   |
| 2    | Benchmark Software Solutions            | Chennai    | 3.875   |
| 3    | Ecclesia technologies,                  | Chennai    | 3.625   |
| 4    | Miracle Infocom                         | Chennai    | 3.625   |
| 5    | Calydon Tech                            | Chennai    | 3.625   |
| 6    | IndiaSoft Technologies (P) Ltd.         | Chennai    | 3.5   |
| 7    | New Horizon India Pvt Ltd.              | Chennai    | 3.5   |
| 8    | Prgati Software Pvt Ltd.                | Chennai    | 3.375   |
| 9    | Teknoturf                               | Coimbatore | 3.375   |
| 10   | Beacon Software Systems Ltd             | Chennai    | 3.25  |
| 11   | IKON Global Solutions                   | Chennai    | 3.25  |
| 12   | Software Technology Group International | Chennai    | 3.125   |
| 13   | Bharathi Business Solutions             | Chennai    | 3   |
| 14   | Data Software Research Company          | Chennai    | 3   |
| 15   | S T C Technologies P Ltd                | Chennai    | 3   |

**Inference:**

The above Table shows that Teknoturf from Coimbatore made it to the Top fifteen Ranking of the Technical Service Providers on the basis of Average Feedback from the clients. Average Feedback were derived from the ranking given for Fulfillment of learning Objectives, Clarity Of Presentation, Lectures, Discussions, Individual Exercises, Group Work, Role Playing, Use of Media from the existing clients of the Technical Service Providers.

Table – 4.17

**Table showing the Top 8 ranking of the Behavioral Service Providers on the basis of Average Feedback from the existing clients.**

| <b>S.No.</b> | <b>Service Providers</b>    | <b>Location</b> | <b>Overall Impression</b><br>(Average of the Eight parameters taken to assess the feed back ) |
|--------------|-----------------------------|-----------------|---|
| 1            | Ecclesia technologies,      | Chennai         | 4.25  |
| 2            | Bright Training Center      | Chennai         | 4.125   |
| 3            | Calydon Tech                | Chennai         | 4.125   |
| 4            | Beacon Software Systems Ltd | Chennai         | 3.875   |
| 5            | New Horizon India Pvt Ltd.  | Chennai         | 3.75  |
| 6            | Paradigm Shift              | Chennai         | 3.625   |
| 7            | Karl Kuebel                 | Coimbatore      | 3.5   |
| 8            | TUV Rheinland               | Coimbatore      | 3.5   |

**Inference:**

The above Table shows that only two service providers from Coimbatore made it to top eight Ranking of the Behavioral Service Providers on the basis of Average Feedback. Average Feedback were derived from the ranking given for Fulfillment of learning Objectives, Clarity Of Presentation, Lectures, Discussions, Individual Exercises, Group Work, Role Playing, Use of Media from the existing clients of the Behavioral Service Providers.

Table 4.18

Table Showing the Technical Service Providers who are associated Tier I and Tier II IT Industry.

| S.No. | Service Provider                       | Location   |
|-------|--|------------|
| 1     | Beacon Software Systems Ltd            | Chennai    |
| 2     | Ecclesia technologies,                 | Chennai    |
| 3     | Miracle Infocom                        | Chennai    |
| 4     | Sahasra Solutions                      | Chennai    |
| 5     | Gramar IT Solutions                    | Chennai    |
| 6     | Greenchip Technologies                 | Chennai    |
| 7     | S T C Technologies P Ltd               | Chennai    |
| 8     | New Horizon India Pvt Ltd.             | Chennai    |
| 9     | Teknoturf                              | Coimbatore |
| 11    | Calydon Tech                           | Chennai    |
| 12    | Agile & Young Minds IT Services P Ltd. | Chennai    |
| 13    | Asia Quality IT Solutions Inc.         | Chennai    |
| 14    | Data Software Research Company         | Chennai    |
| 15    | Emestech                               | Chennai    |
| 16    | Merit India                            | Chennai    |
| 17    | R-Tech IT Solutions P Ltd              | Chennai    |
| 18    | Software Technology Group Ltd          | Chennai    |
| 19    | Texas Technologies                     | Chennai    |
| 20    | DIGITERATI                             | Chennai    |
| 12    | IKON Global Solutions                  | Chennai    |
| 22    | Arcusinfotech                          | Chennai    |
| 23    | Coalesce Technologies P Ltd            | Chennai    |
| 24    | Emsys Infotech                         | Chennai    |
| 25    | Amysoft                                | Chennai    |
| 26    | Arihant ESoftLab Ltd                   | Chennai    |
| 27    | Ask Technologies (India) P Ltd         | Chennai    |
| 28    | Competency Center – Software Quality   | Chennai    |
| 29    | Maxsoft Technologies P Ltd             | Chennai    |
| 30    | Leon Technologies                      | Chennai    |

**Inference:**

Only Teknoturf from Coimbatore is providing services to IT Industry.

Table 4.19

**Table Showing the Behavioral Service Providers who are associated Tier I IT Industry.**

| S.No. | Service Provider            | Location Of the Service Provider |
|-------|-----------------------------|----------------------------------|
| 1     | Paradigm Shift              | Chennai                          |
| 2     | See Change Consultancy      | Chennai                          |
| 3     | TUV Rheinland               | Coimbatore                       |
| 4     | Live wire                   | Chennai                          |
| 5     | Ecclesia technologies,      | Chennai                          |
| 6     | Beacon Software Systems Ltd | Chennai                          |
| 7     | New Horizon India Pvt Ltd.  | Chennai                          |
| 8     | Calydon Tech                | Chennai                          |

**Inference:**

Only TUV Rheinland from Coimbatore is providing services to IT Industry.

Table – 4.20

Table showing the three Technical Service Providers who are rated to be highly satisfactory to the set parameters for Generic Findings.

| S.No. | Service Provider            | Location |
|-------|-----------------------------|----------|
| 1     | Beacon Software Systems Ltd | Chennai  |
| 2     | Ecclesia technologies,      | Chennai  |
| 3     | New Horizon India Pvt Ltd.  | Chennai  |

**Inference:**

All service providers are from who are rated to be highly satisfactory to the set parameters for Generic Findings.

Table – 4.21

Table showing the Five Behavioral Service Providers who are rated to be highly satisfactory to the set parameters for Generic Findings.

| S.No. | Service Providers           | Location   |
|-------|-----------------------------|------------|
| 1     | Ecclesia technologies,      | Chennai    |
| 2     | Beacon Software Systems Ltd | Chennai    |
| 3     | New Horizon India Pvt Ltd.  | Chennai    |
| 4     | Paradigm Shift              | Chennai    |
| 5     | Karl Kuebel                 | Coimbatore |

**Inference:**

Only Karl Kuebel from Coimbatore is rated to be highly satisfactory to the set parameters for Generic Findings.

**Table – 4.21**

**Table showing the Top Fifteen Technical service providers which has been Ranked Using total sum of criteria's which can be recommended for further consideration to Robert Bosch India Ltd.**

| <b>Rank</b> | <b>Technical Service Provider</b>       | <b>Location</b> | <b>Total Criteria Score</b> |
|-------------|---|-----------------|-----------------------------|
| 1           | Ecclesia technologies,                  | Chennai         | 66.3                        |
| 2           | Beacon Software Systems Ltd             | Chennai         | 61.9                        |
| 3           | Grammar IT Solutions                    | Chennai         | 59.0                        |
| 4           | Miracle Infocom                         | Chennai         | 56.9                        |
| 5           | New Horizon India Pvt Ltd.              | Chennai         | 55.7                        |
| 6           | Teknoturf                               | Coimbatore      | 54.7                        |
| 7           | Software Technology Group International | Chennai         | 49.3                        |
| 8           | DIGITERATI                              | Chennai         | 48.3                        |
| 9           | India Soft Technologies (P) Ltd.        | Chennai         | 47.6                        |
| 10          | Green chip Technologies                 | Chennai         | 47.3                        |
| 11          | S T C Technologies P Ltd                | Chennai         | 47.4                        |
| 12          | Sahasra Solutions                       | Chennai         | 47.2                        |
| 13          | Benchmark Software Solutions            | Chennai         | 45.9                        |
| 14          | Data Software Research Company          | Chennai         | 45.5                        |
| 15          | IKON Global Solutions                   | Chennai         | 45.4                        |

**Inference:**

The above Table shows the Top Fifteen Technical service providers which has been Ranked Using Total Criteria Score which can be recommended for further consideration to Robert Bosch India Ltd of which only Teknoturf is from Coimbatore.

Table – 4.22

Table showing the Top Eight Behavioral Service Providers which has been Ranked Using total sum of criteria's which can be recommended for further consideration to Robert Bosch India Ltd.

| Rank | Behavioral Service Provider | Location   | Total Criteria Score |
|------|-----------------------------|------------|----------------------|
| 1    | Ecclesia technologies,      | Chennai    | 68.3                 |
| 2    | Beacon Software Systems Ltd | Chennai    | 64.9                 |
| 3    | Paradigm Shift              | Chennai    | 63.6                 |
| 4    | Calydon Tech                | Chennai    | 62.1                 |
| 5    | New Horizon India Pvt Ltd.  | Chennai    | 57.7                 |
| 6    | Karl Kuebel                 | Coimbatore | 57.5                 |
| 7    | Bright Training Center      | Chennai    | 57.1                 |
| 8    | TUV Rheinland               | Coimbatore | 52.5                 |

**Inference:**

The above Table shows the Top five Behavioral Service Providers which has been Ranked Using total sum of criteria's which can be recommended for further consideration to Robert Bosch India Ltd. of which only two (Karl Kuebel and TUV Rheinland) are from Coimbatore and rest from Chennai.



# Chapter 5

**CONCLUSION**

---

## CHAPTER 5

### CONCLUSION

#### 5.1 RESULTS AND DISCUSSIONS:

##### 5.1.1 Technical Service Providers

- It has been observed that from the population of technical service providers 88.7% are from Chennai and the rest 11.3% from Coimbatore.
- It has been observed that from the population 16% are associated with Tier I IT Industry and 30.6% Tier II IT Industry.
- It has been observed that only 9.7% service providers render more than 75% percent of the Technical Course requirement put down by Robert Bosch India.
- It has been observed that technical Service providers are having Experience in the technical training industry with 32.3% between 2 to 3 years, 22.6 % between 4 to 5 years, 12.9 % between 6 to 7 years and 4.8% are having 8 years and above.
- It has been observed that 56.5% of service providers are having On-Board trainers with them having 3 to 6 years of experience in technical training, followed by 21% for 7 to 10 years of experience and only one ( Texas Technologies from Chennai) with 11 or more years of experience.
- It has been observed that cumulative of 32% of the technical service providers satisfies the parameters considered during the course of interaction such as Promptness in replying the queries put forward, Extent to which the Service providers are ready to negotiate, how professional they are in their business and how eager are they to do business with Robert Bosch India.
- It has been observed that 8% of Technical Service providers seem to be offering services at a reasonable and highly reasonable rate in comparison to the existing service providers to Robert Bosch.

- It has been observed that Teknoturf from Coimbatore made it to the Top fifteen Ranking of the Technical Service Providers on the basis of Average Feedback from the clients.
- It has been observed that Teknoturf from Coimbatore made it to the Top Fifteen Technical service providers which has been Ranked Using Total Criteria Score which can be recommended for further consideration to Robert Bosch India Ltd of which only Teknoturf is from Coimbatore.

During the course of analyzing the service providers for technical training it became clear that Coimbatore based Service Providers doesn't offer services with the quality of expected and out of the seven taken for the study only two got short listed in the top twenty list of service providers for technical training. From Coimbatore only one service provider TEKNOTURF is into full time corporate training for IT Industry and rest others are in their nascent stages of corporate training and mostly concentrating on Retail i.e. students and individuals.

While Chennai based technical service providers proved competent with impressive Faculty network, Aggressive pricing, Experience, Exposure, Course coverage and an impressive client base and two service providers ECCELESIA and BEACON SOFT from Chennai were able to support all the three functions of the Organizational development and training department i.e. Technical ,Behavioral and Language.

### 5.1.2 Behavioral Service Providers

- It has been observed that from the population of Behavioral Service Providers 52.9% are from Chennai and the rest from 47.1% from Coimbatore.
- It has been observed that 47.2% of the Behavioral Service Providers are associated with Tier I IT Industry.
- It has been observed that 41.2% service provider's render more than 75% percent of the Behavioral Course requirement put down by Robert Bosch India.
- It has been observed that behavioral service providers are having Experience in the training industry with 17.6 % below one year followed by 11.8% between 2 to 3 years , 29.4 % between 4 to 5 years, 35.3 % between 6 to 7 years and 6% having 8 years and above years of experience
- It has been observed that 35.3% of service providers are having On-Board trainers with them having 3 to 6 years of experience in technical training, followed by 41.2% for 7 to 10 years of experience and 12% (Karl Kuebel from Coimbatore & Paradigm Shift from Chennai) with 11 or more years of experience.
- It has been observed that a cumulative of 23.5% of the Behavioral service providers satisfies the parameters considered during the course of interaction such as Promptness in replying the queries put forward, Extent to which the Service providers are ready to negotiate, how professional they are in their business and how eager are they to do business with Robert Bosch India.
- It has been observed that 29.2% of Behavioral Service providers seem to be offering services at a reasonable and highly reasonable rate in comparison to the existing service providers to Robert Bosch.
- It has been observed that only two service providers from Coimbatore made it to Top Eight Ranking of the Behavioral Service Providers on the basis of Average Feedback.

Average Feedback were derived from the ranking given for Fulfillment of learning Objectives, Clarity Of Presentation, Lectures, Discussions, Individual Exercises, Group Work, Role Playing, Use of Media from the existing clients of the Behavioral Service Providers.

- It has been observed that only two (Karl Kuebel and TUV Rheinland) are from Coimbatore made it to the Top five Behavioral Service Providers which has been Ranked Using total sum of criteria's which can be recommended for further consideration to Robert Bosch India Ltd. of which

For Behavioral Training, Service Providers from Coimbatore were more and two got into to the final list (TUV Rheinland and Karl Kuebel ).The reason that others from Coimbatore lost their place in the final list is due to the lack of quality of faculty ,Over pricing and the quality of course content which was designed primarily for manufacturing industry employees.

Again Chennai based Behavioral service providers proved competent with impressive Faculty network, Aggressive pricing, Experience, Exposure in corporate IT Training, an impressive client base ,Course coverage and Course Content designed particularly for and employee of an Information Technology Industry

## 5.2 CONSIDERED RECOMMENDATIONS:

- It would be ideal to have a basket of service providers who can support most of the Organizational Development & Training Department Functions. This would reduce any risk associated with depending on a particular service provider and if any contingencies arise.
- Since the Corporate Training industry in Coimbatore is at its infancy and not a single service provider making into the Top five positions of the final list for both technical and behavioral training, it would be better to get trainers from Chennai for the time being.
- Keeping in mind the long term perspective of Robert Bosch India's growth in Coimbatore, the company can try out Teknoturf service providers from Coimbatore, for small training programs at introduction level of the associate in the company. .
- Top five each in the, technical and behavioral service provider respectively, can be taken into consideration for the training programs scheduled for the associates of Robert Bosch India, Coimbatore.

| <b>Rank</b> | <b>Top Five Technical Service Provider</b> | <b>Location</b> |
|-------------|--|-----------------|
| 1           | Ecclesia technologies,                     | Chennai         |
| 2           | Beacon Software Systems Ltd                | Chennai         |
| 3           | Grammar IT Solutions                       | Chennai         |
| 4           | Miracle Infocom                            | Chennai         |
| 5           | New Horizon India Pvt Ltd.                 | Chennai         |

| <b>Rank</b> | <b>Top Five Behavioral Service Provider</b> | <b>Location</b> |
|-------------|---|-----------------|
| 1           | Ecclesia technologies,                      | Chennai         |
| 2           | Beacon Software Systems Ltd                 | Chennai         |
| 3           | Paradigm Shift                              | Chennai         |
| 4           | Calydon Tech                                | Chennai         |
| 5           | New Horizon India Pvt Ltd.                  | Chennai         |

## **BIBLIOGRAPHY**

---

## BIBLIOGRAPHY

### BOOKS

- 📖 Kothari.C.R – “Research Methodology”. New Age International Pvt. Ltd., Publications, New Delhi, 2006.
- 📖 Sharma. DD –“ Marketing Research”, Sultan Chand and Sons, New Delhi.,2004
- 📖 Richard, Levis Davis, S.Rubin -"Statistics for Management.",Prentice Hall,2005

### MAGAZINE

- Business today ,Jan 07
- Business World, Nov 06

### WEB SITES

- [www.wikipedia.com](http://www.wikipedia.com)
- [www.bosch.com](http://www.bosch.com)
- [www.training-classes.co.in](http://www.training-classes.co.in)
- [www.chennaibizz.com/Chennai/Computer\\_Training\\_Institutes.asp](http://www.chennaibizz.com/Chennai/Computer_Training_Institutes.asp)
- [http://en.wikipedia.org/wiki/IT\\_Companies\\_in\\_India](http://en.wikipedia.org/wiki/IT_Companies_in_India)



**ANNEXURE**

---

## APPENDIX 1

| Supplier Evaluation Questionnaire.   |           |
|--|-----------|
| Supplier Name :  |           |
| Address:   |           |
| Contact Person :   |           |
| E-mail Id :  |           |
| Phone No. :  | Fax No. : |
| <p>1. Location Of the supplier : Chennai <input type="checkbox"/> Coimbatore <input type="checkbox"/></p> <p>2. Core Area Of Specialization : Technical <input type="checkbox"/> Behavioral <input type="checkbox"/> Both <input type="checkbox"/></p> <p>3. Gamut Of Course Covered :</p> <p>Up to 25% Covered - <input type="checkbox"/>      26-50% Covered - <input type="checkbox"/></p> <p>51-75% Covered - <input type="checkbox"/>      76-100% Covered - <input type="checkbox"/></p> <p>4. Type of industry suppliers are associated with</p> <p>Retail (Students and Individuals) - <input type="checkbox"/>      Manufacturing Industry - <input type="checkbox"/></p> <p>IT Industry In Coimbatore - <input type="checkbox"/>      Tier 2 IT industry - <input type="checkbox"/></p> <p>Tier 1 IT Industry - <input type="checkbox"/></p> <p>5. Years Of experience in IT Corporate training</p> <p><input type="checkbox"/> 0 to 1 yrs    <input type="checkbox"/> 2 to 3 yrs    <input type="checkbox"/> 4 to 5 yrs    <input type="checkbox"/> 6 to 7 yrs    <input type="checkbox"/> 8 yrs and above</p> <p>6. Support For other Organizational development and training department activities :</p> <p>Able to support only one function - <input type="checkbox"/></p> <p>Able to support any two functions - <input type="checkbox"/></p> <p>Able to support all three functions - <input type="checkbox"/></p> <p>7. Faculty Expertise :    0-2yrs - <input type="checkbox"/>    3-6yrs - <input type="checkbox"/>    7-10yrs - <input type="checkbox"/>    &gt; 11yrs - <input type="checkbox"/></p> <p>8. Generic findings during the course of discussion</p> <p><input checked="" type="checkbox"/> Highly Satisfied    <input type="checkbox"/> Satisfied    <input type="checkbox"/> Neutral    <input type="checkbox"/> Dissatisfied    <input type="checkbox"/> Highly Dissatisfied</p> <p>9. Pricing</p> <p><input type="checkbox"/> Very Reasonable    <input type="checkbox"/> Reasonable    <input type="checkbox"/> Neutral    <input type="checkbox"/> Expensive    <input type="checkbox"/> Very Expensive</p> |           |

## 10. Reference Feed Back From the Industry

Highly Satisfied  5 Satisfied  4 Neutral  3 Dissatisfied  2 Highly Dissatisfied  1

10.1. Fulfillment of learning Objectives  5  4  3  2  1

10.2. Clarity Of Presentation  5  4  3  2  1

10.3. How effectively were the following methods used by the faculty?

a. Lectures -  5  4  3  2  1

b. Discussions -  5  4  3  2  1

c. Individual Exercises -  5  4  3  2  1

d. Group Work -  5  4  3  2  1

e. Role Playing -  5  4  3  2  1

f. Use of Media -  5  4  3  2  1

Additional information if any::

Evaluated By: \_\_\_\_\_

Date: \_\_\_\_\_

## APPENDIX 2

List Of Technical courses for which training is required given by Robert Bosch India Ltd.

| S.No. | Technical Course Requirement             |
|-------|--|
| 1     | C,                                       |
| 2     | C++,                                     |
| 3     | C#,                                      |
| 4     | .NET,                                    |
| 5     | J2EE,                                    |
| 6     | PERL UNIX Shell Programming,             |
| 7     | UNIX Internals, Visual Basic,            |
| 8     | VB.Net,                                  |
| 9     | VC++ COM/DCOM,                           |
| 10    | COM+,                                    |
| 11    | Developer 6i Designer 2000,              |
| 12    | Designer 6i.                             |
| 13    | Java Struts,                             |
| 14    | Servlets,                                |
| 15    | EJB,                                     |
| 16    | J2EE,ASP,                                |
| 17    | ASP.Net,                                 |
| 18    | XML                                      |
| 19    | Oracle 9iAS Silverstream,                |
| 20    | Oracle 9i DBA Sybase Sybase Adaptive     |
| 21    | Server and Replication Server Sybase DBA |
| 22    | SQL Server DBA PROGRESS and Progress     |
| 23    | DBA DB2 DB2 DBA Informix,                |
| 24    | Linux and IBM UNIX with AIX RS-6000.     |

|    |  |
|----|--|
| 25 | Linux: - RedHat, Debian                        |
| 26 | EMBEDDED Assembly - 8085,8051,                 |
| 27 | 68K(Motorola) RTOS -RTX51,                     |
| 28 | Vxworks, RTLinux 3.0 Tools-Keil,               |
| 29 | Rational Rose,TMS320C3X Code Composer          |
| 30 | Quick Test Silk Test Silk Pilot Silk Performer |
| 31 | Documentation Software Estimation Software     |
| 32 | Inspection Project Mgmt Project Scheduling,    |
| 33 | Monitoring Software Measurement Software       |
| 34 | Configuration Management Requirement           |
| 35 | Risk Management CMM, P-CMM, ISO                |
| 36 | UNIX, C & C++,                                 |
| 37 | ORACLE 8 Server Programming,                   |
| 38 | ORACLE DBA,                                    |
| 39 | Microsoft Visual Basic,Forms 6 and Reports 6,  |
| 40 | Microsoft Dot Net,                             |
| 41 | E-Commerce ( NT Back Office, IIS, ASP, COM,    |
| 42 | DCOM, HTML, DHTML                              |
| 43 | and XML/WML, Microsoft Site Server C)          |
| 44 | J2EE,DataBase,                                 |
| 45 | TestTool,J2ME,                                 |
| 46 | XMI,DTD,Linux,                                 |
| 47 | Net Systems,                                   |
| 48 | IEEE systems,                                  |
| 49 | Embedded Technologies                          |
| 50 | VLSI Design And Implementation.                |

**APPENDIX 3**

**List Of Behavioral courses for which training is required given by Robert Bosch India Ltd.**

| <b>SL #</b> | <b>Course Title</b>                      |
|-------------|--|
| 1           | Communication Skills                     |
| 2           | Presentation Skills                      |
| 3           | Self Organizing and Customer Interaction |
| 4           | Customer Handling                        |
| 5           | Time Management                          |
| 6           | Leadership and Team building             |
| 7           | Leadership and Managerial Skills         |
| 8           | Emotional Intelligence                   |

**APPENDIX 4**

**Table Showing Service Providers Details**

|                           |   |          |   |
|---------------------------|---|----------|---|
| Name Of the Organization: | New Horizons India Limited  |          | Year Of Estd:   |
| Contact Person & No.:     | Ms.Archana Bhonsle (Ph):080-25595380-6 Ext:268  | Address: | N-101, 1st Floor North Block Manipal Center 47 Dickenson Road Bangalore -42 |
| Brief Company Profile     | As attached   |          |   |
| Core Competency           | Induction Training, Need Based Technical Training   |          |   |
| Certification courses     | Oracle, Red Hat, CompTIA, Microsoft, IBM  |          |   |
| Infrastructural Support   | PIV, 512 MB RAM, TFT Monitors, Server, A/C, 5 Class rooms (In Coimbatore)<br>Geometric Software, Adea International, Arvind Brands Limited HTMT, Planetasia.com Ltd, Infosys Technologies Ltd, Aris Global software Pvt Ltd., i-flex Solutions Ltd, Karnataka Power corporation Ltd, (A division of Dell computer India Pvt Ltd), Axes Technologies (I) Pvt Ltd., Mphasis-BFL Limited., Hardy Exploration and Production (India) Inc, Platform Computing Corporation, Tesco, Tata Elxsi, Telelogic, H P corporate office, H P GDIC, H P C C, H P CCDJ, Mascon, Cisco, Tavant, Appshop, Kshema |          |   |
| Corporate Clients:        | Wipro Technologies -Ms Usha Latha usha.latha@wipro.com 9880825828, Wipro Infotech Mr. Mishar Nilamadhab nilamadhab.mishra@wipro.com 9880297858, Infosys Ms. Pratibha Ramesh pratibha_ramesh@infosys.com 9845287022, CSC- Mr Vinod vbethi@csc.com 09885455736, Platform Consulting Ms. Anitha aohri@platform.com 9059484501, Tech Mahindra Mr. Vidya Shankar 9886717192, HP Praveen Reddy praveen-reddy.kunta@hp.com   |          |   |
| Reference                 |   |          |   |

APPENDIX 5

Table Showing Service Providers Course Details

| 1.Regular Courses                 |                                   |        |              | 2.Advance Courses |                    |        |              |
|-----------------------------------|-----------------------------------|--------|--------------|-------------------|--------------------|--------|--------------|
| SL#                               | Course Title                      | Status | Per Day cost | SL#               | Course Title       | Status | Per Day cost |
| 1                                 | C                                 | A      | 6000         | 1                 | Adv C              | A      | 7500         |
| 2                                 | C++                               | A      | 6000         | 2                 | Adv C++            | A      | 7500         |
| 3                                 | JAVA                              | A      | 7500         | 3                 | Adv JAVA           | A      | 9000         |
| 4                                 | UNIX                              | A      | 6000         | 4                 | EJB                | A      | 9000         |
| 5                                 | ASP                               | A      | 7500         | 5                 | J2EE               | A      | 9000         |
| 6                                 | INTERNET/INTRANET CONCEPTS        | A      | 6000         | 6                 | ORACLE 8.0 DBA     | A      | 9000         |
| 7                                 | CLIENT/SERVER CONCEPTS            | A      | 6000         | 7                 | ORACLE 9i PLSQL    | A      | 9000         |
| 8                                 | RDBMS CONCEPTS                    | A      | 7000         | 8                 | ORACLE 9i DBA      | A      | 9000         |
| 9                                 | HTML/JAVA SCRIPTS                 | A      | 6000         | 9                 | Adv VB             | A      | 9000         |
| 10                                | ORACLE 8.0                        | A      | 8000         | 10                | Adv VC++           | A      | 10500        |
| 11                                | DEVELOPER 2000/6i                 | A      | 8000         | 11                | PERL               | A      | 12000        |
| 12                                | MS-SQL SERVER 7.0                 | A      | 8000         | 12                | XML                | A      | 12000        |
| 13                                | VC++                              | A      | 8000         | 13                | C#                 | A      | 9000         |
| 14                                | VISUAL BASIC                      | A      | 8000         | 14                | NET                | A      | 9000         |
|                                   |                                   |        |              | 15                | VB.NET             | A      | 9000         |
|                                   |                                   |        |              | 16                | MS-SQL SERVER 2000 | A      | 9000         |
|                                   |                                   |        |              | 17                | ADO.NET            | A      | 9000         |
|                                   |                                   |        |              | 18                | ASP.NET            | A      | 9000         |
| <b>3. Quality Related Courses</b> |                                   |        |              |                   |                    |        |              |
| SL#                               | Course Title                      | Status | Per Day cost | SL#               | Course Title       | Status | Per Day cost |
| 1                                 | SDLC                              | A      | 10000        | 19                | UNIX INTERNALS     | A      | 9000         |
| 2                                 | Software Configuration Management | A      | 10000        | 20                | NT INTERNALS       | A      | 9000         |
| 3                                 | Software Testing                  | A      | 10000        | 21                | COM/DCOM           | A      | 9000         |
| 4                                 | Software Estimation               | A      | 10000        | 22                | RTOS               | NA     |              |
|                                   |                                   |        |              | 23                | VxWorks            | NA     |              |



## APPENDIX 6

**Table Showing Service Providers Behavioral Course Details**

| <b>Given below are the Behavioural courses</b> |  |        |              |
|--|--|--------|--------------|
| SL #   | Course Title                             | Status | Per Day Cost |
| 1  | Communication Skills                     | A      | 8000         |
| 2  | Presentation Skills                      | A      | 8000         |
| 3  | Self Organizing and Customer Interaction | A      | 8000         |
| 4  | Customer Handling                        | A      | 8000         |
| 5  | Time Management                          | A      | 8000         |
| 6  | Leadership and Team building             | A      | 8000         |
| 7  | Leadership and Managerial Skills         | A      | 8000         |
| 8  | Emotional Intelligence                   | A      | 8000         |

## APPENDIX 7

### Table Showing Service Providers On-Roll Trainer's Details

| Sl No | Trainer Name       | On Roll / Freelancer | Training Experience | Qualification | Core Competency / Technologies  | Corporates/Clientelle  |
|-------|--------------------|----------------------|---------------------|---------------|---|--|
| 1     | Ms. Deepa          | On Roll              | 3 Years             | Degree        | MCP for Advanced Windows Server 2000, MCAD.NET, C#.NET - Novell Network 4.1 version, Inprise Visibroker for Java 4.0, J2EE, Java Web Server, Tomcat 3.2.1 and BEA WebLogic Servers 8.1, Oracle 9i, & SQL Server 2000, C++, UNIX, Linux  | BPL Software, BPL Telecom - Kerala, Dufaishe Software, Dell Labs, Exilant Technologies, Medicon Solutions<br>Magna Soft, Kshema Technologies, Bircor, Info Glyptic, Internet Solutions, Arscorn Consultants, Vmoloka<br>Technologies, Mphastis, Mumbai, Taran t, SLK Software Pvt. Ltd |
| 2     | Mr. Ramnath Nishad | On Roll              | 5 Years             | Degree        | Operating System: Windows 95/98/ME, Windows NT 4.0/2000<br>Programming Languages: C & C++ with DS, VC++, VB, .NET (XML, VB, JSP, ASP, J2EE, J2SE, J2EE/JDBC, JavaBeans, RMI, Servlets, JSP, EJB, JNDI, J2ee & Xml/JAAS, Webservices, SOAP), Design Pattern in .Net/J2ee (Basics), Struts, Shell Scripting in Unix,<br>GUI Validation Scripts: XML, HTML, JavaScript, Front Page, Servlets,<br>Databases: SQL Server 2000, 2005, MS Access 2000<br>Internet Tools: HTML, DHTML (JavaScript, VBScript, DOM), ASP, Web Servers<br>IIS, Apache Tomcat<br>Application Server<br>J2EE, Web Logic, Websphere, Tomcat<br>Net Framework<br>C#, ADO.net, ASP.net, VB.net<br>Modeling Tools<br>OOAD, UML | Satyam, Wipro, ISE, Robert Bosch, AZTEC, Infosys, Philips, INTE L, Salagen, JSW, FSI   |