



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE

Volume 14 Issue 1 Version 1.0 Year 2014

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Growth Achieved and Sustain by the BPO Sector in India

By Ms. Alka Raghunath

MITM INDORE, India

Abstract- The Indian BPO companies are the important sectors in which the 37 percent growth is observed last three years and various companies are now looking for the varied jobs through the outsourcing assignments within and outside the country can be take. This paper highlights on the BPO industry in India sector wise share of the companies dynamisms of the industry and various risks and suggestions for mitigation of risks.

Keywords: business process outsourcing, ites, kpo, fdi.

GJMBR-B Classification: JEL Code: F29, F43



Strictly as per the compliance and regulations of:



Growth Achieved and Sustain by the BPO Sector in India

Ms. Alka Raghunath

Abstract- The Indian BPO companies are the important sectors in which the 37 percent growth is observed last three years and various companies are now looking for the varied jobs through the outsourcing assignments within and outside the country can be take. This paper highlights on the BPO industry in India sector wise share of the companies dynamisms of the industry and various risks and suggestions for mitigation of risks.

Keywords: *business process outsourcing, ites, kpo, fdi.*

I. INTRODUCTION

Business Process Outsourcing (BPO) can be defined as the act of utilizing services of third party by a company in short even a small function like birthday celebration may also be outsourced for few activities in the main task and in the mean time your time and efforts may be reduced of course with some cost. Nowadays many companies cannot perform all the tasks in the company itself due to cost and expertise, the outsourcing in short is an old tradition followed even in ancient India and various tasks were performed through the skilled people. Most popular services are Data Capture, call center, document management, and recent emerging areas like KPO, LPO, and e-learning.

Many other countries like China, the Philippines and few other countries including America are giving stiff Competition to Indian BPO sector. This paper highlights on the status of Indian BPO Sector merger and acquisition adopted as growth strategy by India BPO Companies and risks with its solutions are also given to benefit the BPO companies. India became familiar with Business Process Outsourcing" only in the early and mid 1990"s, but now the entire country seems to be quivering with the „BPO fever“. The foreign direct investment (FDI) in the country owes a lot to this sector, which is progressing at a break-neck speed. The different kinds of services offered by BPO's include Customer Support, Technical Support, Telemarketing, Insurance Processing, Data Processing, Internet / Online / Web Research and so on. The cheap labour costs and the pool of skilled, English-speaking Indians have always been the two foremost factors contributing to the BPO boom in the country. As the National Association of Software Services and Companies (NASSCOM) points out, the other equally motivating factors include strong quality orientation among players, ability to offer round-

the-clock services based on the country's unique geographic location, positive policy environment which encourages investments and a friendly tax structure, which places the BPO industry on almost equal footing with IT services companies. The studies conducted by NASSCOM and the global consultants McKinsey & Co. brought to light certain amazing facts on the Indian BPO segment. According to a NASSCOM study, the country's flourishing BPO sector is estimated to have achieved a 54 per cent growth in revenue in 2003-04. A key employment - generating sector in the country; the BPO segment created job opportunities for around 74,400 additional personnel in India in the same year. By the end of 2008, the BPO sector is expected to employ over 1.1 million Indians, It is true that the Indian BPO sector is witnessing an unprecedented boom but the flip side of the industry cannot be ignored. For some time, the Indian BPO industry has been battling certain complex problems such as labour attrition, poor infrastructure and lack of data protection laws. The IT industry has, during the last decade, been probably the most attractive sector to work in. It has, therefore, been able to get the best talent. The challenge now is to safeguard and build on this prime position. Attractive compensation, challenging assignments, good working conditions and growth opportunities are amongst the main determinants of where talent gravitates, along with the indefinable "glamour value" of an industry or a specific company. Taking care of these parameters is a necessary task for the IT industry. Retaining talent is a major challenge for companies, especially in a growth boom, when a lot of "seduction" of employees between one company and another is commonplace. However, the attrition rate for the industry as whole, (i.e., people moving out of IT into other industry sectors) has been low. Even so, this will continue to be a challenge at both levels: for the individual company and the industry. The IT industry has provided an excellent physical work environment. It needs to continue to be a leader in providing these facilities, including food, fitness and sports facilities. While these "add-ons" are not inconsequential, work satisfaction through challenging, cutting-edge assignments, and substantial growth prospects are definitely major determinants for retention. Providing these is critical, and is of particular importance in the ITES/BPO sector, where attrition rates tend to be high for just these reasons. Compensation is probably the single most important parameter in most cases. The

Author: *Asst. Professer Medicaps Institute of Techno Management Indore. e-mail: alkaanamika@gmail.com*

challenge here is to provide an attractive package in the context of rising expectations, and yet minimize overall cost escalation. In this situation, "poaching" people from other companies by offering higher pay packages is self-defeating for the industry as a whole. An important corrective lies in ensuring an ever growing and sufficiently large supply pipeline of fresh entrants.

II. SIGNIFICANCE OF STUDY

In today's competitive world skilled workforce is an asset which has to be leveraged for enhancing organization Performance. There are numerous opportunities for human asset who hamper the performance of organization by quitting for better opportunity elsewhere not only organization has to make extra efforts to identify the right replacement but also has to give sufficient period for the individual to perform. The organization has to make proactive efforts to retain people. Retention is a crucial issue pertaining to BPO firm. The study attempts to explore employee attrition and retention strategies of BPO organization and also a comparative analysis of same.

III. REVIEW OF RELATED LITERATURE

a) Books

Sah, S.L. (1999) in his book "Information Technology" entitled described that Information Technology is the synthesis of computers and communication networks. If information technology is the brain of hi-tech industry, telecom is the heart. The reach and power of telecom and IT outpace politics and even geographical boundaries. World Wide Web spans, across space and time to put cyber surfers in contact with each other. India is the sixth largest exporters of computer software in the world. There are about 200,000 IT professionals in India today. This book covers the development of computers and communication system in India and abroad. New frontiers of Information Technology have been described elaborately.

Baveja, Arun (2000) in his book "Introduction to Information Technology" touched that the growth in electronic information begins to demand a new philosophy of the nature and function of information so also the activities of the information professional must, in this setting at least, change and adapt. No longer able to adopt custodial role in managing and organizing the materials and artifacts of information, the librarian or information scientist must adopt a facilitating strategy, aimed at creating the conditions for a user to negotiate the information sphere successfully.

Baveja, Arun (2000) The main aim of the book entitled "Information Technology and Development" is to encourage a critical debate on the role of information technology and the development process and to contribute to more informed decision making concerning information technology development, adop-

tion, transfer and utilization. The book is a Vehicle for information exchange and sensitization on the growing gap between the developed and developing world, the role of information technology in this process, and its impact on the excluded and included sectors of society, especially with reference to the current globalization trends.

Suri, R. and Diwan, Parag (2000) in his book "Information Technology Laws: Laws Relating to Cyber and E-Commerce" dealt legal issues, concepts related with Electronic Commerce, Computing, Information superhighways etc. The book is divided into twelve chapters. The first two chapters look into transformation of our society into an information oriented. The next four chapters look into the concept of theft of information and data protection, the copyright issues pertaining to information technology have been given adequate coverage. The chapter nine and ten deals with issues of individual privacy and surveillances technology. The electronic commerce law dwells extensively on various issues, pertaining to electronic commerce transactions such as proposal agreement, contract, electronic fund transfer, digital signature etc. This book provides the exhaustive text of Information Technology Act 2000, cyber related crime, IT cyber sites and important cases.

Batra, B.B. (2001) in the book "Information Technology Challenges and Opportunities" reflected that the twentieth century witnessed the rapidly accelerating advent of information technology. The electronic communications and news media have become commonplace and indispensable; computers have proliferated, becoming increasingly fast, powerful, small and cheap, so that now there is scarcely a human activity in which they are not to be found, bearing an increasing share of the burden of repetitive information processing. This book deliberately discussed the challenges and opportunities of information technology in the new millennium.

Fernandez, Ashwin (2001) the book entitled "Information Technology and Management" that the new technology revolution has shrunk the planet to a tiny global village. The modern society is leading to overall improvements in work, commerce, health, and entertainment though the fruitful facilities made by information technology.

Pohola, Matti (2001) in his book "Information Technology, Productivity, and Economic Growth: International Evidence and Implications for Economic Development" often-advocated view that the information technology revolution will change the world must stem from the basic premises that investment in IT has a visible impact on productivity and economic growth. But how can we measure this impact and how large is it? By surveying previous studies and by presenting new micro- and macroeconomic evidence, this collection shows that in recent years the use of IT in the production of goods and services has had a strong influence on

productivity and economic growth in industrial and in newly industrialized countries. Yet developing countries seem neither to have invested in IT nor benefited from such investments to the same extent as industrial countries. There is concern that information is becoming a commodity, like income and wealth, by which countries are classified as rich and poor. The author has argued that investment in infrastructure, physical capital, and education is the key to economic development. This is an old policy prescription in the economics of development. What is new is the suggestion that the IT content of these investments should be high. The use of IT is so widely spread throughout the world economy that no single country can avoid investing in this technology if it wants to improve the standard of living of its citizens. Besides providing citizens with access to IT and to IT education and training, governments should promote participation in the information society, thus generating a sufficiently strong demand base for information products. By developing advanced applications of IT, and by becoming a model for the private sector, governments can alter worker, firm, and consumer attitudes, and lower their costs of adopting IT. The use of IT, not necessarily its production, is what matters for economic development.

Paliwal. P.K. and Balakrishnan (2001) book titled "Information Technology for the Next Millennium" demonstrated that burgeoning electronic publishing and resources made available via digital imaging facilities are replacing direct hard copy print resources. If the right decisions are not made to invest in building the needed skills and technology infrastructure, some libraries will face even more serious problems in meeting their users' needs. It will be only a matter of time until all libraries will be forced to use resources beyond the traditional printed book and journal. Society as a whole is becoming increasingly computer literate and more visually oriented. Some of the most important issues pertaining to information technology for the next millennium are thoroughly explained in this book.

Shikarpur, Deepak, (2005) this book titled "BPO Digest", IT can do for India in the next ten years what oil had done to middle east in the seventies and later. If proper thrust is given to the infrastructure (Education, electricity, roads, bandwidth, water etc.) and the government sustains the liberalization of the economy, India will soon become a developed nation. BPO and low-cost and high equality solutions will ensure that India will become world's back office for global service business.

Rohit Pareek, R. Srinivasan, Snigdha Tripathi and Partosh Sharma, in their article titled as "BPO in India, the Road Ahead" concluded as – This research paper aims to capture the changing hues of the off shoring industry and provide critical insight into the key strategic and operational issues that service providers are being asked to address. The research paper

contains best practices with respect to delivery models and reflecting the Grow in competitiveness and uniqueness of the Indian BPO sector.

Gokul Raghwan, Arvind Das and Dr.R.Gopal, in their article titled as "Challenges in the BPO industry", Mentioned that it is one of the biggest contributors to the country's GDP, with soaring revenues, increased job opportunities, and a promise to change the lifestyles of the educated Indian youth the BPO/KPO/ITES industry is the brightest star in the business firmament. The industry is currently sized at \$2.3 billion, and is forecasted to grow. The better margins expected at the higher end of the value chain might act as a deterrent of companies in accepting low-end work. As more and more companies decide to become involved in BPO and KPO, the number of working professional will increase. This will further drive the trend towards the migration of low-end services to high-end services. During 2000 to 2003, the US off-shored 2, 38,000 IT service jobs. E value serve predicts that this is likely to increase to 7, 75,000 jobs by FY 2010.

Rangana Ghatak, in his article titled as "How to Attain Sustainable Growth in the BPO Sectors in India: An HR Perspective", concluded as – India is one of the fastest growing major economies in the world. During 2005-06, the BPO industry's size and growth exceeded their forecasts. The global KPO industry is likely to become worth \$17 billion by 2010, wherein India's share will be \$12-\$14 billion! It is expected that IT/BPO sector to create 1.6 million jobs by 2010 and provide indirect employment to 6.5 million people by 2010. Indian will face a shortage of 5, 00,000 knowledge workers by 2010 (IT Services: 1,50,000 and BPO Services: 3,50,000) and total demand for IT professionals, (more than 1.1 mn) will exceed supply in 2007-08. In terms of job creation, the ITES-BPO industry is growing at over 50%. India confronts a potential shortage of skilled workers in the next decade. Talent management is a matter of great concern. This paper is an effort to identify the various problems the BPO and KPO sectors are facing and to find out what steps are taken or need to be taken so that Indian can be the world's third largest economy by 2035, as forecast by Goldman Sachs' report.

This paper identifies the challenges that the BPO sector will face in the near future and understands the factors to control the costs and quality of service. We have laid out the SWOT (strengths, Weaknesses, Opportunities and Threats) of the sector and location-analysis based on empirical data to get the deeper insight about the BPO industry's evolution.

b) *Reports and Case Studies*

Karnik, Kiran, (2000) in his report titled "Software- Strong Growth Momentum" presented that more than half the fortune 500 companies already have relationship with Indian IT services providers; there are

significant implications for Indian companies if they are to capture the full potential of the out sourcing trend.

Report of National Task Force on Information Technology (2000) this task force was set up by the Prime Minister in May 1998, and submitted report. The first report on Software development containing information Technology Action Plan I in the form of 108 recommendations and was accepted and notified in the gazette of India dates 25.07.1998. The second integral part of the report is the matching policy framework for the IT hardware. Government approved 84 recommendations, known as IT Action Plan II.

ACCOCHAM (2001), India imported digit sable media products to the extent of 45\$ 198 million in 1996 when the applied tariff was 26 percent of course the does not take into account e-commerce services, be they financial, travel, design, etc. but then internally we do not tax these directly and today we do not really account for these, as such advice or service conveyed through fax or phone in not taxed.

Annual Report of Information Technology (2003-04) India has become one of the most preferred destinations for sourcing software and ITES. India in comparison to other low cost locations rank high in several critical parameters including, level of government support, quality of the labour pool, English language skills, cost advantages, project management skills, entrepreneurial culture, strong customer relationship and exposure to new technologies. This report has covered government initiatives, industry profile and human resource development in a very precise form.

NASSCOM'S Handbook Indian BPO Industry (2004), this handbook includes an overview of the Indian and worldwide ITES-BPO market-segment, manpower scenario in India and other emerging opportunities in ITES – BPO market segment. It also highlights some operational excellence issues such as information focus has been given to the infrastructure, real estate and facilities management challenges, while operating in India.

NASSCOM'S Strategic Review (2004) This study covered Indian software and services export, Indian Domestic IT market, ITES-BPO Industry, Economics of global sourcing of services, software products, embedded software and technology services, country competitiveness, emerging Growth Areas, Internet and E-commerce, E-governance, India's security environment, knowledge professionals, venture capital and private equity, telecom scenario in India, quality picture and India's policy environment.

IV. GROWTH OF BPO IN INDIA: AN OVERVIEW

The National Association of Software and Services Companies (Nasscom) has said the information technology (IT) and business process outsourcing (BPO) sector would meet the lower end of its growth

expectation for this financial year, owing to the currency volatility, low growth for global in-house centers and differentiated growth for various players.

Nasscom had given a growth guidance of 11-14 per cent at the beginning of this year. It has now said the industry would record growth of 11 per cent and revenue of \$75-77 billion. The estimates are based on analysis of Indian listed companies, multinationals, global in-house centers and various industry sectors such as IT services, BPOs, engineering, research & development and products.

Nasscom president Som Mittal said the economic outlook continued to be uncertain. "You have to see the growth guidance in the light of challenges such as delayed decisions and low visibility. Each company has a different story, a different growth rate and slowing of some of the select verticals. As an industry, we have been under-invested in verticals. We have seen faster growth in verticals like retail and health-care," he said. Nasscom said remote infrastructure management, BPO and testing were the growth drivers.

While India's growth story appears to be under a cloud, the IT-BPO industry expects to maintain a healthy momentum at 11-14 per cent in IT exports during 2012-13. NASSCOM, which is sticking to this growth forecast for the next 12 months, says it will review its guidance in October, depending on the global economic scenario. At the same time, according to NASSCOM, domestic revenues will witness a 13-16 per cent growth in rupee terms.

IT budget cuts by customers in the US and Europe, which account for the bulk of India's IT-BPO export revenues, have restrained the growth of India's major players. Several large IT-BPO organizations such as TCS and Wipro are waiting for deal closures in the April-June quarter to decide on whether they will meet or beat NASSCOM's guidance. Overall, India's IT services grew at 16.7 per cent in 2011-12, higher than the 16.3 per cent growth recorded in 2010-11. The country's share of global sourcing also increased by 3 per cent, rising to 58 per cent in the last fiscal.

V. INDIAN MARKET SIZE ESTIMATES OF BPO

India's domestic BPO market, with nearly 500 players, is set to grow of 33.3 per cent to touch revenues of \$6.82 billion by 2013, up from \$1.62 billion recorded in 2008.

Y2012 is a landmark year – while the Indian IT-BPO industry weathered uncertainties in the global business environment, this is also the year when the industry is set to reach a significant milestone—aggregate revenue for FY2012 is expected to cross USD 100 billion. Aggregate IT software and services revenue (excluding hardware) is estimated at USD 88 billion. Key Highlights during FY2012.

The below table shows the off shore BPO revenue, Indian BPO revenue and the total market potential of the world BPO industry

IT-BPO Revenue USD billion					
Year wise	2008	2009	2010	2011	2012
Export	41	47	50	59	69
Domestic	22	22	24	29	32
Percentage of GDP	6.40%	6.70%	6.50%	7.10%	7.50%

- a) Milestone year for Indian IT-BPO industry-aggregate revenues cross the USD 100 billion mark, exports at USD 69 billion
- b) Within the global sourcing industry, India was able to increase its market share from 51 per cent in 2009, to 58 per cent in 2011, highlighting India's continued competitiveness and the effectiveness of India-based providers delivering transformational benefits
- c) Export revenues (including Hardware) estimated to reach USD 69.1 billion in FY2012 growing by over 16 per cent; Domestic revenues (including Hardware) at about USD 31.7 billion, growing by over 9 per cent
- d) Software and services revenues (excluding Hardware), comprising nearly 87 per cent of the total industry revenues, expected to post USD 87.6 billion in FY2012; estimated growth of about 14.9 per cent over FY2011
- e) Within Software and services exports, IT services accounts for 58 per cent, BPO is nearly 23 per cent and ER&D and Software Products account for 19 per cent
- f) The industry continues to be a net employment generator - expected to add 230,000 jobs in FY2012, thus providing direct employment to about 2.8 million, and indirectly employing 8.9 million people
- g) As a proportion of national GDP, the sector revenues have grown from 1.2 per cent in FY1998 to an estimated 7.5 per cent in FY2012
- h) The industry's share of total Indian exports (merchandise plus services) increased from less than 4 per cent in FY1998 to about 25 per cent in FY2012
- i) While the global macroeconomic scenario remained uncertain, the industry exhibited resilience and adaptability in continually reinventing itself to retain its appeal to clients

Embracing emerging technologies, increased customer-centricity, deepening focus on new markets, adopting new business models are some successful growth strategies followed by the industry

VI. INTERESTING FACTS ABOUT THE INDIAN BPO INDUSTRY

- a) The BPO sector in India is estimated to have reached a 54 per cent growth in revenue
- b) The demand for Indian BPO services has been growing at an annual growth rate of 50%
- c) The BPO industry in India has provided jobs for over 74,400 Indians. This number is continuing to grow on a yearly basis. The Indian BPO sector is soon to employ over 1.1 million Indians
- d) 70% of India's BPO industry's revenue is from contact centers, 20% from data entry work and the remaining 10% from information technology related work
- e) Indian BPOs handle 56% of the world's business process outsourcing.

VII. INDIAN BPO'S POSITION AMONG THE WORLD'S FIFTY BEST MANAGED BPO VENDORS

NASSCOM recently conducted a survey and evaluated the leading BPO service providers across India. The top fifteen business process outsourcing companies in India are:

- WNS Group
- Wipro Spectramind
- Daksh e-Services
- Convergys
- HCL Technologiess
- Zenta
- ICICI Onesource
- MphasiS
- EXL
- Tracmail
- GTL Ltd
- vCustomer
- HTMT

- 24/7 Customer
- Sutherland Technologies

VIII. FACTORS LEADING TO GROWTH IN THE IT/ITES SECTOR ARE

- Low operating costs and tax advantage.
- Favorable government policies.
- Technically qualified personnel easily available in the country.
- Rapid adoption of IT technologies in major sectors as Telecom, Manufacturing and BFSI.
- Strong growth in export demand from new verticals and non-traditional sectors as public sector, media and utilities.
- Use of new and emerging technologies such as cloud computing.
- SEZ as growth drivers; as more of SEZs are now being set up in Tier II cities and about 43 new tier II/III cities are emerging as IT delivery locations.
- All these factors have given IT/ITES industry in India a strong competitive position with high market share.

IX. FUTURE PLAN FOR GROWTH OF BPO

The 11 per cent growth target also reflects the hurdles some of the top IT services firms have been facing. The top four-five providers account for 40-45 per cent of overall export revenue. Infosys gave a revenue guidance of just five per cent for this financial year, while Wipro continued to grow at one to two per cent on a quarterly basis.

N Chandrasekaran, chairman of Nasscom and chief executive and managing director of TCS, said companies were investing in new technology and domain solutions. "As we crossed the \$100-billion mark last year, we still have enough opportunities to make the industry double its size and to be able to do so, we have set up a committee under N R N Murthy," he said. Despite the challenges the sector has seen through the year, Mittal said he was confident the Indian outsourcing model would grow.

Sudin Apte, principal analyst and chief executive, Offshore Insights, said, "We had maintained the industry would manage to grow eight to 10 per cent for FY13. But this is the average for the overall industry. Individually, some companies would do better. The good news is 2013 and 2014 seemed well than this year."

X. CONCLUSION

Business Process Outsourcing (BPO) spells exciting opportunity for Indian software companies. Some of the big software companies in India have been

actively exploring this area of business. HCL Technologies entered the BPO business through acquisition of Apollo Contact Center, operated by British Telecom in Ireland. Wipro has chosen the strategic investment route, by investing in Spectra mind eServices Private Ltd. Infosys technologies entered the BPO business by floating a separate company, while Emphasis BFL setup a successful subsidiary, Source, for its foray into BPO business.

XI. FUTURE SCOPE

In the long run, the BPO foray by frontline companies will work only if these players have a larger strategic intent in mind. By choosing to concentrate on high-margin activities, frontline companies can position themselves at the higher end of the IT enabled services value chain and thereby erect entry Barriers for low-end players. They can also use the BPO space to create cross-selling opportunities among New/existing set of clients, by offering systems integration and high-end consulting services. They can create greater confidence in their clients through fixed-price contracts, and gain expertise and process-related competencies in different vertical segments, further increasing the scope to penetrate New markets.

REFERENCES RÉFÉRENCES REFERENCIAS

1. BPO India (2004), "Attrition in Indian BPO Industry" <http://www.bpoindia.org/research/attrition.shtml>.
2. Chakravorty B (2005), "BPO E-Sat 2005", Dataquest, PP.22-28 available at www.iseva.com/newsevents/downloads/iseva-The-preferred-employer.pdf.
3. Cite HR Human Resource Management Community, available at <http://www.citehr.com/hr-strategy-vt25866.html>.
4. Mehta A, armenakis A, Mehta N and Irani F (2006), "Challenges and opportunities of Business Process Outsourcing in India", Journal of labour Reserch, Vol.27, No.3 PP,324-33
5. Nasscom (2004), "Indian ITES-BPO Industry" Nasscom Analysis, India, www.nasscom.org
6. Neale Helan (2004), "Offshore BPO Delivery", Nelson-Hall BPO and outsourcing Subscription service, Nelson-Hall, www.nelson-hall.com
7. Prakash S and Chowdhury R (2004) "Meaning Attrition in BPO", In search of excellence, Cool avenues, http://www.coolavenues.com/know/hr/s_1.php
8. Scroll R.S. Sinha D, Datar R and S Chohan (2003) "India will Generate \$13 million from Offshoeexport in 2007" Garter Dataquest Archives, ID Number ITOU-WW-FR-0115.
9. Sharma S (2004) „High Attrition Rate: A Big Challenge" www.bpoindia.org/research/attrition-rate-bigchallenge.html.

10. Brights Call Centre BPO's Recruitment Manual by Pankaj K. Sinha.
11. Comdex Call Centre/ BPO training Centre Kit – Vikas Gupta.
12. BPO Potential in the Insurance Sector by S. C. Das.
13. Arpita Gopal, Chandrani Singh, e-world: Emerging Trends in Information Technology, Excel Publication, New Delhi (2009).
14. E-Business, 2nd Edition, ICFAI Center for Management Research, Hyderabad (2007) ISBN 81-314-1129-X.
15. Efraim Turban, Jay E. Aronson, Decision Support Systems and Intelligent Systems, Pearson Education, New Delhi.
16. V.S. Jankiraman, K. Sarukesi, Decision Support Systems, PHI New Delhi.
17. Alexis Leon, ERP Demystified, Tata McGraw Hill.





This page is intentionally left blank