SPECIAL FOCUS INSIDE

LIQUIDITY MANAGEMENT IN ODISHA'S MINING SECTOR

the MANAGEMENT ACCOUNTANT

THE JOURNAL FOR CMAs

JULY 2013 VOL 48 NO. 7 ₹60

Supply Chain Management

SIGNIFICANCE IN COMPETITION

APPLICATION IN BUSINESS OPERATIONS

INDISPENSIBLE TOOL FOR CUSTOMER RELATIONSHIP MANAGEMENT

The Institute of Cost Accountants of India

(Statutory body under an Act of Parliament)

www.icmai.in

ICAI-CMA SNAPSHOTS

President, CMA Rakesh Singh visited Toronto Overseas Center of the Institute to attend the Members Meet along with Council Members CMA Hari Krishan Goel and CMA PV Bhattad on May 26, 2013

CMA Manas Kr. Thakur, CCM at the workshop on Service tax jointly organized by the Institute and CII on 5th June, 2013 in Haldia

CMA Manas Kr. Thakur, CCM presenting a memento to Shri Satyendra Kumar, Asst. Commissioner of Service tax. Also present on dais CMA S. R. Bhargave CCM, and Shri K K Jaiswal Commissioner of Service tax at the seminar on practical aspects of indirect taxation at the Indian Chamber of Commerce

The Governor of Tamil Nadu, Dr. K. Rossaiah giving a prize to the topper student. Also on stage immediate past president CMA M Gopalakrishnan and CMA GVS Subrahmanyam, Chairman of SIRC

Shri Agneswar Sen, Joint DGFT addressing the gathering at the seminar on Practical aspects of Foreign Trade Policy. On the dais are CMA Manas Kr. Thakur, CCM and CMA Dr. Sanjiban Bandyopadhyaya, CCM among other dignitaries

CMA Rakesh Singh, President, CMA Kunal Banerjee Past President at the annual seminar of Dubai Overseas Center with CMA Jayanta Sen and other dignitaries on 15th March, 2013

Central Council Members CMA H. K. Goel, CMA Sanjay Gupta, CMA Amit Apte and CMA S. R. Bhargave along with Shri C S Anantsubramanian, President ICSI and CII representatives at the round table conference in Integrated Reporting jointly organised by the Institute and CII in Mumbai on 1st July, 2013

CMA TCA Srinivasa Prasad, CCM and Chairman of TEF committee, CMA S R Bhargave, CCM and CMA Ashok B Nawal at the Faculty Meeting organized by WIRC conducted in Mumbai on 1st June, 2013

JULY 2013 VOL 48 NO. 7 ₹60

The Management Accountant (official organ of The Institute of Cost Accountants of India, established in 1944 (founder member of IFAC, SAFA and CAPA)

EDITOR
CMA Dr. Debaprosanna Nandy
editor@icmai.in

PRINTER & PUBLISHER
CMA Rakesh Singh
President, The Institute of Cost Accountants of India
12 Sudder Street
Kolkata 700 016
and printed at
Hooghly Printing Co Ltd
(A Government of India Enterprise)

EDITORIAL OFFICE
CMA Bhawan, 4th Floor, 84, Harish Mukherjee Road, Kolkata-700 025
Tel: +91 33 2454-0086/0087/0184
Fax: +91 33 2454-0063

CONTENTS

Cover Theme: Supply Chain Management

The Management Accountant technical data

Periodicity: Monthly
Language: English

Overall Size: - 26.5cm x 19.5cm
Screens: up to 130

Subscription
Inland: ₹600 p.a. or ₹60 for a single copy

Overseas: US$150 for airmail or US$100 for surface mail

Concessional subscription rates for registered students of the Institute: ₹300 p.a. or ₹30 for a single copy

Advertisement rates

	Rs.	US $
Back Cover	50,000	2,500
Inside Cover	35,000	2,000
Ordy. Full Page	20,000	1,500
Ordy. Half Page	12,000	1,250
Ordy. Qrtr. Page	7,500	750

The Institute reserves the right to refuse any matter of advertisement detrimental to the interests of the Institute. The decision of the Editor in this regard will be final.

The Institute of Cost Accountants of India

The Institute of Cost Accountants of India (erstwhile The Institute of Cost and Works Accountants of India) was first established in 1944 as a registered company under the Companies Act with the objects of promoting, regulating and developing the profession of Cost Accountancy.

On 28 May 1959, the Institute was established by a special Act of Parliament, namely, the Cost and Works Accountants Act 1959 as a statutory professional body for the regulation of the profession of cost and management accountancy.

It has since been continuously contributing to the growth of the industrial and economic climate of the country.

The Institute of Cost Accountants of India is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

MISSION STATEMENT

The CMA Professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting.

VISION STATEMENT

The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally.

IDEALS THE INSTITUTE STANDS FOR

- to develop the Cost and Management Accountancy profession
- to develop the body of members and properly equip them for functions
- to ensure sound professional ethics
- to keep abreast of new developments

DISCLAIMER

The views expressed by the authors are personal and do not necessarily represent the views of the Institute and therefore should not be attributed to it.

Behind every successful business decision, there is always a CMA

FROM THE EDITOR'S DESK

Greetings!

Supply Chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. Supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and firm to firm.

The concept of Supply Chain Management is based on the core idea that every product that reaches an end user represents the cumulative effort of multiple organizations. These organizations are referred to collectively as the supply chain. Supply chain management, then, is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage. It represents a conscious effort by the supply chain firms to develop and run supply chains in the most effective and efficient ways possible. Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities.

The organizations that make up the supply chain are "linked" together through physical flows and information flows. Physical flows involve the transformation, movement, and storage of goods and materials. They are the most visible part of the supply chain. Information flows allow the various supply chain partners to coordinate their long-term plans, and to control the day-to-day flow of goods and material up and down the supply chain.

In the 1980s, companies discovered new manufacturing technologies and strategies that allowed them to reduce costs and better compete in different markets. Strategies such as just-in-time manufacturing, lean manufacturing, total quality management, and others became very popular, and vast amounts of resources were invested in implementing these strategies. In the last few years, however, it has become clear that many companies have reduced manufacturing costs as much as is practically possible. Many of these companies are discovering that effective supply chain management is the next step that must be taken to increase profit and market share.

Many manufacturing operations are designed to maximize throughput and lower costs with little consideration for the impact on inventory levels and distribution capabilities. Purchasing contracts are often negotiated with very little information beyond historical buying patterns. The result of these factors is that there is not a single, integrated plan for the organization. Clearly, there is a need for a mechanism through which these different functions can be integrated together. Supply chain management is a strategy through which such integration can be achieved.

We have presented few articles on 'Supply Chain Management' in this issue. We are grateful to all the contributors of this issue. We do hope that our readers will enjoy the whole journey while they go through the articles.

> "SUPPLY CHAIN MANAGEMENT IS THE NEXT STEP THAT MUST BE TAKEN TO INCREASE PROFIT AND MARKET SHARE

An appeal for the devastated people of Uttarakhand

CMA Rakesh Singh
President, The Institute of Cost Accountants of India

Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence. – Helen Keller

AT the outset on behalf of the Institute, its employees, members, students and that of my own, I convey my heartfelt condolences to the people and government of Uttarakhand for the tragic loss of life and destructions of property caused by the devastating cloudburst that hit the holy state last month. I pray to the Almighty for the peace of the departed souls. I am confident that under the leadership of the Central and State Governments, rescue and relief efforts will be swift and that the people will be able to overcome this tragedy. I wish those injured a speedy recovery and hope that the affected state will return to normality before long.

I urge all the employees, students and members of the Institute to come forward and contribute generously for the relief of the victims of this calamity in Uttarakhand.

Agriculture is extremely important for inclusive growth, since a large majority of the Indian population is dependent on farming. Improved agricultural productivity would bring in its wake increased family incomes for this vast majority. This, together with better infrastructure in the countryside – greater rural connectivity, rural electrification and investment in irrigation, would aid tremendously in tackling rural poverty, as well as add to the overall prosperity of the nation.

Amid the economic gloom, the early arrival of the monsoon is a ray of hope. As Indian economy is vitally linked with the monsoon, even a small variation in monsoon can have big impact on the economy of the country. This year the monsoon is expected to be 48 per cent more than normal which is almost double of last year. This will have a positive impact on the agricultural production because about 55% of cropped area is dependent on monsoon rains and does not have irrigation support. During drought situations the prices of agro products increase and due to speculation and black hoarding by middlemen the prices further increase. In the reverse situation in case of bulk farm produce, the farmers do not get their true share as the prices of agro products came down due to its perishable nature. The problem of a massive parallel black economy, which has evaded a solution so far, needs to be tackled urgently and these funds brought into the much needed social sectors. We CMAs can play an important role in this area to save the farmers from the risk.

Opening of 9th overseas centre at Washington

I am very pleased to share with all of you that your Institute has opened its **9th Overseas Centre on 14 June 2013 at Washington, DC, USA** in the presence of **Shri Sachin Pilot, Hon'ble Minister of Corporate Affairs (I/C), Government of India**. The event was also attended by Mr MJ Joseph, ICAS, Additional Secretary to the Government of India, Mr Bhaskar Chatterjee, DG & CEO of Indian Institute of Corporate Affairs and Dr.

TV Somanathan, IAS, Director of General Services, World Bank.

Hon'ble Chief Guest, Mr. Sachin Pilot congratulated the Institute for opening of its new centre at Washington. He emphasized on the need of standardized accounting, reporting and disclosure to cater to the needs of the local and international stakeholders. He hoped that with the passing of new Companies Bill, the Indian Law will be at par with the law of all leading economies. Speaking on CSR the minister opined that the CSR report should be project driven and relevant. While describing the role of Management Accountants he urged upon the members of the Institute to enhance their competencies because they have to play an important role in managing the implementation and execution of CSR projects. The minister hoped that with the opening of this centre at Washington, the members of the Institute of the region will be highly benefitted. He wished the Institute all the success in its future expansion plan.

To mark the occasion a talk on the Role of Management Accountants for Sustainable Business and CSR was organised. I was privileged to have the opportunity to address the participants and inform them about the changing orientation of the Institute to focus on dissemination of information to the stakeholders. During the talk the role of competition was appreciated and the members of the Institute were urged upon to brush up their skills to be able to add value to the services and products to keep ahead in the competition. Time is changing and to manage this change is the biggest challenge for the Professionals.

Speaking on the occasion various speakers praised the efforts of the Institute and talked about sustainability and Social Responsibility. The role of Management Accountants in helping the corporates by generating meaningful CSR reports was emphasized.

I convey my sincere gratitude to all the speakers and participants for making the event a grand success. I hope that the new centre will take care of the interest of members of the region and support the development of the profession of Cost and Management Accounting. I assure the centre full support and necessary assistance.

To apprise all the members of the activities / initiatives undertaken by the Departments/ Directorates of the Institute, I now present a brief summary of the activities.

Professional Development Directorate

The Institute in order to impart knowledge on IFRS to its Members and Students to position them within the global context of the international accounting principles, started the e-learning course on the International Financial Reporting Standards (IFRS) in 2011 at a very nominal fee of ₹5000 (plus service tax extra) per learner.

The course offered is for 100+ hours that covers 30 standards. The on-line access is valid for one year (365 days) from the date of registration of the course (or) 300 hours of e-Learning access whichever ends earlier.

The course is now introduced by the Institute under the aegis of ICWAI-MARF at the old rates as above. I urge members and students of the Institute to take advantage of e-learning course on IFRS and equip themselves with the knowledge in IFRS and enhance their perspicacity in this field. The course details may be seen on the Institute's website.

CEP Directorate

The Institute was proudly associated with the Institute of Directors (IOD) as a "Knowledge Partner" for the conference on **"Board Governance-Key to Corporate Excellence"** on 7 June 2013 at Chennai.

It is matter of healthy approach by the CEP Committee in association with Indirect Taxation Committee and Professional Development Committee to organize a series of programmes on **"Practical aspects of Indirect Taxation for CMAs"** in the country. To begin with this initiative programmes at Kolkata and Delhi were conducted in June 2013 and were well received by the members. Further, the programme on **"Practical aspects of Foreign Trade Policy for CMAs"** and **"Role of CMAs in Internal Audit"** was organized at Kolkata.

I happy to inform you that the Institute in association with Sri Aurobindo Foundation for Integral Management (SAFIM) is organizing a National Seminar on **'Governance by Inner Consciousness'** on 13 July 2013 at New Delhi. I look forward for active participation by the professionals. It is an opportunity to explore from the practical experiences of the eminent personalities. For details, please visit the Institute's website and register at earliest.

During the month our Regional Councils and Chapters conducted around 70 programmes for our members.

Exams Directorate

The June 2013 examination of the Institute was held from 11 to 18 June 2013 for Intermediate and Final students at 114 examination centres in India and abroad. The Foundation examination was held on 23 June 2013 in Multi-Choice Question (MCQ) mode for the first time.

Technical Directorate

I am happy to inform members that CASB has approved the following Exposure Draft of Cost Accounting Standard in its last meeting:

- Research & Development Costs
- Joint Costs

They are on the website for public comments. I urge members to give their valuable comments/suggestions on these drafts before the due date.

ICWAI MARF Programmes

The ICWAI MARF organized a programme for the Indian Navy on **'Cost and Contract Management'** from 3 to 7 June 2013 at CMA Bhawan, New Delhi. The programme was attended by 21 Naval officers.

Two self-run programmes were organized on **'Finance for Junior Finance and Accounts Officers and Non-Executives (F&A)'** and **'Contracts and Their Management'** from 4 to 7 June 2013 at Shimla.

The department has also organized two self-run programmes on **'Recent Trends in Financial Management'** and **'Management of Taxation'** during 25th to 28th June, 2013 at Ooty, Tamilnadu.

The Technical Programme for the Third batch on **'Finance and Accounts'** for IRAS Officers of Indian Railway was organized from 10 to 23 June 2013 in Delhi, London and Paris. The programme was very appreciated by the IRAS officers.

Hyderabad Centre of Excellence

I am happy to inform you that the construction work at the Hyderabad Centre of Excellence is progressing at a brisk pace and the interior work is going on.

The HCE organized a programme on Integrated Reporting under the Leadership of Prof. Asish K Bhattacharyya on 11 June 2013 at Hotel Aditya Sarovar. The centre also organised a half-day seminar on 'Internal Audit – New Skyline for CMAs' on 15 June 2013.

International affairs

As already informed, the Institute opened its 9th Overseas Centre at Washington. A delegation led by the Vice-President of the Institute represented the Institute at the SAFA Events and International CMA Conference held in Colombo from 17-19 June 2013. CMA TCA Srinivasa Prasad, Council Member, was one of the panelists while Mr. K Narasimhamurthy presented a paper on Power Sector Tariff Fixation at the International CMA Conference.

Research Directorate

Partnership with ASSOCHAM

Our Institute was proudly associated with ASSOCHAM as knowledge partner and published a research-based knowledge study for the 8th SME Sammelan on **'Enhancing Capacity for Sustainable Growth'** at Bhopal on 5 June, 2013. **Shri Kailash Vijayvargia, Hon'ble Minister for Commerce & Industry,** GoMP, Shri P.K. Dash, IAS, Additional Chief Secretary, Department of Commerce & Industry, Shri V. Kiran Gopal, IAS, Additional Managing Director, MPTRIFAC, Shri Anurag Srivastava, IAS, Commissioner, Horticulture & Food Processing, GoMP and other eminent dignitaries attended the programme.

I had the opportunity to attend another event of ASSOCHAM and share my views before the august house, where we were associated as the knowledge partner in the **Seminar 'Delhi – Kal, Aaj aur Kal'** held on 28 June 2013 in Delhi. **Smt. Sheila Dikshit, Hon'ble Chief Minister, Government of NCT of Delhi** gave the inaugural address and released the knowledge study prepared by the Institute. The Knowledge Report was personally acknowledged by the Chief Minister. Shri Romesh Bhandari, Former Lieutenant Governor of Delhi and Governor of Uttar Pradesh, Shri Rajkumar Dhoot, M.P. & President, ASSOCHAM, Shri Sunil Kanoria, Vice President, ASSOCHAM, Dr. Lalit Khaitan, Chairman, Northern Region Council, ASSOCHAM, Prof. (Dr.) D.K. Bandyopadhyay, Vice Chancellor, Guru Gobind Singh Indraprasth University, Delhi, Mr. D.S. Rawat, Secretary General, ASSOCHAM were the other eminent speakers at the seminar. Dignitaries from the Government, industries, banks and chambers of commerce also attended the seminar.

Seminar on 'Competition Law – Why now?'

This seminar was jointly organized by our Institute and ASSOCHAM on 4 June 2013 at Kolkata. The key speaker of the seminar was Mr. Vinod Dhall, IAS and retired Secretary, Government of India. He was the first and founding Head of the Competition Commission of India.

I shared the dais along with a few dignitaries, viz., Dr. P Ishwara Bhat, Vice Chancellor, West Bengal National University of Juridical Sciences, Shri B Madhab Reddy, MD & CEO, The Calcutta Stock Exchange, Shri Sanjoy Jhunjhunwala, Chairman, ASSOCHAM, ERDC, Shri Debmalya Banerjee, Co-Chairman, ASSOCHAM, ERDC and Mr. Eamonn Doran, Partner at Linklaters, London & Head, The London Competition Group.

Partnership with Gaeddu College of Business Studies, Royal University of Bhutan

A conference on the theme **'Cost Consciousness, Sustainability, Governance and Development'** was held in Gaeddu College of Business Studies (GCBS) on 10 and 11 June 2013 in Bhutan. It was a unique initiative and instrumental in identifying the quintessential challenges of the market forces in the light of tumultuous, yet dynamic changes in the global landscape and an attempt to develop and prescribe solutions. The conference was an enriching experience for students, faculty, the business community and bureaucrats.

Initiated by Prof. S.M. Gomes, CPL, Department of Accounts and Finance, Gaeddu College of Business Studies, the conference sought to pursue and understand cost competitiveness, cost management, efficient use of resources and structured approach to Cost and Management Accounting as the key drivers of the profession. It also focused on sustainability, governance and development. The conference was attended by 25 international delegates, 30 expatriates and 50 national academicians, representatives from the Indian business community and Indian Embassy, Thimphu and about 400 students.

I presided over the inaugural session of the conference. The first Technical Session was on Cost Consciousness and was chaired by CMA TCA Srinivasa Prasad, Central Council Member. CMA Kaushik Banerjee, Secretary (Acting) gave the Keynote Address and CMA Manas Kumar Thakur, Central Council Member was the Guest Speaker. CMA Dr. Debaposanna Nandy, Director (Research & Journal) and CMA Chiranjib Das, Joint Director (Studies) from our Institute were the resource persons for the session. The session threw light on diverse areas in Cost and Management Accounting and global opportunities of CMAs.

The international delegates and students were happy with the interactions that they had. Our Institute has already initiated steps to set up a support centre at GCBS.

Administration and PR Directorate

The Institute has been giving National Awards to corporates in the field of Cost Management for the last 10 years. The awards jury, headed by Justice Mr. VN Khare, former Chief Justice of India, has finalised the 10th National Awards for Excellence in Cost Management 2012 in a meeting held in New Delhi. The awards presentation function is likely to be held in July 2013.

It has been a matter of great honour for me to serve this prestigious position in this great Institute. I am glad that I had this opportunity. During my tenure I learnt valuable lessons which will remain with me throughout my life. I am grateful for all the support and cooperation given to me by my colleagues in the Central Council, Past Presidents of the Institute, Management Committees of Regional Councils and Chapters, all the employees of the Institute in various Directorates and students during my period as President. I have always believed that no one is perfect. Therefore, please accept my sincerest apologies if I have hurt anybody by any action. Last but not the least, I remember the sacrifices and support of my wife and children without whom I could not have performed such a duty.

I wish all the members and their family a very pleasant and happy rainy season.

With warm regards.

CMA Rakesh Singh

1 July 2013

Supply Chain Management – Significance in Competition

Sudipto Ganguly
M.Com, ACMA
Accounts Officer, The Shalimar Works (1980) Limited, Kolkata
sudiptoganguly001@rediffmail.com

Supply Chain Management is not a new innovation in management philosophy; rather it existed since the time of Napoleon as he commented once – Army marches on its stomach. He didn't explain his statement, but the inner meaning is unquestionable, i.e. to make a strategy successful, it should have a strong line of supply, be it food, cloths, arms, or anything else.

Definitions

We get various formal definitions of Supply Chain Management (SCM). Martin Christopher (1992) defines it – Supply chain management is the management of upstream and downstream value-added flow of materials, final goods and related information among suppliers, company, resellers, and final customers. Another eminent scholar John T. Mentzer (2001) defined - Supply chain management is the systematic and strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purpose of improving the long-term performance of the individual companies and the supply chain as a whole. On the other hand, the Council of Supply Chain Management (CSCM) Professionals, USA defines - supply chain management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management.

Although the definitions may vary to wider extents, in a nutshell the SCM implies all such activities by which the final product is delivered in the hands of customers. Conceptually, logistics is older than SCM. But It goes beyond even the wider aspect of the term Logistics. In practice, logistics is the logical way of transportation. Logistics is limited into the carriage of raw materials and finished products in a timely so that production and distribution are never hampered. But when we consider the Supply Chain Management, almost all the aspects of the product are taken in purview, i.e. sales demand analysis, production planning, procurement of raw materials, warehousing, production process, operations management, distribution of finished products to the intermediaries and to the ultimate customers, everything are considered in a well-synchronised manner. Therefore, the supply chain really implies a chain-relationship among various units or organisations to fulfil the demand for each of the members in the chain. One supplier is dependent on the other's service and the very other is depending on some other unit's performance. If one unit of the chain cannot meet the demand of the very next level producer, members of the whole chain face problems. That is the importance of the Supply Chain.

Genesis and Rationale

But the obvious question comes here – for what we will put such an effort, especially when SCM existed earlier also? Why should we devote more time and energy to make the chain smooth and strong? The answer lies in two C-s. One is Competition, the other is Cost. After the introduction of Glasnost (*Transparency in government policies*) and Perestroika(*Restructuring or reform*) in then USSR during second half of 1980s, almost all the countries started adopting the globalisation policy and later on Uruguay round of General Agreement on Tariffs & Trade(GATT) was continued up to 1995 and WTO was formed. Thereafter we witnessed cut-throat competition in business and industry for the next fifteen years and still it is continued. Eventually the idea of Value Chain came into existence by Michael Porter in 1985. In his analysis, he described the value chain as the full range of activities that are necessary to bring a product from its conception phase to its end use. Actually it intensified the new era industrial revolution which took place worldwide. Rivalry started amongst manufacturers to represent better product and better quality to the consumers at a cheaper rate. Not all the producers were fit enough to place themselves in the market. To remain competitive, companies must seek new solutions to important issues such as modal analysis, load planning, route planning and distribution network design. Innovation and faster availability of products is the one of the major condition for success in competition. In India we have seen some major brands got vanished from the marketplace being incapable to compete. Examples are like – India Fans, BUSH TV and Radio, DIPPY's Orange Squash, Gold Spot soft drinks, Bedford's trucks and buses, Jawa motorbikes, etc. Some new companies and brands started flourishing, like Videocon, Mahindra & Mahindra, Hero Honda, Bajaj Motorbikes, Maggi, Hair & Care and many other new brands. Due to the competition, the price is reduced. Hence the producers realised the significance of cost control which ultimately helps them offering a competitive price to the customers. In order to keep the cost properly managed, a seamless Supply Chain needs to be implemented. Supply Chain Management evolved as a tool for Cost Management in the process of manufacturing industries.

Objectives of Supply Chain

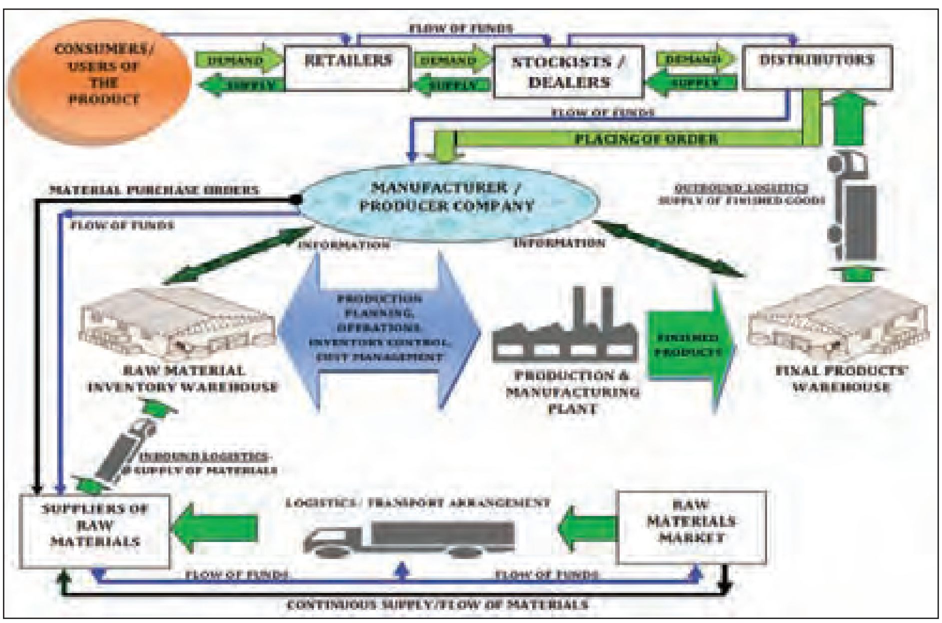
There are three basic objectives of a Supply Chain; -i] Maximise the overall value created, ii] Increasing the Supply Chain profitability, and iii] Balancing the demand and supply. We need a little clarification on what is meant by supply chain value. It is the difference between satisfaction and utility of a product to a customer and the effort behind the ultimate supply to the customer. This value positively related to the overall supply chain profitability. Supply chain profitability is the difference between the revenue received from a customer by selling the product and the overall cost of the supply chain. So it is obvious that more the customer satisfaction more is the profit.

Areas Covered

Structure of supply chain differs from industry to industry. It also differs when service sector is considered. Basically a Supply Chain constitutes of several companies who produce different products but conjugate to produce one final product. Therefore every supplier is related to a user who may either be an industrial user or may be a household user. At the same time every user other than the end-user is a supplier. As the quality, usage, characteristics, and objectives of the products are varying; every supply chain has its own unique characteristics and faces unique sets of market scenario in terms of demand, customers' attitude, tastes, supply pattern etc. Although each of the companies has its separate sets of policy, constitution, business strategy, state of affairs and technology, there are five common areas where they must take decisions; namely Production, Inventory, Location, Logistics and Information. The basic supply chain management system is shown in the form of a diagram in Figure-1 below.

Production is the most prominent area where the decision-making on Supply Chain Management becomes most crucial. This area is concerned with the important parameters of the manufacturing-

Figure-1: Basic Supply Chain



Production scheduling and planning, maintenance of plants and equipments, quality control and adherence with Total Quality Management. Hence before taking a strong decision on SCM, a manufacturer has to receive answer to the following vital questions in a systematic way –

- What to produce?
- How much to produce, i.e. what is the expected sales demand?
- What is the available time to meet the aforesaid demand?
- How to speed up the production/process cycle time?
- How much is the Plant Capacity?
- How to balance the overall workload?
- What is the current/existing quality policy? And what is the expectation of quality?

In reality, many consumer non-durables, food products, pharmaceutical products take huge cycle time to reach to the final consumer from initial raw material supplier. More the cycle time, more will be the chances to lose the market share and less would be the profitability. If the market share is reduced, more would be the piling of inventory in terms of finished goods which in turn increase cost level and cuts profit. So, the biggest challenge is to minimize the production cycle time. An exemplary situation of high production-cycle time was faced by the manufacturers of "Frozen Fish Fingers" in the UK and the issue was discussed in the Supply Chain Management Conference took place in the United Kingdom in 1998. It was found that the total time required for selling the frozen fish fingers to the buyers starting from unloading at the fishing docks through the manufacturer's process and then to the distributors and retailers is about 5 months. But the actual processing time for the product takes less than an hour. Therefore during such long time, the company's capital employed in the business does not earn any return. Surely supply chain management is the remedy for this kind of situation for reducing the working capital, improving the cash revolving cycle and to reduce the level of finished goods inventory.

Inventory is the second most important area where SCM plays a pivotal role. In this area, the producer has to decide about the quantity and quality of raw materials and spares, acceptable time-lag in supply thereof, storage, material handling specialities and expertise and everything relating to supply of the finished products. Again a set of orderly questions are arising regarding Inventory –

- What are the basic Raw Materials?
- Who are the prospective suppliers of raw materials?
- What is the approximate Lead Time for supply?
- What is the price trend for raw materials?
- How much is the quantity to be reserved as buffer stock?
- What is the optimum level of inventory to keep the production uninterrupted?
- What will be the re-ordering level?
- What will be the cost of inventory management?

Supply chain management has become increasingly relevant today for minimising inventory volume and reducing the warehousing activities. Materials are required to be moved as fast as possible at any stage of production and customer will not allow the manufacturer huge time to supply the final product. At the same time no manufacturing company can afford huge stock of materials and finished goods in hand to supply immediately as and when required by the customer due to financial and other constraints. Then where is the solution? How the balance would be made between demand and supply? Today's competitive business environment is putting continuous pressure on the manufacturer in the way of shorter Product Life Cycle, enhanced and rapid customer demand, and cost reduction. In order to resolve the issue, during the early 1920 Ford Motor Company first adopted the ancient version of JIT (Just-In-Time) technique which was later followed by Toyota Motors Corp in Japan and became famous as TPS or Toyota Production System during 1954. The basic theme of JIT is all about having the correct material at the right time in exact quantity. JIT is based on the proposition of 'Dock-to-Factory Floor', i.e. without even warehousing. In JIT system, inventory is considered as a "cost", rather than an item adding value to the production process. So, manufacturer who has adopted JIT looks upon reducing the level of inventory. But JIT system is attached with certain pre-conditions; there should be a strong chain of quality control, because in such a fast system additional time cannot be devoted to verify the quality. Rather the buyer company should be able to keep full faith and trust on the quality certified by the supplier. Moreover excellent communication system and flow of information is a must. However, the producer company can get some economic benefits attributable to the JIT system; **-i]** Substantial reduction in the set-up time in warehouse and manufacturing lead time, **ii]** Faster flow of materials within the factory, **iii]** Increased focus on supplier relationship, **iv]** More efficient utilization of staffs having multiple skills without using them throughout the day/month for inventory management, v] Better quality, reduced cost and higher productivity.

JIT is impossible to be implemented without backing of a strong supply chain. Besides Toyota or Ford, the other renowned examples are Dell Computer, Harley-Davidson Motor Co, who has reduced their inventory level up to 75% after adopting JIT. This shows the positive result of a strong supply chain management in global manufacturing especially in automobile sector.

Choice of *Location* for production and inventory is another crucial area where the supply chain management can be fruitfully applied so that the objective of cost management is fulfilled. Ideally, the location for storage of raw materials and spares should not be far away to that of production. Moreover the storage of finished goods should be set as nearer as possible to the first hand market place, i.e. distributors' place. Certain questions are arising before taking the final decision on location —

- What is the distance between the Storage location and production unit?
- How are they connected, i.e. by road, by rail etc?
- What is the cost involved in storage, i.e. loading&unloading expenses, cost of transport, cost of transit insurance, rental etc?
- What is the cost benefit achievable in selecting a new location?

Choice of *Logistics* is the area having direct linkage with production and distribution. Logistics can be considered as the nervous system of the whole supply chain. It has the direct impact on meeting the consumers' demand and indirectly on various factors like business commitments, maintaining brand image, capturing market by supplying earlier than rivals etc. Amongst these entire factors, easy availability of a product always makes difference. If the product can reach at the marketplace faster than other rival products, then the company is likely to get more orders and acquire more market share. For example, - DOMINOS gives the delivery guarantee of hot pizzas by 30 minutes of ordering. Although certain conditions are attached with such guarantee, but their unique logistics support system, i.e. supplying pizzas by quick motor bikers helped the company to achieve considerable market goodwill. In the same way, for the purpose of production the company requires adequate supply of raw materials and distributor/customer requires adequate supply of finished goods. Hence other things being the same, logistics plays the vital role in fulfilling the gaps in material and finished goods. Before choosing the right logistics system a company should clarify the following queries;–

- What is the easiest mode of transportation of materials, i.e. by rail or by truck or by air or by sea?
- How frequent is the need for supply of materials? On that basis, the company should decide on whether it should have its own logistics or it is to be outsourced?
- If location of raw material is far from the production plant, then the company should keep sufficient material in stock. In this case, it should compare the cost of maintaining such additional stock with the cost of transportation.
- Whether the material requires additional facilities like air-conditioning, during transportation? If so, it will involve certain extra cost.

Information System is the fifth and very significant factor which serves as the linkage between the company and other supply chain members. It also improves the link within the company into several departments or divisions. Basic questions relating to the Information system are;-

- How much data are required to be collected, stored and shared?
- What will be the level of accuracy and authenticity of the data so collected?
- What will be the cost vs. benefit of information system?

As a matter of fact, introduction of barcodes and Electronic Data Interchange has improved the flow of information between various units under the supply chain. In some cases, we found dramatic developments in reducing the cycle time of processing. For example; WAL-MART, the US based MNC retail store can move any information from point-of-sales back though the system to the suppliers for the purpose of rectification and action.

Inventory Issues

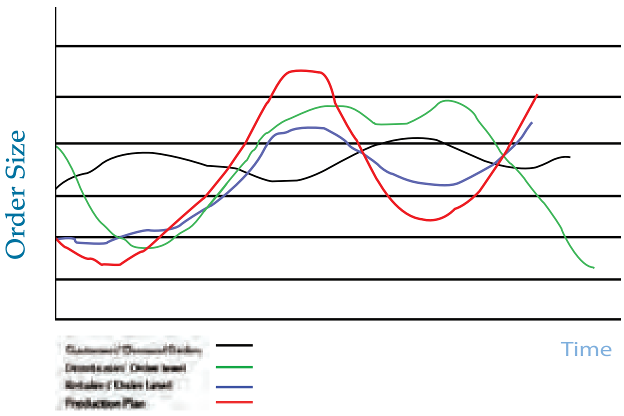
The most challenging task is probably handling the inventory issues. Since one of the core objectives of Supply Chain Management is reduction of inventory, the major thrust comes on managing stock. This is very much critical especially in FMCG or Textile or in Automobile sector. Various common principles of manufacturing business and their effects on inventory are given in the Table-1 below:-

Table-1 Effects of Common Business principles on Inventory

Common Principles	Reason	Practical Effects
Production in Large Lot Sizes	Cost Effective	Lack of Flexibility in terms of Product Mix
Retailer orders in Large Lots	1. Discount benefits , 2. Sufficient Safety Stock	1.Large Stock Piling by Retailer if demand is low, 2. High Cost of Carry, 3. Loss of Interest

Ordering in high volumes may also increase the safety stock of the suppliers even and resultant effect is known as Bullwhip Effect. During late 1990s Proctor & Gamble (P & G) faced fluctuating sales of their major product diaper 'Pampers' at retail stores. The cause was examined and it was found that variability in the distributors' orders is higher than retailers. Going back to raw material orders, it was found that variability was much higher than distributors. But surprisingly, though very naturally the consumers, i.e. babies used diapers at a very steady rate. In-depth study revealed that demand order variability got amplified throughout the whole supply chain adversely. P & G named the effect as "Bullwhip Effect". So, any distorted information either side of the supply chain can cause sufficient damage in terms of inefficiencies and distortions in inventory levels, production capacity plan, cost management, and can cause loss of revenue, loss of goodwill in terms of more supply lead time and above all decrease in profitability. The Bullwhip effect is shown in Figure-2.

Figure-2: Bullwhip Effect



Variability in ordering levels happens due to the following factors:-

1. Demand Forecasting – variability in mean and standard deviation of demand leads in the variability in safety stock level, re-order level and leads to the order quantity.
2. Lead Time in supply – more the lead time more is safety stock level and order quantities. This turns into more variability.
3. Retail Price Fluctuations – more the retail price fluctuations more would be the stock piling at lower price with an expectation of higher margins. This again leads to variability.
4. Inflated Orders – with a wrong apprehension of shortage in supply leads to inflated orders, which in turn tends to variability.

Remedial measures of such variability are;-

1. Applying the Centralized Demand Information System where all the units concerned in the whole supply chain can get access to the actual demand in the market for the product.
2. Using the technique of Everyday Low Pricing (EDLP) where no promotions are introduced and thereby cutting the deviations in demand. This is extensively used by companies like Wal-Mart etc.
3. Lead Time in supply is substantially reduced to check the inflated quantum of demand.
4. Applying Cross-Docking system where there would be no need to warehousing the products and as soon as inbound logistics ends, the outbound logistics starts.
5. Some companies like Dell Computers adopted the system of Direct Shipping to the final customers without going through the distribution channel so as to reduce lead time and then variability in demand order as well as to maintain market goodwill by prompt supply.

But whatever method is applied to eliminate variability in inventory orders, complete removal of excess/shortage in demand forecasted or predicted is practically impossible. So, the solution should be to minimize the variability of orders.

Basic Functions of SCM

A supply chain joins various manufacturers and service providers in a network of common mutual business interest, i.e. satisfying the consumers' demand and ultimately achieving the value addition in the whole process. In simpler term, SCM is producing the Right Product with right material at right cost with right storage facility in right quantity to supply to the right customer at right Price. If this chain doesn't break, the each company associated with the SCM can generate right profit. Also a customer will get the right utility. Basically the functions of supply chain management are categorised as operational level functions, strategic level functions and tactical level functions. The managerial exercise of SCM starts in Tactical level. At this level, a company focuses on ever changing pattern in consumer behaviour, consumer demand, industry scenario, transportation strategy, inventory quality, procurement strategy, location planning, peer analysis, etc. Functions at Operational Level consists of production scheduling and planning, demand forecasting, procurement of raw materials, arrangement of inbound and outbound logistics, order management, managing non-moving and backdated inventory, updating production technology, capacity building, and ultimately the customer care functions and customer relationship management. Strategic level is very important where the functions involved are having direct repercussions on the whole business. The most important activities are related with choosing the strategic partners, distributor appointment policy, market research for the products according to their life cycles, customer segmentation, pricing policy, and above all the capacity management decisions.

With reference to the basic supply chain as depicted in Figure-1, we get three different flows, viz. Material Flow, Fund Flow and Information Flow. These flows are maintained throughout the chain with each of the members. In India many industrial groups are engaged in the production and selling of readymade garments of different famous brands like, Louis Philippe, Allen Solly, Peter England, Van Heusen of Aditya Birla Group, denim fabrics like Wrangler, Ruf & Tuf, New-Port etc from Arvind Limited, fine textile brands like, Park Avenue, Parx, Color-Plus etc from Raymond Ltd. All these brands or groups are flourishing due to strong supply chain network. Their stocks move very fast and therefore these companies enjoy a very fast cash revolving cycle. They move on the basis of strong research on market demand and their production is guided by such research. Accordingly supply takes place. Same is the case for FMCG products in India. Vibrant companies in FMCG sector in India like Hindustan Unilever, ITC, Colgate-Palmolive, Marico Industries, Parle-Agro etc are doing business and maintaining the decent supply level because of the existence of strong supply chain. Their market research data are based more on the accuracy in averaging the consumption pattern of the consumers and which in turn can provide finer forecast of the demand level.

Tactical Level Functions

These decisions are vital for the business as a whole. Certain tactical decisions are taken on the basis of study on the consumer behaviour and tastes of the consumers as well as on their buying behaviour and pattern. For example, in Maharashtra, just before Ganesh Chaturthi, people buy new cloths and apparels for family, hence demand for the readymade garments increases. In the same way, during the season of Durga Puja festival in West Bengal, we find considerable rise in demand for dress materials. Many textile companies concentrate to supply their products to the distributors/dealers at a reduced rate or at special festival price. This in turn leads to offers like *"Buy 2 get 1 free (in Brand Factory shopping malls)"* or *"Sabse Sasta Saat Din (in Big Baazar)"* etc. These offers are the results of certain decisions taken by the manufacturer at its tactical level for which it has made a thorough market survey about the consumers buying behaviour and seasonal demand pattern of specific geographic locations along with a strong comparison of marginal cost.

Apart from the pricing, decisions on procurement policy play very significant role to make a supply chain successful. It starts from the very beginning of selection of suppliers, the Product & Service Agreements with them, how should be the terms of payment or delivery criteria or how fast is the supplier to meet the requirement of production and what is the probability of supply failure and above all whether the selected supplier would be able to maintain quality of material. The speed of inbound logistics is dependent on these tactical level decisions on procurement. In India, especially in government sector and in many PSUs, decisions on procurement are mainly based on price-time priority basis particularly where quality is not a relevant factor. If raw material quality is important factor for maintaining productivity, then on the first level, suppliers are chosen on the basis of quality and specification (Technical bids). On the next level, price-time priority principle is applied for those who met the quality specifications. In some cases, where the company's management is more organised in all respect, suppliers' panel is formed and finalized by executing Product & Service Agreements by selecting the best suppliers along with their specification of material quality, lead time, terms of payment, credit period, terms of delivery logistics and even with the "periodical price escalation clause".

Operational Level Functions

These functions are almost daily routine jobs which include, daily demand planning, production planning, distribution planning, maintaining the inbound and outbound operation in order, customer service, order management, resource planning for the next phase of production and it includes proper man-management also. Amongst all these, demand forecasting and management thereof is the most crucial as any wrong demand estimate which is injected in the system would misguide the production function. The ultimate result will be either piling of stock of finished stock and lose of monetary interest on them, or shortage of finished goods for delivery to customers which leads to losing the opportunity to sell and lose of market share. The Demand Management process is targeted towards balancing the Customers' needs and company's capabilities to supply. Demand should be forecasted as accurately as possible and the same should be synchronized in a balanced manner with the company's purchase, production, and distribution. Supply capacity should be built up to cope with any sudden demand. Accuracy in demand forecasting can be achieved by considering various sources of demand related data, i.e. historical demand, projected sales, previous instances of sales promotion, product's existing and targeted market share, market research data etc.

Strategic Level Functions

Choosing the right partner is always a very important key to success, be it in personal life or for a company. The very value addition process in the whole supply chain gets life due to the presence of partnering company. Let us take some recent examples – *"The Bosch Group and Vodafone have announced a global partnership aimed at making it easier to manage products with embedded SIM cards. The collaboration will combine Bosch's experience in designing sensors and automated work flow processes with Vodafone's expertise in providing excellent network quality and management tools that take the stress out of global deployments."* – Source 'Press Release' by Vodafone Global Enterprise dated 1st March, 2011.

Again – *"Nokia and Microsoft announced plans for a broad strategic partnership to build a new global mobile ecosystem."* – Source 'Press Release' by Microsoft dated 11th Feb, 2011.

Strategic alliances are also common in India, like Abbott (US) tied up with Zydus-Cadila of Ahmedabad where the former gives licence to 24 generic products of the later in 15 emerging markets. Moreover on 13thJanuary 2011, a MOU was signed up between Tata Coffee and Starbuck Coffee (US) which would enable sourcing and roasting high quality green coffee beans in Tata Coffee's Coorg unit and also Tata Coffee and Starbuck can jointly explore the development of Starbuck's retail stores and outlets.

In all of the above examples, the strategic objectives like, product development, better sales distribution, opening of new markets etc. are fulfilled. These decisions are directed towards the improvement of functionalities of each unit involved in the whole supply chain. In short, the strategic alliances pave the way for smooth running of core activities of supply chain.

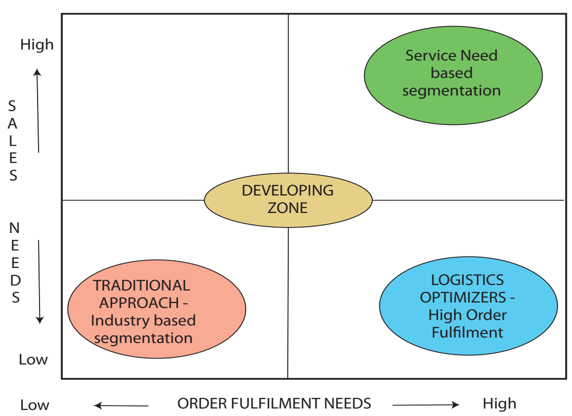
Principles of SCM

As the supply chain management became a very necessity for viability of business and industry, certain principles were required to be propounded. The best ever practices of Supply Chain Management were provided by Andersen Consulting (now known as Accenture) during 1997. We should have a look on them.

Principle-1 **- Segment customers based on the service needs of distinct groups and adapt the supply chain to serve these segments profitably.**

Traditionally, the customers are divided in different segments/groups/trades/industry and they are serviced in a common platform, just like free-size clothing. As a result, the company never understands the relative value or worth of their services to the customers. But according to the principles of segmentation of customers based on service needs, a company can develop a tailor-made service channel for each group of customers. Figure-3 simplifies the theme of this principle.

Figure-3: Service Needs based Segmentation



An effective supply chain management system always identifies the service needs first, and then makes customer segments based on service needs. Then the needs are understood and proper matching is made between the various customer accounts with the service packages. After that, it is the matter of time to translate this match into revenues. These companies stay in the fourth quadrant of the diagram.

Principle-2 **-Customize the logistics network to the service requirements and profitability of customer segments.**

If the customer's profitability increases, value addition happens to the business. So, any business should focus on the customers' service needs and accordingly design the logistic network. Today a manufacturer has to adopt segment-specific approach for logistics arrangement instead of conventional monolithic approach. This principle plays very prominently in the industries where service needs of the customers are very much differentiated and diverse. In an industry where quanta of service-demands vary widely amongst customers, the company has to arrange multi-level and multi-modal logistics systems to meet demand. A good example is paper industry where large printing houses require huge supply allowing substantial time for delivery. On the other hand, small local printing presses require fast delivery in smaller quantities.

***Principle-3-* Listen to market signals and align demand planning accordingly across the supply chain, ensuring consistent forecasts and optimal resource allocation.**

The manufacturing company must follow the demand-sensitive approach to its production and planning of supply chain. The Sales and Operation Planning (S&OP) can be designed appropriately on the basis of signals received from the market based on demand forecast. Forecasting of demand incorporates the features like, change in buying behavior, buying pattern, geographical concentration of customers, festivals, changes in usage pattern, ordering pattern, etc. So, the S&OP would consider all such factors while designing the supply chain system for ensuring seamless delivery and supply.

***Principle-4-* Differentiate product closer to the customer and speed conversion across the supply chain.**

After the starting of cut-throat competition in business and industry, manufacturers cannot spend more towards stocking of final products after differentiation. It will be a costly affair to wait for exact customer for such differentiated products. Hence they are delaying product differentiation to the last possible moment and thus overcoming the problem. In reality, the manufacturer postpones the finalization of fittings of accessories which would be done according to the order or even sometimes, in presence of the customer. Many industries follow this principle for a speedy conversion through its supply chain. Computer manufacturing companies keeps the last level differentiation pending for type of monitor (LCD/LED), Hard Disk storage capacity, speed and capacity of RAM, other accessories like USB ports, CD/DVD drives etc. According to the requirement of the customer, these are fitted and the final product i.e. computer's quality and features differs from one PC to other.

***Principle-5-* Manage sources of supply strategically to reduce the total cost of owning materials and services.**

Today we have to manage our supply resources very carefully to maintain a low-cost, good quality stable supply to the production in a very consistent manner. For that Andersen Consulting suggested to work closely with suppliers to reduce overall cost and to improve margins for both. For managing supply to the production, in many cases, strategic tie-ups or alliances are very common today which we have discussed already.

***Principle-6-* Develop a supply-chain-wide technology strategy.**

A supportive technological strategy must exist behind the supply chain management system so that the multi-level decision making becomes easier. Only through a proper line of information technology, the strategic decisions can propagate into the whole system. The IT system should be capable enough to tackle the information load and should ensure the clarity of the flows of products and services.

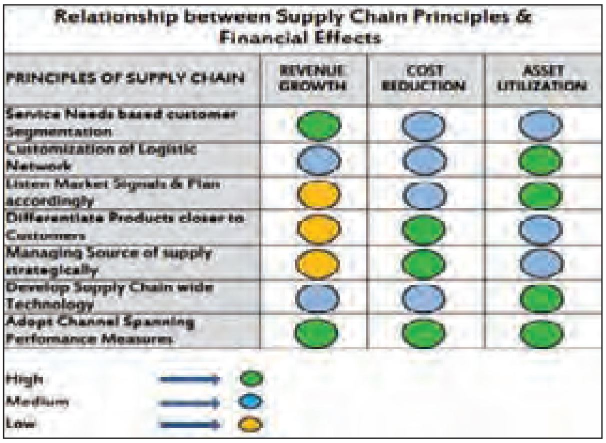
***Principle-7-* Adoption of channel-spanning performance measures**

A well-responsive system of performance measurement system is the answer to the key question – "how are we doing business?" Success of a supply chain depends on identifying the lacunae of the system, finding reasons thereof and taking corrective measures thereon. Such performance measures go beyond the boundaries of internal functions and can develop the service and profitability of each account involved. In short, performance measures should spread through all the channels in the business, i.e. starting from demand forecasting to delivery of the product.

Practical Implementation

The aforesaid principles are not propounded for using only in academic purpose; rather they have enormous potential in practical scenario. In order to achieve a sustained growth in the competitive market where Darwin's theory of "Survival of the Fittest" is the ultimate doctrine to be followed, proper designing and implementation of supply chain is the most important task of the management. The process of converting the theory into practice requires a thorough study of the whole organisation with in-depth analysis of each of its functions and their financial outcomes. The conventional parameters like, cost reduction and asset utilization are considered valuable target for the SCM process. They always help the company to sustain in the competition. But sales revenue is considered to be the most effective target for survival and achieving business growth. When the supply chain adds additional revenue, it actually adds value to the business. Figure-4 shows the relationship between the principles of supply chain and its possible outcomes.

Figure-4:



For implementing a correct and effective supply chain for the business, the management should first try to get answers of the questions like; - what kind of customers does the company serve, or what kind of customers does the company sell to, or what kind of supply chain is the company a part of? Answers to all such questions give the basic understanding about the characteristics of the supply chain where the company belongs to. Certain attributes are helpful to understand the customers, like; - quantities of the product required in each lot or customers' tolerance limit for maintaining brand loyalty in case of shortage of supply or in case of longer lead time. More such attributes are; - required variations in the product with respect to design, quantity, quality, etc, expected service level, and obviously the price. In this way a company can have a complete understanding about its customers. Then it should define the core competencies it already has and assessment of shortfalls. Then a gap analysis has to be performed to fill up the supply chain gaps. But whatever be the market or customer, for survival and growth in a competitive market, a company must align its business strategy with the supply chain because compatibility of the supply chain in the business strategy is the ultimate pre-condition for success.

Supply Chain Management and Outsourcing Business

Cost is a part which sometimes plays behind the outsourcing decision for supply chain functions. Increase in net profit can be achieved by increasing the sales volume and lowering the cost. Now cost has to be managed precisely to for the purpose of the very existence. What are these costs? Besides the material cost, there are cost of procurement, cost of transportation, cost of various types of overheads like material handling charges, loading & unloading charges, rental of warehouses, its insurance and safety measures charges, cost of supply and outbound logistics expenses and many more. According to the report of Confederation of Indian Industries (CII) in 2002, in India an automobile company procures materials from 250 distinct suppliers. Hence one can understand the structure of functional costs incurred by the automobile company on procurement. A typical procurement cost management strategy includes negotiating price by leveraging volume, price and cost analysis. Here outsourcing provides the remedy.

Outsourcing the non-core areas in the supply chain saves cost, particularly in Pharmaceutical and Electronics industry. In India, most of the large companies adopted outsourcing its logistics service to the qualified logistics service providers. In some cases, some companies outsourced their order management function to any other company to ensure better movement of stock. Besides the cost reduction, it fetches something more to the company. Accurate and efficient logistics service implies more customer satisfaction which in turn leads to retention coupled with continuous growth in sales volume. Such collaborations, especially in view of rising transportation costs and other complexities in the system, means new and improved visibility.

Although cost is an important criterion for decision making of whether to outsource any of the supply chain functions or not, it is not the sole factor to be considered. Companies should closely evaluate their internal cultural alignment, core competency areas and business capabilities before making a decision of outsourcing any of its SCM functions. A company's cultural atmosphere, working environment, cross-departmental functionalities and corporate mission provide the deciding factors in determining whether it should keep supply chain management services in-house or outsource them to a qualified third party logistics provider. In India, several banks have outsourced the very function of servicing the ATMs in terms of cash management, cash counting and replenishment, solving mechanical issues at minor stage to many organisations like Writer Corporation, Brink's Arya, etc. The banks identified these functions as the non-core functions and handed over to the specialists for smooth and better service to its customers.

In recent years, the Government of India also has taken major initiatives to boost up supply chain functions throughout the country. GOI allows

100 % FDI in Port Development Projects. These projects along with Multi Modal Transport projects undertaken by Public-Private-Partnership (PPP Model) would enjoy exemptions in Central Sales Tax and Income Tax. Moreover, three GOI undertaking companies, Shipping Corporation of India Ltd (SCI), Container Corporation Ltd (CONCOR) and Central Warehousing Corporation have tied up for providing end-to-end solutions. (Source: Business Lines –5th Jan.2011). These three companies would float a Joint Venture to ensure seamless flow of cargo, to offer cost-effective transport system and to promote coastal shipping business.

Conclusion

For a better business prospect of tomorrow with an ease to tackle more intense competition, there is no way but to adopt solid supply chain management system. It reduces cost by way of eliminating unproductive functions and hence at its ideal stage, SCM itself functions as a method for cost management. Day by day, more industries are inclined towards embracing SCM in their business. But in any case, success of supply chain depends upon strict functional clarity and discipline with a proper alignment of doctrine of cost management.

References

1. http://www.aquamcg.com
2. Supply Chain Management: Strategy, Planning and Operations – *Sunil Chopra, and Peter Meindl*, 2001
3. The Supply Chain Management Process - *Keely L. Croxton, Douglas M. Lambert, The Ohio State University*
4. JIT Practices in Indian Context: A Survey – Vikas Kumar, Dixit Garg and N P Mehta, *Journal for Scientific & Industrial Research, Aug-2004*
5. Supply Chain Management – Sotiris Zigiaris, *INNOREGIO Project, SA*
6. Logistics and Supply Chain Management – Martin Christopher, *Prentice Hall*
7. Defining Supply Chain Management – John T. Mentzer and William DeWitt, *Journal of Business Logistics, Vol.22, No.2, 2001*

At the Helm

Shri Subhash Agrawal

Our heartiest congratulations to Shri Subhash Agrawal, a Fellow member of the Institute of Cost Accountants of India for taking over the charge as Chairman & Managing Director of Triveni Structurals Limited, in addition to holding position of Director (Finance) in Cement Corporation of India Ltd. Prior to this he worked as General Manager (Finance) in Everest Industries Ltd. and he had also worked for IFFCO, Kothari Fermentation and Biochem Ltd. He has varied experience in the field of Finance, Internal & Forensic Audit, Risk Analysis, Arbitration, Cost Management, Taxation and Corporate Laws.

We wish Shri Subhash Agrawal the very best in all his future endeavours.

Supply Chain Management: Its Application in Business Operations

Saurabhi Borthakur
Gauhati University
Guwahati, Assam
saurabhi.borthakur@gmail.com

Sujit Sikidar
Gauhati University
Guwahati, Assam
sujitsikidar@sify.com

Abstract

Every business fits into one or more supply chains and has a role to play in each of them. It is a linkage between producer to consumer spanning over several stages and chains of distribution. Customer expectations are moving in the direction of increased value addition and cost consciousness and an effective Supply Chain Management (SCM) can support the organization in meeting these expectations. In order to expedite the process of SCM, Computer and Information Technology plays a key role. This is particularly in case of international business transactions. The present article is an attempt to focus the importance of SCM in a business organization and the application of technology in SCM with special reference to international business transactions

Keywords

- E-Commerce
- Material Requirement Planning (MRP)
- Enterprise Resource Planning (ERP)
- Customer experience
- Available to Promise (ATP)

Introduction

During the ancient times when the business was run on a small scale within a limited space, there was no complexity and the activities were easily controllable from a single table. With the gradual expansion of horizon of business activities the question of scientific supply chain networking became an important tool for the purpose. The historical evolution of supply chain can be found in 1904 when outsourcing was noticed when Charles s. Rolls became a selling agent for cars made by F. Henry Royce.

The period of 1960–1975 was witnessed as an inventory push era that focused on physical distribution of finished goods. During the next fifteen years till the year 1990 the corporate entities migrated from an inventory push to a customer pull era. In 1980 the use of Supply Chain Management (SCM) emerged. Wal-Mart introduced the concept of cross docking in the year 1985 and in 1996 application of internet revolutionized the production, supply and distribution channels. With the introduction of E-Commerce in the year 1998, the definition of business changed. From the year 2000, Mobile commerce, Electronic commerce and recognizing services under WTO's GATS as a tradeable product and cross border capital flight for investment purposes, general anti avoidance rules, transfer pricing, double taxation avoidance agreement among nations, global takeover, merger and acquisition has added new dimensions to supply chain.

Some of the definitions of Supply chain are:

1. The design and management of seamless, value-added process across organisational boundaries to meet the real needs of the end customer. - Institute for Supply Management
2. Managing supply and demand, sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, and delivery to the customer. - The Supply Chain Council, U.S.A.

From the above definitions it may be inferred that every business fits into one or more supply chains and has a role to play in each of them. A supply chain is a process of ensuring flow of products from manufacturer's level to pass it on to the ultimate consumer. It is a linkage between producer to consumer spanning over several stages and chains of distribution. It is a process of fulfilling customers' request for a product at a quickest possible time. It involves several intermediaries in the process of distribution of goods, right from a manufacturer to distributor, wholesale stockist, supplier, transporters, warehouses, retailers and even consumers themselves. They all are engaged in receiving a request from customer and finally executing such request is final delivery of goods at the doorstep of the customers. The functions of SCM are not only confined to supply of goods but it also embraces other functions such as new product development, selection of new channels of distribution, advertising media, marketing, operations, distribution, finance, research and development, product innovation, after sale service, customer care and customer relationship management (CRM).

***Supply Chain Structure:* Supply chain structure may be categorized into two:**

1. Simple Supply Chain and
2. Extended Supply Chain.

This has been shown in the form of diagram below:

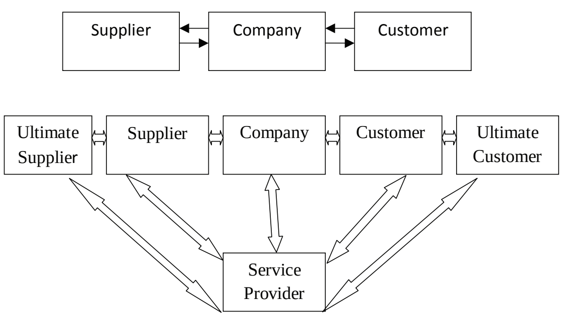


Figure 1: Simple (Top) and Extended Supply Chain (Bottom)

Most supply chains are primarily networks. It may most appropriately be described as supply network or supply web to describe the structure of supply chain.

Having considered the evolution, meaning and structure of SCM, we may now conveniently lay down the objectives of the present study.

Objectives of The Study

The present research enquiry has been undertaken with the following objectives:

1. To examine the importance of supply chain management in respect of different segments of a business entity.
2. To analyse the application of information technology in using supply chain network technique for flow of business information.
3. To analyse the application of SCM technique in respect of international business transactions across the sovereigns.

Research Methodolog y

For the purpose of conducting this enquiry the present researchers based on secondary sources of information from some published books, printed materials of select business entities and from relevant websites. The research work is a descriptive type of analysis.

Graphical presentation in appropriate places has been made in order to make the presentation brief and self explanatory.

Importance of SCM In A Business Entity

We may now consider the supply chain stages which will demonstrate as to which way the products reach from producers to consumers which in turn will enable us to understand the importance of SCM in different segments of a business entity. The supply chain stages are:

1. Supplier
2. Manufacturer
3. Distributor
4. Retailer
5. Customer

In continuation of our discussion we may infer that the term supply chain entails the movement or dispatch of product or supply from suppliers to manufacturers to distributors to retailers to customers along a chain. It is worth noting that all the stages are inter-related and information, funds and product flow along both directions of this chain.

Customer expectations are moving in the direction of increased value addition and cost consciousness, response time and information sensitivity, need for reliability. Increased competition is forcing industries towards reducing lead time and cost.

Some other benefits are: Inventory reduction, productivity improvement, personnel reduction, cost reduction, high customer satisfaction, increased profit, on-time delivery fulfillment, profit increase, better cash management and better order management

Companies in any supply chain must make decisions individually and collectively regarding their actions in five areas:

1. *Production (what, how and when to produce)*
2. *Inventory(how much to make and how much to store)*
3. *Location (where best to do what activity)*
4. *Transportation(how and when to move product)*

5. *Information (the basis for making these decisions)*

The sum of these decisions will define the capabilities and effectiveness of a company's supply chain these areas as performance drivers. Each driver has the ability to directly affect the supply chain and enable certain capabilities. The right combination of responsiveness and efficiency in each of these drivers allows a supply chain to increase throughput while simultaneously reducing inventory and operating expense. The core areas of SCM and their relationship have been shown in the form of diagram under Figure 2 hereunder:

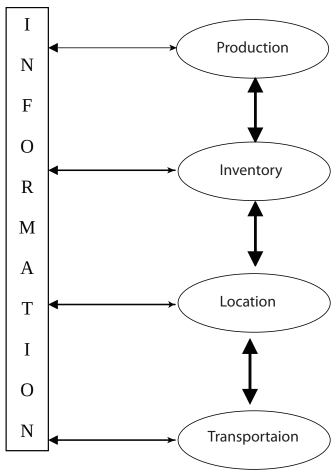


Figure 2: Core Areas of Supply Chain Management

Supply Chain Management has an important role to play in moving goods more quickly to their destination. The important elements of a distribution network are:

- Product availability
- Product variety
- Time to market
- Response time (time taken for a customer to receive an order)
- Order visibility
- Customer Experience
- Ability to return or exchange

The significance of SCM of modern times can be conceptualized by a historic statement made by the French General Napoleon when he said that an army marches on its stomach. Unless the soldiers are fed, the army cannot move. The military supply chain network is a war time strategy to win a battle. Our research enquiry also makes us realize that the American Chief of Army Staff of South East Asia General Stellwell who constructed a road in 1943 in the month of October in the hilly terrains connecting Pangshau Pass through Simbieung Metkiano of Myanmar to link with Burma Road near Morgong connecting via Ledo in Assam covering around 1736 kilometer distance upto Kunming city of South China. The road famously called Stilwell Road was used during the Second World War as a military supply line. This two war strategic supply link originally applied in armed forces subsequently made an inroad into business areas to ensure networking among different supply sources through a chain network. This has physically been termed as Supply Chain Management.

Having considered the importance of SCM in different segments of the business, we may now proceed to analyse the application of information technology on SCM and its impact.

Application of Information Technolog y on SCM:

In order to expedite the process of SCM, CIT (Computer and Information Technology) plays a key role in this regard. We shall deliberate hereunder some of the software that has been designed for the purpose of SCM. For this article the present researchers term it as 'Supply Chain Planning Software' (SCPS). According to Rajesh Ray (2011), SCM has got three component viz. MRP (Material Requirement Planning), ERP (Enterprise Resource Planning) and SCM (Supply Chain Management).

Material Requirement Planning: A MRP consists of inputs and outputs. For instance in Tata Motors, tyres that are procured from vendors is planned in advance and the source of supply is identified. This process of planning is called MRP. It covers selecting important assembly groups and components. This may be demonstrated in the following way:

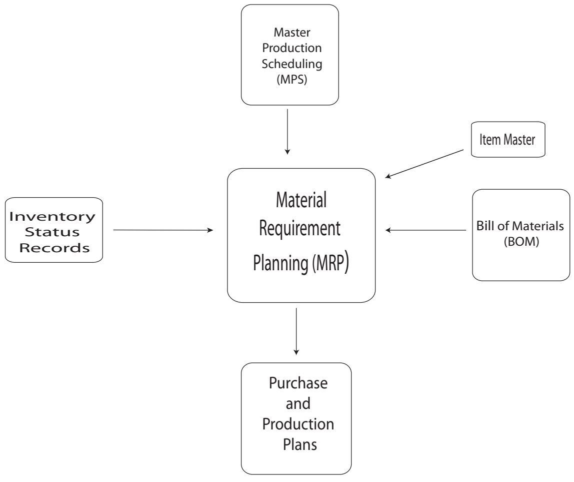


Figure 3: Material Requirement Planning

An indicated in the diagram above, MRP comprises of the following:

- Material Requirement Calculation
- Master Schedule
- Order Promising (ATP)
- Distribution Plan (DRP)
- Sales and Operation Plan (SOP)
- Calculation of Material Component and Labour Resource

Enterprise Resource Planning: MRP is calculated on the basis of value perception of the production management team. Next stage is ERP. ERP comprises of the following components:

- MRP
- Demand Planning
- Integration with SCM Execution Systems (Transport, Warehouse. Materials Management, Production Execution)

SAP has a module for processing of global transactions called Global Trade Services (GTS). ERP process in global trade has been indicated below:

- Product Custom Classification
- Customs Duty Calculation
- Sanctioned Party List Screening
- Embargo Check
- In transit merge
- Preference Processing
- Letter of Credit
- Import Processing
- Export and import documentation
- Import License

Supply Chain Management: SCM further comprises another bigger calculation comprising of the following:

- Advanced Demand Planning
- SC planning and optimization
- Production Scheduling and optimization
- Transportation planning, Route optimization
- GATP (Global Available to Promise)
- Advanced Collaboration like VMI (Vendor Management Inventory), CPFR (Collaborative Planning Forecasting and Replenishment)

It is worth mentioning here that GATP is an online search to verify the company's ability to provide the required product in the requested quantity and on the date requested by the customers. In ERP-ATP functionality is limited and an ATP check search local inventories only for available products. Supply chain solutions provide much advanced capabilities in this area.

Emerging technologies in SCM include bar coding systems, speech recognition, memory buttons, WAP (Wireless Application Protocol) applications and RFID (Radio Frequency ID) tags promise to expedite the flow of goods. Most of the technologies helped to speed up the movement of goods through the distribution pipeline. Globally DHL was the first to bring out its WAP, offer its services, where it offers tracking, service bulletins, volumetric weight calculation for shipping out its e-business suite. Many mobile players overseas now offer a corporate WAP solution.

Logistics and SCM is characterized as a transaction oriented and information intense business function where orders must be entered, processed and tracked. The use of electronic data with suppliers provides the company two substantial benefits. First of all the transaction costs associated with the ordering of products and the paying of invoices are reduced drastically and the second benefit is that such links allow organizations to have a high degree of control and coordination in the scheduling and receiving of product deliveries ensuring a steady flow of the right products at the right time, delivered to the right consumer.

Having considered the importance of SCM in a business entity we may now highlight the application of SCM in respect of international business transactions and trace the areas requiring special treatment in such transactions.

Application of SCM Technique in Respect of International Business Transactions:

An efficient and effective conformity to SCM is relevant for domestic transactions. In fact, it is more extensively applicable in respect of international transactions. In international transactions the parties engaged in supply chain are high quality producers, consumers and buyers catering to the global needs of distribution. Hence, for a global supply chain we have gathered few important parameters in this regard namely, quality, technology, cost, and logistics support and service delivery.

Under global trade scenario, supply chain processes are indicated below:

- **Physical supply chain process:**

   i. Import and customs compliance
   ii. Global logistics management
   iii. Supply Chain visibility
   iv. Exception alerts and resolution
   v. Multi echelon inventory management
   vi. Global risk and security management
   vii. Multi-modal transport planning

- Financial supply chain process:

  i. Duty collection
  ii. Duty drawback
  iii. Letter of credit
  iv. Tariff management
  v. Electronic paperwork
  vi. Invoice reconciliation and claims automation
  vii. Financial settlement
  viii. Contract management
  ix. Corporate risk management
  x. Purchase order management
  xi. Trade finance- cash, credit and working capital management
  xii. Foreign exchange management
  xiii. Insurance management
  xiv. Trade finance
  xv. Invoice reconciliation and financial settlement
  xvi. Dispute settlement mechanism
  xvii. International taxation
  xviii. GAAR and double taxation avoidance agreement

- Government Regulations:

  i. Government documentation compliance
  ii. Sanctioned party list
  iii. Electronic filing requirements

- Multi entity relationship:

  i. Effective collaboration among retailers, suppliers, shipping companies, banks, insurance agencies
  ii. Relationship with government bodies like port clearing, custom clearance

In course of our research enquiry we have made some case studies with regard to certain select companies and the method of SCM followed by them. One of the entity under our consideration is Wal-Mart whose supply line strategy includes:

1. The strategy of expanding around distribution centers
2. Using electronic data interchange
3. The big box store format and
4. Everyday low prices

These strategies have made Wal-Mart one of the leading retail stores all over the world in terms of its supply chain. Another such entity who has a very successful SCM is Coca-Cola. They deploy SAP ERP and outsource applications to Computer Sciences Corporation (CSC). With this they have been able to create a new supply chain process featuring increased automation and link supply and demand data as a single system.

Some of the **legal issues** which play a very important role in international business are outlined hereunder:

- Contract between any two companies cannot violate the Country law.
- Legal provisions in both the countries have to be embodied in the contract note and which country's law will be applicable under the jurisdiction of supply chain shall also form a part of the contract.
- Depending on the issue there should be a clear mention of the choice of forum also.

In respect of SCM, in case any dispute arises over pricing of supplies between two entities operating in several countries, the entity may go for international arbitration relating to tax matters if the entity is denied fair and equitable treatment. A retrospective tax amendment law in such supply related transactions cannot be enforced. Out of court settlement of dispute in such case may favourably be argued because it provides continuity of business operation without any kind of discomfiture to either of the parties.

There are several **tax related considerations** in supply of products through various chains located in several geographical destinations. Levy of tax on E-Commerce and M-Commerce transactions is a grey area where further study and research can be made. In case Goods and Service Tax (GST) comes into force as a replacement of existing VAT in the country, amendment of Income Tax Act and VAT Act of all states to bring e-commerce goods and service transactions under the VAT Act of respective states of the country will require additional research input. We require further examination of applications of GST on ERP transactions on ATP transactions not only for goods but even for services. This is another grey area for academic researchers and for the tax authorities to ponder over. The transactions under SCM and ERP need further scrutiny for generating revenue by way of levying taxes on ERP and ATP transactions under the GST tax revenue for the centre under the Income Tax Act and also tax revenue for the state under GST.

The first consideration will be the levy of domestic taxes like VAT on procurement using intermediary stage and then finally converting it into finished products. At every stage of distribution channel, procurement and distribution within the country shall be subjected to levy of VAT. However, the rate of VAT chargeable would depend on the schedule of rates prescribed under the State VAT Act in respect of such commodities.

Custom Duty is levied on the declared value of goods transmitted through supply chain. Hence, invoice price mentioned in an invoice sent for a foreign transaction will attract ad valorem duty on the quoted price.The parties engaged in supply chain are also exposed to foreign exchange fluctuation risk in respect of settlement of international supply chain items. Foreign exchange fluctuation risk has to be adjusted against the foreign currency obtained from Central Banking Authorities.

Central Excise Duty will be levied if it is an excisable commodity under the Central Excise Tax Act, 1944. It may also attract the provisions of Central Sales Tax Act, 1956 wherever applicable.

When spare parts of an automobile, bicycles, cars, other light machineries are exported from an Indian Holding Company to its Subsidiary company either manufacturing the same product or distributing the same in a foreign country, the SC transactions between domestic holding and foreign subsidiary company shall be required to prepare an international invoice governed by mandate of transfer pricing norms stipulated by the respective countries. Apart from that to be on the safe side the companies may be required to follow global practice of transfer pricing under IFRS. For the purpose, registration under the Income Tax Act, registration under the Director General of Foreign Trade (DGFT) for export- import license, quoting of PAN, export import registration and license number, foreign exchange available for export purposes under the FEMA need to be procured from the Central banks, and all these are to be incorporated in the relevant documentation part of SC transactions. In international context it is a complex matter with full disclosure to be made in tax return as well as in online financial statements submitted as per MCA-21.

Conclusion

Conforming to timeframe for movement of inventory from one territory to the other either from B2B, from B2C, from SC2B or from SC2SC, from input supplier to output manufacturer or from intermediary to final producer are an essential ingredient for successful Supply Chain Management. The global business in the mid of the 21st century till 2060 will be governed by 'Supply Chain' and the competition will no longer be between companies but will be between their efficiency in supply chain management. Those who are not able to match the supply chain with CIT connectivity as a facilitator, their sustainability may be at stake. Hence, a sophisticated Supply Chain Management would be an essential but not sufficient condition for sustaining business operations in time to come.

Reference

1. Ray Rajesh, "Enterprise Resource Planning", Tata Mc Graw Hill Education Private Limited, New Delhi, 2011, pp. 376 to 381.
2. Chopra Sunil, Meindl Peter and Kalra D. V., *"Supply Chain Management"*, Pearson Education, New Delhi, 2007.
3. Report produced for the EC funded project, by Sotiris Zigiaris, January 2000.
4. http://catalogimages.wiley.com
5. http://www.csc.com
6. http://www.unidoicamt.org
7. The Times of India, several issues

Kind Attention

Annual membership fee of Rs 1000/- for Associateship and Rs 1500/- for Fellowship for FY 2013-14 became due for payment w.e.f. 1st April 2013. The last date for payment is 30th September 2013. Kindly rush in your payments to continue to enjoy the benefits of membership.

Members are also requested to view their profile by logging in to the Institute website www.icmai.in and check the details for themselves. In case of any discrepancy, the same should be brought to our notice and correct information relating to the member concerned is to be mailed at **membership.rb@icmai.in**.

Supply Chain Management— An Indispensible Tool For Customer Relationship Management

Rajib Kr. Dutta
Asst. Manager (Commercial)
Godrej & Boyce Mfg Co ltd., Kolkata

World economy is growing in faster pace. Be it in the field of agriculture,manufacturing,technology or IT the economy has seen a sea change. Economy boom in the recent past has undoubtedly been improved through better well defined set of value reengineering solutions and practices of industries. Be it manufacturing, retail, infrastructure companies have understood that cost management efficiency would lead to higher returns.From conventional theory of sales based management companies is driving business through revamping the total supply chain processes. Most companies are claiming to be experiencing improved efficiency in operations through systematic implementation of scm processes since the competitive scenerio is demanding a relook at the process and refine them to suit a new scene requirements.

Change in customers demand and services customers evaluation ability have a direct impact on survival status of companies. For sustainable business advantage and in the scenario of price wars efficient cost management stategy through perfectly channelled supply chain management process and customization of services can only lead to better profits through tighter controls.

In the context of cutting throat competition the **SCM** process starts with the **5-R** of purchase(**R**ight quality, in the **R**ight quanties, at the **R**ight time and in the **R**ight price and from the Right source). The need of essentials of scientific purchasing does not guarantee achievement of one of all the 5-R. Emphasis on the purchase in lieu of changing business conditions, growing competition continual escalation in the cost of inputs given equal emphasis in the top management decision making for the good department and practices in purchase functions.

Important reasons for the change of conventional purchase are

a. *Higher cost of goods and services*–Raw materials, components and services account for a significant as much as **50** to **70** % proportion of company's total expenses. Mere **1**% saving in material cost can give benefit equivalent to nine percent rise in sales volume.
b. *Escalating cost of stock outs*–Lack of sufficient stocks can lead to huge loss of sales thus can damage profitability.
c. *Professionalisation* of material functions management concepts such as ABC analysis, economic lot size, leaning curve, critical path analysis, line of balance, variety reduction, codification, value analysis, vendor rating etc has emerged now a days in many big size organisations giving better analysis of profitability.

Purchase is not a department in the first phase of **SCM** nor a cost centre but a department to be looked as a profit centre who can save company's money through better purchase.

Production in a manufacturing organisation plays a vital and pivotal role in the mainstream of SCM process. Lean production schedule and disruption in production can seriously effect the total process of Supply chain. This is one of the main reasons manufacturing organisation put extra efforts in reducing the production hastles and give much more stress on continuous production schedules.

Mostly total Supply chain gets badly effected due to

1. Standstill of machinery/machine breakdown.
2. Slow moving of materials.

3. Defects and failures of materials.
4. Production disturbances.
5. Over production
6. Lead time
7. Stock out.
8. Labour unrest

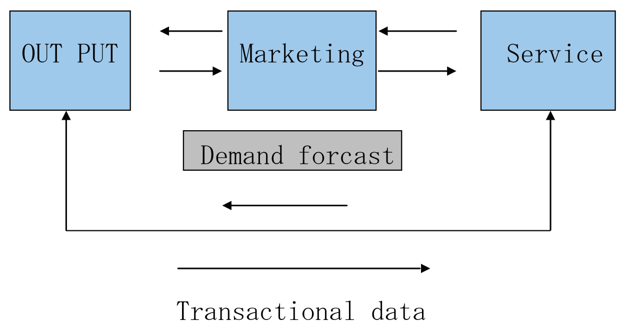
Supply chain & CRM (Customer Relationship Management)–When demand becomes highly vulnerable to unpredictable forces, forecasting becomes a tough task. Intense competition and resultant price wars driving companies towards saturation. Hence competitive differentiation is looked upon as a **SAVIOUR** to protect a company's earning interest. In a hyper competitive environments where markets are witnessing price wars, competitive differentiation can be acheived only through efficient cost management practices, since companies operating on lesser costs earn higher profits. Marketing and sales system in Supply *Chain* of a company provides a cost leadership and determines the float of market leadership.

Strategists see customer retention as cost saving especially when the processes are focussed on retaining the most valued customers and cater to their demands. The **80:20** definition in CRM says it all. The most valued customers are those who contibute to a major portion of revenues for a company. It could be **20**% of the customers contributing to **80**% of revenues for a company. Looking at the rising cost of customers acquisition that companies today are experiencing it is important to understand customers retention imperatives on the supply chain process for competitive positioning and profitability.

Supply-Demand Gap–Supply chain management has been synonymously used with Demand Based Management (**DBM**) by practitioners, since it is felt that demand generates supply. Todays market system goes against traditional says law of market that stated "supply creates its own demand". The reality is supply doesn't create its own demand. It rather creates stagnation and deflation. Demand is driven by consumer needs to extend it to present day trends, it is driven by expectations. In the competitive environment where there is minimal price differentiation, consumers buy products not just to satisfy their needs but to cherish and satisfy themselves. While needs could be as basic desires or wants, expectations are outlines based on definite set of perception. The one who meets wins.

Complex distribution of customer bases and uneven sales,many companies are building the robust system of **TOC (Theory of Constraint)** system and concept in shortening the supply demand gap. *TOC* a tool of supply chain targets the gap of uneven sales and uneven demand throughout the year.It leverage the total chain i.e. procurement requirements and supply at end customers. It mostly aims through JIT (Just-in -time) and replenishment model.

Value chain analysis–At the very basic lavel it aims at keeping the inventory low because a well determined demand forecast means a definite output obtained from a defined combination of inputs. Concepts of TOC in the SCM process aims at incorporating the various marketing and service staff in the SCM process through electronics links. The transactional data is shared between the various departments in the organisation through an effective ERP implementation. The flow of data in the SCM process is done in the following manner.



Flow of data in the SCM

The output is detemined by demand and demand is determined by forecast. The customer service department plays an important role as a provider of insight into customer expectations to the strategists from the customer feedback generation system which is updated on a regular basis. Once the output is determined, the inventory decision making takes place, and the production process begins.The demand fulfilment activity starts effectively from the marketing links, which gets information on the output, based on which strategies that follow, makes the job focussed, department see it that it properly reaches the target segment. The next and most important link is customer service, which is gaining importance today owing to an inbound need to retain customers. The department is the closest to the customer, and needs to know what happens in their links. For example, when a query is placed as regards availability of a product, the support staff should be aware of the supply status and give information accordingly. Any misleading information is bound to affect business. So, the transaction data needs to go to the customer support cell for profitability to increase. The department also gives alarm, when there is a supply–demand mismatch, arising out of dumping and negative demands.

Supply Chain Management in the context of Indian scenario

India has long been a fertile ground for sourcing highly skilled IT and engineering services, but it estimated that manufacturing and retailing is the next boom. In recent years India was forecasted as the greatest consumer market opportunity, receiving the highest Foreign Direct Investment (FDI) confidence index.

Logistics In India

But the logistics infrastructure will slow india's progress. Logistic infrastructure is severely lagging the country's growth and costs are extremely high, as a result Logistics costs are around 13 percent of GDP compared with 8 percent in the U.S. There is always supply chain challenges outside companies as they enter INDIAN market.

1. Limited infrastructure–India has one of the largest road networks in the world, yet less than half of the roads are paved and less than 2000 kilometers are express highways, a significant difference when compared to china's 30,000 kilometers. The national highways account for less than 2 percent of the total road network, but carry 40 percent of the traffic. This is one reason the average speed in India is 20 miles per hour, compared to the west's 60 miles per hour. The poor condition of roads translates directly to shorter vehicle lifespan, which increases operating cost and reduces efficiency.
2. Overburdened ports–India has along coastline, but its port system isn't well utilized. Seventy percent of the seaborne trade is handled by 2 of its 12 major ports, while 180 minor ports go virtually unutilized. As a result turnaround time far lags other global ports.
3. Non-existent warehouse standards–There is virtually no complex distribution center set up, no standard for suppliers and little vendor compliance.
4. Unorganised trucking operations–Two-thirds of fleets have less than five vehicles making it difficult for shippers to manage the plethora of carriers required to handle shipment volumes. Freight consolidators and brokers take commission to provide truck owners with consignments, and corruption is rampant. Also, inadequate infrastructure causes equipment maintenance costs to be abnormally high. These increasing cost and dwindling profits leave little opportunity for small fleet owners to expand.

Challenges ahead in global scenario

Globalization is accelerating leading to large structural shifts for global supply chain organisations and new challenges to meet new supply chain performance. Product quality and safety, as well as supply chain delivery and security are the most critical concerns when expands the supply chain globally. Major barriers to globalization include limited supply chain flexibility and the lack of internal competency to manage partners.Better visibility and management across the supply chain are the important keys to overcome barriers. Environmental sustainability is a key consideration in the development of future globalization strategies. Today, sustainability is mainly driven by the need for regulatory compliance and satisfaction of customer demand.

Conclusion

The complexity of the supply chain can make it difficult to envision the whole, from end to end. But successful supply chain managers realize the need to invest time and effort upfront in developing this total perspective and using it to inform a blueprint for change that maps linkages among initiatives and a well thought out of implementation sequence.This blueprint must co-ordinate the change initiatives with ongoing day-to-day operations and must cross company boundary.

The Service Tax and Contract: Limitations on Service Providers in Passing The Tax Burden to Service Recipients

Ravindran Pranatharthy
B.Sc, PGDM (Germany), M.L.
Advocate – Indirect taxes & IPRs
ravinpranaa@gmail.com

It is a curious irony that the Apex body of the Department of Revenue collecting income tax and wealth tax is known as the Central Board of Direct Taxes (CBDT), while a similar body tasked with collecting indirect taxes namely Customs, Central Excise and Service Tax is not named as the Central Board of Indirect Taxes but as the Central Board of Excise and Customs (CBEC). Nonetheless the taxes collected by the CBEC are all indirect taxes. The fundamental feature of an indirect tax is the jurisprudential proposition that the taxpayer on whom the incidence falls statutorily will pay the tax without demur and recompense himself by passing on the tax to his customer. The indirect tax is thus expected to pass from hand to hand till it reaches the final consumer. On its way to the last customer, the value chain may at almost every stage see the merger of the purchase value in the value added at each stage which will be taxed again though it is neutralized by the input tax credit system known as CENVAT credit in union indirect taxation. This is the conceptual underpinning of the levy and administration of the union indirect taxes which is also largely true of state level Value Added Taxes. The relevant tax rules require the taxpayer to indicate the tax payable or paid as a distinct item in the tax invoice which is a testimony to the nature of the tax as an indirect impost capable of being passed from hand to hand. An important issue in this context that arises is whether such tax passing can take place without any kind of limitation respecting the scope of seller's ability to pass on the tax.

For example, a manufacturer or trader may inadvertently omit to include the tax element in their sale invoice which otherwise might legitimately be chargeable on the customer as per the contract between the parties. Or, the seller may come under a supplementary demand from the tax department and pay additional or differential tax and who in turn might recover it from the customer by debiting him. There is nothing like predictable clarity in most spheres of indirect taxation in this country, given the complex and opaque language of the statutory provisions and the wayward assessment styles often adopted by assessing authorities of the tax departments putting a premium on audit and re-assessment. Thus, there could be situations where a seller might have to pay a tax amount to the tax department which he could not have anticipated earlier. In such circumstances, the issue is whether such sellers will be legally able to recover the tax from the buyers concerned. In the case of manufacturers and traders of goods who are sellers, the situation is governed by the Section 64A of Sale of Goods Act, 1930. The section is extracted as follows:

"S.64A.

1. *Unless a different intention appears from the terms of the contract, in the event of any tax of the nature described in sub-section (2) being imposed, increased, decreased or remitted in respect of any goods after the making of any contract for the sale or purchase of such goods without stipulation as to the payment of tax where tax was not chargeable at the time of the making of the contract, or for the sale or purchase of such goods tax-paid where tax chargeable at that time—*

   a. *if such imposition or increase so takes effect that the tax or increased tax, as the case may be, or any part of such tax is paid or is payable, the seller may add so much to the contract price as will be equivalent to the amount paid or payable in respect of such tax or increase of tax, and he shall be entitled to be paid and to sue for and recover such addition, and* *b. if such decrease or remission so takes effect that the decreased tax only, or no tax, as the case may be, is paid or is payable, the buyer may deduct so much from the contract price as will be equivalent to the decrease of tax or remitted tax, and he shall not be liable to pay, or be sued for, or in respect of such deduction.*

2. The provisions of sub-section (1) apply to the following taxes, namely—

a. Any duty of customs or excise on goods,
b. Any tax on the sale or purchase of goods".

(Emphasis supplied)

Thus, from a study of this important provision, it will be apparent that any increase or decrease in the tax covered will have an impact on the price charged to the buyer unless such an impact is excluded by the contract between the two parties so that the initial price charged is firm and final. Section 64A protects the seller in enabling him to recover the additional tax that he has paid to the tax department unless the contract excluded his statutory remedy. It also defends the buyer from an unjust enrichment of the seller at the buyer's expense by requiring him to pass on the reduction of tax decrease to the buyer. In this context it will be interesting to note that the buyer, assuming that he has not excluded seller's remedy under Section 64A by making the contract price firm and final, cannot challenge the anticipated tax payment by the seller by seeking to participate in the proceedings for the assessment of the tax on the seller vide the decision of the Madras High Court in **INDIA TYRE AND RUBBER COMPANY (INDIA) PVT LTD vs COMMERCIAL TAX OFFICER (1981) 47 S.T.C. 273 (MADRAS HIGH COURT)**. The buyer of goods will thus not be in a position to contest the correctness or the authority of the additional or new tax passed on to the buyer by the seller as assessed by the taxmen. The safeguards under Section 64A are of course confined to Customs duty, Central Excise duty and Sales tax (now VAT). Section 64A is a unique provision offering an adroit balance of interests between the seller and the buyer in the light of what they agreed upon in their contract as to the future tax liability.

There is no Provision of Services Act like the Sale of Goods Act. The service providers need a protection such as Section 64A. In the absence of such a remedy, service providers who are subjected to unforeseen assessment proceedings resulting in the recovery of new or additional service tax will have to depend on equity and common law in getting the service buyers to reimburse them. The nature of service tax is that it is indirectly levied on the service recipients. The *"indirectness"* of service tax is now not in doubt. The Supreme Court has recognized service tax as an indirect tax in the following leading cases:

1. *TAMIL NADU KALYANAMANDAPAMS ASSOCIATION Vs UOI* – 2004 (167) E.L.T. 3 (SC)
2. LAGHU UDYOG BHARATI vs. UOI – 1999 (112) E.L.T. 365 (SC)
3. ALL INDIA FEDERATION OF TAX PRACTIIONERS vs. UOI – 2007 (7) S.T.R. 625 (SC)
4. PEAREY LAL BHAWAN ASSOCIATION vs SATYA DEVELOPERS PVT *LTD* - 2011 (23) S.T.R. 213 (Del)
5. ALL INDIA TAX PAYERS WELFARE ASSOCIATION vs. UNION OF INDIA – 2006 (4) S.T.R. 14 (Mad)

In all these cases, the respective Courts have implicitly recognized that even though the levy is on service providers, the tax can be recouped from the recipients by the provider of services. Thus, unless the contract between the service provider and the recipient of the service excludes new or additional tax liability and/or makes the price firm and final or where the contract makes out the price as inclusive of service tax, there will be no scope for the service provider to recover any additional or new tax. Subject to this limitation of contractual exclusion of tax liability, the service providers are at liberty under common law to recover the service tax from the recipients of services.

In this context, interesting situations could arise. Even though the liability to pay service tax can be influenced by the terms of the contract agreed between the parties concerned, there may arise cases where the contract falls silent as to service tax liability in the present or in the future. In such circumstances, the issue that arises is whether the service provider can recover the service tax (paid to the Government) from the receiver of the service? Exactly such a question came up in the case of **MAX NEWYORK LIFE INSURANCE CO LTD vs THE INSURANCE OMBUDSMAN** - I.L.R. 2011 (4) Ker. 301 (Annual Survey of Indian Law, 2011 – The Indian Law Institute, New Delhi). In this case, the Insurance Company contracted a policy with the appellant, a policyholder, for which the premium fixed was Rs.4810/-. The insurance company collected the same amount for the first three years and did not charge any service tax amount separately from the policyholder. In the fourth year, the insurance company demanded and billed service tax on the insurance premium. The policyholder contended that he was not required to pay any amount in addition to the agreed premium of Rs.4810/-. He challenged the same before the Insurance Ombudsman. The Ombudsman held that the insurance premium of Rs.4810/- was inclusive of the service tax component and hence the policyholder was not liable to pay any amount in addition to the premium. The Life Insurance Company took the decision of the Ombudsman to the High Court of Kerala. The High Court by a Division Bench in WA. No. 449 of 2011 (filed by the petitioner against the order of the single judge in rejecting their writ petition) held as follows:

> *"The policy document and premium receipts issued for the first three annual premiums do not contain a statement that premium demanded and accepted does not include statutory taxes and levies. Since the tax now demanded was then in force, if the premium demanded and payable was excluding the taxes and levies it should have been fairly disclosed to the 2nd respondent, namely by stating taxes extra. It was not only done at the time of issuing policy, but also for the next two years no such disclosure was made. Multinational companies offering services to public including rural mass have a duty to disclose the real price at which the service is provided along with prevailing statutory taxes and levies. Suppression of the prevailing taxes and levies would amount to material misleading concerning the price. Such misleading in turn would come within the definition of unfair trade practice which we cannot allow, but to deprecate and condemn such greedy devices of the multinational companies in attempt to make pigmy profit exploiting the public including illiterate rural mass. Therefore, we rule that a service provider who does not disclose the prevailing statutory duties and levies at the time of transaction is not entitled to claim such taxes and levies from the consumer at a later stage during the course of continuing service".*
>
> (Emphasis added)

The Implications of the Division Bench judgment of the Kerala High Court are obvious and should serve as a warning sign to all the stake-holders in service business which is to get their contracts to precisely reflect their intentions and to ensure proper tax clauses regarding their tax responsibilities in the contracted arrangement. Of course, it was a David vs Goliath scenario in the *Max NewYork Life Insurance* case and the unmistakable sympathy of the Insurance Ombudsman and the Kerala High Court for the lesser party in the dispute is understandable. But not all cases will have such a neat division of ethics and morality. It is not unusual for contracts made at the eleventh hour or in an urgency or between unequals to omit a tax clause altogether or provide for it perfunctorily without caring for the consequences. Further, there may not be any tax liability at the time of entering into the contract. Or, the Service tax department may unleash unanticipated tax demands. In such an unexpected turn of events, the law needs to protect the Service tax payers from having to bear a tax loss which is not contractually inflicted. A section like section 64A is needed to balance the interests of service sellers and buyers.

Conclusion

There is no immediate prospect of a law like the Sale of Goods Act for the service sector. The best hope under the circumstances is to consider an extension of the benefit of Section 64A of this Act to services and to incorporate the definition of *service* from the Finance Act 1994. The preamble to the Sale of Goods Act can be amended to provide that the definition of '*goods*' for this Act will additionally include '*services*' for the limited purpose of extending the scope of Section 64A to the service businesses, *mutatis mutandis*. The Consumer Protection Act, 1986 is the only full scale legislation that has a regulatory impact on the service business. The need of the hour is the formulation of a fair approach to protect and balance the interests of both parties to the transaction of service.

Predatory Pricing for Patents

T.C.A. Ramanujam
Chief Commissioner of Income Tax (Retd) &
Former Member, Income Tax Appellate Tribunal
ramanuja@vsnl.com

T.C.A. Sangeetha
B. Sc, M.L.

The Law regarding Intellectual Property Right (IPR) is of recent origin. International conventions required that inventors must be given protection by all governments to make reasonable profits by putting to use the inventions they made. Government grants a privilege or authority to the inventor to exclude others from making or using or selling once invention. This includes right to license others to make or use or selling. Such an exclusive right is called patent. It partakes the character of intellectual property rights like trade mark, license, franchise etc., This is an intangible asset and tax law recognizes the same for purposes of depreciation. For granting a patent, the product should be suitable to be patented and entitled by law to be protected by the issuance of a patent. The device should be such as to embody some new idea or principle not known before. A product patent is very well known as entitled to legal protection. A process patent on the other hand can be controversial. It claims a new and useful method to produce a desired result or any new or useful improvement thereof. Patent law can often be abuse by the patentees for making unconscionable profits. This is what happens and is happening in the Pharma and Drugs Industry.

The Novartis Case

Novartis is the No. 2 Drugs and Pharma manufacturing company in the world. In 2010, it had a turnover of $46 billion. It charges Rs.60,000/- for one ampule of injection to tackle retinal hemorrhage which requires 4 injections. Who can afford to pay such prohibitive amounts? According to the Govt. of India's Ministry of Chemical and Fertilizers, the Drug and Pharma Companies in India have a turnover of $21.04 billion. The bulk of it went to foreign drug multinationals like Novartis. Novartis claimed a patent for a Cancer drug, Glivec This drug is used for treating Leukaemia. It costs Rs. 1,04,500 a month. The generic produced in India costs Rs. 9,625/- a month. Novartis wanted a patent protection for Glivec. In effect it wanted protection for the price of Rs. 1,04,500/- a month, 11 times more than the generic drug produced by the Indian Drug companies.

The Indian Patent Act of 1970 categorically mentioned that inventions that are not patentable. The Law was amended in 2005 sub clause (d) of Section 3 was added in the Act.

This is reproduced below:

3[(d) the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.

Explanation

For the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy;]

Section 2 (1) requires a company to prove that new form of known compounds offer "enhanced therapeutic efficacy" in order to be granted a patent. Both these sections strike a balance between innovation and access that recognizes true innovation and at the same time, check attempts to repetitive patenting or extension of the patent terms on frivolous grounds. These safeguard were introduced in the Act as per the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) formulated by the WTO. On 1st April, 2013, the Supreme Court rejected an appeal by Novartis seeking patent protection to Glivec. The Supreme Court was considering a Patent application filed in 1995 or after. The question was whether Beta Crystalline form of imatinib was worthy of patent protection. The Act of 1970 was based on the recommendations of the Bakshie Tek Chang and Ayyengar Committee Reports. This Act enabled an exclusive growth of the Indian generic industries. The question before the Court was whether the modification of the generic drug by Novartis satisfied the standard of inventiveness required under the Indian law. Novartis had earlier challenged the Constitutionality and TRIPS compatibility of the Indian Patent Law. The Madras High Court dismissed the writ petition in 2007. Now in 2013, the Supreme Court examined the claim for patent protection. It rejected the claim pointing out that the Indian Law is nuanced and original in its meshing of domestic political economy concern with the integrated global economy it participates in.

The Impact

The Impact of the Supreme Court's Ruling is that the Anti Cancer drug will be available in India from multiple suppliers at a price 10 times less than the current cause of Glivec. Poor patients all over the Globe will get access at a cheap cost to quality medicines. Developed Countries by the USA and UK have very week Standards for patent laws. The British Medical Journal referred to the real innovation crisis under which pharma results and development turns out even minor variations on existing drugs and new drugs are not superior on clinical measures. Patents are understood as short term monopolies' enshrined in the law and are synonymous with innovation. Countries like Brazil, Thailand, South Africa etc., have been emulating India. Comments Dr. C.S. Narasimhan of a leading Research Institute in Bombay, "While the developed countries allow ever greening of patents biased in favour of MNC's, India is the first country to come up with a bold change in the patent law to plug this loop hole. Evergreening is almost as ridiculous as introducing a new improved SURF and claiming that no one else should be allowed to manufacture the product."Novartis lost the battle but lakhs of people won." Dr. Brian Druker, Director of the Oregon Health and Science University's Knight Cancer Institute has criticized the Pharma major's predatory pricing in the past including in reference to Glivec.

Truly, a Daniel comes to judgement!

Obituary

The Institute and its members deeply mourn the sad demise of CMA Banshidhar Mukherjee, an Associate member of the Institute who left for his heavenly abode on 10th June, 2013. May God give the necessary courage and strength to the bereaved family members in this hour of grief.

May his soul rest in eternal peace.

Tax Titbits

S. Rajaratnam
MA, LLM, FCMA
Advocate & Tax Consultant, Chennai
s.rajaratnam@vsnl.com

Software Payments – Treatment in Law

Notification No. 1323(E) dated 13th June, 2012 spares tax deduction at source for payment towards acquisition of software from a transferor, where the payment made by such person to his transferor has been the subject matter of tax deduction at source, whether under section 194J or 195 with such deduction being supported by declaration from the transferor along with his Permanent Account Number. There are instances, where payment may not require tax deduction, so that this concession permitting non-deduction, where there has been a deduction at an earlier stage is extremely narrow in its scope.

One may also notice the concessional treatment in respect of software payment conceded by the Circular No.1 of 2013 dated 17th January, 2013 (2013) 350 ITR (St.) 34, which clarifies some issues relating to export of software. The amount received from the client for onsite development, it is clarified, would be deemed export as explained by the Circular while clarifying Circular No.694 dated 21st November, 1994. Expenditure incurred on technical manpower deputed abroad for this purpose would also be eligible for the benefit of section 10A/ 10AA/ 10B. It is further clarified, that Research and Development (R&D) expenses relating to computer software embedded in engineering and design would be counted for purposes of relief. It extends the scope of earlier Notification No.890(E) dated 26th September, 2000 (2000) 245 ITR (St.) 102, which had conceded engineering and design would qualify for treatment as "any customised electronic data or any product or service of similar nature as may be notified by the Board".

TDS – A Reform in Process

Notification No.169(E) dated 15th January, 2013 (2013) 350 ITR (St.) 42 provides for centralised processing of statements under Tax Deduction at Source Scheme, 2013. It provides for processing of statements by a Cell for giving tax credit. It is empowered to rectify mistakes. It can make adjustments of refund against outstanding tax demand. An appeal, however, can be entertained by the Commissioner (Appeals) having jurisdiction over the deductor in matters where the statement of the deductor is processed with the Assessing Officer being obliged to submit a remand report, where required. No person could be required to make an application for credit before the Cell. The service of notice can be by electronic means or any other mode prescribed under the Act. It can frame its own procedure for carrying out its functions. Web portal facility with all amenities would be available with call centre answering queries and providing taxpayer services. The Cell will also have grievance redressal mechanism. But this Notification is limited to centralised processing of statements of tax deducted at source, from 2013. The persons aggrieved by erroneous statements of tax deduction is the deductee. But this Notification does not provide for any remedy consequent on any omission on the part of the deductor. But the deductee, it follows, may have to take up the matter with the deductor for correcting any omission, a process which can be expedited by requiring action against the deductor, so as to avoid a second round of dispute by the deductees with his Assessing Officer. However, the grievance of the deductee is sought to be met by Circular No.4 of 2012 dated 20th June, 2012, which has provided for verification by the jurisdictional Assessing Officer in respect of any mistake in getting credit adjustment of refund.

Treatment of Accident Compensation

A payment was routed through an employer who had taken an accident insurance policy of an employee for the benefit of employee. The employee had died in a fatal accident. Adequacy of compensation ordered by the Motor Accident Claims Tribunal and tax deduction at source became the subject matter of dispute raised by the widow of the deceased employee against the employer/ insurer before the Supreme Court in Vimal Kanwar v. Kishore Dan (2013)354 ITR 95 (SC). Though compassionate appointment had been taken into consideration in quantification of the compensation, it was decided, that deduction of tax at source is not required, as it does not involve any pecuniary benefit. As regards the compensation amount payable to the widow, it was felt that being tax deductible amount on payments by an employer, it will be deemed that tax has been deducted at source, so as to spare the recipients. The inference that such compensation is not taxable at all was not considered.

The law that compensation for death or on account of loss of limbs or injuries in a fatal accident does not have the character of income being a capital receipt. It is established law as has long since been decided in CIT v. Shaw Wallace and Co. AIR 1932 PC 138; CIT v. B.J. Fletcher (1937) 5 ITR 428 (PC); Renfrew Town Council v. IRC (1934) 19 TC 13 and Burma Steamship Co. Ltd. v. IRC (1931) 16 TC 67 (CS). This is the law with which the Income-tax Department has no quarrel.

Kickbacks – Are They Allowable Deductions?

It is hardly possible in these days to conduct any business except by paying kickbacks, secret commission, speed money mamools, tips or gifts by whatever name called. Income-tax law has been tolerant in the sense that this practice was recognised. It could be allowed as a deduction even without proper vouchers, since it is not possible to get direct proof of payment. The Madras High Court in CIT v. A.S.K. Rathinasamy Nadar (1995) 212 ITR 527 (Mad) found, that the practice of payment of secret commission had been in vogue in timber business, so that such payment could be allowed as long as it is reasonable with reference to the turnover and trade practice, following the decision of the Supreme Court in Swadeshi Cotton Mills Co. Ltd. v. CIT (1967) 63 ITR 57 (SC). Mamools, speed money and such other payments was being allowed as long as the payment was not suspiciously large.

However, the Finance (No.2) Act, 1998 has inserted an Explanation for disallowance of payments, which are illegal and contrary to public policy. This amendment was brought in to counteract a decision of the Tribunal directing deduction of protection money in Pranav Construciton Co. v. Asst. CIT (1998) 61 TTJ (Mumbai) 145. It was because of this amendment, payment of hafta to local police and local goondas to ensure security for a cinema theatre was not allowed in CIT v. Neelavathi (2010) 322 ITR 643 (Karn). But, where ransom amount was paid to dacoits to get release of a kidnapped whole-time director of a beedi manufacturer in a forest area, where he has gone to purchase tendu leaves, was found admissible in CIT v. Khemchand Motilal Jain, Tobacco Products P. Ltd. (2012) 340 ITR 99 (MP).

Kickback payment to directors of the contractee company was disallowed as hit by the Explanation in J. K. Panthaki and Co. v. ITO (Investigation) (2012) 344 ITR 329 (Karn), though such payment, even if it is unethical, could hardly be called illegal.

Quite often this provision is used for disallowance of payments which are not strictly illegal by reading too much in the provision by placing every payment on par with payments of a bribe to a public servant. Where payments were made to executives of suppliers generally described as kickbacks, the matter was remanded by the Bombay High Court to reconsider the deduction allowed by the Tribunal in CIT v. Taraporvala Sons Co. Pvt. Ltd. (1999) 239 ITR 319 (Bom).

Disallowances of such payments are coming up increasingly in appeals. One of the dispute had come up before the Calcutta High Court in a recent decision in Dy. CIT v. Rajarani Exports Pvt. Ltd. in I.T.A. No.49 of 2013 dated 6th May, 2013, where the issue was a payment of kickback in respect of a programme of import of oil in lieu of export of food sponsored by the United Nations, to a Jordanian company for such a transaction with Iraqi regime. Such payment was not contemplated under the UN Scheme, so that the Assessing Officer disallowed the payment. But the High Court found that there was no specific violation of law on the part of the assessee and that being a bona fide payment for business purposes prompted by commercial expediency, deduction was allowed in the view that Explanation to section 37(1) was inapplicable.

Probably a more practical outlook is necessary in such cases, since law taxes illegal income as from smuggling, gambling and prostitution. Interest shown by the Income-tax Department in IPL scandal is one such illustration. Why not allow illegal expenses for earning income, which is being taxed? Such disallowances tend to drive such expenses underground paving the way for proliferation of black money, besides losing the tax in the hands of the recipients.

Comparative Financial Performance of HDFC Bank and ICICI Bank

Dr. K. Srinivas
Principal,
KGR Institute of Technology and Management,
Hyderabad
kamatam_srinivas@yahoo.com

L. Saroja
Senior Lecturer,
Sardar Patel College,
Secundrabad
saroja7commerce@gmail.com

Abstract

The nationalization phase of the early 1970s brought some of the elite banks under the government's control. The next decade heralded the second phase of nationalization with the merging of old private sector banks. The 1990s saw partial liberalization of the banking industry and the emergence of new private sector banks as well as international banks. During the next few years, fears of liberalization were put to rest and in the past decade the banking system has gained much from it. Liberalization brought out the best in the industry inducing competitive spirit among various banks.

The present research paper is aimed to analyze and compare the Financial Performance of HDFC and ICICI Bank and offer suggestions for the improvement of efficiency in select banks. For the purpose of analysis of comparative financial performance of the select banks, world-renowned, CAMELS model with t-test is applied. CAMELS stand for Capital Adequacy, Asset Quality, Management, Earning Quality, Liquidity and Sensitivity.

The capital adequacy and Tier I capital ratio of ICICI and HDFC bank is more than the Basel Accord. We conclude that both the banks are good with respect capital adequacy because it is above the Basel norms. The efficiency of HDFC Bank management is good because its NPAs are less than 0.5 for the study period from 2003 to 2012. The net profit, operating profit, return on net-worth, spread, liquidity and loans to total assets of HDFC bank has more compared with ICICI bank. Hence HDFC bank earns more profits compared with ICICI bank.

The total advances to customer deposit, debt-equity and burden of HDFC have less compared with ICICI bank and hence long term solvency is well in ICICI bank. The CAMELS' analysis and t-test concludes that there is no significance difference between the ICICI and HDFC bank's financial performance but the ICICI bank performance is slightly less compared with HDFC.

Introduction

Banks play an active role in the economic development of a country. Their ability to make a positive contribution in igniting the process of growth depends on the effective banking system. The banking sector reforms were aimed at making banks more efficient and viable. As one who had a role in initiating these reforms, we can say that the period of transition was not that easy. But as a consequence of these reforms the banking system has emerged more sound and safe. The capital adequacy of the Indian banks is now on par with international standards. The level of net NPAs has come down to very manageable levels. An issue that is in the forefront of banking reforms currently is that of bank consolidation. The present study is devoted to analyze the financial performance of HDFC Bank and ICICI Bank.

Meaning and definition

Bank is an institution that deals in money and its substitutes and provides crucial financial services. The principal type of baking in the modern industrial world is commercial banking and central banking.

Banking Means "Accepting Deposits for the purpose of lending or Investment of deposits of money from the public, repayable on demand or otherwise and withdraw by cheque, draft or otherwise."

The concise oxford dictionary has defined a bank as "Establishment for custody of money which it pays out on customers order." Infact this is the function which the bank performed when banking originated.

"Banking in the most general sense, is meant the business of receiving, conserving & utilizing the funds of community or of any special section of it."

Objectives of the Study

The present paper is aimed to examine the following objectives:

1. To analyze and compare the Financial Performance of HDFC and ICICI Bank.
2. To offer suggestions for the improvement of efficiency in HDFC and ICICI Bank.

Methodolog y

Source of Data

The study is based on secondary data. The data were collected from the official directory and data base of Centre for Monitoring Indian Economy (CMIE) namely PROWESS. The published annual reports of the selected banks taken from their websites, magazines and journals on finance have also been used a sources of data.

To assess the comparative financial performance of select banks, the study adopted the world-renowned CAMEL model (with minor modifications) with t-test.

Period of Study

The study covers a period of ten years from 2003–2012.

Sampling

The new private sector banks consist of seven banks. For the present study covers two important banks one is Housing Development Financial Corporation (HDFC) and another one Industrial Credit Investment Corporation of India (ICICI).

Hypotheses

From the above objectives of the following hypothesis is formulated to test the financial efficiency of the select banks:

Ho = "There is no significant difference between financial performance of HDFC and ICICI Bank."

Scope of the Study

The research paper covers two important new private sector banks Housing Development Financial Corporation (HDFC) and Industrial Credit Investment Corporation of India (ICICI) Bank only.

Limitations of the Study

The major limitation of the present study is that the analysis is restricted to one particular sector such as banking. It is confined to only measure the financial performance of select banks. The inherent limitation is secondary data. The published data is not uniform and not properly disclosed by the banks. Hence, this may be taken as another limitation.

The nationalization phase of the early 1970s brought some of the elite banks under the government's control. The next decade heralded the second phase of nationalization with the merging of old private sector banks. The 1990s saw partial liberalization of the banking industry and the emergence of new private sector banks as well as international banks. During the next few years, fears of liberalization were put to rest and in the past decade the banking system has gained much from it. Liberalization brought out the best in the industry inducing competitive spirit among various banks. During this period the banks were restructured, shed the flab of over-employment, embraced technology and ventured into related new businesses. Some of them have even re-branded themselves to cater to the ever-demanding customers. Also the banks put in place effective risk management mechanisms and added fresh capital, which is very important to the banking industry.

With the development of the banking sector, it is interesting to know how the selected banks have performed. The present study carried out a closer analysis of two banks based on their annual results. For the purpose of analysis of comparative financial performance of the select banks, world-renowned, CAMELS model is applied. CAMELS stand for Capital Adequacy, Asset Quality, Management, Earning Quality, Liquidity and Sensitivity. They are the crucial parameters, which reflect the operating performance, soundness, liquidity of the select banks. The following is analysis of comparative financial performance with CAMELS model and t-test:

I. Capital Adequacy

This ratio is used to protect depositors and promote the stability and efficiency of financial systems around the world. Two types of capital are measured: tier one capital, which can absorb losses without a bank being required to cease trading, and tier two capital, which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors. CAR is similar to leverage; in the most basic formulation, it is comparable to the inverse of debt-to-equity leverage formulations (although CAR uses equity over assets instead of debt-to-equity; since assets are by definition equal to debt plus equity, a transformation is required). Unlike traditional leverage, however, CAR recognizes that assets can have different levels of risk.

1. Capital Adequacy Ratio: CAR

Capital Adequacy Ratios (CARs) are a measure of the amount of a bank's core capital expressed as a percentage of its risk-weighted asset and it is also known as "Capital to Risk Weighted Assets Ratio (CRAR)."

Capital Adequacy Ratio is defined as:

$$CAR = \frac{\text{Tier 1 capital} + \text{Tier 2 capital}}{\text{Risk weighted assets}}$$

TIER 1 CAPITAL = (paid up capital + statutory reserves + disclosed free reserves) - (equity investments in subsidiary + intangible assets + current & b/f losses)

TIER 2 CAPITAL = A) Undisclosed Reserves + B) General Loss reserves + C) hybrid debt capital instruments and subordinated debts where Risk can either be weighted assets (a) or the respective national regulator's minimum total capital requirement. If using risk weighted assets,

The percent threshold varies from bank to bank but new private sector banks (10% in this case, a common requirement for regulators conforming to the Basel Accords) are set by the national banking regulator of different countries.

Table-1 Capital Adequacy Ratio: CAR

Years	HDFC	ICICI
2003	11.12	11.10
2004	11.66	10.40
2005	12.16	11.80
2006	11.41	13.40
2007	13.08	11.69
2008	13.60	13.96
2009	15.69	15.53
2010	17.44	19.41
2011	16.22	19.54
2012	16.52	18.52

Source: Various issues of CMIE, RBI and Bank Annual Reports

Table-2 Capital Adequacy Ratio: CAR

t-Test: Two-Sample Assuming Equal Variances		
	11.12	11.1
Mean	14.1978	14.9167
Variance	5.27402	12.3333
Observations	9	9
Pooled Variance	8.80365	
Hypothesized Mean Difference	0	
Df	16	
t Stat	-0.514	
P(T<=t) one-tail	0.30715	
t Critical one-tail	1.74588	
P(T<=t) two-tail	0.6143	
t Critical two-tail	2.11991	

Source: Compiled from Table-1.

The average capital adequacy ratio of HDFC and ICICI Bank is 14.19 per cent and 14.92 percent respectively. From the table 1 and 2 it is clear that the value of t-test at 5 % level of significance is less than the critical value. Hence there is no significance difference between the selected two banks capital adequacy of ICICI and HDFC Bank and it is more than the Basel Accord norms.

2. Tier I Capital Ratio

The Basel rules recognize that different types of equity are more important than others and to recognize i.e., Tier I Capital and Tier II Capital. Tier I Capital is actual contributed from equity plus retained earnings. The minimum CAR ratios as per Basel Accord norms: Tier I equity to risk weighted asset is at least 5% per cent, while minimum CAR including Tier II Capital is 10 per cent.

Table-3 Tier I Capital Ratio

Years	HDFC	ICICI
2003	9.49	7.05
2004	8.03	6.09
2005	9.60	7.59
2006	8.55	9.20
2007	8.58	7.42
2008	10.30	11.32
2009	10.58	12.16
2010	13.26	13.48
2011	12.23	11.8
2012	11.60	11.1

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-4 TIER 1–Capital

t-Test: Two-Sample Assuming Equal Variances		
	9.49	7.05
Mean	10.303333	10.0178
Variance	3.239825	6.41977
Observations	9	9
Pooled Variance	4.8297972	
Hypothesized Mean Difference	0	
Df	16	
t Stat	0.2756338	
P(T<=t) one-tail	0.3931787	

t Critical one-tail	1.7458837	
P(T<=t) two-tail	0.7863575	
t Critical two-tail	2.1199053	

Source: Compiled from Table-3.

The average Tier I capital ratio of HDFC and ICICI Bank is 10.30 per cent and 10.02 percent respectively. From the table- 4 it is clear that the value of t-test at 5 % level of significance is less than the critical value. Hence there is no significance difference between the selected two banks Tier-I capital but it is more than the Basel norms.

3. Tier II Capital Ratio

Tier II capital includes preference shares plus 50% of subordinated debt. The maximum Tier II capital is 50% of CAR as per Basel norms.

Table-5 Tier II Capital Ratio

Years	HDFC	ICICI
2003	1.27	1.13
2004	1.19	1.30
2005	1.26	1.19
2006	1.18	1.01
2007	1.25	0.90
2008	1.19	1.04
2009	1.22	0.99
2010	1.33	1.11
2011	1.42	1.27
2012	1.53	1.36

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-6 Tier II Capital Ratio

t-Test: Two-Sample Assuming Equal Variances		
	1.27	1.13
Mean	1.2855556	1.13
Variance	0.0144278	0.02505
Observations	9	9
Pooled Variance	0.0197389	
Hypothesized Mean Difference	0	
Df	16	
t Stat	2.3487156	
P(T<=t) one-tail	0.0160085	
t Critical one-tail	1.7458837	
P(T<=t) two-tail	0.032017	
t Critical two-tail	2.1199053	

Source: Compiled from Table-5.

The average Tier II capital ratio of HDFC and ICICI Bank is 1.29 per cent and 1.13 percent respectively. From the table- 6 it is clear that the value of t-test at 5 % level of significance is less than the critical value. Hence there is no significance difference between the selected two banks Tier-I capital but it is less than the Basel norms of 85 per cent. We conclude that both the banks are good with respect capital adequacy because it's total capital adequacy and Tier I capital is more than the Basel norms.

II. Asset Quality

A review or evaluation assessing the credit risk associated with a particular asset. These assets usually require interest payments - such as a loans and investment portfolios. How effective management is in controlling and monitoring credit risk can also have an effect on the what kind of credit rating is given.

1. Net NPAs to Net Advances

Net NPAs are Gross NPAs' net of provisions on NPAs and suspense account. NNPA ratio has been taken to measure the quality of assets and is calculated by dividing net advances. Non-Performing Assets (NPA) are represented by Net NPA to Net Advances. The level of net NPA above one per cent needs to be viewed seriously and shall be reined in to sustain the organizational objectives.

Net NPAs to Net Advances = Net NPAs/Net Advances

Table-7 Net NPAs to Net Advances

Years	HDFC	ICICI
2003	0.37	5.21
2004	0.16	2.21
2005	0.24	1.65
2006	0.44	0.72
2007	0.43	1.02
2008	0.47	1.55
2009	0.63	2.09
2010	0.31	2.12
2011	0.19	1.11
2012	0.18	0.73

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-8 NET Non-Performing Assets

t-Test: Two-Sample Assuming Equal Variances		
	0.37	5.21
Mean	0.338888889	1.46667
Variance	0.026311111	0.35443
Observations	9	9
Pooled Variance	0.190368056	
Hypothesized Mean Difference	0	
Df	16	
t Stat	-5.483183153	
P(T<=t) one-tail	2.50381E–05	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	5.00763E–05	
t Critical two-tail	2.119905285	

Source: Compiled from Table-7.

The net non-performing assets to net advances of HDFC and ICICI Bank are recorded mean at 0.33 and 1.467 per cent (Table-8) respectively. The value of t-test at 5 % level of significance is less than the critical value and there is no significance difference between the selected two banks net non-performing assists. It clears that ICICI Bank non-performing assets are more compared with HDFC Bank.

Hence, we can say that the non-performing assets of the both the banks have decreased during the study period but HDFC Bank NPAs are low compared with ICICI Bank. The efficiency of HDFC Bank management is good because its NPAs are less than 0.5 for the study period from 2013 to 2012.

2. Total Assets Turnover Ratio

This ratio measures the efficiency in utilization of the assets. It is arrived at by dividing sales by total assets.

Total Assets Turnover Ratio = Sales/Total Assets

Table-9 Total Assets Turnover Ratio = Sales/Total Assets

Years	HDFC	ICICI
2003	0.081482	0.117281
2004	0.068808	0.095489
2005	0.067194	0.076501
2006	0.072838	0.074657
2007	0.089482	0.083918
2008	0.093095	0.099048
2009	0.107071	0.102019
2010	0.090605	0.091315
2011	0.087481	0.080303
2012	0.096269	0.086657

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-10 Assets Turnover Ratio

t-Test: Two-Sample Assuming Equal Variances		
	0.081482	**0.11728**
Mean	0.085871444	0.08777
Variance	0.000182203	9.7E–05
Observations	9	9
Pooled Variance	0.000139423	
Hypothesized Mean Difference	0	
df	16	
t Stat	-0.340625273	
P(T<=t) one-tail	0.368908564	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	0.737817128	
t Critical two-tail	2.119905285	

Source: Compiled from Table-9.

The average assets turnover ratio of HDFC and ICICI Bank are recorded as 0.086 and 0.088 times respectively. From the table 10 it is clear that the value of t-test at 5 % level of significance is less than the critical value. Hence there is no significance difference between the selected two banks assets turnover.

3. Loan Ratio

It is the bank's assets that are financed with loans and financial obligations lasting more than one year. The ratio provides a general measure of the financial position of a bank, including its ability to meet financial requirements for outstanding loans. A year-over-year decrease in this metric would suggest the bank is progressively becoming less dependent on debt to grow their business.

Loan Ratio = Loans/Total Assets

Table-11 Loan Ratio

Years	HDFC	ICICI
2003	0.3863726	0.32114369
2004	0.41570612	0.2454703
2005	0.48296056	0.20007277
2006	0.47698147	0.15323662
2007	0.5145447	0.14871554

2008	0.47626449	0.16420415
2009	0.53954526	0.24559651
2010	0.56563681	0.25939185
2011	0.57682295	0.26968201
2012	0.57832138	0.29592714

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-12 Loan Ratio

t-Test: Two-Sample Assuming Equal Variances		
	0.3863726	**0.32114**
Mean	0.514087082	0.22026
Variance	0.003102823	0.00302
Observations	9	9
Pooled Variance	0.003059998	
Hypothesized Mean Difference	0	
df	16	
t Stat	11.26794228	
P(T<=t) one-tail	2.54643E–09	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	5.09285E–09	
t Critical two-tail	2.119905285	

Source: Compiled from Table-11.

The loans to total assets of HDFC and ICICI Bank are recorded mean at 0.51 and 0.22 respectively. The value of t-test at 5 % level of significance is more than the critical value and there is a significance difference between the selected two banks loans to total assets. It clears that ICICI Bank loans to total assets are less compared with HDFC Bank. Hence, we can say that the loans to total assets of ICICI bank have decreased during the study period but HDFC Bank loans to total assets are more compared with ICICI Bank.

III. Management Competence

The bank management competence is customer service, effective transactions and competent risk management

1. Credit Deposit Ratio

It is the ratio of how much a bank lends out of the deposits it has mobilized. It indicates how much of a bank's core funds are being used for lending, the main banking activity. A higher ratio indicates more reliance on deposits for lending and vice-versa.

Credit Deposit Ratio = Total Advances/ Customer Deposit

Table-13 Credit Deposit Ratio = Total Advances/ Customer Deposit

Years	HDFC	ICICI
2003	52.53	122.96
2004	58.35	97.38
2005	70.32	89.17
2006	62.90	87.59
2007	66.13	83.83
2008	65.35	84.99
2009	66.78	91.44
2010	72.66	90.04
2011	76.41	87.81
2012	79.08	92.23

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-14 Credit Deposit Ratio

t-Test: Two-Sample Assuming Equal Variances		
	52.53	**122.96**
Mean	68.66444444	89.3867
Variance	43.46992778	16.5736
Observations	9	9
Pooled Variance	30.02177639	
Hypothesized Mean Difference	0	
df	16	
t Stat	-8.022770902	
P(T<=t) one-tail	2.67229E–07	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	5.34458E–07	
t Critical two-tail	2.119905285	

Source: Compiled from Table-13.

The total advances to customer deposit of HDFC and ICICI Bank are recorded mean at 68.7 and 89.4 per cent (Table-11) respectively. The value of t-test at 5% level of significance is less than the critical value and there is no significance difference between the selected two banks total advances to customer deposit. It clears that ICICI Bank total advances to customer deposits are more compared with HDFC Bank.

IV. Earnings Ability/ Profitability Ratios

Profitability ratio is the common ratio required to judge the profitability of commercial banks. This ratio measures the profitability or the operational efficiency of the banks. Employing more resources and making effective utilization of resources can increase absolute profits. There are two groups of persons who may be specifically interested in the analysis of the profitability of the banks. These are (i) the management which is interested in the overall profitability and operational efficiency of the banks, and (ii) the equity shareholders who are interested in the ultimate returns available to them. The profitability ratios are calculated by relating the returns with the (i) Income of the bank (ii) Assets of the bank and (iii) the owner's contribution.

1. Net Profit Ratio

Net profit is obtained when interest is expanded; operating expenses and taxes are deducted from total income. This ratio establishes relationship between profit and total income. It indicates management efficiency.

Net Profit Ratio = (Net Profit/Total Income)*100

Table-15 Net Profit Ratio

Years	HDFC	ICICI
2003	15.65147	9.643171
2004	17.36466	13.6394
2005	18.72364	15.63231
2006	16.26821	13.53367
2007	13.97599	10.75269
2008	12.82465	10.50027
2009	11.44066	9.711598
2010	14.63088	12.12934
2011	16.18102	15.78996
2012	15.8838	15.751

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-16 Net Profit Ratio

t-Test: Two-Sample Assuming Equal Variances		
	15.65147	**9.64317**
Mean	15.17621375	13.0489
Variance	5.828251605	5.72797
Observations	9	9
Pooled Variance	5.774765698	
Hypothesized Mean Difference	0	
Df	15	
t Stat	1.821809743	
P(T<=t) one-tail	0.044241581	
t Critical one-tail	1.753050325	
P(T<=t) two-tail	0.088483162	
t Critical two-tail	2.131449536	

Source: Compiled from Table-15.

The net profit ratio of HDFC and ICICI Bank are recorded mean at 15.18 and 13.05 per cent (Table-16) respectively. The value of t-test at 5 % level of significance is less than the critical value and there is no significance difference between the selected two banks net profit ratio. It clears that HDFC Bank net profit ratio is more compared with ICICI Bank.

2. Operating Profit Ratio

The profit earned from bank's normal core business operations. This value does not include any profit earned from the bank's investments (such as earnings from banks in which the bank has partial interest) and the effects of taxes and provisions.

Operating Profit Ratio = (Operating Profit/ Total Income) * 100

Table-17 Operating Profit Ratio

Years	HDFC	ICICI
2003	26.62364	9.627205
2004	31.15424	13.68958
2005	32.4993	15.63231
2006	32.387	13.53367
2007	31.40617	10.75269
2008	30.3678	10.50027
2009	26.3925	9.711598
2010	31.90117	12.12633
2011	31.8386	15.78996
2012	27.51306	15.751

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-18 Operating Profit Ratio

t-Test: Two-Sample Assuming Equal Variances		
	26.62364	**9.62721**
Mean	30.60664889	13.0542
Variance	4.783843581	5.73635
Observations	9	9
Pooled Variance	5.260096852	
Hypothesized Mean Difference	0	
Df	16	
t Stat	16.2348463	
P(T<=t) one-tail	1.15996E–11	

t Critical one-tail	1.745883669	
P(T<=t) two-tail	2.31993E–11	
t Critical two-tail	2.119905285	

Source: Compiled from Table-17.

The operating profit ratio of HDFC and ICICI Bank are recorded mean at 30.6 and13.05 per cent (Table-18) respectively. The value of t-test at 5% level of significance is more than the critical value and there is no significance difference between the selected two banks operating profit. It clears that ICICI Bank operating profit ratio is less compared with HDFC Bank. Hence, we can say that the operating profit ratio of ICICI bank have increased during the study period but HDFC Bank operating profit ratio is more in the study period.

3. Dividend per Share (DPS)

Dividend per share indicates the return earned per share. It is bit different from return on equity capital. It is calculated by dividing dividend on equity share capital by the total number of equity shares. It is a good measure of profitability and when compared with DPS similar other banks, it gives a view of the comparative earnings or earning power of a bank.

Dividend Per Share = Dividend on Equity Share Capital/No. of Equity Shares

Table-19 Dividend per Share (Rs.)

Years	HDFC	ICICI
2003	0.6	7.50
2004	0.7	7.50
2005	0.9	8.50
2006	1.1	8.50
2007	1.4	10.00
2008	1.7	11.00
2009	2.0	11.00
2010	2.4	12.00
2011	3.3	14.00
2012	4.3	16.50

Source: Various issues of CMIE, RBI and Bank Annual Reports.
Note: HDFC share face value Rs.10 per share into face value of Rs.2 per share in the year 2012.

Table-20 Divident Per Share

t-Test: Two-Sample Assuming Equal Variances		
	0.6	7.5
Mean	1.977777778	11
Variance	1.411944444	8.25
Observations	9	9
Pooled Variance	4.830972222	
Hypothesized Mean Difference	0	
Df	16	
t Stat	-8.707680919	
P(T<=t) one-tail	9.07819E–08	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	1.81564E–07	
t Critical two-tail	2.119905285	

Source: Compiled from Table-19.

The average dividend per share of HDFC and ICICI Bank are recorded as Rs.1.9 and Rs.11 respectively but HDFC bank share price split to Rs. 2 in 2012. From the table-19 it is clear that the value of t-test at 5 % level of significance is less than the critical value. Hence there is no significance difference between the selected two banks dividend per share.

4. Earnings per share: (EPS)

Earnings per share indicate the return earned per share. It is bit different from return on equity capital. It is calculated by dividing the net profit after taxes minus preference dividend by the total number of equity shares. It is a good measure of profitability and when compared with EPS similar other banks, it gives a view of the comparative earnings or earning power of a bank. EPS indicates whether the earning power of the bank has increased or not.

Earnings Per Share = Profit after tax-Preference Dividend/No. of Equity Shares

Table-21 Earnings per Share (Rs.)

Years	HDFC	ICICI
2003	2.8	19.65
2004	3.6	26.44
2005	4.6	27.33
2006	5.6	32.15
2007	7.3	34.64
2008	9.2	39.15
2009	10.6	33.70
2010	13.5	35.99
2011	17.0	45.06
2012	22.1	55.95

Source: Various issues of CMIE, RBI and Bank Annual Reports.
Note: HDFC share face value Rs.10 per share into face value of Rs.2 per share in the year 2012.

Table-22 Earnings Per share

t-Test: Two-Sample Assuming Equal Variances		
	2.8	**19.65**
Mean	10.38888889	36.7122
Variance	38.00861111	84.246
Observations	9	9
Pooled Variance	61.12730278	
Hypothesized Mean Difference	0	
Df	16	
t Stat	-7.142159153	
P(T<=t) one-tail	1.16905E–06	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	2.34E–06	
t Critical two-tail	2.119905285	

Source: Compiled from Table-21.

The earnings per share of HDFC and ICICI Bank are recorded mean at 10.39 and36.71 per cent (Table-22) respectively but HDFC bank share price split to Rs. 2 in 2012. The value of t-test at 5 % level of significance is less than the critical value and there is no significance difference between the selected two banks earnings per share. It clears that ICICI Bank earnings per share ratio are more increased compared with HDFC Bank.

5. Return on Net worth (RON)

Return on shareholders' investment, popularly known as return on investment or return on shareholders' funds is the relationship between net profits and the proprietors' funds. Net profit after interest and tax is divided by the shareholders' funds. This ratio is one of the most important ratios used for measuring the overall efficiency of a bank. The primary objective of business is to maximize its earnings and this ratio indicates the extent to which this primary objective of business is being achieved. This ratio is of a great importance to the present and prospective shareholders as well as the management of the bank.

Return on Net Worth = Net Profit/Net-worth

Table-23 Return on Net-worth (%)

Years	HDFC	ICICI
2003	18.1	16.58
2004	20.14	19.90
2005	20.44	20.77
2006	17.47	11.29
2007	19.40	12.18
2008	16.05	8.94
2009	16.12	7.58
2010	16.80	7.79
2011	16.52	9.35
2012	18.37	10.70

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-24 Return on Net-worth

t-Test: Two-Sample Assuming Equal Variances		
	18.1	**16.58**
Mean	17.9233	12.0556
Variance	2.97817	24.396
Observations	9	9
Pooled Variance	13.6871	
Hypothesized Mean Difference	0	
Df	16	
t Stat	3.36453	
P(T<=t) one-tail	0.00197	
t Critical one-tail	1.74588	
P(T<=t) two-tail	0.00394	
t Critical two-tail	2.11991	

Source: Compiled from Table-23.

From the table-22 it is clear that the value of t-test at 5% level of significance is less than the critical value. Hence there is no significance difference between the selected two banks return on net-worth. The average return on net-worth of HDFC and ICICI bank is 17.92 per cent and 12.06 per cent; hence HDFC performance is good compared with ICICI bank.

6. Return on Assets

This ratio measures the return on assets employed or efficiency in utilization of the assets. It is arrived at by dividing net profit by total assets.

Return on Assets = Net Profit/Total Assets

Table-25 Return on Assets

Years	HDFC	ICICI
2003	1.28	1.14
2004	1.21	1.32
2005	1.30	1.60

2006	1.42	1.02
2007	1.42	0.88
2008	1.32	1.12
2009	1.28	0.98
2010	1.53	1.13
2011	1.58	1.35
2012	1.77	1.50

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-26 Return on Assets

t-Test: Two-Sample Assuming Equal Variances		
	1.28	1.14
Mean	1.42556	1.21111
Variance	0.031	0.06004
Observations	9	9
Pooled Variance	0.04552	
Hypothesized Mean Difference	0	
Df	16	
t Stat	2.13217	
P(T<=t) one-tail	0.02442	
t Critical one-tail	1.74588	
P(T<=t) two-tail	0.04884	
t Critical two-tail	2.11991	

Source: Compiled from Table-25.

The average return on assets of HDFC and ICICI bank is 1.42 per cent and 1.21 per cent. From the table-24 it is clear that the value of t-test at 5% level of significance is less than the critical value. Hence there is no significance difference between the selected two banks return on assets but HDFC performance is good compared with ICICI bank.

V. Liquidity Ratios

The liquidity refers to the maintenance of cash, bank balance and those assets which are easily converted into cash in order to meet the liabilities as and when arising. So, the liquidity ratios examine the bank's short-term solvency and its ability to pay-off the liabilities. These ratios as a group are intended to provide information about a bank's liquidity and the primary concern is the bank's ability to pay its current liabilities. These ratios focus on current assets and current liabilities. If a bank does not have sufficient liquidity, it may not be in a position to meet its commitments and thereby may lose its credit worthiness.

1. Current Ratio

Current ratio may be defined as the relationship between current assets and current liabilities. Current assets include cash in hand, balance with RBI, balance with other banks (both in India and abroad), money at call and short notice and stock. Current liabilities include short-term borrowings, short-term deposits, bills payables, bank over draft and outstanding expenses. It is a measure of general liquidity and it is widely used to make the analysis of a short-term financial position or liquidity of a bank. It is calculated by dividing the total current assets by total current liabilities.

Current Ratio = Current Assets/ Current Liabilities

Table-27 Current Ratio

Years	HDFC	ICICI
2003	1.353075	0.821364
2004	0.74464	0.906488
2005	1.102774	1.015517
2006	1.17085	1.177105
2007	0.932135	1.402365
2008	1.167296	1.366476
2009	1.469187	0.613268
2010	1.741305	0.616233
2011	1.52692	0.460385
2012	1.13964	0.397703

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-28 Current Ratio

t-Test: Two-Sample Assuming Equal Variances		
	1.35308	0.82136
Mean	1.22164	0.88395
Variance	0.09528	0.14577
Observations	9	9
Pooled Variance	0.12052	
Hypothesized Mean Difference	0	
Df	16	
t Stat	2.06342	

P(T<=t) one-tail	0.02784	
t Critical one-tail	1.74588	
P(T<=t) two-tail	0.05569	
t Critical two-tail	2.11991	

Source: Compiled from Table-27.

The average current assets of HDFC and ICICI bank are 1.22 times and 0.88 times. From the analysis it is clear that the value of t-test at 5% level of significance is less than the critical value. Hence there is no significance difference between the selected two banks current assets but HDFC liquidity is good compared with ICICI bank.

2. Liquidity / Quick Ratio

It is defined as the relationship between quick or liquid assets and current or liquid liabilities. Liquid assets include cash in hand, balance with RBI, balance with other banks (both in India and abroad) and money at call and short notice. Current liabilities include short-term borrowings, short-term deposits, bills payables and outstanding expenses.

Table-29 Quick Ratio = Quick Assets/Current Liabilities

Years	HDFC	ICICI
2003	0.902335	0.38043
2004	0.580912	0.470115
2005	0.849924	0.604272
2006	0.881514	0.6754
2007	0.660896	0.971017
2008	0.899343	0.886817
2009	1.077757	0.321679
2010	1.452438	0.412389
2011	1.023316	0.311171
2012	0.559334	0.258474

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-30 Quick Ratio

t-Test: Two-Sample Assuming Equal Variances		
	0.90234	**0.38043**
Mean	0.88727	0.5457
Variance	0.07855	0.06609
Observations	9	9
Pooled Variance	0.07232	
Hypothesized Mean Difference	0	
Df	16	
t Stat	2.69436	
P(T<=t) one-tail	0.00798	
t Critical one-tail	1.74588	
P(T<=t) two-tail	0.01596	
t Critical two-tail	2.11991	

Source: Compiled from Table-29.

From the table-28 it is clear that the value of t-test at 5% level of significance is less than the critical value. Hence there is no significance difference between the selected two banks quick ratio. The average quick assets of HDFC and ICICI bank are 0.88 times and 0.54 times hence HDFC bank quick ratio is more compared with ICICI bank. So, we can conclude that the HDFC bank liquidity has well compared with ICICI bank and the t-test has also proved the same in the case of all the liquidity ratios.

Debt-Equity Ratio

It is arrived at by dividing the total borrowings and deposits by shareholder's net worth, which includes equity capital and reserves and surpluses. This ratio is calculated to measure the relative claims of outsiders and the owners against the bank's assets.

Debt-Equity Ratio = Long-term Liabilities/ Shareholders Funds

Table-31 Debt-Equity Ratio

Years	HDFC	ICICI
2003	5.23608	4.947642
2004	6.591382	3.837703
2005	5.656195	2.672829
2006	6.616531	1.734756
2007	7.297528	2.108173
2008	5.51683	1.412666
2009	6.751536	1.880665
2010	5.855873	1.826165
2011	6.3045	1.988601
2012	6.530544	2.32042

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-32 Debt-Equity Ratio

t-Test: Two-Sample Assuming Equal Variances		
	5.23608	**4.94764**
Mean	6.34677	2.198
Variance	0.33033	0.50641
Observations	9	9
Pooled Variance	0.41837	
Hypothesized Mean Difference	0	
Df	16	
t Stat	13.6065	
P(T<=t) one-tail	1.6E–10	
t Critical one-tail	1.74588	
P(T<=t) two-tail	3.3E–10	
t Critical two-tail	2.11991	

Source: Compiled from Table-31.

The debt-equity ratio of HDFC and ICICI Bank are recorded mean at 6.34 and 2.19 (Table-30) respectively. The value of t-test at 5% level of significance is less than the critical value and there is no significance difference between the selected two banks debt-equity ratio. It clears that ICICI Bank debt-equity ratio is less compared with HDFC Bank. So we can say that the debt-equity ratio of ICICI bank have decreased during the study period hence long term solvency is well in ICICI bank.

VI. Sensitivity to Market Risk

Foreign exchange rates, commodity prices or equity prices can adversely affect a financial institution's earnings or capital. For most institutions, market risk primarily reflects exposures to changes in interest rates. The S component focuses on an institution's ability to identify, monitor, manage and control its market risk, and provides institution management with a clear and focused indication of supervisory concerns in this area.

1. Spread Ratio

Spread is the difference between interest earned and interest paid. So spread is the amount available to the commercial banks for meeting their administrative, operating and other expenses. As a matter of practice, banks try to increase the spread volume so that it is sufficiently available to meet the non-interest expenses and the remainder contributes to the profit volume.

The ratio of spread as percentage of working fund is considered to be an important ratio which indicates profitability of commercial banks. The ratio is calculated by taking the difference between the ratios of interest earned as percentage of working fund and interest paid as percentage of working fund.

Spread Ratio (%) = (Spread / Working Fund)*100

Table-33 Spread Ratio

Years	HDFC	ICICI
2003	4.065869	1.3699929
2004	2.942775	1.7661133
2005	3.091641	1.7740989
2006	3.130357	1.5814548
2007	3.801131	1.6549622
2008	3.925632	2.0458639
2009	4.049195	2.2413608
2010	3.770133	2.2733131
2011	3.994711	2.2672698
2012	3.852238	2.3030628

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-34 Spread Ratio

t-Test: Two-Sample Assuming Equal Variances		
	4.06587	**1.36999**
Mean	3.61753	1.98972
Variance	0.1881	0.08717
Observations	9	9
Pooled Variance	0.13763	
Hypothesized Mean Difference	0	
Df	16	
t Stat	9.30779	
P(T<=t) one-tail	3.7E–08	
t Critical one-tail	1.74588	
P(T<=t) two-tail	7.4E–08	
t Critical two-tail	2.11991	

Source: Compiled from Table-33.

The spread ratio of HDFC and ICICI Bank are recorded mean at 3.62 and 1.99 per cent (Table-31) respectively. But the comparison is not significant in t-test at 5% level of significance. It clears that ICICI Bank spread ratio is less compared with HDFC Bank. Hence, we can say that the HDFC bank Interest income more compared with interest expenses.

2. Burden Ratio

Burden is defined as the difference between non-interest expenses (comprising establishment expenses and other expenses of current and non-current nature) and non-interest income (consisting of commission, exchange brokerage and other miscellaneous receipts) of commercial banks. It represents non-interest expenses which are not covered by non-interest income and remains to be covered by spread so as to arrive at the profit. Thus, profit of commercial banks is the difference between spread and burden. If burden is more, it adversely affects profit and vice-versa. Therefore, banks always try to maintain burden at the minimum so as to get higher profit.

Burden represents non-interest expenditure of commercial banks. In other words, it is the combination of man-power expenditure and other expenses of banks minus other income. Burden which is to be met out of spread used to influence considerably the profit of the bank. Hence, proper management of burden is highly essential if a bank wants to enhance its profitability volume. The ratio of burden as percentage of working fund is calculated by taking difference between the ratios of non-interest expenditure as percentage of working fund and non-interest income as percentage of working fund.

Burden Ratio = (Burden / Working Fund)*100

Table-35 Burden Ratio

Years	HDFC	ICICI
2003	-0.3648435	-0.04172
2004	-0.780012	0.39929
2005	-0.84388	0.070795
2006	-0.7713656	0.204006
2007	-0.991933	0.069581
2008	-1.098546	0.184027
2009	-1.223325	0.149478
2010	-0.879263	0.453318
2011	-1.067731	0.007795
2012	-1.048189	-0.07467

Source: Various issues of CMIE, RBI and Bank Annual Reports.

Table-36

t-Test: Two-Sample Assuming Equal Variances		
	-0.3648435	-0.04172
Mean	-0.967138788	0.162625
Variance	0.024557493	0.030028696
Observations	9	9
Pooled Variance	0.027293094	
Hypothesized Mean Difference	0	
Df	16	
t Stat	-14.50666294	
P(T<=t) one-tail	6.30155E–11	
t Critical one-tail	1.745883669	
P(T<=t) two-tail	1.26031E–10	
t Critical two-tail	2.119905285	

Source: Compiled from Table-33.

The burden ratio of HDFC and ICICI Bank are recorded mean at 0.97 and 0.16 (Table-34) respectively. The value of t-test at 5 % level of significance is less than the critical value and there is no significance difference between the selected two banks burden ratio. It clears that ICICI Bank burden ratio is good compared with HDFC Bank. Hence, we can say that the burden of HDFC bank has decreased during the study period but it is minor change. This ratio affects the profitability of the bank.

Summary of Findings, Conclusions and Suggestions

Based on the above analysis, the following are the summary of findings; conclusions and suggestions about the comparative financial performance of the HDFC and ICICI bank are drawn:

Findings

1. The average capital adequacy ratio of HDFC and ICICI Bank is 14.19 per cent and 14.92 percent respectively. Hence there is no significance difference between the ICICI and HDFC Bank and it is more than the Basel Accord norms of 10per cent.
2. The Tier I capital ratio of HDFC and ICICI Bank mean is 10.30 per cent and 10.02 percent respectively. Hence comparison between the selected two banks Tier-I capital are not

significant but it is more than the Basel norms of 8 per cent.

3. The average Tier II capital ratio of HDFC is 1.29 per cent and ICICI Bank is 1.13 percent. Hence there is no significance difference between the HDFC and ICICI Banks Tier-I capital but it is less than the Basel norms of 4 per cent.
4. The net non-performing assets to net advances of HDFC and ICICI Bank are recorded mean at 0.33 and 1.467 per cent (Table-8) respectively. It clears that ICICI Bank non-performing assets are more compared with HDFC Bank.
5. The average assets turnover ratio of HDFC and ICICI Bank are recorded as 0.086 and 0.088 times respectively (Table 10).
6. The loans to total assets of HDFC and ICICI Bank are recorded mean at 0.51 and 0.22 respectively, but HDFC Bank loans to total assets are more compared with ICICI Bank.
7. The total advances to customer deposit of HDFC and ICICI Bank are recorded mean at 68.7 and 89.4 per cent (Table-11) respectively. Hence ICICI Bank total advances to customer deposits are more compared with HDFC Bank.
8. The net profit ratio of HDFC and ICICI Bank are recorded mean at 15.18 and 13.05 per cent (Table-16) respectively. So the HDFC Bank net profit ratio is more compared with ICICI Bank.
9. The operating profit ratio of HDFC and ICICI Bank are recorded mean at 30.6 and13.05 per cent (Table-18) respectively. Hence ICICI Bank operating profit ratio is less compared with HDFC Bank.
10. The average dividend per share of HDFC and ICICI Bank are recorded as Rs.1.9 and Rs.11 respectively but HDFC bank share price changed Rs10 to Rs. 2 face value in 2012.
11. The earnings per share of HDFC and ICICI Bank are recorded mean at 10.39 and36.71 per cent (Table-22) respectively but HDFC bank share price changed Rs10 to Rs. 2 in 2012.
12. The average return on net-worth of HDFC and ICICI bank is 17.92 per cent and 12.06 per cent; hence HDFC performance is good compared with ICICI bank.
13. The average current assets of HDFC and ICICI bank are 1.22 times and 0.88 times.
14. The average quick assets of HDFC and ICICI bank are 0.88 times and 0.54 times hence HDFC bank quick ratio is more compared with ICICI bank. So, we can conclude that the HDFC bank liquidity has well compared with ICICI bank.
15. The debt-equity ratio of HDFC and ICICI Bank are recorded mean at 6.34 and 2.19 (Table-30) respectively. So we can say that the debt-equity ratio of ICICI bank have decreased during the study period, hence long term solvency is well in ICICI bank.
16. The spread ratio of HDFC and ICICI Bank are recorded mean at 3.62 and 1.99 per cent (Table-31) respectively. Hence HDFC bank Interest income is more compared with interest expenses.
17. The burden ratio of HDFC and ICICI Bank are recorded mean at 0.97 and 0.16 (Table-34) respectively. It clears that ICICI Bank burden ratio is good compared with HDFC Bank but it is minor change.

Conclusions

1. The capital adequacy and Tier I capital ratio of ICICI and HDFC Bank is more than the Basel Accord norms but the average Tier II capital ratio of HDFC and ICICI Bank is 1.29 per cent and 1.13per cent only. We conclude that both the banks are good with respect capital adequacy because it is above the Basel norms.
2. The net non-performing assets to net advances of ICICI Bank non-performing assets are more compared with HDFC Bank. The efficiency of HDFC Bank management is good because its NPAs are less than 0.5 for the study period from 2013 to 2012.
3. The loans to total assets of HDFC are more compared with ICICI Bank. Hence, we can say that the risk is more in HDFC bank compared with ICICI Bank.
4. The total advances to customer deposit of HDFC is less compared with ICICI Bank. Hence, ICICI bank is managing more efficiently for converting deposits to advances.
5. The net profit, operating profit ratio of HDFC Bank is more compared with ICICI Bank. The average return on net-worth of HDFC and ICICI bank is 17.92 per cent and 12.06 per cent; hence HDFC performance is good compared with ICICI bank.
6. The average current assets and quick assets of HDFC is more compared with ICICI bank. So, we can conclude that the HDFC bank liquidity has well compared with ICICI bank and the t-test has also proved the same in the case of all the liquidity ratios.
7. The debt-equity ratio of ICICI Bank is less compared with HDFC bank; hence long term solvency is well in ICICI bank.
8. The spread ratio of ICICI Bank is less compared with HDFC Bank. Hence, we can say that the

HDFC bank Interest income more compared with interest expenses. Hence HDFC bank earns more profits.

9. The burden ratio of ICICI Bank is good compared with HDFC Bank. But spread is more in HDFC bank hence it earns more profits.

From the CAMELS' analysis it clears that there is no significance difference between the ICICI and HDFC bank's financial performance but we conclude that the ICICI bank performance is slightly less compared with HDFC.

Suggestions

In the light of the above conclusions the following suggestions may be made:

1. The NPAs of the ICICI bank is more than one per cent, hence should control NPAs otherwise it affects the asset quality in long run.
2. The burden of the HDFC bank should control within the short-period otherwise the profit of the bank is eaten away by the increased burden in the long-run.
3. The spread of the ICICI bank should control otherwise the income of the bank is eaten away by the interest expenses in the long-run.

References

1. Sathya and Bhattacharya et el (1997) : "Impact of Privatization on the Performance of the Public Sector Banks, Journal of Management Review: pp 45–55.
2. K. Srinivas (2010): "Pre and Post Merger Financial Performance of Merged Banks- A Select Study", Indian Journal of Finance, May 2010.
3. Chowdari Prasad and K.S. Srinivasa Rao (2004) : "Private Sector Banks in India - A SWOT Analysis, Bankers Profession, pp 28–33.
4. Sanjay J. Bhayani (2006): "Performance of the New Indian Private Banks – A Comparative Study, Banking Review: pp 55 – 59.
5. Chidambaram R.M and Alamelu (1994):"Profitability in Banks – A matter of Survival, The Banker: pp 1–3 May.
6. Das A. (1997): "Technical, Allocative and Scale Efficiency of Public Sector Banks in India, RBI Occasional Papers, June to September.
7. Barman R. B. and Samanta G. P "Banking Services Price Index: An Exploratory Analysis for India"(www.financialindia.com).
8. Bhadury Prof. Subrato (2007) conducted study on "Commercial banking in India new challenges and opportunities after liberalization" South Asian Journal of Socio-Political Studies (Vol No-2, Jan-June 2007).
9. Board John Sutcliffe, Ziemba Charles, William T.(2003) "Applying Operations ResearchTechniques to Financial Markets" Interfaces; (Mar/Apr2003, vol. 33 issue 2), (Pg12–24).
10. Brown Craig O. and Dinc I. Serdar (2005)"The Politics of Bank Failures: Evidence from Emerging Markets" Quarterly Journal of Economics, (November 2005) (Pg-1413–1443).
11. Batra Mr. Sumant & Dass Kesar (2003) "Maximising value of Non Performing Assets" Forum for Asian Insolvency Reform (FAIR) (Seoul, Korea 10–11 November 2003).
12. Chhikara Dr. Sudesh (2007) " Causes and Impact of Non Performing Assets in Public Sector Banks : A state level Analysis" Amity Management Analyst (Vol 1, No 2) (2007) (Pg. No. 48–56).
13. Chen Ping, Yang Hailiang, Yin George (2008) "Markowitz's meanvariance asset-liability management with regime switching: A continuous 209 time model" Insurance, Mathematics & Economics. Amsterdam: (Dec 2008. Vol. 43, Issue. 3); (Pg. 456–461).
14. Chipalkatti Niranjan, Rishi Meenakshi (2007) "Do Indian banks understate their bad loans?"The Journal of Developing Areas. Nashville: (Spring 2007. Vol. 40, Issue. 2) ;(Pg. 75–91).
15. Chakrabarti Rajesh and Chawla Gaurav (2005)"Bank Efficiency in India since the Reforms: An Assessment" Money & Finance ICRA Bulletin, (July-Dec'05) (Pg.-31–42).
16. Deolalkar G.H "The Indian Banking Sector On the road to progress" Article from (www.fedral.co.in) 15. Derviz Alexis and Podpiera Jiri "Predicting Bank CAMEL ad S&P ratings: The Caste of Czech Republic" Working Paper Series, printed and distributed by Czech National Bank (http://www.cnb.cz.).
17. Demirgüç-Kunt Asli and Detragiache Enrica (1998) "The Determinants of Banking Crises: Evidence from Developed and Developing Countries" IMF staff papers(Vol.45, No.1) (March,1998).
18. Das, Abhima, Ghosh, Saibal (2006) "Financial Deregulation and Efficiency: An Empirical Analysis of Indian Banks during the Post Reform Period" Review of Financial Economics; (Sep2006, Vol. 15 Issue 3), (Pg193–221).
19. Dhar V Ganga and Reddy G Nares (2007) "Mergers and acquisitions in the Banking Sector- an Empirical Analysis"ICFAI Reader, (March 2007), (Pg: 42–50).
20. Detemple Jérôme, Rindisbache Marcel R (2008) "Insurance, Mathematics & Economics. Amsterdam: (Dec 2008. Vol. 43, Issue. 3); (Pg. 281).
21. Frierson, Robert DeV (2007) "Orders Issued under section 4 of the Bank holding Company Act" Federal Reserve Bulletin; (3/1/2007), (Pg44–48).

An Analysis of Liquidity Management in Selected Public and Private Orgnizations in Mining Sector in Orissa

CMA S.C. Mohanty
LLB, FIV, FCMA,
Research Scholar, Utkal University, Odisha
mohantysc@gmail.com

Introduction

Liquidity is the life blood of a business. It is essential to maintain an adequate degree of liquidity for smooth running of the business operations. Liquidity management in corporate business life has always been significant for smooth running of the business. According to Herbert B. Mayo, "Liquidity is the ease with which assets may be converted in to cash without losses". Liquidity in the Balance Sheet needs to balance between earning adequate returns and the need to cover the financial and business risk. Liquidity plays a significant role in the successful functioning of a business unit. Liquidity and profitability are two important and vital aspects of corporate business life. Liquidity is a pre-requisite for the very survival of a business firm. Liquidity management has thus become a basis and broad aspect of judging the performance of corporate entity. The need for effective management of liquidity in corporate business life has always been significant for smooth running of the business.

Liquidity refers to short term financial strength of a company and the ability of a concern to meet its current obligation as and when these become due. The short-term obligation is met by realizing amounts from current, floating or circulating assets. The current asset should either be liquid or near liquidity. These should be convertible into cash for paying obligations for short-term liabilities would assess the sufficient or insufficient current asset. If current assets can pay off current liabilities, then the liquidity position will be satisfactory. On the other hand, if current liabilities may not be easily met out of current asset then liquidity position will be bad.

The short-term creditor of the company like suppliers of goods on credit and commercial bank providing short-term loans are primarily interested in knowing the company's ability to meet its current and short-term obligations. If the Firm fails to meet such current obligations due to lack of liquidity position its goodwill in the market is likely to be affected beyond repair. It will result in loss of creditors confidence in the company .Even a high degree of liquidity is not good for the company because such a situation represents unnecessary excessive funds tie up in current assets.

Liquidity management forms an important part of working Capital management. The term Working Capital refers to current assets which may be defined as (i) those which are convertible in to cash or equivalents within a period of one year, and (ii) those which are required to meet day to day operation. The adequacy of cash and other current assets together with their efficient handling, virtually determine the survival and demise of an enterprise. Working capital is often referred to as "Circulating Capital" which is frequently used to denote those assets which keep getting converted from one form to other.

The effective management and control of various components of short-terms funds i,e working capital has been rated as the most vital and important function of Financial Management in any Industrial and Business Units based on various parameters, since it has direct impact on the profitability.

The Mining Industry plays an important role in the economic development of the country since it provides the basic raw-materials to the core sector Industries. Effective management of working capital in these industries will help in achieving economy in the cost if its operation and optimum financial results with ultimate benefit to the society.

Keeping this background in view an attempt has been made by the Researcher to evaluate the efficiency in liquidity management of few selected public sector and private sector industries in Orissa engaged in mining, processing, production and manufacturing activities of products of metals and non- metals , their minerals, ores and alloys. Such an analysis is expected to show and high light the strengths and weaknesses regarding various aspects of its liquidity management.

Objectives and Methodolog y

The primary objective of the study is to evaluate the effectiveness in liquidity Management in few selected state sector and private sector industries of Orissa engaged in mining, processing, production and manufacturing activities of products of metals and non- metals , their minerals, ores and alloys in the competitive environment.

The study aims at the following specific objectives :

- To assess the significance of the liquidity management by various parameters to examine and evaluate the liquidity position of the companies selected from public and private sector mining industries.
- To identify the factors affecting the liquidity position of company.
- To examine and evaluate the practice followed by the enterprises for the management of inventory, receivables and cash.
- To offer necessary suggestions to improve the efficiency of liquidity Management.

The present study is made for a period of 10 years commencing from 2002–03 to 2011–12. The data used in the study is mainly based on secondary sources of information and has been drawn from the Annual Reports and MIS Reports of Orissa Mining Corporation Limited (OMC),IDCOL Kalinga Iron Works Limited and IDCOL Ferrochrome and Alloys Limited (Wholly Owned Subsidiaries of Industrial Development Corporation of Orissa Limited (IDCOL), and Indian Metals and Ferro Alloys Limited (IMFA).

The Researcher has also collected relevant primary information regarding effectiveness of liquidity management in selected companies to supplement the Secondary information. A questionnaire was designed and administered to collect primary data regarding the approach to liquidity management followed in each of the selected organizations. The questionnaire was supplemented by personal interviews with the respondents to cross check and validate the responses.

Literature Survey

The crucial part in managing working capital is required maintaining its liquidity in day-to-day operation to ensure its smooth running and meets its obligation (Eljelly, 2004). Liquidity plays a significant role in the successful functioning of a business firm. A firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term compulsions.

A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia, 2010). Dilemma in liquidity management is to achieve desired trade off between liquidity and profitability (Raheman et all, 2007).

To prevent breaks or gaps in the trading cycle due to lack of cash, administrators must calculate the cash amount best suited to their level of activity, plan the timing of the relevant payments and collections and draw up a policy of investment in assets with high liquidity that can be converted to cash at a low transactional cost to serve as support for the treasury funds maintained by the company (Kamath, 1985; Srinivasan and Kim, 1986).

Another aim of working capital management is to appropriately time the outflows and inflows of cash, generally known as the cash conversion cycle, while simultaneously optimizing process costs and quality (KPMG, 2005).

Usually the cycle starting from when you spend money to when you get money is undoubtedly the single most important process to optimize for any business. It is therefore not surprising why most researchers adopt cash conversion cycle or period as the most comprehensive measure of working capital management as well as testing its impact on profitability (Deloof, 2003 and Reheman and Nasir, 2007).

Receivable management begins with the decision of whether or not to grant credit. Where goods are sold on credit, a monitoring system is important, because without it, receivable will built up to excessive levels, cash flow (liquidity) will decline and bad debts will offset the profit on sales. Corrective action is often needed and the only way to know whether the situation is getting out of hand is to set up and then follow a good receivable control system (Eugene, 1992).

Cash conversion cycle is another measure of corporate liquidity management (Moss and Stine, 1993). It measures the time lag between cash payments for purchase of inventories and collection of receivables from customers. The CCC is used as a comprehensive measure of working capital as it shows the time lag between expenditure for the purchase of raw materials and the collection of sales of finished goods (Padachi, 2006).

Cash conversion cycle is likely to be negative as well as positive. A positive result indicates the number of days a company must borrow or tie up capital while awaiting payment from a customer. A negative result indicates the number of days a company has received cash from sales before it must pay its suppliers (Hutchison et al., 2007).

Concept of Liquidity

Liquidity in business implies nearness to cash. In a simple sense, liquidity can be thought of as the ability to realize value in money which is the most liquid of assets. Liquidity and profitability goals of a firm covers the entire gamut of financial management process. Liquidity is the ability of a firm to pay debts when due and profitability connotes the ability to earn a good return on investment.

As different authors adopt different approaches to describe liquidity, it can be considered in its two dimensions i.e quantitative and qualitative or stock or flow concepts. In the quantitative sense of stock concept, liquidity is concerned with the quantum of near cash assets which a firm keeps to meet its day to day requirements.

In the qualitative sense, liquidity is regarded as an attribute attached to the business.The attribute of ability to realize value in money , the most liquid assets and from other sources to meet claims on cash. Liquidity is the ability of the firm to meet its maturing obligations. liquidity is the cash and cash availability and it is from current operations and previous accumulations that cash is available to take care of the short term obligations. Liquidity is the ability of an enterprise to generate adequate amounts of cash to meet enterprise's need for cash. Liquidity of a firm measures the ability to meet the expected and unexpected cash requirements, expand its assets, reduce its liabilities.

Liquidity is a multidimensional concept that includes short term availability of funds to meet immediate cash needs as well as ability to raise funds in the intermediate and long run. In the short run , liquidity and profitability may not necessarily go together. By channeling funds into more liquid assets to assure a better liquidity position, a firm sacrifices some earnings through more liquid but less profitable assets. Profitability may not guarantee liquidity but, certainly, it does not compete with liquidity in the long run, because profitability contributes to liquidity and liquidity enables smooth operations of the firm.

A firm should identify a range of sustainable growth rates within which it can prevent liquidity problems. Outside finances towards liquidity funding is not an optimum solution for a firm's growth. Growth contributes to profitability in the long run and profitability in turn, contributes to the liquidity pool through realizations. In the same manner, Liquidity by sustaining the survival of the business, leads to profitability which induces further growth. As a matter of fact, there is a close affinity between liquidity, profitability and sustained growth.

Analytical Study

The liquidity management of the selected Public and Private Sector Organizations in mining sector in Orissa has been studied by analyzing the various components of Liquidity. The analysis has been carried out by calculating certain key ratios which are then used as a benchmark / indicators of trend to arrive at findings and conclusions.

The key ratios which have been calculated and their interpretation/ analysis is as under:

Table-1 Current Ratio

S.L. No.	Company	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average
1	IDCOL Kalinga Iron Works Ltd	0.76	1.63	1.27	1.20	1.41	1.32	1.23	1.06	0.58	0.67	**1.11**
2	IDCOL Ferrochrome and Alloys Limited	0.75	0.65	1.31	1.27	1.69	1.54	1.49	1.32	1.90	2.66	**1.46**
3	The Orissa Mining Corporation Ltd.	1.30	1.45	1.63	1.65	1.91	2.11	2.22	5.81	5.92	10.02	**3.40**
4	Indian Metals and Ferro Alloys Limited	1.34	1.23	1.61	1.75	2.64	2.23	1.85	1.82	1.80	1.19	**1.75**
	Average	**1.04**	**1.24**	**1.46**	**1.46**	**1.91**	**1.80**	**1.70**	**2.50**	**2.55**	**3.63**	**1.93**

It is the ratio of current assets to current liabilities. It is an important tool for the judgment of short term liabilities and solvency of a firm.

From the analysis, it is found that there was a fluctuating trend in the Current Ratio over the 10 year period in all selected companies. The Average Current Ratio was found to be less than 2:1 in all selected organizations except Orissa Mining Corporation Limited. The Current Ratio analysis reflects poor / less than satisfactory liquidity position in all selected organizations except OMC Limited.

As this ratio indicates the availability of current assets in a firm for every one rupee of current liability, so higher value of this ratio will indicate the better liquidity position of the firm it help the creditor and other short term investor to judge the final position of the firm, it helps the creditors and other short term investors.

Table-2 Liquid Ratio

S.L. No.	Company	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average
1	IDCOL Kalinga Iron Works Ltd	0.40	0.74	0.46	0.55	0.62	1.34	0.38	0.31	0.17	0.17	**0.51**
2	IDCOL Ferrochrome and Alloys Limited	0.44	0.43	0.64	0.77	0.71	1.14	0.88	0.92	1.47	1.48	**0.89**
3	The Orissa Mining Corporation Ltd.	1.11	1.35	1.59	1.60	1.85	2.04	2.12	5.42	5.56	9.45	**3.21**
4	Indian Metals and Ferro Alloys Limited	0.58	0.46	0.41	0.55	1.50	1.14	1.13	0.99	0.93	0.64	**0.83**
	Average	**0.63**	**0.74**	**0.77**	**0.87**	**1.17**	**1.41**	**1.13**	**1.91**	**2.03**	**2.93**	**1.36**

It is a ratio of liquid assets to liquid liabilities. Liquid assets are those assets which can be converted into cash immediately without incurring any loss. The liquid liabilities are those which can be liquidated immediately. Liquid assets are the sum total of all current assets reduced by stock in trade and prepaid expenses. The traditional standard ratio is 1:1. This ratio indicates that the amount of liquid assets which are available in a firm for a every one rupee of liquid liability.

From the analysis, it is found that there was a fluctuating trend of Liquid Ratio in all the selected organizations over the 10 year period under study. In all organizations, the average Liquid Ratio was found to be less than the benchmark figure of 1:1 thus reflecting pressure on liquidity.

It is concluded that the higher value of this ratio indicates satisfactory liquidity position. When this ratio is below the traditional standard, it indicates weak liquidity position which might impair the operations of the organization.

Table-3 Total Receivable as a percentage of Current Assets

S.L. No.	Company	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average
1	IDCOL Kalinga Iron Works Ltd	23.24%	14.45%	13.92%	19.59%	12.64%	14.13%	13.20%	9.55%	9.49%	8.53%	**1 3.87%**
2	IDCOL Ferrochrome and Alloys Ltd.	38.24%	38.53%	9.44%	4.66%	3.98%	1.07%	3.35%	9.21%	0.19%	0.07%	**10.87%**
3	The Orissa Mining Corporation Ltd.	71.40%	56.98%	2.61%	2.42%	3.49%	1.22%	0.32%	1.10%	0.44%	0.26%	**14.02%**
4	Indian Metals and Ferro Alloys Limited	13.15%	8.74%	8.39%	14.63%	8.18%	6.58%	6.03%	3.67%	3.44%	5.12%	**7.79%**
	Average	**36.51%**	**29.68%**	**8.59%**	**10.33%**	**7.07%**	**5.75%**	**5.72%**	**5.88%**	**3.39%**	**3.49%**	**11.64%**

This ratio indicates the share of trade receivable in total amount invested in the current assets of the business.

From the analysis, it is found that the proportion of receivables in the composition of current asset on an average over the 10 year period under study in all the selected organizations was more or less around the same level–varying between 10.87% to 14.02% except for IMFA in which case the average was found to be 7.79%.

From the analysis, we can only get an idea about the size of receivable to total investment in current assets of the firm. But this can not make us conscious about the required amount of investment in receivable to total current assets at a particular point of time.

Table-4 Debtor Collection Period

S.L. No	Company	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average
1	IDCOL Kalinga Iron Works Ltd	43.39	17.82	20.23	24.12	16.80	19.37	28.88	25.69	16.84	31.25	**24.44**
2	IDCOL Ferrochrome and Alloys Ltd.	54.73	48.68	24.56	7.62	4.21	2.15	6.58	24.60	4.34	3.06	**18.05**
3	The Orissa Mining Corporation Ltd.	24.98	19.34	12.63	15.64	16.84	10.31	5.26	7.02	15.64	0.54	**12.82**
4	Indian Metals and Ferro Alloys Limited	29.11	24.40	19.89	35.28	17.36	14.59	12.38	12.63	8.23	11.15	**18.50**
	Average	**38.05**	**27.56**	**19.33**	**20.67**	**13.80**	**11.60**	**13.28**	**17.48**	**11.26**	**11.50**	**18.45**

Debt Collection Period indicates the number of times in a year the debtor are rotated or converted into cash. In other word, it states about the length of period for which credit sales remain uncollected. This ratio is based on the credit sales to average debtors.

From the analysis it is found that the Average Debt Collection Period of all the selected organizations during the period under study ranged between 12 to 24 days which represents efficient management of debtors. This has helped the organizations to maintain the liquidity within the organization through structured and robust debtors management strategies. Even though variations have been noticed in each of the organization over the 10 year period but generally the debt collection period has been satisfactory.

Table-5 Inventory as a Percentage of Current Assets

S.L. No.	Company	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average
1	IDCOL Kalinga Iron Works Ltd	47.39%	54.84%	64.18%	54.11%	56.18%	63.52%	68.82%	70.21%	71.17%	75.18%	**62.56%**
2	IDCOL Ferrochrome and Alloys Limited	41.75%	33.67%	51.48%	39.56%	57.71%	26.14%	41.13%	30.30%	22.51%	44.28%	**38.85%**
3	The Orissa Mining Corporation Ltd.	14.45%	6.68%	2.58%	2.82%	3.13%	3.28%	4.78%	6.61%	6.05%	5.68%	**5.61%**
4	Indian Metals and Ferro Alloys Limited	22.63%	31.04%	35.87%	55.33%	43.08%	49.05%	38.93%	45.52%	48.55%	46.29%	**41.63%**
	Average	**31.56%**	**31.56%**	**38.53%**	**37.96%**	**40.02%**	**35.50%**	**38.42%**	**38.16%**	**37.07%**	**42.86%**	**37.16%**

This ratio states about the percentage of share of inventory to the total current assets of the sample unit under study. From the analysis, it is found that inventory percentage ranges between 5.61 % in Orissa Mining Corporation Limited to 62.56% in IDCOL Kalinga Iron Works Limited. Wide variations are also noticed in each organization over the 10 year period under study.

From the overall observation it is found that this ratio indicates an increasing trend. This indicates an adverse impact on the profitability and liquidity of the company as substantial part of the total current asset is accounted for by inventory.

Table-6 Inventory Holding Perios (In Days)

S.L. No.	Company	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average
1	IDCOL Kalinga Iron Works Ltd	74.55	48.87	87.30	88.38	58.10	346.95	139.98	153.32	124.92	255.08	**137.74**
2	IDCOL Ferrochrome and Alloys Limited	56.90	48.57	41.64	50.22	48.53	39.40	91.82	131.40	92.48	128.54	**72.95**
3	The Orissa Mining Corporation Ltd.	82.35	34.80	13.67	16.96	16.56	16.46	31.95	59.16	37.10	52.20	**36.12**
4	Indian Metals and Ferro Alloys Limited	49.05	67.80	75.82	92.45	97.89	89.07	79.90	145.33	102.65	101.13	**90.11**
	Average	**65.71**	**50.01**	**54.61**	**62.00**	**55.27**	**122.97**	**85.91**	**122.30**	**89.29**	**134.24**	**84.23**

Inventory turnover ratio indicates the number of times in a year, the inventories are replaced. On the other hand, inventory holding period implies the number of days for which the inventories are held in stock before use. This technique actually measures the efficiency of the firm in regards to the management of inventories.

From the analysis, it is found that the average inventory holding period across the selected organizations ranged between 36 days in The Orissa Mining Corporation Limited to 137 days in IDCOL Kalinga Iron Works Limited. Variations have also been noticed in each of the selected organizations across the 10 year study period.

Table-7 Cash as a Percentage of Current Assets

S.L. No	Company	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average
1	IDCOL Kalinga Iron Works Ltd	2.07%	5.14%	3.95%	6.75%	9.89%	9.14%	5.44%	1.52%	3.05%	6.42%	**5.34%**
2	IDCOL Ferrochrome and Alloys Limited	8.52%	8.51%	20.30%	28.13%	11.83%	9.23%	0.66%	0.59%	0.55%	0.71%	**8.90%**
3	The Orissa Mining Corporation Ltd.	9.27%	30.62%	50.38%	44.44%	48.81%	57.42%	53.74%	80.87%	82.49%	81.65%	**53.97%**
4	Indian Metals and Ferro Alloys Limited	3.96%	9.82%	3.72%	10.73%	24.36%	9.51%	1.26%	8.36%	3.64%	2.72%	**7.81%**
	Average	**5.96%**	**13.52%**	**19.58%**	**22.51%**	**23.72%**	**21.33%**	**15.28%**	**22.83%**	**22.43%**	**22.88%**	**19.00%**

This ratio indicates the percentage of current assets is lying as cash in hand. Although, cash in hand indicates the liquidity position of the firm, but it has some holding opportunity cost. So higher the percentage of this ratio higher would be the instant liquidity strength of firm and vice versa.

From the analysis, it is found that average cash as a percentage of Current Assets of all selected organizations was ranging between 5.34% to 8.9% except for abnormally high 53.97% in case of Orissa Mining Corporation Limited during the period under study.

This ratio does not indicate the efficiency of management in managing cash balance on hand. But it help to get an idea about the share of cash balance in the composition of the current assets of a firm at a particular point of time. High idling cash is not desirable even though it may indicate very high liquidity.

Findings

After making in depth analysis of the relevant data relating to different components of working capital of the sample organizations, the following are the key findings:

1. The average value of inventory as a percentage of net current Assets shows fluctuating trend during the period under study.
2. The yearly average of the inventory expressed in term of no of day's shows an increasing trend during the period under study.
3. Total receivable which includes Trade receivable and Loans and advances collectively constitute a very low percentage of the value of total current assets.
4. The debtor collection period shows more or less a decreasing trend in respect of all the organizations over the 10 year period under study.
5. Cash is always the key consideration out of all other current assets whenever the instant liquidity of firm is being considered. It indicates the instant ability or strength of the firm to pay off its obligations as and when they arise in the normal course of business. In case of the sample organizations under study, cash in hand as a percentage of current assets is low except in case of OMC Limited where it was found to be significantly high.
6. The traditional standard of Current Ratio is 2:1 of the business world, and it is observed from the study that all organizations except OMC Limited have a less than satisfactory current ratio.
7. The traditional standard of Liquid Ratio in the business world is 1:1 , and it is observed from the study that except OMC Limited , all other selected organizations have a poor liquid ratio.

Conclusions

On the basis of the analysis of the financial statement relating to working capital of sample units under study and from the findings of such analysis, the conclusions drawn are as under:

Orissa Mining Corporation Limited appears to be well placed in terms of liquidity as it has an adequate Current and Liquid Ratio, efficient debt collection strategies, and well managed inventory. However a major concern is abnormally high proportion of cash as a component of the total current assets. Idling cash though reflecting high liquidity may be affecting the profitability of the company.

Out of the other selected organizations IDCOL Kalinga Iron Works Limited needs to improve its liquidity position through better management of Cash, receivables, and inventory. There is scope for improvement in liquidity management in IMFA and IDCOL Ferrochrome and Alloys Limited.

References

1. Afza, T., and Nazir, M.m S. (2011). Is it better to be aggressive or conservative in managing working capital?, Joumal of Quality and Technology Management, pp. 11–21.
2. Alipour, M, (2011). Working capital management and corporate profitability: Evidence from Iran, World Applied Sciences Joumal 12 0): 1093–1099.
3. APQC. (2011). Improving working capital management and cash flow intelligence, Protiviti risk and business consulting. Intemal audit.
4. Autukaite, R., and Molay, E. (2011). Cash holdings, working capital and firm value: Evidence from France, Intemational Conference of the French Finance Association (AFFI), May 11–13.
5. Bhunia, a (2010). A trend analysis of liquidity management efficiency in selected private sector indian steel industry, International Journal of Research in Commerce and Management, Volume-1 Issue-5 (Sep, 2010).
6. Chakraborty, K. (2008). Working Capital and Profitability: An Empirical Analysis of Their Relationship with Reference to Selected Companies in the Indian Pharmaceutical Industry, The Icfai Journal of Management Research, Vol. 34.
7. Dr. C.Nateson, Dr.R.Palanisamy and Ms. V.Divya Aarthi (2011), "Working Capital Management with reference to XYZ Ltd, Cbe", Organizational Management, Vol. XXVI No. 2(March 2011)
8. Debasish Sur and Kaushik Chakraborty (2011), "Evaluating Relationship of working capital management and Profitability: A study of select multinational Companies in the Indian Pharmaceutical Sector", The IUP Journal of Management Research, Vol.X No.2 (April 2011)
9. H. Jamal Zubairi. 2010." Impact of Working Capital Management and Capital Structure on Profitability of Automobile Firms in Pakistan",www.ssrn.com
10. Saswata Chatterjee. 2010." The Impact of Working Capital Management on the Profitability of the Listed Companies in the London Stock Exchange", www.ssrn.com

An Analysis of Profitability, Operational and Financial Efficiency of Mangalore Refinery and Petrochemicals Ltd.

Dr. S.K. Khatik
Professor, Barkatullah University, Bhopal.
Shankhla2003@yahoo.com

Amit Kr. Nag
Assistant Professor, BSSS, Bhopal
amit_nag78@yahoo.co.in

Abstract

This paper attempts to explore the interface of two important financial ratios, the net profit margin and asset turnover and their impact on the profitability of a refinery and petrochemical company. It is vital for management to understand the profitability position so that it can monitor its operations and can take imperative decisions' in time. The concept of Du Pont analysis has been applied in the present paper to examine the company's return on equity by dividing it into three main components: profit margin, asset turnover and leverage factor. The overall performance or efficiency of a firm is a result of its working and operations, which are reflected in the margin it gets through carrying on business and the speed at which the assets are usefully employed in the business. The combined effect of three aspects – profitability, operating efficiency and financing efficiency can be well comprehended with the Du Pont analysis of Mangalore Refinery And Petrochemicals Ltd.

Introduction

Profits are the ultimate test of any management's effectiveness. This is the reason why big business houses are interested in knowing about the overall profitability of their concern. They are basically concerned about the ability of the firm to meet its short term as well as long term obligations to its creditors, to ensure a reasonable return to its owners and secure optimum utilization of the assets of the concern. Without profit business enterprise will not be able to maintain its existence, since profit is the backbone of every business enterprise. Profit and profitability provides a tonic for growth and development of business activities. It motivates workers to work hard, owners to invest more capital, creditors to provide more facilities and government to provide better facilities for economic development of the society. The earning power of an enterprise is gauged by return on equity. The overall performance can be improved either by increasing the profit margin or by accelerating the pace of rotation of funds for business activity which in turn can lead to more sales per rupee of investment. The profit margin can be raised by controlling costs on one hand and increasing sales on the other. The asset turnover can be pushed up by limiting investment in fixed assets or working capital without adversely affecting the sales or increasing sales with the same amount of investment.

Review of Literature

Preethi Singh (1986) disclosed the basic rules for selecting the company to invest in. She opined that understanding and measuring return based on risk is fundamental to the investment process. According to her, most investors are 'risk averse'. To have a higher return the investor has to face greater risks. Pillai and Bagavathi (2001) suggested that, "The overall profitability can be measured in terms of relationship between net profit and assets. This ratio is also known as profit to assets ratio. It measures the profitability of investment. " "To examine the efficiency and profitability use of these resources certain ratios are being used and they are collectively called as Activity ratios or performance ratios." According to S.P.Gupta (2001) - "Basically the return on capital employed is used to study the operational efficiency of the business. It shows the overall earning capacity of the capital employed. As such, it may be used to examine the managerial efficiency. Again, the impact of changes in sales, costs and capital employed on the return may be examined through this technique.

I.M.Pandey (2002) suggested that - "RONA or ROCE (Return on Net Assets or Return on Capital Employed) is the measure of an organization's operating performance. It indicates an organization's earning power. It is a product of the asset turnover gross profit margin and operating leverage." Whereas in the words of Jawarlal (2004) -"Return on Capital employed ratio measures profitability in relation to the total capital employed in a business enterprises. The terms invested capital, capital funds and total capital may be used interchangeably. It is a useful ratio when comparing the overall performances of companies, particular in their capital structure." In the words of Ravi M. Kishore (2006) -"Assets management ratios signifies how effectively an organization employs its resources and the pace in which various accounts are converted into sales or cash. These ratios are also called as 'activity ratios'. Activity ratios measure how effectively the an organization's resources are used by making comparison of sales level with assets like inventories, debtors, fixed assets etc"

According to Khan and Jain (2007), "The Return on Assets ratio is a central measure of the overall profitability and operational efficiency of an organization. It shows the interaction of profitability and activity ratios. It implies that the performance of an organization can be improved either by generating more sales volume per rupee of investment or by increasing the profit margin per rupee of sales." Whereas Srinivasan and Murugan (2008) suggested that,-"A high creditors turnover ratio reveals that the creditors are being paid rapidly thus boosting up the credit worthiness of an organization. A very low ratio may signify that firm is not taking full advantage of credit facilities allowed by the creditors.

Importance of The Study

It has been observed that although a high profit margin is a test of better performance a low margin does not necessarily imply a lower rate of return on investments/assets turnover. Therefore, the overall operating efficiency of an organization can be assessed on the basis of a combination of the two. Earning power is the overall profitability of an organization, is computed by multiplying net profit margin and assets turnover. The combined profitability is referred to as earning power/ return on assets (ROA) ratio. The earning power of an organization may be defined as the overall profitability of an organization. This ratio has two elements profitability on sales as reflected in the net profit margin, and (ii) Profitability of assets which is revealed by the assets/investment turnover. The operating efficiency of an organization in terms of the efficient utilization of the resources is reflected in net profit margin. The earning power or return on assets of an organization can be computed by multiplying the net profit margin and the assets turnover.

Objective of The Study

This study has the following objectives:

- To analyze the concept of Du Pont analysis.
- To examine the net profit margin, asset turnover and leverage factor of the company.
- To study the return on equity of Mangalore Refinery And Petrochemicals Ltd with the help of Du Pont Analysis.

Hypothesis of The Study

Ho: There is no significant difference in the profitability, operational and financial position of Mangalore Refinery And Petrochemicals Ltd during the study period.

Methodology

For the study, statistical data has been collected from various reports published periodically by the Mangalore Refinery And Petrochemicals Ltd. The statistical techniques like percentage, averages, coefficient of correlation, coefficient of variation, T-test have also been applied. For proper analysis and evaluation of operational performance and financial strength, the individual items of profit and loss accounts and balance sheet have also been regrouped.

Limitations of The Study

Limitations are always a part of any kind of research work, as the report is mainly based on secondary data; proper care must be taken in knowing the limitations of the required study.

i. The financial performance of the company is shown just for the last six years, ending 2012. Hence, any uneven trend before or beyond the set period will be the limitations of the study.
ii. This analysis is based on only monetary information, analysis of the non monetary factors are ignored.
iii. As per the requirement of the study some data have been grouped and sub grouped.
iv. There is non availability of sufficient literature & information from the corporation.

Profitability, Operational and Financial Efficiency Analysis

In the present study, emphasis is laid upon analysis of profitability, operational and financial efficiency. The study has been analyzed in detail from the point of view of the following considerations:-

1. Net Profit Ratio

Net profit ratio measures the rate of net profit earned on sales. It helps in determining the overall efficiency of the business operations. Net profit ratio indicates the efficiency of management in managing its manufacturing, selling, administrative and other activities.

The ratio is calculated as under:

$$Net\ Profit\ Ratio = \frac{Net\ Profit}{Net\ Sales\ Revenue} \times 100$$

Increase in Net profit ratio shows better performance, improvement in the overall efficiency and profitability of the business. In the same way, decrease in the ratio indicates managerial inefficiency and excessive selling and distribution expenses.

Table No. 1. Net Profit Margin Ratio (Rs. In millions)

Year	Net Profit After Taxes (Rs.)	Sales (Rs.)	Net Profit Margin Ratio (%)
2006–2007	5255.23	284646.1	1.85
2007–2008	12722.28	325751.28	3.91
2008–2009	11925.44	382437.41	3.12
2009–2010	11123.77	318851.74	3.49
2010–2011	11766.33	389566.73	3.02
2011–2012	9085.78	537633.43	1.69
Statistical Analysis			
Mean	10313.14	373147.78	2.84%
Sd	2525.25	82095.92	0.81
Cv	24.49	22.00	28.62
Growth	72.89	88.88	-8.46
Average Annual Growth	12.15	14.81	-1.41

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

Table no.1 shows that, the net profit margin ratio was 1.85% in the year 2006–07. The net profit margin ratio then increased and was at its maximum and was 3.91% in the year 2007–08. The net profit margin ratio was 3.12% in the year 2008–09. In the year 2009–10 the net profit was 3.49% and in the next year this ratio decreased which was 3.02% and was at its minimum in the year 2011–12 when it was 1.69%. The mean for net profit margin ratio was 2.84%. The standard deviation for net profit margin ratio was 0.81% and coefficient of variation for the net profit margin ratio was 28.62%. The growth for the same was -8.46% and the average annual growth for the net profit margin ratio was -1.41%.

Operating Profit Ratio

This ratio measures the relationship between operating profit and sales. The main objective of computing this ratio is to determine the operational efficiency of the management. This ratio indicates an average operating margin earned on a sale of 100 and whatever portion of sale is left to cover non-operating expenses, to pay dividend and to create reserves. Higher the ratio, the more efficient is the operating management.

$$Operating\ Profit\ Ratio = \frac{Operating\ Profit}{Net\ Sales} \times 100$$

Table No. 2. Operating Profit Ratio (Rs. In millions)

Year	Operating Profit (Rs.)	Sales (Rs.)	Operating Profit Ratio (%)
2006–2007	16583.37	284646.1	5.83
2007–2008	22585.9	325751.28	6.93
2008–2009	23374.24	382437.41	6.11
2009–2010	21966.7	318851.74	6.89
2010–2011	22332.84	389566.73	5.73
2011–2012	19607.53	537633.43	3.65
Statistical Analysis			
Mean	21075.10	373147.78	5.86
Sd	2319.30	82095.92	1.09
Cv	11.00%	22.00%	18.69%
Growth	18.24%	88.88%	-37.40%
Average Annual Growth	3.04%	14.81%	-6.23%

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

Table no.2 indicates that, the operating profit ratio was 5.83% in the year 2006–07. The operating profit ratio then increased and was at its maximum in the year 2007–08 when it was 6.93%. The operating profit ratio was 6.11% in the year 2008–09. In the year 2009–10 the operating profit was 6.89% and in the next year this ratio decreased which was 5.73% and was at its minimum in the year 2011–12 when it was 3.65%. The mean for operating profit ratio was 5.86%. The standard deviation for operating profit ratio was 1.09% and coefficient of variation for the operating profit ratio was 18.69%. The growth for the same was -37.40% and the average annual growth for the operating profit ratio was -6.23%.

Total Assets Turnover Ratio

Total Assets Turnover Ratio indicates the firm's ability to generate sales per rupee of investment in fixed assets. The main objective of computing this ratio is to determine the efficiency with which the Total assets are utilized. In general, higher the ratio, the more efficient is the management in utilization of Total assets, and vice versa. This ratio is computed by dividing the net sales by the net fixed assets.

$$\text{Total Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

Table No. 3. Assets Turnover Ratio (Rs. In millions)

Year	Sales Rs.	Total Assets Rs.	Assets Turnover Ratio (Times)
2006–2007	284646.1	88501.21	3.22
2007–2008	325751.28	115369.1	2.82
2008–2009	382437.41	107143.4	3.57
2009–2010	318851.74	145828.3	2.19
2010–2011	389566.73	184799	2.11
2011–2012	537633.43	254281.8	2.11
Statistical Analysis			
Mean	**Rs.** 373147.78	**Rs.** 149320.47	2.67
Sd	82095.92	56152.15	0.58

Cv	22.00%	37.61%	21.57%
Growth	88.88%	187.32%	-34.26%
Average Annual Growth	14.81%	31.22%	-5.71%

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

According to table no.3, the assets turnover ratio was 3.22 times in the year 2006–07 and then in the year 2007–08 the assets turnover ratio decreased to 2.82 times. The assets turnover ratio then increased in the year 2008–09 by 3.57 times and was at its maximum and then again decreased in the year 2009–10 by 2.19 times. The assets turnover ratio further decreased by 2.11 times in the year 2010–11. This ratio was at its minimum in the year 2011–2012 by 2.11 times. The mean for this ratio was 2.67 times and standard deviation was 0.58 times. The coefficient of variation for the assets turnover ratio was 21.57 % and the growth for the assets turnover ratio was -34.26%. The average annual growth for the assets turnover ratio was -5.71%.

Fixed Assets Turnover Ratio

Fixed Assets Turnover Ratio indicates the firm's ability to generate sales per rupee of investment in fixed assets. The main objective of computing this ratio is to determine the efficiency with which the fixed assets are utilized. In general, higher the ratio, the more efficient is the management in utilization of fixed assets, and vice versa. This ratio is computed by dividing the net sales by the net fixed assets.

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net Fixed Assets}}$$

Table No. 4. Fixed Assets Turnover Ratio (Rs. in millions)

Year	Sales Rs.	Fixed Assets Rs.	Fixed Assets Turnover Ratio (Times)
2006–2007	284646.1	43937.4	6.48
2007–2008	325751.28	47516.31	6.86
2008–2009	382437.41	47157.59	8.11
2009–2010	318851.74	67763.04	4.71
2010–2011	389566.73	86518.74	4.50
2011–2012	537633.43	111912.97	4.80
Statistical Analysis			
Mean	Rs. 373147.78	Rs. 67467.68	5.91
Sd	82095.92	24841.65	1.34
Cv	22.00%	36.82%	22.61%
Growth	88.88%	154.71%	-25.85%
Average Annual Growth	14.81%	25.79%	-4.31%

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

From table no.4, it is clear that the fixed assets turnover ratio was 6.48 times in the year 2006–07. It increased in the year 2007–08 by 6.86 times and this ratio further increased and was at its maximum in the year 2008–09 by 8.11 times. After this fixed assets turnover ratio kept on decreasing till the last year which was 4.71 times in the year 2009–10 and was 4.50 times in the year 2010–2011. It reached 4.80 times in the year 2011–12. The mean for this ratio was 5.91 times and the standard deviation was 1.34 times. The coefficient of variation of fixed assets turnover ratio was 22.61% and the growth was -25.85%. In the end the average annual growth for fixed assets turnover ratio was -4.31%.

Current Assets Turnover Ratio

Current Assets Turnover Ratio indicates the firm's ability to generate sales per rupee of investment in

Current assets. The main objective of computing this ratio is to determine the efficiency with which the Current assets are utilized. In general, higher the ratio, the more efficient is the management in utilization of Current assets, and vice versa. This ratio is computed by dividing the net sales by the net fixed assets.

$$\textit{Current Assets Turnover Ratio} = \frac{\textit{Net Sales}}{\textit{Current Assets}}$$

Table No. 5. Current Assets Turnover Ratio (Rs. in millions)

Year	Sales Rs.	Current Assets Rs.	Current Assets Turnover Ratio (Times)
2006–2007	284646.1	44563.81	6.39
2007–2008	325751.28	67852.78	4.80
2008–2009	382437.41	59985.82	6.38
2009–2010	318851.74	78065.23	4.08
2010–2011	389566.73	98280.28	3.96
2011–2012	537633.43	142368.8	3.78
Statistical Analysis			
Mean	**Rs.** 373147.78	**Rs.** 81852.79	4.90
Sd	82095.92	31651.83	1.10
Cv	22.00%	38.67%	22.37%
Growth	88.88%	219.47%	-40.88%
Average Annual Growth	14.81%	36.58%	-6.81%

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

Table no. 5 shows that the current assets turnover ratio of the year 2006–07 shows 6.39 times which decreased by 4.80 times in the year 2007–08. In the year 2008–09 the current assets turnover was 6.38 times which was the maximum and then the current assets turnover ratio again decreased to 4.08 times in the year 2009–10. In the year 2010–11 the current assets turnover ratio again decreased to 3.96 times and this ratio further decreased to 3.78 times to its minimum in the year 2011–12. The mean of current assets turnover ratio is 4.90 times and the standard deviation of current assets turnover ratio was 1.10 times. The coefficient of variation of current assets turnover ratio was 22.37% and the growth is -40.88 %. The average annual growth of current assets turnover ratio was -6.81%.

Return On Assets Ratio

The return on assets (ROA) shows how profitable a company's assets are, in generating revenue. Return on Assets also known as ROA establishes relationship between net profits (after taxes) and assets employed to earn that profit. The objective of computing this ratio is to find out how efficiently the total assets have been used by the firm. It is calculated by dividing net profit (after taxes) by Average Total Assets.

$$\textit{Return on Assets} = \frac{\textit{Net Profit (After Taxes)}}{\textit{Average Total Assets}}$$

Table No. 6. Return on Assets Ratio (Rs. in millions)

Year	Net Profit After Taxes Rs.	Total Assets Rs.	Return On Assets (%)
2006–2007	5255.23	88501.21	5.94
2007–2008	12722.28	115369.1	11.03
2008–2009	11925.44	107143.4	11.13
2009–2010	11123.77	145828.3	7.63

2010–2011	11766.33	184799	6.37
2011–2012	9085.78	254281.8	3.57
Statistical Analysis			
Mean	Rs. 10313.14	Rs. 149320.47	7.61
Sd	2525.25	56152.15	2.73
Cv	24.49%	37.61%	35.87%
Growth	72.89%	187.32%	-39.83%
Average Annual Growth	12.15%	31.22%	-6.64%

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

Table no. 6 shows that the return on assets was 5.94% in the year 2006–07. The return on assets then increased to 11.03% in the year 2007–08 and further increased to 11.13% in the year 2008–09 which was the maximum. The return on assets then decreased to 7.63% in the year 2009–10 and further decreased in the year 2010–11 to 6.37%. The return on assets was at its maximum in the year 2011–12 and was 3.57%. The mean of return on assets was 7.61% and the standard deviation was 2.73%. The coefficient of variation for return on assets was 35.87% and growth on return on assets was -39.83%. The return on assets of average annual growth was -6.64%.

Equity Multiplier Ratio

The equity multiplier is a way of examining how a company uses debt to finance its assets and therefore is also known as the financial leverage ratio or leverage ratio. The equity multiplier formula is used in the return on equity DuPont formula for the financial leverage portion of DuPont analysis. Broadly speaking, financial leverage is used in financial analysis to evaluate a company's use of debt. The formula for equity multiplier is total assets divided by stockholder's equity.

$$\textit{Equity Multiplier} = \frac{\textit{Total Assets}}{\textit{Stockholder's Equity}}$$

Table No. 7. Equity Multiplier Ratio (Rs. in millions)

Year	Total Assets Rs.	Equity Rs.	Equity Multiplier
2006–2007	88501.21	27567.96	3.21
2007–2008	115369.1	37829.43	3.05
2008–2009	107143.4	47293.99	2.27
2009–2010	145828.3	55965.52	2.61
2010–2011	184799	65289.01	2.83
2011–2012	254281.8	72291.94	3.52
Statistical Analysis			
Mean	Rs. 149320.47	Rs. 51039.64	2.91
Sd	56152.15	15375.46	0.41
Cv	37.61%	30.12%	13.96%
Growth	187.32%	162.23%	9.57%
Average Annual Growth	31.22%	27.04%	1.59%

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

From table no.7, it can be seen that the equity multiplier was 3.21:1 in the year 2006–07. In the year 2007–08 the equity multiplier was 3.05:1 and in the year 2008–09 the equity multiplier was 2.27:1. The equity multiplier was 2.61:1 in the year 2009–10 and was 2.83:1 in the year 2010–11. The equity multiplier was at its maximum in the year 2011–12 by 3.52:1. The mean was 2.91:1 of the equity multiplier and the standard deviation of the equity multiplier was 0.41:1. The coefficient of variation of the same was 13.96:1 and growth of the equity multiplier was 9.57:1. The average annual growth of the equity multiplier was 1.59:1.

Return On Equity Ratio (Roe)

This ratio measures the relationship between net profit (after interest and taxes) and shareholder funds. The objective of computing this ratio is to find out how efficiently the funds supplied by all the shareholders (equity and preference) have been used. This ratio is computed by dividing the net profit after interest, tax and dividend by shareholder funds. It is expressed as a percentage. This ratio is calculated as under:

$$Return\ on\ Owner's\ Equity = \frac{Net\ Profit\ (After\ Tax)}{Owner's\ Equity} \times 100$$

A higher ratio shows more efficient management and utilization of shareholder's funds. They may also be used for declaration of dividend and creation of reserves for future growth.

Table No. 8. Return on Equity Ratio (Rs. In millions)

Year	Roa	Equity Multi-plier	Return On Equity (%)	Net Profit After Taxes Rs.	Equity Rs.	Return On Equity (%)
2006–2007	5.94	3.21	19.07	5255.23	27567.96	19.06
2007–2008	11.03	3.05	33.64	12722.28	37829.43	33.63
2008–2009	11.13	2.27	25.27	11925.44	47293.99	25.22
2009–2010	7.63	2.61	19.91	11123.77	55965.52	19.88
2010–2011	6.37	2.83	18.03	11766.33	65289.01	18.02
2011–2012	3.57	3.52	12.57	9085.78	72291.94	12.57
Statistical Analysis						
Mean	7.61	2.92	21.41	Rs. 10313.14	Rs. 51039.64	21.4
Sd	2.73	0.41	6.61	2525.25	15375.46	6.6
Cv	35.87%	13.92%	30.85%	24.49%	30.12%	30.85%
Growth	-39.90%	9.66%	-34.09%	72.89%	162.23%	-34.07%
Average Annual Growth	-6.65%	1.61%	-5.68%	12.15%	27.04%	-5.68%

Source: Compiled from the annual reports of Mangalore Refinery and Petrochemicals Ltd. (From 2007–2012)

Interpretation

According to table no.8, the return on equity of the year 2006–07 was 19.07% and the return on equity of the year 2007–08 was 33.64% which was the maximum. Then the return on equity kept on decreasing which was 19.91% in the year 2009–10 and at the end it was 12.57% in the year 2011–12. The mean for the return on equity was 21.41% and standard deviation for the return on equity was 6.61%. The coefficient of variation for the return on equity was 30.85% and the growth for the same was -34.09%. -5.68% was the average annual growth of the return on equity.

Testing of Hypothesis

Null Hypothesis (Ho)-

There is no significant difference in the profitability, operational and financial position of Mangalore Refinery And Petrochemicals Ltd during the study period.

Table No. 9. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Net Profit After Taxes	10313.14	6	2766.27	1129.32
	Equity	51039.64	6	16842.97	6876.11

Table No. 10. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Net Profit After Taxes & Equity	6	.341	.508

Table No. 11. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Net Profit After Taxes - Equity	-40726.50	16110.56	6577.11	-57633.50	-23819.50	-6.192	5	.002

Interpretation of t-test

$t=-6.192$ & $t_{0.05}=2.015$

$t < t_{0.05}$

When degree of freedom (df) is 5 and level of significance is 5%, the critical value is 2.015. Since the calculated value of t is -6.192 which less than the table value, we conclude that there is no significant difference in the profitability, operational and financial position of Mangalore Refinery And Petrochemicals Ltd during the study period. Hence, null hypothesis is accepted.

Conclusions

In light of the present study it can be concluded that the position of net profit was not satisfactory due to huge amount incurred on cost of sales. Assets are also not properly utilized in comparison to sales because the company has huge amount of total assets which itself means that the company has much investment in total assets. Fixed assets are not adequately utilized and excessive funds are blocked in fixed assets. Current assets are also not properly utilized and huge amount has been blocked in current assets also. Return on assets is also not very satisfactory because the average return on assets was 7.61% during the period of study which was much lower than the normal return expected. Equity Multiplier position is also not much satisfactory. Return on Equity ratio is satisfactory because its average rate of return is good but annual growth rate is not satisfactory because it has gone negative.

Suggestions

The following suggestions could be laid down in the light of the findings:

1. The company should try to reduce the cost of goods sold which is a major constraint on its profitability. The cost of goods sold can be reduced by reducing its components like stores and spares consumed, fuel, power, custom work expenses and fabrication expenses.
2. The company should maintain its present level of operating expenses in future also.
3. The company should try to reduce blockage of funds in current assets and in fixed assets and should try to invest in other investments schemes so that it can earn more return.

References

1. Agarwal, N.P (1981): Analysis of financial Statement, New Delhi: National publishing House.
2. Amey Lieyed, R and Egginton, Doze. A. (1985): Management Accounting – A Conceptual Approach, Long man Group Ltd.
3. Anthony, Robert, N (1984): Management Accounting –Text and Cases, Homewood: Illionis: Richard; D Irwin Inc.
4. Balty J. (1975): Management Accounting: London: Mc Donald and Evans Ltd.
5. Basant & C. Raj (1978): Corporate Financial Management, (New Delhi: Tata McGraw Hill Publishing Co., Ltd., P.154
6. Benjamin, Graham and Mc Glovick, Charles (1974): The Interpret axiom of Financial Statement: New York: Harperd Row.
7. Bion B. Howard & Miller Upton (1994) : Introduction to Business Finance, Op. Git., P.147
8. C. Aubrey Smith and Jim G. Ashburne (1960): 'Financial and Administrative Accounting', 2nd edn. (USA: McGraw-Hill Book Company Inc.), p. 233.
9. Duck, R.E.W and Jervis, F.R.J (1994): Management Accounting: London George G.Harvop and Company Ltd.
10. Earnest Dale (1961): American Economics Review, "The Social & Morale Responsibility of the Executive in the Large Corporation, May, P.540
11. Ezra Soloman & John J. Pringle (1978):'An Introduction to Management, Indian' Edition, (New Delhi: Prentice Hall of India Pvt. Ltd.), P.89
12. Grewal. T.S, Grewal .G.S and Grewal .H.S (1999): Analysis of Financial Statement: New Delhi: Sultan Chand & Sons.
13. Gupta S.P: Statistical Method: New Delhi (2004): Sultan Chand & Sons.
14. Gupta, R.L. & Radhaswami (1985): Advanced Accountancy, Vol I: New Delhi: Sultan Chand & Sons.
15. Guthmann, H.G:Analysis of Financial Statement (1986): New Delhi: Prentice hall of India Private Ltd.
16. I.M. Pandey (Vol lV April 1980):'Accounting Journal', "Concept of Earning Power", (Rajasthan Accounting Association).
17. J. Betty (1971): Management Accounting (London: McDonald & Evan, P.382.
18. J. Singh & R. Paul (1982): Management Accounting (Allahabad: Kitab Mahal), P.30.

The Study of Financial Performance of IFFCO Limited— A Comparative Analysis with the Fertilizer Industry

Dr. D. Maheswara Reddy
Associate Professor, I T M Business School, Warangal
maheshwar@itm.edu

Mr. P. Mohan
Programmer, Hyderabad Business School, GITAM University, Hyderabad
pmohan@gitam.in

Abstract

Financial performance is a familiar word in today's financial literacy world, be it in the perspective of management, owners, lenders or a general investor. Financial Decisions pertaining to planning and control must be made on the basis of financial performance. Hence, it enables the management to make all financial decisions. Indian Farmers Fertilizers Co-operative Limited popularly known as IFFCO, stands as a leading player by working on a cooperative motto of India's fertilizer industry and is providing substantial support to empower the efforts of Indian Government in increasing food grain production. IFFCO emerged as a pioneer venture on the horizon of fertilizer production and, marketing with the objective of attaining self-sufficiency in food grain production. The present paper focuses on operational control, profitability and solvency etc. In the light of strategic importance for contribution to the economic growth, it is necessary to evaluate the financial performance of IFFCO Limited.

Introduction

Today a large section of people, who have minimum financial literacy, are eager to know the financial performance of the companies where their financial interest is vested. They may be investors, management, owners, lenders, consumers, employees, government and public at large. Financial performance is not readily available from the records and files in the organization. It has to be derived through analysis techniques from financial statements. The use of technique is subject to the option of the user. The important techniques are; Ratio Analysis, Comparative statement analysis, Cross-section Analysis, Time Series Analysis, Common Size Analysis, and DuPont Analysis. The usefulness of ratios depends on intelligent and skillful interpretation of the user. Here, the financial performance of IFFCO has been studied by using ratio analysis with a view to give meaningful interpretations for the stake holders of the selected company.

Company profile: Indian Farmers Fertilizer Co-operative Limited (IFFCO) was registered on November 3, 1967 as a Multi-unit Co-operative Society engaged in the production of fertilizer to help the farmers of India. During mid- sixties, the Co-operative sector in India was responsible for distribution of 70 per cent of fertilizers consumed in the country. This Sector had adequate infrastructure to distribute fertilizers but had no production facilities of its own and hence they were dependent on public/ private Sectors for supplies. Hence, to overcome this lacuna and to bridge the demand- supply gap in the country, a new cooperative society i.e. IFFCO came into the picture. The society has grown in strength from a modest membership of 57 societies in 1967-68 to 39824 cooperative societies and 157 Farmers Service Centers of its own spread across 17 states namely, Jammu & Kashmir, Punjab, Haryana, Uttar Pradesh, Jharkhand, Rajasthan, Uttaranchal, Bihar, Madhya Pradesh, West Bengal, Goa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Assam, & Orissa. Today IFFCO is the largest producer of fertilizers in the country and the only Fertilizer Institution in the country to have surpassed 6 Million MT per annum in terms of production and 8 Million MT per annum in respect of sales. So we can say that IFFCO, today, is a leading player in Indian fertilizer industry and is making substantial contribution to the efforts of Indian Government to increase food grain production in the country. The organization has production facilities at Aonla, Kandla, Phulpur, Kalol and the latest one at Paradeep. I`ts authorized capital and paid up capital are Rs.1000 crores and Rs.425.95 crores respectively.

Research methodology: The financial performance of IFFCO Limited is evaluated for a period of five years i.e. from 2006-07 to 2010-11. Secondary data is collected from annual reports of the company and www.aceanalyzer.com. To analyze the data the standard tool ratio analysis is applied. For evaluating the financial performance and controlling the activities of IFFCO Limited, the ideal norms are industry average ratios.

Objectives

- To know the growth rate of the company in terms of turnover, PAT, share capital, net worth, net assets and investments during the study period
- To assess short and long-term solvency
- To assess the profitability
- To judge the utilization of its resources

Review of literature

Sireesha CH & Dr M.A.Joseph, (2011) SBI had known its performance in banc assurance, whether it is contributing to the overall progress of the bank or not. The increase in the non-interest income, profit per employee, business per employee and decrease in the operating expense, staff cost, level of nonperforming assets by the bank for the last few years indicates that the financial performance of the state bank in banc assurance has been good and banc assurance has also contributed well to the overall progress of the bank.

Joseph Jelsy and Vetrivel, (2012) have studied the financial performance in connection with Activity Based Costing and concluded that better cost predictions, loss making products are identified. The ABC can be used for cost cutting, Decision support system (DSS) budgeting and better performance measurement in order to improve the financial performance of the companies.

KVN Prasad and D Maheswara Reddy (2012) have explored the economic sustainability of five major banks in Indian banking sector by performance evaluation of public and private sector banks with the help of multi-variate analysis.

D Maheswara Reddy and KVN Prasad (2011) in their study revealed that the operational, financial, managerial performance of sample banks (Andhra Pragathi Grameena Bank and Sapthagiri Grameena Bank) with the help of standard deviation, mean difference and t value.

Data Analysis

The growth of the selected company in terms of turnover, PAT, share capital, net worth, net assets and investments are furnished in the table 1

Table: 1 Growth of IFFCO Limited (Rs. Crores)

Years	2006-07	2007-08	2008-09	2009-10	2010-11
Turnover	10330	12163	32933.3	16808.57	21195.16
Profit before tax	251.25	380.52	441.95	567.28	1025.78
Income tax	76.23	122.93	81.94	166.18	234.29
Profit after tax	175.02	257.59	360.01	401.1	791.49
Share capital	422.92	423.93	426.28	426.24	425.95
Reserves & surplus	3218.9	3264.7	3532.59	3844.26	4542.09
Net worth	3641.8	3688.7	3958.87	4270.5	4968.04
Net assets employed	10662	10998	17303.77	16319.45	16737.31
Investments	740.46	1416.7	7552.95	7531.28	5157.19

Source: data compiled from annual reports of IFFCO Limited

It is observed from table 1 that the growth rate of sales, profit, share capital and reserves & surplus over last five years are 105.18 per cent, 352.22 per cent, 0.71 per cent and 41.11 per cent

respectively. The sales turnover has increased to Rs.21195 crores in 2010-11 as against Rs.16809 crores in 2009-10.

The financial performance of IFFCO has been analyzed by grouping the financial ratios in four broad categories viz; Liquidity ratio, leverage ratio, profitability ratio and activity ratio.

Liquidity Ratios: Ratios are used to control the activities of the firms and measure the relationship between key elements at any point of time. Liquidity implies firm's ability to meet its debts in short run. Liquidity ratios measure the firm's ability to meet its maturing current obligations.

Current Ratio: Current ratio shows the short term financial position of the business. This ratio measures the ability of the firm to pay its current liabilities. The ideal current ratio is supposed to be 2:1 i.e. current assets must be twice the current liabilities. In case this ratio is less than 2:1, the short term financial position is not supposed to be very sound and if it is more than 2:1, it indicates idleness of working capital. The current ratio of IFFCO and Industry is presented in the table 2.

Table: 2 Current ratios of IFFCO limited and Industry

Year	CA (Rs in Crores)	CL(Rs in Crores)	CR	CR (Industry)
2006-07	6071.97	1201.23	5.05	3.37
2007-08	5775.74	1371.57	4.21	2.63
2008-09	7672.99	3182.89	2.41	1.88
2009-10	5822.51	2191.62	2.66	2.32
2010-11	7909.05	1362.31	5.81	2.17

Source: Data compilation from annual reports of IFFCO Limited and www.aceanalyzer.com

From the table 2 it has been observed that the current ratio of IFFCO has been more than its industry average throughout the study period except in the year 2008-09. The gross working capital shows relative up and down during the study period. The current ratio of IFFCO is above the standard norm (2:1) all the time and shows that the firm's ability to pay its current liabilities is sound enough. The current ratio of industry average holds good to standard norm of 2:1 throughout the study period. The current ratio of IFFCO and industry during the study period are; 5.05 (3.37), 4.21 (2.67), 2.41 (1.88), 2.66 (2.32) and 5.81(2.17), respectively. Hence, the comparison of liquidity of IFFCO with industry average will give the exact results and provides a way to the management to take corrective measures to control extreme deviations in the solvency position of the company. The absolute figures of current assets and current liabilities of IFFCO and current ratio of IFFCO and the fertilizer industry can be better understood from the figures 1 and 2.

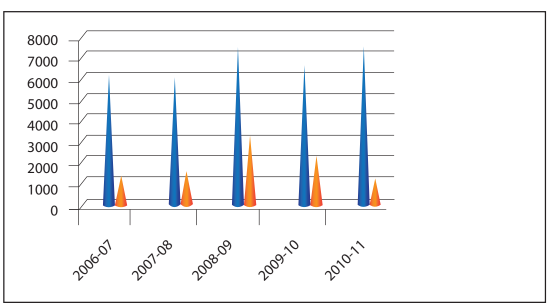


Figure: 1 **Current assets & Current liabilities of IFFCO Limited**

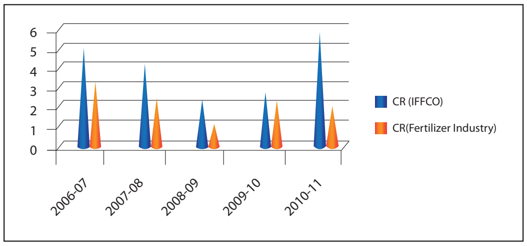


Figure: 2 **Current Ratios of IFFCO Limited and Industry**

Quick ratio: Quick ratio is calculated to work out the absolute liquidity of a business. This ratio measures the ability of the business to pay its current liabilities in a real way. The ideal quick ratio is supposed to be 1:1 i.e. quick assets must be equal to the current liabilities. In case, the ratio is less than 1:1 it shows a very weak short term financial position and if it is more than 1:1 it shows a better short-term financial position. The current assets, current liabilities, inventory and current ratios were furnished in the table 3.

Table :3 Quick ratios of IFFCO limited

Year	CA (Rs in Crores)	Inventory	CL(Rs in Crores)	QR	QR (Industry)
2006-07	6071.97	2238.94	1201.23	3.19	2.35
2007-08	5775.74	1577.1	1371.57	3.06	1.82
2008-09	7672.99	1731.36	3182.89	1.87	1.39
2009-10	5822.51	1301.14	2191.62	2.06	1.77
2010-11	7909.05	1384.18	1362.31	4.79	1.57

Source: Data compiled from annual reports of IFFCO Limited and www.aceanalyzer.com

From the table 3 it is noticed that the quick assets ratio of IFFCO is more than double of standard norm i.e. 1:1 during the study period. The quick ratio of IFFCO and industry during the study period are; 3.19 (2.35), 3.06 (1.82), 1.87 (1.39), 2.06 (1.77), and 4.79 (1.57) respectively. This indicates the healthy sign in its solvency position and if look at the other side it represents the ineffective financial management.

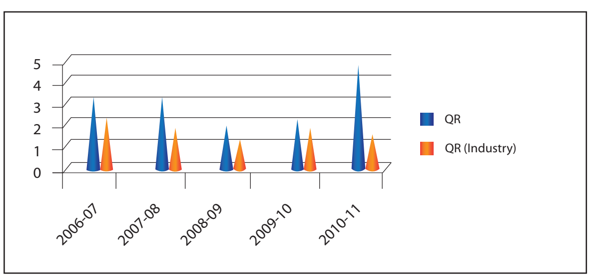


Figure: 3 **Quick ratios of IFFCO and Industry**

Leverage ratios: It measure the extent to which a firm has been financed by debt. Suppliers of debt will look into equity as margin of safety, but owners would borrow or maintain control with limited investment. The return of owners is magnified, if the earnings on the borrowed funds is more than the interest that has to be paid. It can be measured in any one of the following ways; Debt-Equity Ratio (DER), Debt to Total Assets Ratio (DTTAR), Interest coverage Ratio (ICR) and Fixed Charges Ratio (FCR). In the current paper, DER has been applied.

Total Debt Equity Ratio: Debt to total funds (net worth) ratio shows the proportion of long term funds which have been raised by way of loans. This ratio measures the long term solvency position of the company and also provides an idea of the equity cushion for the long-term indebtedness. Normally debt to total fund ratio of 2:3 or 0.67 is considered as satisfactory. A higher proportion is not considered as good and it's an indication of early warning signal for insolvency of the company. The DER of IFFCO and industry for 2007-2011 were furnished in the table 4.

Table: 4 Debt Equity Ratios (DER) of IFFCO Limited & Industry

Year	DER	DER (Industry)
2006-07	1.78	1.14
2007-08	1.84	1.36
2008-09	3.23	1.64
2009-10	2.7	1.73
2010-11	2.29	1.05

Source: Authors own calculations from annual reports and www.aceanalyzer.com

From the table 4, it is observed that the DER of IFFCO and Industry are; 1.78(1.14), 1.84(1.36), 3.23(1.64), 2.7(1.73) and 2.29(1.05) respectively. By comparing these with industry averages, it can be concluded that the company is highly levered. During the period 2006-07 to 2007-08, IFFCO has maintained the debt capital on par with the industry average. Afterwards it has been to highest of 3.23 in the year 2008-09 and then started to decline to 2.29 in the year 2010-11.By observing over the study period, it reveals that the company uses too much of debt in the year 2008-09. The same phenomenon has been reflected in the EPS of the company. It can be better understood in the figure 4.

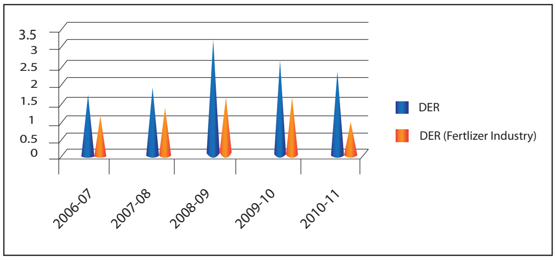


Figure: 4 DER of IFFCO and Industry

Profitability Ratio: - It measures the overall performance and effectiveness of the firm. It can be arrived by either on sales or investments. These are profit (gross or net) margin, net profit to total assets or ROI, Net profit after taxes to Net worth. But in this paper EPS has been used to measure the profitability of the company. The processed information about the EPS has been furnished in the table 5.

EPS (Earning per share): Earnings per share help in determining the market price of the equity share of the company. It also helps to know whether the company is able to use its equity share capital effectively while comparing with other companies in the industry. It also tells the investors about the capacity of the company with regards to dividend per share (DPS). The PADT, outstanding shares, EPS of IFFCO and PAT Growth % of IFFCO and Industry were furnished in the table 5.

Table: 5 EPS of IFFCO and PAT Growth % of IFFCO and Industry

Year	PADT	PADT Growth % (IFFCO)	PAT Growth % (Industry)	No. of shares	EPS
2006-07	90.57		-0.25	422.92	0.21
2007-08	173.06	91.08	-3.47	423.93	0.4
2008-09	274.91	58.85	22.18	426.28	0.64
2009-10	315.92	14.91	39.26	426.24	0.74
2010-11	706.31	123.57	75.95	425.95	1.65

Source: Annual reports of IFFCO Limited and www.aceanalyzer.com

From table 5, it is observed that the profit after tax growth rate of IFFCO has been excelled over the industry growth rate throughout the study period. The average PADT growth % of IFFCO (72.10 per cent) is more than the PAT Growth % of industry (26.73 per cent). Hence, it can be inferred that the company overall performance is quite good over the industry performance in effective utilization of its equity share capital. While looking at EPS of the company, it can be understood that the EPS has been increased progressively during the study period. The overall picture of profit after tax growth % and EPS are exhibited in the figures 5 and 6 respectively.

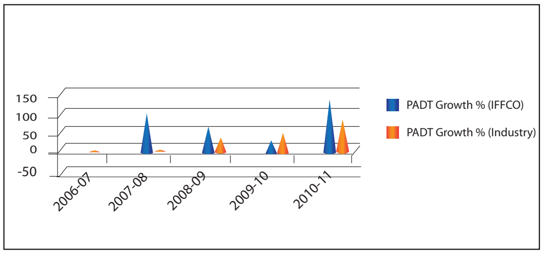


Figure: 5 PAT Growth % of IFFCO and Industry

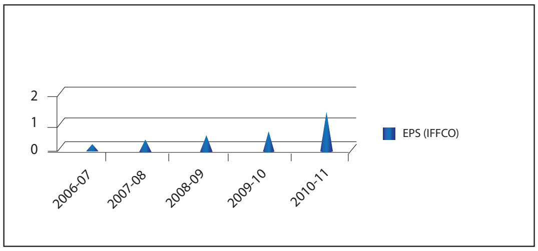


Figure: 6 EPS of IFFCO

Return on Capital Employed: Return on capital employed (ROCE) measures the profit, which a firm earns on investing a unit of capital. The profit being the net result of all operations, the return on capital expresses all efficiencies and inefficiencies of a business. This ratio has a great importance to the share holders and investors and also to the management. To shareholders it indicates how much their capital is earning and to the management as to how efficiently it has been working. This ratio influences the market price of the shares. The higher the ratio, the better it is. The processed information pertaining to the IFFCO and Industry were furnished in the table 6.

Table: 6 ROCE of IFFCO Limited

Year	ROCE %	ROCE % (Industry)
2006-07	2.53	12.49
2007-08	3.5	11.83
2008-09	3.12	12.23
2009-10	4.15	10.94
2010-11	6.21	19.38

Source: Annual reports of IFFCO Limited and www.aceanalyzer.com

From the table 6, it is observed that the range of ROCE of IFFCO and Industry during the study period are; 2.53 (12.49), 3.5 (11.83), 3.12 (12.23), 4.15 (10.94) and 6.21 (19.38) respectively. The ROCE of IFFCO has been far away from the industry average during the study period showing a slow increase. This means that the company has not utilized its total capital effectively as compared to the industry. IFFCO has to strive to beat the industry average at an earliest otherwise the investors may withdraw their investments from the company. The overall picture of the ROCE of both IFFCO and Industry is exhibited in figure 7.

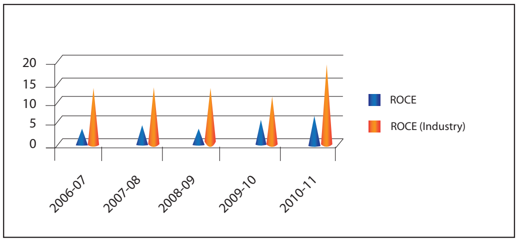


Figure: 7 ROCE of IFFCO and Industry

Activity Ratio: Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its resources. These include Inventory turnover ratio, debtors turnover ratio and total assets turnover ratio. But in this paper DTR and ITR were applied to test the effectiveness of the company.

Debtor's turnover ratio: This ratio indicates the efficiency of the concern to collect the amount due from debtors. It determines the efficiency with which the trade debtors are managed higher the ratio, as itself proves that the debts are being collected very quickly.

Regarding IFFCO the debtor's turnover ratio is 58.08 which show the efficiency of the company to collect the amount due from debtors is excellent. In case of IFFCO the debtors are very less. The processed information pertaining to DTR and ITR of IFFCO were furnished in the table 7 and 8 respectively.

Table: 7 DTR of IFFCO Limited

Year	Sales	Avg. debtors	DTR
2006-07	5554.53	361.68	15.36
2007-08	5968.47	413.76	14.42
2008-09	7387.7	407.23	18.14
2009-10	7247.3	68.08	106.45
2010-11	8524.94	146.77	58.08

Source: Annual reports of IFFCO Limited

From the table 7, it is observed that the DTR is stable during 2006-07 to 2008-09 as 15.36, 14.42 and 18.14 times. But it was suddenly surged to 106.45 times from 18.14 times. This means the efficiency of the management has been improved a lot. The overall picture of DTR has been exhibited in the figure 8.

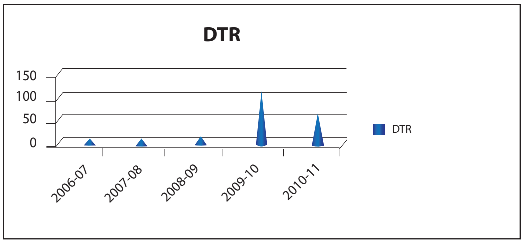


Figure: 8 DTR of IFFCO Limited

Inventory Turnover Ratio: The inventory turnover measures that how well the company can manage to sell its inventory. The purpose is to ensure the blocking of appropriate funds in inventory. If the company can quickly sell its inventory, the inventory turnover will be higher. Conversely, if the company cannot sell its inventory well, then the inventory turnover will be low. One has to watch this figure closely – if the inventory ratio climbs too high, then the company may be keeping too little inventory. The processed information of ITR of IFFCO has been furnished in the table 8.

Table: 8 ITR of IFFCO Limited

Year	Inventory	Sales	ITR
2006-07	2238.94	5554.53	2.48
2007-08	1577.1	5968.47	3.78
2008-09	1731.36	7387.7	4.27
2009-10	1301.14	7247.3	5.57
2010-11	1384.18	8524.94	6.16

Source: Annual reports of IFFCO Limited

Regarding IFFCO, the Inventory Turnover Ratio has increased due to increment in sales (in subsidy due to cost of production) while inventory has increased from previous year to this year. The inventory has been showing an increasing trend which is a good sign. The overall picture of the ITR has been exhibited in the figure 9.

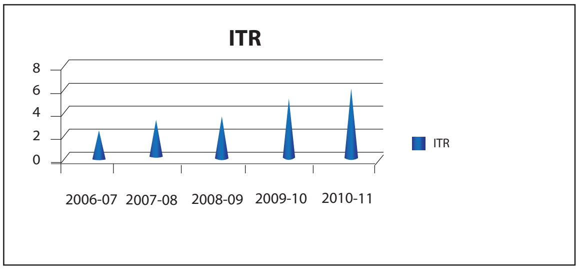


Figure: 9 ITR of IFFCO Limited

Findings

After the analysis of the components of current assets & current liabilities and the trends of working capital, it was found that:

- Though the liquidity position (i.e. current ratio) of the company is good in creditor's perspective, but on the other hand it indicates that the huge amounts of funds were blocked in the form of current assets.
- There are certain factors that affect the working capital and subsidy is the major factor which forms a greater part of the interest cost. Apart from this there are other factors like price of raw material, exchange rates, price of raw materials in foreign country.
- The absolute liquidity position of the company is exceeding the standard norm (1:1) as well as industry average (i.e. ranges from 1.39-2.35) throughout the study period. Further this reflects the inefficient financial management.
- The long-term solvency of the company has been fluctuated (i.e. 1.78 to 3.23) with significant rate where as the industry solvency position is stable (i.e. 1.14 to 1.73) during the study period.
- There is an ineffective utilization of resources, since the ROCE of the company is far away from the industry average.
- The DTR of the company reflects the efficient collection management.

Suggestions and Conclusions

- The company has to take an appropriate measure to keep CR and QR on par with the industry
- Proper control over the leverage should be taken in order to magnify the rate of return (EPS) for the owners (shareholders).
- The ITR of the company needs further imrpovement.

References

Books

1. Pandey, I.M.(IIMA),"Financial management(theory practices)"
2. Khan,M.Y. and Jain,P.K."Fanancial Management (text problems and cases)", sixth edition, Tata Mc-Grawhill Publishing company Ltd.
3. R.P.Rustagi "Financial Management"
4. Icfai University (2005) "Financial Accounting & Financial Statement Analysis"

Journals

1. Sreesha CH & Dr M.A.Joseph, (2011) "Financial Performance of Banks in Banc assurance: A Study with special reference to State Bank of India" Indian Journal of Finance, Volume 5, issue 7, July 2011, pp.10-17
2. Joseph Jelsy and Vetrivel, (2012) "Time driven Activity Based Costing for Spinning Mills to improve Financial Performance" Advances in Management, Volume, issue 3, March 2012, pp.40-45.
3. KVN Prasad and D Maheswara Reddy (2012) "Performance Evaluation of Public and Private Sector Banks-A Multi-variate Analysis" International Journal of Financial Management, Volume 2, issue1, January 2012, pp.55-62.
4. D Maheswara Reddy and KVN Prasad (2012) "Evaluation of Performance of Regional Rural Banks – An Application of CAMEL Model" Researchers' World Journal of Arts, Science & Commerce, Volume II, Issue 4, October 2011, pp.61-67.

Websites

1. *http://lateralpraxis.com/projects_fms.html*
2. *www.wikipedia.org/*
3. *www.iffco.nic.in/*
4. *http://www.investopedia.com*
5. *www.aceanalyzer.com*

Others

1. Revenue Budget IFFCO
2. Documents of IFFCO (agreement papers, accounting sheets etc.)
3. Annual Reports of IFFCO for the years 2006-07, 2007-08, 2008-09, 2009-10, 2010-11

Annexure: 1 Fertilizer Industry Average ratios

No Of Companies	37	37	48	47	35
Year End	2007	2008	2009	2010	2011
Current Ratio(x)	3.37	2.63	1.88	2.32	2.17
Quick Ratio(x)	2.35	1.82	1.39	1.77	1.57
Total Debt/Equity (%)	1.14	1.36	1.64	1.73	1.05
Interest Cover(x)	3.16	2.75	2.28	2.94	4.81
ROCE (%)	12.5	11.8	12.23	10.94	19.4
PAT Growth (%)	-0.25	-3.47	22.15	39.26	75.95
Receivable days	55	44.2	30.27	49.04	40.2
Inventory Days	50.6	47.4	28.51	42.06	35.4
Net Sales Growth (%)	15.8	20.4	100.6	-35.9	22.5

Source: www.aceanalyzer.com

Role of Microinsurance in Protecting Low-income People in West Bengal: An Empirical Study

Ms. Sreemoyee Chaudhuri
Shri Shikshayatan College, Kolkata
sreemoyeeguharoy@gmail.com

Dr. Jita Bhattacharyya
Professor, University of Calcutta
Bhattacharyya_jita@yahoo.com

Introduction

Insurance is fast emerging as an important strategy even for the low-income people engaged in a wide variety of income-generation activities and who remain exposed to a variety of risks mainly because of the absence of cost-effective risk-hedging instruments. Microinsurance is the process of delivering and servicing relevant and affordable insurance products to the people in the low-income socio-economic strata. Microinsurance is a financial arrangement to protect low-income people against the occurrence of specific problems/crises in human life in exchange for regular premium payments proportionate to the likelihood and cost of the risk involved.

The term Microinsurance has nothing to do with the following:

i. the *size of the risk-carries:* Some are small (even informal) and others are very large organisations.
ii. the *scope of the risk:* The risks themselves are by no means *micro* in nature to the households which experience such risks.
iii. the *delivery channel:* It can be delivered through a variety of channels, including small community-based organizations, credit unions or other types of microfinance institutions, and also by large multinational and domestic insurance companies, etc.

Microinsurance, a term used to refer to insurance to the low-income people, is different from insurance in general as it is a low-value product (involving modest premium and benefit package), thus, requiring different design and distribution strategies such as premium based on community-risk rating (as opposed to individual-risk rating), active involvement of an intermediate agency representing the target community and so forth. Normally, Microinsurance schemes are linked to the associations (besides the non-governmental organizations [NGOs], for instance, trade unions, religious congregations and hospitals) whose main areas of work put them in direct contact with the target groups. They may, but must not necessarily, act as the insurance providers and, in many cases, they may transfer the risks of the insurance business to a professional insurer.

Although the types of risks faced by the poor, such as those of death, illness, injury and accident, are no different from those faced by others, they are more vulnerable to such risks because of their economic conditions. In the context of health contingency, a World Bank study (**Ranson**, 2001) reports that about one-fourth of the hospitalized Indians fall below the poverty line. The same study reports that more than 40 per cent. of the hospitalized patients take loans or sell assets to pay for hospitalization. Indeed, enhancing the ability of the poor to deal with various risks is increasingly being considered integral to any poverty-alleviation strategy.

In the past, insurance, as a pre-paid risk-managing instrument, was never considered as an option for the poor. The poor people were considered too poor to be able to afford insurance premium. Thus, the need for building up of a social safety net especially for poor population groups, a very important instrument for reducing world poverty, has gained importance over the years. Often the poor were considered uninsurable, given the wide variety of risks they face. In most of the developing countries, social protection systems are underdeveloped and generally cover only employees with formal employment. Workers in the informal sector are either left to their own devices or they rely heavily on the support of their community. NGOs and microfinance institutions that offer microinsurance facilities can fill this gap.

Review of Literature

A variety of institutions can and do serve the poor people with microinsurance products. The challenge is to ensure that different entities are able to offer services that are customized for diverse segments of the poor population. This goal entails building the capacity of the community-based organizations and providing them with greater technical and regulatory support. It also means working with commercial and co-operative insurers to tailor products for the poor people rather than downscaling their existing services. An ideal microinsurance market creates a field for different models which collectively meet the demands of different population segments, offering high-value insurance products at appropriate price points (**Chandani**, 2009). So far, evaluation of the impact of insurance in the low-income countries is not just relatively limited, rather it is also rather unbalanced so far as different types of insurance are concerned. The main emphasis has been on different types of health insurance schemes and their impact on health-care utilization, out-of-pocket expenditure or social inclusion (**Gumber**, 2001). Few studies have evaluated the impact of insurance on overall household income, nutrition, or other dimensions of welfare rather than those directly related to insurance. Exceptions include the study conducted by **Wagstaff** and **Pradhan** (2005), who have evaluated the impact of health insurance on health outcomes, health-care utilization and non-medical consumption expenditure for households in Vietnam, using panel data and propensity score matching. They have found that voluntary health insurance had a positive impact on height-for-age and weight-for-age of young school children, and led to an increase in non-medical household consumption. **Dercon** and **Krishnan** (2003) have presented evidence that suggests a crowding out effect of informal risk-sharing arrangements by food aid. While the evidence base is limited, microinsurance can also have important externalities at the community level, e.g., health insurance can produce positive information through improved preventive behaviour so that individuals who are not insured also benefit from it. On the other hand, **Morduch** (2006) has pointed towards a possible negative price effect of insurance during times of shocks when insured individuals drive up the price of goods, e.g., food. In fact, there are few studies that rigorously evaluate the welfare or other benefits which arise from insurance. It is quite difficult to evaluate the impact, the key issue being methodology to be followed. **Cohen** and **Sebstad** (2006) have highlighted the need to carefully study clients' insurance needs before introducing a new microinsurance product. In that exercise, market research can focus on, inter alia, clients' needs, specific products, and the size of the potential market.

There is a difference between the two microfinance activities i.e., microinsurance and micro-credit. In the latter, money is offered first and then lenders have to find ways of ensuring that clients repay the loan. In other words, lenders have to find ways to ensure that they can trust their clients with respect to repayment. In insurance, clients first part with their money and then they have to trust the insurer in the sense that they will indeed get money (or a service, such as health care) when problems arise. Lenders have to trust borrowers, while insurers have to be trusted by clients. **Radermacher** and **Dror** (2006) have underlined the importance of trust along these two dimensions: first, that the insurer is willing to make payments to clients; and second, that the insurer is able to deliver the payments. Trust is also essential for customer retention. Trust of individuals and communities can be developed by education, building on existing structures or through careful marketing and sales strategies. **McCord** (2008) has underlined that a fine balance is required between acquisition of new technologies (which decreases costs by making the insurance products less labour-intensive) and human contact to educate policy-holders and build trust. Despite its importance, there is little systematic knowledge about instruments and mechanisms to build trust (**Schneider**, 2005). **Dror** (2007) has studied households' willingness to pay, analyzing data from a bidding game conducted in more than 3000 households in India. He has found a higher level of willingness to pay compared to the findings of the earlier studies. Further, he has shown that household income and willingness to pay are positively correlated, while household income and willingness to pay as a percentage of household income is negatively correlated. Further, the results suggest that household size is the most important determinant of willingness-to-pay levels. Willingness to pay could also be enhanced by simplifying premium collection methods and making premium payable in higher frequencies could be helpful in promoting enrolment by low-income households. Paying premium should be in line with households' cash flows (**Cohen** and **Sebstad**, 2006).

Role of Microinsurance Organisations in Protecting the Low-income People in West Bengal – A Discussion

West Bengal is highly committed to pro-poor reforms and development with redistribution and the government's involvement over the years in socio-economic welfare. This has given rise to distinctive developmental trends in West Bengal (**Kohli**, 1990). Among these developments are public-private and public-'third sector' partnerships (henceforth, referred to as PPP) that are aimed at poverty alleviation and the provision of banking and social safety for poor people. While these PPPs are relatively omnipresent across the country and particularly in the development sector, the case of West Bengal is distinct (**Kohli**, 1990). Here, the government is heavily involved in the process of designing and creating structures of these partnerships and in their operations (*ibid*).

In West Bengal, a few microinsurance schemes have been initiated either by some NGOs (due to the felt-need in the communities in which such NGOs are involved) or by some trust hospitals. These schemes have now gathered momentum partly due to the growth of microfinance activities and partly due to the regulation that makes it mandatory for all the insurance companies to extend their activities to the rural and well-identified social sectors in the country. As a result, increasingly, microfinance institutions (MFIs) and NGOs are negotiating with the for-profit insurers for the purchase of customized group insurance schemes or standardized individual insurance schemes for the low-income people. Although the reach of such schemes is still very limited, their potential is viewed to be considerable in West Bengal in the context of the overall market in India estimated to reach Rs.250 billion by 2008 (**Cohen** and **Sebstad** 2006).

While much of the development in West Bengal has been and is almost wholly government-initiated and operated in partnership with the rural Panchayati Raj institutions, microinsurance in this state is characterized by partnerships either between the public sector and the private sector or between the public sector and the third sector. Thus, while in earlier times, services like microinsurance were provided solely by the state government, operating through village panchayats and public organisations, in recent times, the government has warmed up to the notion of PPPs in diverse sectors, including *microinsurance* for the rural agrarian classes, comprising nearly 72% of West Bengal's total population (**Kohli**, 1990).

Not only are insurance organisations hesitant to provide differentiated microinsurance in partnership with NGOs in areas where return on investment is low, but also the 'third sector' groups in different districts are sceptical about PPP-based microinsurance. Against the backdrop of regular environmental disasters such as droughts, monsoon floods, hailstorms and landslides which exact heavy tolls on the crops, property, livestock and human life, the 'third sector' organisations such as UNICEF, CARE, Save the Children, and DFID felt that their priority is vulnerability reduction through disaster preparedness, disaster management and relief programmes. The general view of the directors running the NGOs is that the PPP-based microinsurance is a good idea, no doubt, but they don't know what the actual time and resource requirements, pitfalls and benefits for the community are. Thus, due to its nascent stage and the little understood value of the corporate-'third sector' partnerships for make provision of microinsurance to the rural poor, currently in the places under study, microinsurance like rural credit remains the domain of central government-established and state government-run institutions. Although this microinsurance does not feature the corporate-'third sector', public-private or public-'third sector' partnerships which were the original focus of this study, finally, the researchers decided to conduct the analysis based on the existing form of microinsurance. In this regard, it may be stated that in spite of repeated requests and enquiries, covering the private and public insurance companies, government and NGOs' offices and microinsurance-subscribing village households, finally only 8 active microinsurance-providers and 415 microinsurance-subscribing village households, spread over four districts, viz., Purulia, South 24 Parganas, Hooghly and Koch Bihar, participated in this research study.

Objectives of the Study

The objective of this study is to assess the role of microinsurance in protecting low-income people in West Bengal.

Keeping this broad objective in mind, 6 *hypotheses* mentioned below have been framed.

- *Risk management strategies do not vary across types of risks faced.*
- *There is no variation in usefulness of microinsurance across the districts.*
- *There is no variation in microinsurance policies availed of across the districts.*
- *There is no variation in the benefits derived across the districts.*
- *There is no variation in difficulties faced from the microinsurance policies across the districts.*
- *There is no variation in suggestions regarding the microinsurance policies across the districts.*

Research Methodology

The present study is empirical and exploratory in nature. The study is based on primary data.

The researchers could first prepare a list of 25 organisations involved in microfinance activities in West Bengal, the source being **The Bharat Microfinance Quick Report, 2010** [developed and published by Sa Dhan (*http://www.sa-dhan.net/Publications.aspx*)].

Some of them were reluctant to participate in the study as they felt that their data are commercially sensitive. Some of them declined to participate altogether, while others were willing to share limited data. Although this situation posed difficulties for this research, it indicates that they view microinsurance as a serious business venture, vulnerable to competition. In spite of repeated requests, the researcher could finally persuade only 8 MFIs engaged, *inter alia*, in microinsurance activities, to participate in the study.

These 8 MFIs (details given below) operate in one or more of the 4 districts in West Bengal. The data relating to the district-wise populations of the microinsured households served by each of those 8 MFIs were collected from their offices, the details of which are given below in parentheses.

1. Vivekanondo Seva O Sishu Uddyan [South 24 Parganas District (500)]
2. Belgharia Janakalyan Samity [Hooghly District (410)]
3. Anjali Microfinance [South 24 Parganas District (200) and Hooghly District (230)]
4. Liberal Association for Movement of People [Hooghly District (200)]
5. Sahara Utsarga Welfare Society [Purulia District (375), South 24 Parganas District (189), Koch Bihar District (225) and Hooghly District (227)]
6. Society for Model Gram Bikash Kendra [Purulia District (400), South 24 Parganas District (157) and Koch Bihar District (200)]
7. Koch Bihar Khagrabari Relief Services [South 24 Parganas District (132), Koch Bihar District (400) and Hooghly District (500)]
8. Sarala Women Welfare Society [Purulia District (500), South 24 Parganas District (163) and Koch Bihar District (243)]

The district-wise populations came to: South 24 Parganas: 1341, Hooghly 1567, Purulia: 1275 and Koch Bihar: 1068, thus, making a total of 5251.

The MFI-wise populations came to: Vivekanondo Seva O Sishu Uddyan: 500, Belgharia Janakalyan Samity: 410, Anjali Microfinance: 430, Liberal Association for Movement of People: 200, Sahara Utsarga Welfare Society: 1016, Society for Model Gram Bikash Kendra: 757, Koch Bihar Khagrabari Relief Services: 1032, and Sarala Women Welfare Society: 906, thus, making a total of 5251.

The researchers set a target of drawing a sample of 10% of those microinsured households in a MFI-wise and district-wise manner. Here also, in spite of repeated requests, the researchers could get cooperation from only 415 microinsured households, the MFI-wise and district-wise break-up of which are given below. The percentages of microinsured households which finally responded, i.e., the respondents, are given in the parantheses, which vary from 6% to 10%.

1. Vivekanondo Seva O Sishu Uddyan [South 24 Parganas District: 50 (10%)]
2. Belgharia Janakalyan Samity [Hooghly District: 30 (7.33%)]
3. Anjali Microfinance [South 24 Parganas District: 16 (8%) and Hooghly District: 18 (8%)]
4. Liberal Association for Movement of People [Hooghly District: 20 (10%)]
5. Sahara Utsarga Welfare Society [Purulia District: 30 (8%), South 24 Parganas District: 17 (9%), Koch Bihar District: 18 (8%) and Hooghly District: 17 (7.5%)]
6. Society for Model Gram Bikash Kendra [Purulia District: 25 (6.25%), South 24 Parganas District: 11 (7%) and Koch Bihar District: 19 (9.5%)]
7. Koch Bihar Khagrabari Relief Services [South 24 Parganas District: 9 (6.8%), Koch Bihar District: 40 (10%) and Hooghly District: 30 (6%)]

8. Sarala Women Welfare Society [Purulia District: 35 (7%), South 24 Parganas District: 13 (8%) and Koch Bihar District: 17 (7%)]

A set of questionnaire was designed for the microinsured village households with a view to gathering relevant data for the study and the said questionnaire were administered accordingly.

The SPSS package was used for statistical analysis of the primary data. Apart from the usual descriptive statistical tools, Hypotheses Testing was done for analysis and interpretation of the primary data.

Most of the primary data were collected during 2011–2012, the study period being 2010–2012.

Empirical Survey and Its Findings

This study was conducted in four districts of West Bengal, viz., Purulia, South 24 Parganas, Cooch Bihar, and Hooghly. 415 households in total have been surveyed.The field work combined interviews through administration of questionnaire and discussions with the local people and interviewing of some local experts. In most of the households, the interviewees were of mixed gender. Although, in some cases, women were formally considered, the heads of the households, most often male members, responded to the questions. In addition, data relating to the biographical and socio-economic variables, like age, gender, education, sources of credit, physical assets, livestock assets, income from various sources, and adaptation measures have been collected through the field survey. The socio-economic indicators and the relevant data relating to 4 districts are presented in the tables below.

Table 1 Age-wise Distribution of the Respondents

Age (years)	Frequency	%
18–30	2	.5
31–40	200	48.2
41–50	191	46.0
Above 50	22	5.3
Total	**415**	**100.0**

Source: Field Survey

Majority of the respondents interviewed are in the age group of 31–40 years.

Table 2 Gender-wise Distribution of the Respondents

Gender	Frequency	%
Male	25	6.0
Female	390	94.0
Total	**415**	**100.0**

Source: Field Survey

94% of the respondents are female.

Table 3 Occupation-wise Distribution of the Respondents

Occupation	Frequency	%
Service	231	55.7
Self-employed (agriculture/ manufacture/others)	184	44.3
Total	**415**	**100.0**

Source: Field Survey

Majority of the respondents are engaged in service.

Table 4 Educational Level-wise Distribution of the Respondents

Educational Level	Frequency	%
Illiterate	54	13.0
Primary	211	50.8
Secondary	114	27.5
Higher secondary	36	8.7
Total	**415**	**100.0**

Source: Field Survey

A very small percentage of the respondents are illiterate. A majority of the respondents can write their own names and they preferred that to a thumb impression.

Table 5 Income (p.m.)-wise Distribution of the Respondents

Income (Rs.)	Frequency	%
Below 5000	150	36.1
5001–10000	193	46.5
10001–15000	70	16.9
Above 15000	2	0.5
Total	**415**	**100.0**

Source: Field Survey

A negligible percentage of the respondents falls in the highest income group. More than 80% of them fall in the lowest and second lowest income groups.

Table 6 Cross-Tabulation of Gender-wise Distribution Across Districts

			District				Total
			Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Gender	Male	Count	2	21	0	2	25
		% Within District	2.2%	18.1%	.0%	1.7%	6.0%
	Female	Count	88	95	94	113	390
		% Within District	97.8%	81.9%	100.0%	98.3%	94.0%
Total		**Count**	**90**	**116**	**94**	**115**	**415**
		% Within District	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

Since the microinsurance providers considered in this study mostly cater to women, a high majority of the respondents are women across districts.

Analysis of Socio-Economic Vulnerability of the Households

For the purpose of understanding the socio-economic vulnerability of the respondents, three important factors viz., occupation, education and income per month have been considered in each district under study. Vulnerability Indices have been constructed using the Three Categorized Ranking (TCR) Method, assigning scores of 1 to 3, the least vulnerable being 1. The basic assumptions are the following:

First, service-employment is associated with lower vulnerability

Second, lower level of education is associated with higher vulnerability

Third, lesser income is associated with higher vulnerability

Table 7 Monthly Income Distribution of Households in 4 Districts

District/Income P.M. (Rs.)	Below 5000	5001–10000	10001–15000	Above 15000	Total
Purulia	45	41	3	1	**90**
South 24 Parganas	49	41	25	1	**116**
Koch Bihar	22	50	22	0	**94**
Hooghly	34	61	20	0	**115**
Total	**150**	**193**	**70**	**2**	**415**

Source: Field Survey

More than 50% of the respondents in each district fall in the lower income slab, indicating that the respondents in all the four districts are highly vulnerable to risks.

Table 8 Occupational Distribution of Households in 4 Districts

			District				Total
			Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Occupation	Service	Count	28	73	56	74	**231**
		% Within District	31.1%	62.9%	59.6%	64.3%	**55.7%**
	Self-Employed (Agriculture/ Manufacture/ Others)	Count	62	43	38	41	**184**
		% Within District	68.9%	37.1%	40.4%	35.7%	**44.3%**
Total		**Count**	**90**	**116**	**94**	**115**	**415**
		% Within District	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

Only the Purulia District has a high percentage of self-employed respondents, indicating higher vulnerability to risks. The respondents in the other three districts are less vulnerable because a high percentage of them are service-employed.

Table 9 Education Level Distribution of Households in 4 Districts

			District				Total
			Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Education	Illiterate	Count	6	25	11	12	**54**
		% Within District	6.7%	21.6%	11.7%	10.4%	**13.0%**
	Primary	Count	39	43	52	77	**211**
		% Within District	43.3%	37.1%	55.3%	67.0%	**50.8%**
	Secondary	Count	37	30	26	21	**114**
		% Within District	41.1%	25.9%	27.7%	18.3%	**27.5%**
	Higher Secondary	Count	8	18	5	5	**36**
		% Within District	8.9%	15.5%	5.3%	4.3%	**8.7%**
Total		Count	90	116	94	115	**415**
		% Within District	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

All the 4 districts have a low percentage of illiterates. Amongst them, the highest percentage of illiterate-respondents is in the South 24 Parganas District, indicating their more vulnerability to risks. On the other hand, a high percentage of respondents are educated up to primary level and a lesser percentage of them are educated up to the secondary and higher secondary levels in Koch Bihar and Hooghly Districts. The respondents in the Purulia District are the least vulnerable.

Table 10 Vulnerability Assessment in 4 Districts

District	Occupation	Education	Income p.m.	Combined	Vulnerability
Purulia	3	1	3	2.33	**H**
South 24 Parganas	1	2	3	2	**M**
Koch Bihar	2	2	3	2.33	**H**
Hooghly	1	2	3	2	**M**

Source: Field Survey

Note: H stands for high; M stands for medium; L stands for low

Analysis of Adaptation Options of the Households

The households as to how they adapted to any kind of sudden or accidental crisis. From their responses, accessibility of informal borrowings, microloans, selling of assets and loans from friends were found to be the possible adaptation options. Such options are presented in Table 11. It is also found from Table 11 that the adaptation capacities of the respondents in the 4 districts are low due to lack of formation of SHGs and the occurrence of high migration in those districts.

Table 11 Adaptation Strategies of Households in 4 Districts

Risk Management Strategies	Purulia	South 24 Parganas	Koch Bihar	Hooghly	Total
Informal Borrowings	44	24	23	32	**123**
Microloans	27	3	0	12	**42**
Selling Of Assets	17	53	31	28	**129**
Loans From Friends	1	35	32	41	**109**
Total	**89**	**115**	**86**	**113**	**403**

Source: Field Survey

The adaptation strategies do not show any sort of trend. Those vary across the districts. It was also found that for a particular risk situation, the respondents resorted to more than one risk management strategy.

Table 12 Cross-Tabulation of Risk Managing Strategies and Risks Faced

		Risks Faced				Total
		Asset	Employment	Life	Health	
Risk Managing Strategies	Infromal Borrowings	9	11	46	54	**120**
		81.8%	16.9%	27.7%	35.8%	**30.5%**
	Loans From Friends	0	24	48	37	**109**
		0%	36.9%	28.9%	24.5%	**27.7%**
	Microloans	1	5	19	14	**39**
		9.1%	7.7%	11.4%	9.3%	**9.9%**
	Selling Of Assets	1	25	53	46	**125**
		9.1%	38.5%	31.9%	30.5%	**31.8%**
Total		**11**	**65**	**166**	**151**	**393**
		100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

The above table represents a contingency table, which cross-classifies 393 households in terms of their risk management strategies and risks faced by them. In the above table, the *risks faced* is an explanatory variable and the *risk managing strategies* is a response variable. The conditional distributions of risks managing strategies have been studied, given the risks faced.

Null Hypothesis (H_0)–risk management strategies do not vary across types of risks faced

Alternative Hypothesis (H_1)–risk management strategies vary across types of risks faced

If P value < .05, the *Null Hypothesis* is rejected.

Chi-Square Test			
	Value	**df**	**P Value**
Pearson Chi-Square	24.447	9	0.004

Source: worked out by the researchers

Based on the above Chi-Square value, the *Null Hypothesis* is rejected (as P<.05) and the *Alternative Hypothesis* is accepted, indicating that there is a systematic association between risk management strategies and types of risks faced. Whatever be the type of risks, majority of the respondents in the study either borrows from the local money lender or starts selling their assets or mortgage their assets with the money lenders.

In the respondents' inclination study, opinions and likings of the respondents, particularly in relation to usefulness, availability, reasons for not continuing, benefits derived, difficulties faced and suggestions for improvement in terms of their microinsurance policies, have been shown. The statistical analyses and interpretations based on primary data are given below.

Table 13 Usefulness of the Microinsurance Policies

Opinion	Frequency	%
YES	374	91.7
NO	34	8.3
Total	**408**	**100.0**

Source: Field Survey

From the above table, it can be said that the majority of the respondents were satisfied with their microinsurance policies. This says a lot about the success of the MFIs and their mission to reach out to the people at the bottom of the pyramid.

Table 14 Types of the Microinsurance Policies Availed of Till Now

Opinion	Frequency	%
CROP	54	13.9
HEALTH	85	21.9
LIFE	215	55.3
LIVESTOCK	35	9.0
Total	**389**	**100.0**

Source: Field Survey

The maximum demand is for the life microinsurance products, followed by the health products. But during the interviews with the respondents, they preferred more diverse and risk-specific microinsurance products.

Table 15 Reasons for Not Continuing the Microinsurance Policies

Opinion	Frequency	%
Collection Period	8	30.8
Flexibility In Payment Of Premium	4	15.4
Premium Amount	10	38.5
Too Many Policies	4	15.4
Total	**26**	**100.0**

Source: Field Survey

The respondents, who are dissatisfied with the microinsurance policies, had given the reasons for their discontinuation, the main reason being the premium amount. Given their irregular and uncertain income, lower premium amount and flexibility in collection will help those people to again purchase microinsurance products. Though they constitute only 6.27% of the total number of respondents, the MFIs should try to ensure that this percentage does not increase.

Table 16 Benefits Derived from the Current Microinsurance Policies

Opinion	Frequency	%
Better Education For The Children	81	20.8
Daughter's Marriage	51	13.1
Increase In Present Activity	154	39.5
Increase Of Present Activity & Reduction Of Risks	2	.5
Reduce Impact Of Seasonality	26	6.7
Reduction Of Risks	76	19.5
Total	**390**	**100.0**

Source: Field Survey

From the above table, it can be said that microinsurance has many benefits. But in the study, majority of the respondents benefits by expanding their present activities, if they are self-employed. The respondents, who are in service, were found to think about starting something on their own.

Table 17 Difficulties Faced

Opinion	Frequency	%
Better Product Design	54	14.3
Claim Settlement	136	36.0
Premium	132	34.9
Product Awareness	56	14.8
Total	**378**	**100.0**

Source: Field Survey

Respondents, who are continuing with their present microinsurance policies, faced a quite a few difficulties. 70.90% of the respondents faced problems with the premium amount and the claim settlement process. Close to 30% of the respondents had product awareness and product design problems. It appears that the objective of the MFIs to reach the poorest and who are in greatest need of it continues to remain a challenge.

Table 18 Suggestions for improving the Microinsurance Policies

Opinion	Frequency	%
Easy Claim Settlement	62	14.9
Flexibility In Collection	119	28.7
Less Premium	191	46.0
More Awareness	16	3.9
More Products	27	6.5
Total	**415**	**100.0**

Source: Field Survey

With respect to the suggestions for improving microinsurance policies, majority of the respondents mentioned the need for reduction in premium amount, followed by the need for flexibility in premium collection.

Table 19 Cross-Tabulation of Usefulness of Microinsurance Across the Districts

		District				Total
		Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Is Microinsurance Helpful For You?	Yes	70	100	91	113	**374**
		77.8%	87.7%	100.0%	100.0%	**91.7%**
	No	20	14	0	0	**34**
		22.2%	12.3%	.0%	.0%	**8.3%**
Total		**90**	**114**	**91**	**113**	**408**
		100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

Null Hypothesis (H_0)–there is no variation in usefulness of microinsurance across the districts

Alternative Hypothesis (H_1)–there is variation in usefulness of microinsurance across the districts

If P value < .05, the *Null Hypothesis* is rejected.

Chi-Square Test			
	Value	df	P Value
Pearson Chi-Square	43.598	3	<0.001

Source: worked out by the researchers

Based on the above Chi-Square value, the *Null Hypothesis* is rejected (as P<.05) and the *Alternative Hypothesis* is accepted, indicating significant variation in the usefulness of microinsurance across the districts. Though for the Koch Bihar and Hooghly Districts all the respondents observed that microinsurance is helpful for them, for the other 2 districts, a negligible percentage of them was dissatisfied with microinsurance.

Table 20 Cross-Tabulation of Microinsurance Policies Availed Across the Districts

		District				Total
		Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Microinsurance Policies Availed Of Till Now	Crop	5	37	7	5	**54**
		5.6%	35.6%	8.2%	4.5%	**13.9%**
	Health	28	17	13	27	**85**
		31.1%	16.3%	15.3%	24.5%	**21.9%**
	Life	44	42	57	72	**215**
		48.9%	40.4%	67.1%	65.5%	**55.3%**
	Livestock	13	8	8	6	**35**
		14.4%	7.7%	9.4%	5.5%	**9.0%**
Total		**90**	**104**	**85**	**110**	**389**
		100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

Null Hypothesis (H_0)–there is no variation in microinsurance policies availed of across the districts

Alternative Hypothesis (H_1)–there is variation in microinsurance policies availed of across the districts

If P value < .05, the *Null Hypothesis* is rejected.

Chi-Square Test			
	Value	df	P Value
Pearson Chi-Square	69.378	9	<0.001

Source: worked out by the researchers

Based on the above Chi-Square value, the *Null Hypothesis* is rejected (as P<.05) and the *Alternative Hypothesis* is accepted, indicating variation in types of microinsurance policies availed of across the districts. Though the demand for life microinsurance is high in all the 4 districts, for the other microinsurance products the demand varies significantly.

Table 21 Cross-Tabulation of Benefits Derived Across the Districts

		District				Total
		Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Benefits	Better Education For The Children	12	25	19	25	81
		13.5%	23.4%	22.6%	22.7%	20.8%
	Daughter's Marriage	0	13	24	14	51
		.0%	12.1%	28.6%	12.7%	13.1%
	Increase In Present Activity	34	25	37	58	154
		38.2%	23.4%	44.0%	52.7%	39.5%
	Increase In Present Activity & Reduction Of Risks	2	0	0	0	2
		2.2%	.0%	.0%	.0%	0.5%
	Reduced Impact Of Seasonality	3	15	3	5	26
		3.4%	14.0%	3.6%	4.5%	6.7%
	Reduction Of Risks	38	29	1	8	76
		42.7%	27.1%	1.2%	7.3%	19.5%
Total		**89**	**107**	**84**	**110**	**390**
		100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

Null Hypothesis (H_0)–there is no variation in the benefits derived across the districts

Alternative Hypothesis (H_1)–there is variation in the benefits derived across the districts

If P value < .05, the *Null Hypothesis* is rejected.

Chi-Square Test			
	Value	df	P Value
Pearson Chi-Square	111.99	15	<0.001

Source: worked out by the researchers

Based on the above Chi-Square value, the *Null Hypothesis* is rejected (as P<.05) and the *Alternative Hypothesis* is accepted, indicating that there is systematic association of benefits received across the districts. Though the demand for life microinsurance is high in all the 4 districts, for the other microinsurance products the demand varies significantly.

According to the respondents, microinsurance offers a huge set of benefits. But when the respondents were asked to identify the most important benefit, there were diverse responses across the districts. This, in a way, indicates overall success in satisfying their clients by the microinsurance providers considered.

Table 22 Cross-Tabulation of Difficulties Faced Across the Districts

		District				Total
		Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Difficulties	Product Design	1	24	14	15	**54**
		1.2%	24.5%	15.6%	14.4%	**14.3%**
	Claim Settlement	22	26	32	56	**136**
		25.6%	26.5%	35.6%	53.8%	**36.0%**
	Premium	26	32	41	33	**132**
		30.2%	32.7%	45.6%	31.7%	**34.9%**
	Product Awareness	37	16	3	0	**56**
		43.0%	16.3%	3.3%	.0%	**14.8%**
Total		**86**	**98**	**90**	**104**	**378**
		100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

Null Hypothesis (H_0)–there is no variation in difficulties faced from the microinsurance policies across the districts

Alternative Hypothesis (H_1)–there is variation in difficulties faced from the microinsurance policies across the districts

If P value < .05, the *Null Hypothesis* is rejected.

Chi-Square Test			
	Value	df	P Value
Pearson Chi-Square	105.52	9	<0.001

Source: worked out by the researchers

Based on the above Chi-Square value, *Alternative Hypothesis* is accepted and the *Null Hypothesis* is rejected (as P<.05), indicating that there is systematic association of difficulties faced across the districts. Some of the respondents did not respond because they were dissatisfied when some of the favours asked for by them were not or could not be met by the microinsurance providers.

Table 23 Cross-Tabulation of Suggestions for Improving Microinsurance Across the Districts

		District				Total
		Purulia	South 24 Parganas	Koch Bihar	Hooghly	
Suggestions For Improving Microinsurance	Easy Claim Settlement	0	11	23	28	**62**
		.0%	9.5%	24.5%	24.3%	**14.9%**
	Flexibility In Collection	21	32	28	38	**119**
		23.3%	27.6%	29.8%	33.0%	**28.7%**
	Less Premium	58	53	41	39	**191**
		64.4%	45.7%	43.6%	33.9%	**46.0%**
	More Awareness	0	7	0	9	**16**
		.0%	6.0%	.0%	7.8%	**3.9%**
	More Products	11	13	2	1	**27**
		12.2%	11.2%	2.1%	.9%	**6.5%**
Total		**90**	**116**	**94**	**115**	**415**
		100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Field Survey

Null Hypothesis (H_0)–there is no variation in suggestions regarding the microinsurance policies across the districts

Alternative Hypothesis (H_1)–there is variation in suggestions regarding the microinsurance policies across the districts

If P value < .05, the *Null Hypothesis* is rejected.

Chi-Square Test			
	Value	df	P Value
Pearson Chi-Square	70.525	12	<0.001

Source: worked out by the researchers

Based on the above Chi-Square value, the *Null Hypothesis* is rejected (as P<.05) and the *Alternative Hypothesis* is accepted, indicating that there is variation in suggestions for improving microinsurance policies across the districts. Respondents even suggested introduction of more customer-specific and more risk-specific products.

Concluding Observations

The analyses based on the study have generated a number of interesting findings regarding the types, provision, availability and impact of microinsurance, a nascent field in West Bengal. The concluding observations have been made below in the light of such findings.

i. Policy-induced and institutional innovations are promoting insurance among the low-income people who form a sizable section of the population and who are mostly without any social security cover.

ii. Although the current reach of microinsurance is limited, the early trend in this respect suggests that the insurance companies, both public and private, operating with commercial considerations, can insure a significant percentage of the poor.

iii. Imposition of social and rural obligations by the IRDA, the insurance regulator, is helping all insurance companies appreciate the vast untapped potential of serving the lower end of the market.

iv. Given irregular and uncertain income streams of the poor, flexibility in premium collection is needed to extend the microinsurance net far and wide. Moreover, the MFIs have started playing a significant role in improving the economic conditions of the poor households.

v. Discussion with a number of MFIs and NGOs has indicated that one of their major difficulties is the lack of or inadequate service from their insurance partners.

vi. Linking microinsurance with microfinance makes better sense as it helps in bringing down the cost of lending.

vii. At present, microfinance business in the country is not adequately regulated. Meaningful regulation of the MFIs is needed not only to promote microfinance activity in the country but also to promote the linking of microinsurance with microfinance.

viii. Life microinsurance has generated great interests among the present and potential clients. During the interviews, many of the respondents expressed their interests in having life microinsurance as a form of investment. Throughout the survey, it was found that most of the clients are willing to pay a higher premium when it compensates for greater interests and benefits.

ix. The survey of 415 users of microinsurance revealed that most of the respondents are in the age group of 31–40 years, female, in service and do not have the basic education.

x. It has been observed that self-employment, illiteracy and low income make the respondents vulnerable to risks.

xi. The respondents in the 4 districts under study have different risk-coping mechanisms, in the form of informal borrowings, microloans, selling of assets, etc.

xii. There is association of difficulties faced by the respondents, suggestions for improving microinsurance policies, benefits received, variation in microinsurance policies availed of, and variation in usefulness of microinsurance across the districts.

Recommendations

- Designing microinsurance policies requires intensive work and is not simply a question of reducing the price of the existing insurance policies. It requires, inter alia, different marketing strategies and different distribution and servicing channels.
- The commercial insurers will need to think more creatively about their products and relationships with the intermediaries and they should start exploring newer distribution models not just based on partnership or agency.
- It is likely that many life microinsurance policies are making a loss. If insurers want their life insurance products to be attractive not only to clients but also to potential agents like MFIs and NGOs, they would need to distinguish their products for competition on some basis other than price.
- Exclusion of covariant risks from policies creates a public relations problem. From a marketing perspective, it would be better to include them and to obtain reinsurance for them.
- Life microinsurance is the easiest cover to offer and also the most widely offered. An insurer would need to create a very attractive policy if it wants to stay in life microinsurance business. It is worth exploring other types of microinsurance as a means of attracting good partners. Crop insurance has by and large proved unsuccessful. Health insurance is difficult because of the lack of private hospitals in the poor rural areas. Weather indexing is proving a possible insurance option.
- Public reimbursement of claims, for example, at village gatherings, is important. It demonstrates the advantages of having insurance with a real example.
- Other microinsurance marketing tools can be exposure tours where village leaders from villages with policyholders are sent to other villages to show the advantages of having insurance.
- Also important is careful, well-managed rejection of claims, where the reasons are made clear to all the villagers.
- With high-premium insurance, monitoring of customer satisfaction is critical, especially with respect to lapses and non-renewals, reinforced by a mechanism to act on the information that emerges from such monitoring.
- There are pros and cons of a variety of distribution models. These are not mutually exclusive and a combination of those can be tried.
- It would be useful to help establish consumer protection mechanisms for clients of unregulated microinsurers.

- The IRDA is tasked with promoting and regulating the insurance industry. The IRDA already runs television campaigns aimed at middle-income consumers endorsing the safety and security of the insurance firms that it regulates. It would be good if such campaigns could be extended to microinsurance. Other mediums could be explored for this, including radio.
- There is a need to establish a council of microinsurance representatives, regulator and the government. This body should meet on a regular basis to discuss the issues and formulate the strategies to develop this sector. This body can also help frame regulations. It could help facilitate the sharing of information among insurers.
- The public body that has largely driven microinsurance in India has been the IRDA. It would be helpful if microinsurance provided by the private sector insurers can be explicitly made a part of the government's social security mechanism. This suggestion in no way implies a reduction in the duty of the state to be responsible to its citizens for social safety nets. There are many ways in which this collaboration could work for the benefit of both the parties.
- There is a lack of tools to understand the gender-specific demand for microinsurance in India. It is important to know what women want from microinsurance and what they are willing to pay for. Since many of the concerns of women are not easily insurable, it would make sense to consider combining insurance and savings.

References

1. **Chandani, T.** (2009), Micro Insurance Business Models, *Primer Series on Insurance*, 3 April
2. **Cohen, M. and Sebstad, J.** (2006), The demand for microinsurance in C. Churchill (edr.), *Protecting the poor, A micro insurance compendium*, International Labor Organisation (ILO), Geneva
3. **Dercon, S. and Krishnan, P.** (2003), Risk Sharing and Public Transfers, *Economic Journal*, 113 (486), 86–94
4. **Dror, I.** (2007), Demystifying Micro Health Insurance Package Design – Choosing Health plans All Together, *Microfinance Insights*, 4, 17–19
5. **Gumber, A.** (2001), Hedging the Health of the Poor: The Case for Community Financing in India, *Health, Nutrition and Population Discussion Paper*, World Bank, Washington DC
6. **Kohli, A.** (1990), The Rise of Reform Communism in West Bengal in Francine R. Frankel and M.S.A. Rao (edrs.) *Dominance and State Power in Modern India: Decline of a Social Order*, Oxford University Press, Delhi
7. **McCord, M.J.** (2008), Visions of the future of Micro insurance, and thoughts on getting there, *Microinsurance Note No. 9*, United States Agency for International Development, Washington DC
8. **Morduch, J.** (2006), Microinsurance: the next revolution? in A.V. Banerjee, R. Benabou and D. Mookherjee (edrs.), *Understanding Poverty*, Oxford University Press, London
9. **Radermacher, R. and Dror, I.** (2006), Institutional options for delivering health microinsurance in C. Churchill (edr.), *Protecting the poor, A microinsurance compendium*, International Labor Organisation, Geneva
10. **Ranson, K.M.** (2001), The impact of SEWA's Medical Insurance Fund on Hospital Utilization and Expenditure: A Household Survey, *Health, Nutrition and Population Discussion Paper*, World Bank, Washington DC
11. **Schneider, P.** (2005), Trust in micro-health insurance: an exploratory study in Rwanda, *Social Science and Medicine*, 61, 1430–38
12. **Wagstaff, A. and Pradhan, M.** (2005), Health Insurance Impacts on Health and Non-medical Consumption in a Developing Country, *World Bank Policy Research Working Paper 3563*, The World Bank, Washington DC

NOTIFICATION

It is hereby notified vide Notification Nos. 18-CWR (2211 - 2248)/2013 dated 3rd June 2013, 18-CWR (2249 - 2290)/2013 dated 7th June 2013 and 18-CWR (2291- 2328) dated 13th June 2013 in pursuance of Regulation 18 of the Cost and Works Accountants Regulations, 1959 that in exercise of the powers conferred by Regulation 17 of the said Regulations, the Council of the Institute of Cost Accountants of India has restored to the Register of Members, the names of members, details of which are uploaded on the Institute's website **www.icmai.in**.

Real Issues for Major IT / BPO Players in Turbulent Times

D. Venkata Narayana
Head Finance
Interface FLOR India Pvt Ltd., Bangalore
venkata.d@interface.com

The Global economy is passing through the turbulent times with major economies of the world like USA, Japan, Europe, India and China struggling to maintain the earlier predicted growth rates and all the indices which basically used to measure the progress of the economies like Inflation Index, Industrial Production Idex, GDP, etc are crashing month after month indicating that the economy is progressing in reverse direction.

For a economy like India where the fiscal deficit, Revenue deficit, Inflation, Foreign Direct Investment (FDI) are always a concern, the current economic scenario is posing a great threat for the future and the worried government is taking multiple steps to avert the further deterioration of the situation as it is very much aware of the impacts of further deterioration of the economic indices mentioned above.

The Finance Minister who decided to postpone the GARR, TRC, etc in order to avert the situation moving from bad to worse. The Finance Minister for the last couple of weeks touring across the globe explaining the world that the economic situation and regulatory pressures are easing out in India and asking for further Foreign Direct Investment.

It is in this situation the domestic Software companies and others who are facing the heat of the situation. In a way we should say the domestic Indian industry has digged its own grave yard. Without understanding that every business has a business cycle, they started giving estimated guidelines on revnue, EBITA, etc in good times. This has led to higher expectations from the general public and investor community about the performances of these companies. However as the economic situation getting more complex across the globe, regulators and statutory authorities tightening the controls and compliances, these companies are finding it difficult to maintain the earlier set high expectations on a running basis. Which is leading to the crashing of hopes of the investor community in particular and the same in most times is reflected in the form of crash in share prices of the particular company. It is most unfortunate that these companies don't understand the very basics of the business cycle and set expectations based on short term performance without understanding that a sustainable organization will never try to do this for the short run benefit.

So in this scenario the normal knee jerk reaction of most market players is either to go for mass layoffs, or shut down few units, freeze further capital expenditure spending, etc. But unfortunately the so called intellectual community who run these organizations without understanding the long term implications of such actions, trying to pass through the short term financial results difficulty rather than solving long term issues on hand.

In this scenario , let us understand the historical background which led to current situations and the way forward to resolve the same.

1. Mass layoff of Human Resources

This is the most common reaction of most organizations to improve the bottom line at the turbulent times. Removing employees post liberalization had become quite easy in processor wise compared to pre liberalization era where Labour Unions were quite strong. Removing the trained resource means couple of things actually;

- Company has already spent huge resources on their traning and development.
- Layoff will release the trained resources in to the market.
- The Competitor can access our trained resources from market easily probably at a much cheaper rates now.

- We are also sending a wrong indication to future prospective employees in the market. This kind of decisions will not attract the talent in future and freshers / experienced candidates will only join the orginsation only if they cannot find immediate alternative or offers with short term intentions in mind.
- The company which spoke so proudly about its human resource in good times, which is resorting to mass layoffs need to answer whether its systems and processes were really so incompetent to identify such incompetetnt people if any at good times.

Analysis: The emergence of BPO and IT sector has in a way altered the domestic work cultures and which are starting to show the negative impacts after two decades of liberalization. Morethan 90% of the BPOs and IT Companies initially started to bill to MNC customers on hourly basis based on the actual hours spent by the employees. So due this head count has increased over a period of time in order to increase the billing without looking whether a particular resource is really producing the required productivity from local market perspective. As the time passed, most companies saw the emergence of local competitors at local market as well as competitors in other low cost markets like chine, Philiphines, etc. Taking the advantage of the situation on labour market and due to predicted pressure on cash outflows due to recession, the global players who are the real customers to India based BPO and IT Companies has cut down further spending and moving the business to players who can offer the low cost better quality services rather than displaying any sentiments on loyalty.

This is affecting the so called big players who initially set a wrong style of functioning in order take advantage of billings based on headcount hours rather than productivity and actual need. Due to this sort of business model, over a period of time huge incompetency and excess manpower accumulated in such organizations. Now the companies are not really in a position to fix the problem as it is a huge and appears like a mountain before the management whether they openly admit the issue or not.

In addition to this, over a period of time the employees were promoted and paid higher and higher salaries in order retain them in order to get the revenue based on the above model. In Good times they were all talking about this as a pride factor that every Fiscal we are hiring so many, promoting so many etc., hiding the real under currents of the system. Now they are in deep neck issues without able to come out of the scenario as more and more small players are providing better services to clients at low prices where as the big players not able to maintain the earlier set illusionary non sustainable models.

2. Cutting Down Training and Development Expenditure

Another Knee jerk reaction of most Indian IT and BPO players in this scenario is to cut the expenditure budgets for training and development . The BPO and IT sectors feel this will produce the immediate impact on bottom line.

Analysis: Particularly the BPO work is a very repetitive work and most of the times the basic knowledge will be sufficient for a person to deliver on the work assigned. Post liberalization when the billings and revenue was correlated straight a way to the head counts appointed, most orgiansations started sending the employees to overseas in the name of training even if that actually not the need. The real intention is to motivate the employee to stay in the cash cow system of the employer as long as possible.So that the employer can reap the benefit of higher billings and longer billings. This again proved very good idea initially for companies and motivated employees. At one point of time before liberalization the overseas visit to most Chartered Accoutnants and Cost Accountan was a sort of life time dream, but this dream became a reality to most of the Under graduates and Graduated due to the emergency of BPO and IT Sector particularly BPO Sector. But today there is a tremendous pressure as mentioned above to get the work done from low cost high quality bound players. As a result most of the foreign players awarding business to those who are quoting less.

Because the wrong model set here too by the initial big players, the entire economy started suffering and most travel companies and agents who ventured in to the travelling business now burning the fingers.

3. Shutting Down few Operating Units or Branches

Post liberalization the corporate functioning has changed drastically redefining and introducing new models of functioning. This has not only restricted to human side of the story but also infrastructure like Work locations got more attractive physical looks. The competition among the bigger players for a particular location has helped the landlords to push up the rental and real estate rates. So currently the orginsations believe by closing down few units and consolidate the resources at fewer locations / branches can lead to substantial cost savings.

Analysis: As we are aware from our grand parents era and from time memorial in human history, In India we used work in offices which has windows, open doors, etc. To the best of my knowledge I never read or heard that having such kind of office set up if any employees died.

Due to liberalization and billings based on head count, at times the foreign customers used to visit the local offices at the time of awarding business and some times even after awarding business. So companies spent cores of rupees in order to have posh modern looking offices with full Air condition and this has not affected the bottom line of the Income statements at that time as most of these capital and revenue costs were compensated by these customers.

Now as the customers started tightening the spend, the organizations at home front also showing knee jerk reactions of closing down few locations aiming at improving profitability. The mindless spending without realizing whether such spending is sustainable or not in the long run , the companies at gross level led to inflated real estate rates which has affected very badly the other core manufacturing sectors and also common working men in other sectors but living in so called cities which are called BPO / IT hubs of India.

4. Stream Lining Working Hours by Removing Work from Home Facilities

As the head count became crucial for revenue generation, most IT and BPO sector started to ease out the so called employee working rules and regulations. Work from home, work when intended without stipulating entry and exit timings, etc became a reality. Most organizatiwon are trying to remove these currently and want employees to work at office only and specific hours recorded at minimum level.

Analysis: As the stress was on the hours worked, companies started engaging 10-16 hours a day and which has drastically put the working habits, health at risk. To compensate this companies started introducing pick up and drop facilities, work from home, night shift allowance, etc. This has worked well initially and most employees were happy as they were getting higher pay and transportation facility. This has also resulted in to indiscipline as most organizations are not sure whether a employee under "Work From Home" is really producing intended results. This has affected other sectors too in the period and more vehicles were added to the streets with increased pollution levels spoiling the environmental sustainability in the long run.

This truth was learnt by most companies in hardway after burning the fingers.

Steps for Sustainability of Business in the Long Run

There are certain organizations in Indian Market who tried to generate the revenues by improving the productivity and ensuring efficiency rather than going for P&L swelling through short cuts and short lived techniques. One such organization in India is Cognizant Technologies. Although it took some time for them to beat the local big players, its really a sustainable model in the long run even if it amounts to time consuming process.

1. Never opt to generate revenue without improving productivity and efficiency.
2. Train the employees wherever necessary rather than spending on things which neither improves the employee competency nor helps to raise the corporate bar on productivity.
2. Organisational policies and commitments are at most necessary for the long run survival and growth of the organization. So never compromise on things like work from home unless it is really needed from pure business perspective.
2. Job Evaluation, Performance appraisal, Labour costing and Profitability analysis are the key for bench marking the contributions of the employees to the organization. So never compromise on these things even it amounts to parting with few employees. This certainly helps in the long run to the organization.
2. Never do something which kills the market as such for profitability. It may be very thrilling when you try to kill the market and get benefit out of the kill. Always remember the same market from which you benefitted today due to the kill will also kill you someday. At that time you killed yourself as well your competitor. So always work for mutual benefit and protection and growth of the market.
3. Hire people who are really needed. Don't hire anybody for media / publicity purpose. When you hire somebody for publicity / announcements, the announcement may be lost in a day but the salary cost comes for ever.

So in this scenario, it is suggested to so called big domestic IT players to have the review from the scratch what led to current pain and review things in a very transparent manner even if it amounts to some sort of embracement. It is really good to have own embracement and rectify the issues once for all rather than cover up the problems and face the embracement each quarter when the results are announced.

Establishing Financial Rationale of HR Decisions

Sabyasachi Sengupta
Professor, XLRI, Jamshedpur
ssengupta@xlri.ac.in

M/S Novel Kitchen Utensils Private Limited manufactures a variety of kitchen equipment and accessories for household use and their product portfolio is reasonably well reputed enjoying widespread use in the Indian domestic circuit. During the financial year 2012–13, the said company started manufacturing a new product, namely, a novel variety of storage utensil meant for bulk kitchen storage facility and the said product was officially launched by the company during the month of April 2012. The actual launching of this product in the market was preceded by a chain of events as explained hereunder.

Before the said product was officially launched in the market, the company management had undertaken a detail planning and budgeting exercise which encompassed activities like market survey (for assessing the potential market demand and evaluating various pricing options in view of ruling prices of similar products manufactured by various competitors), detail cost estimation, assessing incremental working capital needs (if any), assessing the capital expenditure required for augmenting plant facilities (if any), evaluating cheap sources of finance to meet the estimated fund requirement etc. The planning and budgeting exercise undertaken (and executed) revealed that launching this new product would definitely prove to be a very high positive NPV investment option and would promise very attractive return on investment on a yearly basis as well. In view of the same, (naturally) it made excellent business sense to launch this product in the market at the first available opportunity especially because the concerned company had every intention to leverage on the "first mover advantage" which was actually viewed as one of the key considerations so far the anticipated success of this product launch was concerned.

However, this particular product belonged to that category of kitchen utensils which calls for a somewhat labour intensive production process. Thus, while undergoing the cost estimation exercise of the said product, due care was adopted in estimating the direct labour cost attributable to the manufacture of this particular product. Therefore, the HR Department of the company was involved at the very inception stage (of the planning exercise) and they were requested to develop a detail estimate of direct labour cost that would be attracted in case the company manufactures this particular product. While developing the said budget, the HR Department of the company had actually planned to meet their direct labour requirement (for manufacture of this product) by employing a number of contract labourers (only) who may strictly be paid on an hourly basis. This decision was actually taken by the HR Department in order to optimize (rather minimize) the direct labour cost by avoiding all (direct labour related) fixed cost exposure and any possible long term contractual obligations which might had arisen had the company recruited workers on a permanent basis. The HR Department of the company was of the opinion that as their company is reasonably well reputed in the market and since their plant is strategically well located, such contract labourers would always be available in abundance to cater to the specific needs i.e. the anticipated labour intensive production process.

The HR Department of the company estimated that the manufacturing process would call for involvement of essentially two categories of contract labourers, namely, a group of semi-skilled workforce who may be compensated by paying relatively low hourly remuneration and another group of reasonably skilled workforce who would invariably demand a much higher hourly compensation. Now, the applicable law of the land had actually prescribed the minimum hourly remuneration for these two categories of the workforce. As the supply of such workforce far outstrips the demand in the market, the HR Department was pretty confident that they would be in a position to source contract labourers belonging to the above two categories by paying the minimum hourly remuneration as the law of the land actually prescribes. The HR Department had estimated (in consultation with the Production Department) that manufacture of one unit of this new product would actually consume 30 hours time of the semi-skilled labourers and 20 hours time of the skilled labourers. It may also be noted that the minimum prescribed hourly remuneration happens to be Rs 20 per hour and Rs 30 per hour for the semi-skilled worker and the skilled worker respectively. In view of the same the total direct labour cost for manufacture of one unit of the new product was estimated at Rs 1,200 (i.e. 30 * 20 + 20 * 30 = 600 + 600 = 1200).

The company completed the entire exercise of planning and budgeting by the end of the first week of March 2012 and they were all set to start the manufacture of the product and launch the same during April 2012. However, the regulatory authorities issued a notification by the end of second week of March 2012 wherein it was clarified that the minimum hourly remuneration payable to skilled labourers (grouped under the above noted category) would have to be raised from Rs 30 per hour to Rs 40 per hour. The concerned regulatory authority made this particular notification effective from the 1st of April 2012. Naturally, the HR Department of the company immediately realized that such a notification would have material (rather significant) adverse impact on the product launch as it would result into a substantial increase in direct labour cost, which in turn would erode the profits and cash flows of the company. In view of the same the HR Department of the company was compelled to work out an alternative plan of action which may counter the adverse impact of the notification in terms of protecting the profits and cash flows of the company that was being expected to be generated through the new product. Early third week of March 2012 a meeting was convened wherein the HR Department had initiated/ proposed the following actions (refer point nos. A & B given below). These proposals were discussed in detail in a Board meeting conducted by the end of third week of March 2012 and were cleared for immediate implementation. Pursuant to the final decision taken by the Board, the HR Department implemented the same effective - first week of April 2012.

A) The contractual employment was to be provided to a group of un-skilled labourers instead of semi-skilled workforce proposed earlier. The minimum hourly remuneration for such un-skilled labourers as prescribed by the law of the land is Rs 15 per hour (only) as compared to Rs 20 per hour payable in case of semi-skilled labourers.
B) It was proposed that a high quality (but, expensive) training programme may be organized for the skilled workforce. Such a training programme (although very costly) was expected to substantially increase the overall efficiency of the skilled labourers. The anticipated total cost of such a training programme was estimated in the region of Rs 75 to 85 Lakhs approximately (during the financial year 2012–13). Although the HR Department was not in a position to exactly quantify (in monetary terms) the increase in efficiency factor pursuant to such a training programme so far the skilled workforce is concerned, they were of the opinion that the benefits would actually outweigh the costs.

Finally, the company actually started manufacturing the new product from the very first week of April 2012.

The overall market response to the new product launch was highly encouraging and the concerned company managed to actually manufacture and sell one million units of the new product during the financial year 2012–13.

Sometime during the first week of April 2013, the Head of the HR Department of the company received a letter issued by the CEO of the company wherein he was requested to create and submit a report (addressed to the senior management) which would clarify the final outcome of the two crucial decisions implemented by the HR Department as a response to counter the impact of the notification issued by the regulatory authority. The CEO was specifically interested to know as to how these two decisions had actually impacted the bottom line of the company and as to whether such decisions had made good business sense.

On receipt of the above letter from the CEO of the company, the Head (HR Department) tried his level best to obtain and collate certain information that relates to the direct labour costs pertaining to the manufacture of the new product. The information collected by him (given below) pertained to the manufacture of the new product only and revealed that during the financial year ended 31st March 2013, the company had actually paid Rs 48 Crores to the un-skilled contract labourers at the rate of Rs 15 per hour and paid another Rs 76 Crores to the skilled contract labourers at the rate of Rs 40 per hour. He also came to know that the high quality training programme that was organized for the skilled workforce (as planned) had proved to be a costly affair for the company and it involved a total cash outlay of Rs 80 Lakhs during the financial year 2012–13.

The Head (HR Department) was sitting in his chamber sipping a cup of coffee having the financial information obtained and collated by him jotted down in a piece of paper lying in front of him. He was wondering how such information would aid in answering the specific queries raised by the CEO and how he may actually proceed to justify the "financial correctness" of the two crucial decisions his department had actually implemented at the commencement of the financial year 2012–13. At a personal level he was pretty sure that those decisions actually made good business sense and hence, it must have boosted the bottom line of the company in more ways than one. In other words, he was quite certain that had his company stuck to the original plan of employing semi-skilled contract labourers instead of un-skilled workforce and avoided investing in the high quality training programme it would have affected the bottom line of the company adversely. But, how would he actually quantify the impact in monetary terms that may establish the financial rationale of the decisions?

List of Review Questions

a) Can you suggest a common "cost based reporting model" which may be effectively applied by the Head (HR Department) for establishing the "financial correctness" of the decisions implemented?

b) Conduct a comparative study, namely, the original plan vis-à-vis the final outcome pursuant to the decisions taken and make an attempt to justify the "financial correctness" of such decisions by capturing the overall bottom line impact.

c) Create a meaningful management report (as specifically requested by the CEO) analyzing the overall impact in terms of their various contributors so far the direct labour cost pertaining to the manufacture of the new product was concerned.

Regions & Chapters News

EIRC

Guwahati Chapter of Cost Accountants

The chapter celebrated the Foundation Day of the Institute of Cost Accountants of India on 19th May, 2013 at Guwahati. On that auspicious occasion members and students of the chapter jointly took a program for plantation of sapling.

Howrah Chapter of Cost Accountants

The chapter celebrated the Foundation Day of the Institute of Cost Accountants of India on 19th May, 2013 at Howrah. On that auspicious occasion members and students of the chapter jointly took a program for plantation of sapling beside the"Kona Express way" and adjacent areas.

SIRC

Hyderabad Chapter of Cost Accountants

The chapter celebrated the World Environment day on 05th June 2013. An Elocution Competition was held among the students at the chapter premises at Himayatnagar, Hyderabad on the subject Global Warming and the Role of CMA. CMA Dr. P.V.S. Jagan Mohan Rao, Council Member addressed the gathering on the theme of"Green Economy". He explained about all elements involved in the successful implementation of a green economy. Students were very much inspired. CMA B.L. Kumar, Chairman, Hyderabad Chapter, CMA S. Nagendra Kumar, Treasurer and Sri G. Sai Krishna, the Faculty also shared their views.

Trivandrum Chapter of Cost Accountants

The Chapter conducted a Professional Development Programme on 21st April, 2013 at the Chapter campus. The theme was "Cost Effectiveness in the Performance of Panchayath Raj Institutions in Kerala". The guest Speaker was Sri Udayabhanu Kanndeth, consultant, Information Kerala Mission, Trivandrum and Faculty, Kerala Institute of Local Administration (KILA), Trichur. CMA G.S. Manoharan Nair, Chairman of the Chapter presided over the function. The guest speaker elaborately discussed about the Cost Effectiveness and Cost Reduction in implementing projects by local bodies. The main advantage is selection of essential projects considering local requirements and also closes monitoring of proper implementation by peoples representatives. When compared to PWD Projects the Cost reduction is estimated to be about fifty percent in projects implemented by local bodies.

NIRC

Jodhpur Chapter of Cost Accountant

The chapter had organized a career fair at Medical Collage Jodhpur from 21.06.13 to 23.06.13. The inauguration of the program was done by N.N. Mathur, V.C. NLU, Jodhpur and P.K. Karat, Director IIT Rajasthan. Deliberations were made by CMA K.K.Vyas, Secretary of the chapter and CMA Deepak Chopra, Joint Secretary of the chapter. The deliberations were mainly on scope and opportunities of the students in the Cost and Management Accounting field.

Jaipur Chapter of Cost Accountants

The Chapter organised a Seminar on Service Tax and Excise on 2nd June, 2013 at Chapter premises. Chief Guest of the Seminar was Shri O.P. Dadhich, Commissioner, Central Excise. Shri G.P. Meena, Dy. Commissioner, Service Tax was Guest of Honour.

In this first Technical session, Key speaker was Shri Sanjeev Agrawal, a leading Chartered Accountant who explained in detail on the topic "Recent Amendments in Service Tax". In the second session, Key speaker was Shri Alok Kothari, prominent Chartered Accountant who elaborated in detail on the topic "Valuation, Cenvat & General Purview of Central Excise". The Chairman of the Chapter welcomed the Chief Guest, Key speakers and all the participants. He also emphasized on the importance of the topics chosen for the seminar and appealed to all the participating members to take maximum advantage of the experience of the speakers.

WIRC

A seminar was organized by Western India Regional Council on Important Aspects of Cost Audit & Cost Compliance Certificate on 18th May 2013 at Hotel Adityaz, Gwalior. CMA Vijay P. Joshi, RCM & Ex-chairman of WIRC and CMA Dr. Niranjan Shastri Treasurer & Ex-chairman IDCCA were the resource persons for the seminar. Dr. Bhakar, Director - Prestige Institute of Management, Gwalior was the chief guest for the program. CMA Vijay P. Joshi discussed about the important aspects of Cost Audit & Cost Compliance Certificate. He explained all the requirement of latest cost accounting record rules and cost audit report rules. CMA Dr. Niranjan Shastri elucidated the importance of inculcating Generally Accepted Cost Accounting Principles (GACAP) and Cost Accounting Standards (CAS) in the cost accounting system to be followed by the organization. During the inaugural session of the seminar, an MOU was signed by WIRC Chairman CMA Prof. Shrenik S. Shah & Director Prestige Institute of Management Dr. Bhakar for Students - Members Facilitation Center at Gwalior. The organization of seminar was volunteered by Indore-Dewas Chapter.

Dignitaries releasing the SMFC-MOU in Inaugural Ceremony of Seminar on Important Aspects of Cost Audit & Cost Compliance Certificate held at Hotel Adityaz Gwalior.
L-R: CMA Vijay P. Joshi, CMA Shrenik S. Shah, Dr. Bhakar, CMA Sunil Singh, CMA Dr. Niranjan Shastri.

Benevolent Fund for the Members of The Institute of Cost and Works Accountants of India

An Appeal

Th e Benevolent Fund for the members of the Institute of Cost and Works Accountants of India was instituted with an objective of extending financial assistance to its members and families at the time of distress and death.

We, therefore, appeal to all the members of our Institute to become Life Members of our Benevolent Fund. Th e members and others are requested to donate generously for the noble cause. Th e donations to the Fund are exempted under Section 80G of the Income Tax Act, 1961.

For details, please visit our website **www.icmai.in**.

Admission to Membership

The Institute of Cost Accountants of India Advancement to Fellowship

Date of Advancement : 19th May 2013

M/1133
Mr Santosh Kumar Chakravartty,
BCOM, FCMA
Proprietor Santosh Kumar Chakravartty, Cost Accountants 93/2, R. K. Chatterjee Road, Kasba,
KOLKATA 700042

M/3585
Mr Narendra Shankar Chaudhary,
BCOM(HONS), FCMA
Proprietor N S Chaudhary & Co. 52-B, Friends Colony Katol Road
NAGPUR 440013

M/4425
Mr Rasamoy Chakraborty,
BTECH(HONS), FCMA
Independent Director RSB Transmission (I) Ltd. Ubale Nagar Nagar Road
PUNE 412207

M/4508
Mr K Unnikrishnan Nair,
BSC, FCMA
Proprietor K. Unnikrishnan Nair, Cost Accountants `Preethi Vihar` House No. 32/2199 A, P.J.Antony Road Polassery Lane, Post palarivattom, Ernakulam
KOCHI 682025

M/4732
Mr Subhas Kumar Kundra,
MCOM, ACS, FCMA
Flat No. 6C, GH10, Sunder Apartments, Outer Ring Road, Paschim Vihar,
NEW DELHI 110087

M/5264
Mr Tapas Mallik,
BCOM(HONS), FCMA
Proprietor Tapas Mallik, Cost Accountants 1/C, Jelia Para Lane Bowbazar
KOLKATA 700012

M/5684
Mr Pradeep Kumar Sonthalia,
BCOM(HONS), FCA, FCMA
President & CFO Orient Paper & Industries Ltd. Birla Building 9/1, R.N. Mukherjee Road
KOLKATA 700001

M/6108
Mr Maxy Donald D`souza,
BCOM(HONS), FCMA
Finance Manager United Cement Co. P.O. Box 669
MANAMA 669

M/6141
Mr Ramesh Kumar,
BSC, FCMA
General Manager Western Coalfields Limited Coal Estate Civil Lines
NAGPUR 440001

M/7110
Mr Samir Kumar Padhi,
MCOM, FCMA
General Manager Hindustan Aeronautics Limited 15/1, Cubbon Road
BANGALORE 560001

M/7508
Mr Naresh Ramanlal Ashara,
MCOM, FCMA
Partner Y R Doshi & Associates RX-53, Azde Pada, Shanta MIDC Housing, Nr. Garda Circle, Dist: Thane
DOMBIVLI (EAST) 421203

M/7599
Mr Sudipta Som,
BCOM(HONS), FCMA
Proprietor Sudipta & Associates Swarnadeep Apartment 1329, Bosepukur Prantik Pally
KOLKATA 700042

M/7616
Mr Prabhat Kumar Biswas,
BSC(HONS), FCMA
Chief Manager Coal India Limited (CIL) 10, Netaji Subhas Road
KOLKATA 700001

M/7628
Mr Rasesh Vipin Chokshi,
BSC, LLB, FCMA
Partner R A & Co. 1002, Mehta Court, Gilder Road,
MUMBAI 400008

M/7945
Mr Paresh Nath Ghosh,
MCOM, LLB, FCMA
Proprietor Payel Apartment Apcar Garden 2nd Floor, Dist.-Burdwan
ASANSOL 713304

M/8502
Mr Debabrata Hazra,
BSC(HONS), FCMA
Chief Manager (Finance) Eastern Coal Fields Ltd. (A Subsidiary of Coal India Ltd.) Sanctoria, P.O.-Dishergarh
BURDWAN 713333

M/8842
Mr Kochari John Joseph,
BCOM, FCMA
Bharat Dynamics Limited Additional General Manager (Finance) Kanchanbagh
HYDERABAD 500058

M/9217
Mr R Rajan,
BCOM, FCMA
Proprietor Rajan Rama Rao, Cost Accountant New No. 17, Old No. 19, Raghavan Colony, West Mambalam,
CHENNAI 600033

M/9508
Mr Ashok Kumar Mozumdar,
MA(ECON), LLB, FCMA
Chief Manager (F&A) Power System Operation Corporation Ltd. ERLDC,14, Golf Club Road Tollygunje
KOLKATA 700008

M/9710
Mr Tapan Kumar Chattopadhyay,
BSC, BCOM, FCMA
Proprietor T K Chattopadhyay & Co. Flat No. 113, DDA SFS Flat, Pocket-I, Sector-5, Dwarka
NEW DELHI 110075

M/9738
Mr S Murali,
BCOM, ACA, ACS, FCMA
Murali Srinivasacharya & Co. Flat No. 801, Akshay Building, Shree Ganesha Valley, Eklahara Road, Eklahara Road, Nr Sinnar Phata, OFF Veer Savarkar Flyover, Maharashtra NASIK
NASIK 422101

M/9833
Mr Seshachalapathi Rao Manugarra,
MCOM, MBA, FCMA
General Manager Andhra Bank Head Office Saifabad
HYDERABAD 500004

M/9887
Mr Vinod Kumar Prabhakar,
MCOM. LLB, FCMA
Controller of Accounts M/S. U.P. Rajkiya Nirman Nigam Ltd. Vishweshwaraiya Bhawan Vibhuti Khand Gomti Nagar
LUCKNOW 226010

M/10339
Mr Cattamancht Narayanaswamy Vijayendra Kumar,
MSC(PHYSICS), MSC(FORENSIC), FCMA
Deputy General Manager State Bank of Hyderabad Integrated Treasury SBI LHO Building, 7th Floor C-6, G Block, Bandra Kurla Complex
MUMBAI 400051

M/10438
Mr Prasanna Kumar Rath,
M.COM, FCMA
Executive Vice President
Riskpro India Ventures (P)
Ltd. 3A/4, Mullai Street
Sreehari Neelayam Brindavan
Nagar Koyembedu
CHENNAI 600092

M/10519
Mr Arun Kumar,
BCOM, FCMA
Sr. Manager (Finance)
Western Coalfields Ltd. Office
of General Manager (Fin.)
Coal Estate Civil LInes
NAGPUR 440001

M/10534
Mr Janmenjoy Mukherjee,
MA(ECON), FCMA
Deputy Manager (F&A)
National Textile Corporation
Ltd. 7, Jawaharlal Nehru Road
KOLKATA 700013

M/10883
Mr Amit Basu,
BCOM(HONS), MBA,
FCMA
Senior Program Advisor
(Finance) Department of
Transport & Main Roads
Queensland Government
Mineral House, Floor 24 41
George Street
BRISBANE 4000

M/10904
Mr Dilip Murlidhar Bathija,
BCOM, LLB, FCMA
Practising Cost Accountant
506B, Shree Krishna Sharda
Tower Lal Chakki Chowk
Opp. Dhanvantri Hospital,
ULHASNAGAR 421004

M/11165
Mr Muthaiah Raja Pandian,
MCOM, FCMA
Senior Manager Canara Bank
5,6,7 Sekkalai Road
KARAIKUDI 630001

M/11267
Mr P Kuppuraj,
BE, FCMA
Professor Knowledge
Business School KIOT
Campus Kakapalayam
SALEM 637504

M/11335
Mr K P Sudhir,
MCOM, ACA, ACCA,
CMA(USA), FCMA
Director Esar Consulting
Limited 49 Oakdale Road
Watford WD196JX

M/11835
Mr Ramachandran Ramesh,
MA(ECO),FCMA
Chief Operating Officer Blue
Chip Corporate Investment
Centre Ltd. B1,Flat.1601,L
and T South City
Apartments, Arakere-MICO
Layout,Bannerghatta Road
BANGALORE 560076

M/11934
Mr Asim Kumar Kailthya,
B.SC, FCMA
Chief Manager (Finance)
Western Coalfields Ltd. Coal
Estate Civil LInes
NAGPUR 440001

M/12537
Mr Subhas Dutta,
MCOM, FCMA
Sr. Manager Western
Coalfields Limited Coal Estate
Civil Lines
NAGPUR 440001

M/12713
Mr Santosh Kumar Mishra,
BCOM, LLB, FCMA
Sr. Manager Mahanadi
Coalfields Ltd Office of the
General Manager Bharatpur
Area PO- N S Nagar
ANGUL 759148

M/13882
Mr Rajesh Kirtivadan
Kapadia,
MCOM, ACS, FCMA
Chief Manager Gujrat
Alkalies & Chemicals Ltd.
Registered Office + Works
P.O. Petrochemicals
VADODARA 391346

M/13961
Mr S Murali,
BSC, LLB, FCMA
Vice President - Finance
IDenizen Smartware Private
Limited `Sankarakrupa`, No.
16-D, 37th Cross, 8th Block,
Jayanagar
BANGALORE 560082

M/14444
Mr Probal Das,
BSC(H), FCMA
General Manager Western
Coal Fields Ltd. Coal Estate
Civil Lines
NAGPUR 440001

M/14609
Mr A R Narayanan,
MSC, FCMA
Proprietor A R Narayanan &
Co B6, Pais Avenue, Water
Land Road, Elamkulam,
Kadvanthra
KOCHI 682020

M/14680
Mr Anjana Gupta,
BCOM(HONS), FCMA
Proprietor Anjana Goel &
Associates S-39, Green Park
Main Market
NEW DELHI 110016

M/15840
Mr N Prabhakaran,
MCOM, FCMA
General Manager & Head of
Finance Thakral Group of
Companies 20, Upper Circular
Road #03-06, The Riverwalk
SINGAPORE 58416

M/16011
Mr D Ravi,
BSC,CAIIB, MBA, FCMA
Executive Director Alphion
India Pvt Ltd Plot No
315, Padmana Apartment
7th Street, Baba Nagar
Villivakkam
CHENNAI 600049

M/16408
Mr Goutam Gangopadhyay,
BA, FCMA
Proprietor Goutam
Gangopadhyay Gouranga
Sen Sarani, P.O.-Radhanagar
Road, Dist - Burdwan,
ASANSOL 713325

M/16512
Mr Jitendra Kumar Gupta,
BCOM, ACS, FCMA
Head-Corporate F&A Minda
Corporation Ltd. D-6-11
Sector-59
NOIDA 201301

M/16545
Mr Bimalendu Banerjee,
BCOM, FCMA
Partner Basu Banerjee
Chakraborty Chattopadhyay &
Co. 42/B Shibtala Street P.O.
Uttarpara
HOOGHLY 712258

M/16707
Mr Pratul Chandra Banerjee,
MSC, FCMA
Retd. Chief Manager
(Finance) Bharat Cooking
Coal Ltd. New Bank Colony
P.O. Saraidhella
DHANBAD 828127

M/16801
Mr Asok Kumar Maiti,
BSC, FCMA
Manager (Finance) South
Eastern Coal Field Ltd (Coal
India) SECL, Burhar Sub Area
Sohagpur Area P.O.-Dhanpuri,
Dist.-Shahdol
DHANPURI 484114

M/16925
Mr Anil Suneja,
B.COM(H), MCOM, LLB,
PH.D, FCMA
Proprietor Suneja Associates
3E - 72 II Floor Main Metro
Sainik Colony Road N.I.T.,
Faridabad
FARIDABAD 121001

M/16965
Mr Abhijit Kumar
Chakraborty,
MCOM, BT, FCMA
Cost Accountant A.K.
Chakraborty & Co. Vill +
P.O.-Kalinarayanpur P.S.
Taherpur, Sub Divn.-Ranaghat
NADIA 741254

M/17706
Mr Mridul Kumar Mitra,
BSC(HONS), FCMA
Practicing Cost Accountant
M K Mitra & Associates
A-5, Aradhana Apartment
G.T. Road (W) P.O.- Upper
Chelidanga Dist: Burdwan,
ASANSOL 713304

M/17846
Mr Jaydip Ghosal,
BSC, FCMA
Practicing Cost Accountant
J Ghosal & Associates 71,
Station Road District -
Burdwan
BURNPUR 713325

M/18158
Mr Jai Prakash Modi,
BCOM, LLB, FCMA
Cost Accountants J P Modi
& Associates Barganda More
Infront of Vishwanath Temple
GIRIDIH 815301

M/18290
Mr Sumitra Sundar Das,
MCOM, FCMA
Sr. Manager (Finance)
NTPC Ltd. - Kahalgaon PO -
Kahalgaon STP
BHAGALPUR 813214

M/18492
Mr Hitesh Bhimjibhai Popat,
BCOM, FCMA
Proprietor Hitesh Bhimjibhai
Popat, Cost Accountants 4/13,
Virji Peraj Bldg., B/H. Wakadi
Chawl, Parel Village Road, G.
D. Ambekar Marg, Parel,
MUMBAI 400012

M/18530
Mr Vinod Kumar Thapliyal,
MCOM, LLB, FCMA
Proprietor Thapliyal &
Associates 205/I, Phase-I
Vasant Vihar, P.O. New Forest
Near Lovely Market, Kanwali
Road,
DEHRA DUN 248006

M/19078
Mr prabir Kumar Ghosh,
MCOM, FCMA
Partner Ghosh Shukla &
Associates 1 No. Chandini
Chowk Street Block B, 3rd
Floor
KOLKATA 700072

M/19563
Mr Subramaniam Ashok
Kumar,
BCOM, FCMA
Proprietor S Ashok Kumar
& Co. 13, Thiruvalluvarpet,
Anakaputhur,
CHENNAI 600070

M/19892
Mr Debaraja Sahu,
MCOM, FCMA
Proprietor D R S & Co. #4-
8-323 Sri Tulja Aai Nivas
Gowliguda, Koti
HYDERABAD 500012

M/20039
Mr Sanjay Vasant Bhave,
MCOM, FCMA
Sr. Manager Thermax Ltd 14,
Thermax House Mumbai Pune
Road Wadewadi
PUNE 411003

M/20042
Mr Suresh Nagappa
Ganachari,
BCOM, FCMA
Finance Controller
Automotive Axles Limited
Hootagalli Industrial Area Off.
Hunsur Road
MYSORE 570018

M/20331
Mr Dipti Rajesh Kejriwal,
BCOM, FCMA
D-615, Rajshivam Aptt. Shiv
Vallabh Road Ashok Van,
Dahisar (E)
MUMBAI 400068

M/20624
Mr Rahul Gupta,
BCOM, LLB, FCMA
Indian Railway Catering
And Tourism Corporation Lt
Deputy General Manager 9th
Floor, Bank of Baroda Bldg
16, parliament Street
NEW DELHI 110001

M/20630
Mr Arun Kumar,
M.COM, ,ACS, FCMA
Manager (Finance) NTPC
LTD. Qtr. No. C/201, P T
S Russian Complex NTPC
Township, Kahalgaon
BHAGALPUR 813214

M/20992
Mr Gummadadala Veera
Brahmaiah,
MCOM, ACS, FCMA
Senior Manager(Finance)
Bharat Dynamics Limited
Kanchanbagh
HYDERABAD 500058

M/21309
Mr Sujay Ray,
BCOM(HONS), FCMA
Finance Manager Steel Plus
Limited 196, Seikh Para,
3rd Floor " Sonar Tari ",
Near Ujjal Park Badamtala,
Bansdroni
KOLKATA 700096

M/21630
Mr Vadlamudi Gurappa
Naidu,
BA, FCMA
Sr. Manager Amara Raja
Batteries Ltd. Karakambadi,
Renigunta-Kadapa Road,
TIRUPATHI 517520

M/21833
Mr Suvendu Das,
BCOM(HONS), LLB, FCMA
Manager (F&A) Brahmaputra
Cracker and Polymer Limited
Project Site Office, Main Fire
Station Building, 1st Floor,
Finance & Accounts Dept.,
Lepetkata,
DIBRUGARH 786006

M/22296
Mr Manas Ranjan Mishra,
BCOM, FCMA
Proprietor M R Mishra & Co.
MIG-II, QRS.No.-7/26 BDA
Colony Chandrasekharpur
BHUBANESWAR 751016

M/22429
Mr Leena Anant Gujarathi,
BCOM, FCMA
Proprietor Leena Anant
Gujarathi, Cost Accountants
A/602, Satyam C.H.
Society, Anand Nagar, Opp.
Corporation Bank, Ch. Shivaji
Road, Dahisar (East),
MUMBAI 400068

M/22434
Mr Pawan Handa,
BCOM(HONS), FCMA
Consultant Steria India Ltd
A-28, Talawade Software
Technologies Park MIDC
Talawade
PUNE 412114

M/23182
Mr Nirmal Kumar Roy,
BSC, FCMA
Deputy General Manager
(Costing & MIS) Nalwa Steel
and Power Ltd. Gharghoda
Road Taraimal
RAIGARH 496001

M/23949
Mr Devarajan Swaminathan,
BCOM, FCMA
Proprietor Devarajan
Swaminathan and Co 11,
Vishram Ghar, Shree Nagar,
Wagle Estate, Sector 6
THANE (WEST) 400604

M/25528
Mr Pankaj Grover,
BCOM(H), FCA, FCS, FCMA
Partner RAPG & Co.
H-17/265, Sector-7 Rohini
Delhi
NEW DELHI 110085

M/25600
Mr Raghuraman S,
BCOM, MBA, FCMA
Manager-Business
Administration Siemens
Limited 9th Floor, Sigapi
Achi Building, 18/3, Rukmani
Lakshmipathy Road, Egmore,
CHENNAI 600008

M/25724
Mr Suresh Singh,
BSC(HONS), FCMA
Proprietor S. Singh &
Associates D-25, Lokpriya
Nagari Dhanori Road
Vishrantwadi
PUNE 411015

M/26123
Mr Kamal Lochan Nayak,
MCOM, LLB, FCMA
Manager (F & A) NSIC Ltd.,
1st Floor, Prestige Chambers,
Kalyan Street, Masjid(E)
MUMBAI 400009

M/26398
Mr Syon Niyogi,
BCOM(HONS), FCMA
Deputy Regional Director
Catholic Relief Services CRS,
St. Augustine`s Place, Karuna
Close, Westlands, P.O. Box
49675,
NAIROBI 4967500100

M/26682
Mr Maheshkumar D Asati,
BSC, MBA(FIN), FCMA
Manager (Audit) M/S Sunflag Iron & Steel Co. Ltd. Finance Department Bhandara-Road, Warthi
BHANDARA 441905

M/26802
Mr Ghaisas Aparna Abhijit,
MCOM, FCMA
Asst. Professor Sinhgad Institute of Management 44/1,Vadgaon (BK..), Off Sinhgad Road, Mayur Colony,
PUNE 411041

M/26832
Mr Anup Chatterjee,
MCOM, FCMA
Proprietor A. Chatterjee & Co. 1, Jadu Mitra Lane
KOLKATA 700004

The Institute of Cost Accountants of India Advancement to Fellowship

Date of Advancement : 19th May 2013

M/34328
Mr Milind Dnyaneshwar Shitole,
ACMA
Management Staff Cipla Ltd Mumbai Central Opp. Mumbai Central Bus Depot
MUMBAI 400602

M/34329
Mr Tejkanwar Jeet Singh,
ACMA
Senior Finance Executive ITC Limited ITC Infotech Park Pulikeshinagar PO Cox Town
BANGALORE 560005

M/34330
Mr Sushil Kumar,
BCOM (HONS), MCOM, ACMA
Accounts Manager Stallion Group RZ 390-C Street No. 21, Tughlakabad Extn. Opp. Tara Apartments
NEW DELHI 110019

M/34331
Ms Raja Rajeswari P S,
MCOM,MPHIL, ACMA
Finance Executive Alstom T & D India Limited IOC Building 19/1, GST Road Pallavaram
CHENNAI 600043

M/34332
Mr Gaurav Thukral,
ACMA
Agilent Technologies 1st Floor, P-9 New Colony
GURGAON 122001

M/34333
Mr Vijayender Singh Chauhan,
ACMA
Jr. Accounts Officer Bharat Sanchar Nigam Ltd. O/o C G M T, UP (W) Circle, BSNL, Room No. 109, 1st Floor, MDA bLDG.
MEERUT 250003

M/34334
Mr Krishna Moorthy,
BCOM, ACMA
Team Leader M/s. Accenture Service (P) Ltd Pritech Park SEZ, Block - 7 Outer Ring Road Bellandur Village, Varthur Hobli
BANGALORE 560103

M/34335
Ms Asmita Latesh Nandgaonkar,
MCOM, ACMA
Cost Auditor Bhatia & Associate 1072/73, Clover Regency Ramji Ashar Lane Ghatkopar - East
MUMBAI 400077

M/34336
Mr Bipin Raj,
ACMA
Asst. Manager - Accounts V. Guard Industries Ltd 6 KM Stone, Moradabad Road Khasara No. 86, Village Basai Udhamsingh Nagar - Dist
KASHIPUR 244713

M/34337
Mr Sajay P,
BCOM, ACMA
Assistant Manager (Finance) Cochin International Airport Limited Kochi Airport (P.O.) Nedumbasserry
ERNAKULAM 683111

M/34338
Mr Avin Gupta,
ACMA
Finance Superintendent ITC LTD Virginia House, 3rd Floor 37 J. L. Nehru Road
KOLKATA 700071

M/34339
Mr Azariah John Srikanth Pallepogu,
BCOM, ACMA
H. No.12-5-151/153 Vijaya Puri South Lallaguda
SECUNDERABAD 500017

M/34340
Mr Sachin Sudhakar Jagdale,
BE (MECHANICAL), MBA (FINANCE), ACMA
Asstt Registrar (Finance) Defence Institute of Advanced Technology, Girinagar, Pune Defence Institute of Advanced Technology Girinagar
PUNE 411025

M/34341
Mr Yugal Surendra Kumar Jain,
MBA, ACMA
Physical Research Laboratory K-8, Suvarna Appartments Behind Nirnaynagar Ranip
AHMEDABAD 382480

M/34342
Mr Ankit Jain,
ACMA
Asst. Manager Vardhman Chemtech Ltd # 2216 Sector - 21-C
CHANDIGAR 160021

M/34343
Ms Jyoti Rani,
ACMA
Super Commando Security & Services Pvt Ltd 153, D.D.A. Qtrs New Seema Puri
DELHI 110095

M/34344
Mr Rajesh kanna Parthiban,
ACMA
Senior Officer Sunshine Financial Service (P) Ltd 174 A.V.T.PUTHUR STREET SIVAKASI
SIVAKASI 626123

M/34345
Mr Neeraj Kumar Jangid,
BCOM, ACMA
Accounts Officer Uttar Gujarat Vij Co. Ltd Registered and Corporate Office Visnagar Road
MAHESANA 384001

M/34346
Mr Dharmender Gupta,
BCOM, ACMA
Sole Proprietor Prorfessional Academy of Commerce Q-20, Vikas Vihar Manas Kunj Road Uttam Nagar
NEW DELHI 110059

M/34347
Mr Vineet Kumar Jain,
MCOM,LLB,FCS, ACMA
Company Secretary Kribhco Infrastructure Ltd Kribhco Bhawan A - 10, Sector - 1
NOIDA 201301

M/34348
Ms Meenal Suresh Savant,
ACA, ACMA
Arch Protection Chemicals Private Limited M-105, Bhoomi Breeze Raheja Estate, Kulupwadi Borivali
MUMBAI 400066

M/34349
Mr Manish Chandra,
BCOM, ACMA
J. Chandra & Associates GF-2, 267/7, Sector 1 Vaishali
GHAZIABAD 201010

M/34350
Mr Aviram Patra,
ACMA
Sr. Accountant BSCPL Infrastructure Ltd BSC - C & C "IV" NH - 80 Vill - Bahadurpur
LAKHISARAI 811311

M/34351
Mr Shounak Akhoury,
BCOM (HONS), ACMA
Senior Business Analyst
Wipro Technologies No. 72
Keonics Electronic City Hosur
BANGALORE 560100

M/34352
Ms Sudha Kaukuntly,
MCOM, ACMA
Sr. Executive - F & A Delphi
Automotive Systems pvt Ltd
F102, 60/61, Pranavah Spring
Chinnappanahalli Next to
AECS Layout
BANGALORE 560037

M/34353
Mr Suhas Subhash Hadge,
BCOM, ACMA
Y. R. Dolshi & Associates
102, Shyam Colony, 1st Floor,
B Wing Near Chetna High
School Pisavli
KALYAN (EAST) 421306

M/34354
Mr Mahesh Kuchimanchi,
MTECH, ACMA
GE India Exports Pvt Ltd
F-103, Sita Residency
Brahmanwadi, Lane 6
Begumpet
HYDERABAD 500016

M/34355
Mr a Naga Raju Mangala,
BCOM, ACMA
Assistant Manager
Bharti Airtel Limited
No.55, Divyasree Towers
Bannerghata Main Road
BANGALORE 560029

M/34356
Mr Kshama Bansal,
ACMA
AGM - Finance Lakshmi
Energy and Foods Limited
Sco.18-19, 1st Floor
Sector - 9D
CHANDIGARH 160017

M/34357
Mr Narayan Kanchi Kandadai,
BCOM, ACMA
10-51-3, Kailas Waltair
Uplands
VISAKHAPATNAM 530003

M/34358
Mr S Ananda Padmanaban,
MBA, ACMA
Accounts Manager Condor
Building Contracting LLC
P.O. Box : 5690 AL Quoz II
DUBAI 5690

M/34359
Mr Balaji Narayanaswamy,
BCOM, ACMA
Assistant State Bank of India
SME Branch, Bank House No.
68, Cherry Road Hasthampatti
SALEM 636007

M/34360
Ms T Shanmugapriya,
BCOM, MBA (FINANCE),
ACMA
Manager (Finance) SRM
Engineering Construction
Corporation Ltd SRM Campus
Irungalur
TIRUCHIRAPALLI 621105

M/34361
Mr Abhisek Das,
MCOM, ACMA
Assistant Manager McNally
Bharat Engineering Co. Ltd
Ecospace Campus 2B/11F/12
(Old Plot No.AAII/Blk3)
New Town Rajarhat, North 24
Parganas
KOLKATA 700156

M/34362
Mr Anjum Kulshreshtha,
BCOM (HONS), ACMA
Bharat Heavy Electricals
242,Ground Floor, Lane No.3
Near Harsha City Mall, Shakti
Khand 4 Indirapuram
GHAZIABAD 201010

M/34363
Mr Thomas Mathew,
BSC, ACMA
Consultant Building #
4 Skyline Green Valley
Vazhakkala
KOCHI 682021

M/34364
Mr Sachin Sitaram Palkar,
MCOM, ACMA
Dy. Manager (F & A)
MSETCL Bandra Kurla
Complex Prakashganga, 6th
Floor, B - Wing Bandra East
MUMBAI 400051

M/34365
Ms Amrita Anand,
ACMA
A-11, Tulsi Apartment
Sector - 14 Rohini
NEW DELHI 110085

M/34366
Ms Sweta Singh,
ACA, ACMA
Assistant Manager (Finance)
Bharat Coking Coal Limited
Koyla Bhawan Koyla Nagar
DHANBAD 826005

M/34367
Ms Sneha Kumari,
BCOM, ACMA
Associate Gurdeep Singh and
Associates 3238, Ranjit Nagar
Near Metro Station Patel
Nagar
NEW DELHI 110008

M/34368
Ms Vidya Sanjay Borkar,
BMS(FIN), ACMA
Assistant Manager Raymond
Ltd J. K. Gram Pokharan
Road No.1
THANE (WEST) 400606

M/34369
Mr Arun Kumar,
BCOM, ACS, LLB, ACMA
Chief Financial Officer &
Company Secretary Aurum
Soft Systems Limited New
No.15, Old No.6 Besant
Avenue Adyar
CHENNAI 600020

M/34370
Ms Siddhi Anil Jadhav,
ACMA
Management Staff Cipla
Limited Belasis Road
MUMBAI 400008

M/34371
Ms Nidhi Anil Laddha,
BCOM, ACMA
Management Staff Cipla Ltd
Bellasis Road Mumbai Central
MUMBAI 400008

M/34372
Mr Pushkar Ramesh Mhatre,
ACMA
Management Staff Cipla Ltd
289, Belasis Road Mumbai
Central
MUMBAI 400008

M/34373
Mr Anumodh Rajasekharan
Nair,
ACMA
Management Staff Cipla Ltd
289, Belasis Road Mumbai
Central
MUMBAI 400008

M/34374
Mr Vicky Ishwarlal Rajani,
MCOM, ACMA
Management Staff Cipla Ltd
Head Office Bellasis Road
Mumbai Central
MUMBAI 400008

M/34375
Ms Amruta Vilas Shirgaonkar,
ACMA
Executive Merck Limited
Lloyds Center Point, 2nd
Floor Appasaheb Marathe
Marg Prabhadevi
MUMBAI 400025

M/34376
Mr Gopalakrishna Jujjuri,
BSC, ACMA
Assistant Vice President
(Finance) Satyam Computer
Services Limited Infocity,
Unit - 12, Plot No.35 & 36 Hi-
tech City Layout Madhapur
HYDERABAD 500081

M/34377
Mr D Kalaichelvan,
MCOM, ACMA
Plot No.4, Siluvathur
Road Ramasamy Colony
Balakrishna Puram
DINDIGUL 624005

M/34378
Mr Abhishek Pradhan,
BSC,MBA, ACMA
Associate RCS Advisors (I)
Pvt Ltd 407, Winners Court
23, Lullanagar Cross
PUNE 411040

M/34379
Mr Bheema Rao Kondapu,
ACMA
L & T Infotech S/o.
Malleswara Rao Vill & Post -
Loddabhadra Dist. Srikakulam
PALASA 532221

M/34380
Mr Althaf Mohamed,
ACMA
Team Leader Scope International Private Limited No.1 Haddows Road Nungambakkam
CHENNAI 600034

M/34381
Mr B Sangaiah,
MCOM, BED, MPHIL, ACMA
Manager - Costing & Accounts Eveready Spinning Mills (P) Ltd Sraff Quarters Kottaiyur - Thadicombu
DINDIGUL 624709

M/34382
Mr Partha Sarathi Sahoo,
BCOM, ACMA
Jr. Accountant RVS Management Limited 17/2, Rajni Kumar Sen Lane Flat No.205, 2nd Floor
HOWRAH 711101

M/34383
Mr Bhagwat Sakharam Yadav,
BCOM, ACMA
Cost Trainee S.R. Bhargave & Co 3, Khushbu Apartment Bhusari Colony(L) Off Paud Road, Kothrud
PUNE 411038

M/34384
Mr Malla Kedara Appalanaidu,
BCOM, ACMA
C/o. K.V. Sunil Chand D.No.32-13-53/1, Near Siddartha Arts & Science College Journalist Colony, Dist. Krishna
VIJAYAWADA 520010

M/34385
Mr Ganaparthi Gopikrishna,
BSC, ACMA
C/o. C.H.V.N. Mohan Rao D.No.12-55, Sai Raghava Towers Near Autonagar, RTC Terminal, Krishna Nagar
VIJAYAWADA 520007

M/34386
Mr Trivedi Nehalkumar Pankajkumar,
MCOM, ACMA
Block No.1247, Sharad Nagar Shri Chintamani Ganesh Mandir Tarsali
VADODARA 390009

M/34387
Mr Thondepu Siddhartha,
BCOM, ACMA
Flat No.4AB, ENR Towers Pitchatah Street Labbipet
VIJAYAWADA 520010

M/34388
Mr Tanguturi Sarat Srinivas,
BCOM, ACMA
Door No.11-10-37/A Subba Ramaiah Street, Janda Chettu Road Opp. Kamal Kumar Zym, Kothapeta
VIJAYAWADA 520001

M/34389
Mr Pankaj Khattar,
BCOM, ACMA
AGM Reliance Communications Ltd 2nd Floor, Magnum Plaza Eldeco Greens Gomti Nagar
LUCKNOW 226010

M/34390
Ms Monika Singh,
BCOM, ACMA
Food Corporation of India E-3/164, Vineet Khand Gomti Nagar
LUCKNOW 226010

M/34391
Mr Mahesh Babu Kethineni,
BCOM, ACMA
Manager - Accounts & Finance Laqshya Hyderabad Airport Media Private Limited Unit No.401, 4th Floor Central Plaza Building Rajbhavan Road, Somajiguda
HYDERABAD 500082

M/34392
Mr Yogesh Satyanarayan Jaju,
MCOM, ACMA
Costing - Executive Endurance Technologies Pvt Ltd K-228/229, MIDC Industrial Area Waluj
AURANGABAD 431136

M/34393
Mr Subhabrata Nandi,
BCOM, ACA, ACMA
Finance Controller - F/C Vesuvius India Limited P-104 Taratala Road
KOLKATA 700088

M/34394
Mr Ramlakhan Ratanlal Ahirwar,
MCOM, ACMA
Cost Accountant Kruger Ventilation Industries (India) Pvt. Ltd 404,Yashwant Apt Near New Post Office, Katemanavali, Dist - Thane
KALYAN (EAST) 421306

M/34395
Ms Abhirupa Syam,
ACMA
Ajay Kumar Singh & Associates 314, Wadhwa Complex D-288-89/10, Laxmi Nagar
DELHI 110092

M/34396
Mr Jyoti Bikash Pradhan,
BSC,LLB, MBA (FINANCE), ACMA
Sr Accounts Officer Power Grid Corporation of India Ltd 3 Ambica Vijay Society Behind Saraswati School Nizampura
VADODARA 390002

M/34397
Ms Meera Madhavan,
MCOM, ACMA
Accounts Officer Rubfila International Limited New Industrial Development Area Menonpara Road Palakkad
KANJIKODE 678621

M/34398
Ms Gayatri Sharma,
ACMA
Cost Accountant Star Wire India Limited 21/4 Mathura Road Ballagarh
FARIDABAD 121004

M/34399
Mr Akhilesh Kumar,
ACMA
Technician Durgapur Steel Plant 2B/93, B. C. Avenue B Zone
DURGAPUR 713205

M/34400
Ms Sushma Singh,
ACMA
Executive (Accounts) Vinod Medical Systems Pvt Ltd 523, Chintamani Plaza Mohan Studio Compound Chakala Andheri Kurla Road
MUMBAI 400092

M/34401
Mr Sourav Mukherjee,
BCOM(HONS), ACMA
Accountant Eastern Coalfields Limited Office of the Dy. G.M.(Min.) Pandaveswar Colliery (Finance Department) P.O. & P. S. Pandaveswar, Dist. Burdwan
PANDAVESWAR 713346

M/34402
Mr R P Kumar Raju Mantena,
ACMA
Eyantra Industries Pvt Ltd Flat No: 102, Plot No.266 Raghavendra Nilayam Sarder Patel Nagar, kukatpally
HYDERABAD 500072

M/34403
Mr Krishna kanth Karlapalam,
BCOM(HONS), ACMA
G03, Heavenly Towers, H.No 16-11-20/10/3, Saleemnagar Colony Malakpet, Hyderabad
HYDERABAD 500036

M/34404
Mr Ankit Niranjanbhai Sheth,
ACMA
Cost Accountant Koushlya Vijay Melwani P / 2, 5th Floor, Kalyani Apartment 4/A, Sattar Taluka Soc, Po. - .Navjivan
AHMEDABAD 380014

M/34405
Mr Mustafa Ali,
BCOM, ACMA
Deputy Manager Shapoorji Pallonji Co Ltd B-210, Iscon Centre Shivranjani Cross Road Satellite
AHMEDABAD 380015

M/34406
Mr Kamlesh Kumar Suryawanshi,
ACMA
Junior Manager (F & A) Steel Authority of India Ltd BOF No. 17, MEL Officer Colony MUL Road
CHANDRAPUR 442401

M/34407
Mr Kaka mahadeo Lande,
BCOM., ACMA
Audit Assistant D. K. Vatsyayan & Associates 217,A Wing, Jai Ganesh Vision, Akurdi
PUNE 411035

M/34408
Mr Pammi Gulabshankar Srivastav,
BCOM, ACMA
Assistant Manager Seven Hills Healthcare Pvt. Ltd Marol-Maroshi Road Andheri (East)
MUMBAI 400059

M/34409
Mr Rajesh Balasubramanian,
MBA, ACMA
Associate Director PricewatethouseCoopers Private Limited Building No-10, 17th Floor Tower C DLF Cyber City
GURGAON 122002

M/34410
Mr Amit Agarwal,
MBA, MCOM
Senior Manager JMD Oils Private Limited 5/1 B, Ramesh Nasgar Near Durga Mandir
NEW DELHI 110015

M/34411
Mr Ajay Kumar Garg,
ACMA
Senior Manager (Finance) THDC India Ltd Vill - Siyasen Pipalkoti
CHAMOLI 246472

M/34412
Mr Sunil Dhiman,
BCOM, ACMA
Accounts Officer NHPC LTD NHPC LTD Kishanganga HE Project Kralpora
BANDIPORA 193502

M/34413
Mr Nagendra Babu Kuchipudi,
ACMA
Saipuram (post) Vuyyur (mandal) Krishna (dist)
VUYYURU 521165

M/34414
Mr Vijay Kumar Yedavalli,
ACMA
Manager Accounts & Finance Bhatia Brothers PO Box 1275, Airport Road (Terminal 1) Opposit UAE Enterprise, Garhoud
DUBAI 1275

M/34415
Mr Shashidhar S K,
BCOM, ACS, ACMA
General Manager - Finance & Company Secretary Tata Advanced Materials Ltd 10, Jigani Industrial Area Jigani
BANGALORE 560105

M/34416
Mr Deepak Kumar Mahto,
BCOM(HONS), ACMA
Asstt. GR - II (Costing) DVC CTPS Chandrapura Accounts Office Ambedkar Bhawan, DVC CTPS Chandrapura
BOKARO 828403

M/34417
Mr Manoj Mohan C,
MCOM, ACMA
Manager & Credit Analyst State Bank of India Centralised Processing Cell Local Head Office, S S Kovil Road Thampanoor
THIRUVANANTHAPURAM 695001

M/34418
Mr Bhushan Sharadchandra Sikchi,
ACMA
Administrator Sikchi Udyog Karanja Road
MURTIZAPUR 444107

M/34419
Mr Sadashiv Kumar Vaasista,
ACMA
Specialist Hewlett Packard #22, “Chandana” Opp. BSNL Telephone Exchange Mariyannapalya, HAF Post
BANGALORE 560024

M/34420
Mr Vishnu prasaad Ravichandran,
ACMA
Consultant Trainee NCR Consultants Limited 2nd Floor, New No.4, Old No. 23, Sir CP Ramaswamy Road, Alwarpet
CHENNAI 600018

M/34421
Ms Monika Bansal,
BCOM, ACS, ACMA
Manager The Indian Express Limited Express Building 9 & 10, Bahadurshah Zafar Marg
NEW DELHI 110002

M/34422
Mr Samik Datta,
ACMA
Manager FAG Bearing IIndia Ltd Flat No. 201, Sundaram Towers S Cube Residency Muktinagar
VADODARA 390020

M/34423
Ms Payal Chirania,
ACMA
M/1, Panchvati Society Opp. Sargam Shopping Centre Parle Point
SURAT 395007

M/34424
Ms Priya R,
BA, ACMA
Senior Manager Accounts & Finance Arudaa Vis Labs Private Limited 6B/105, Neduvarambakkam Road Chennivakkam Ponneri Taluka
CHENNAI 600067

M/34425
Mr Vipan Kumar,
MCOM, ACMA
Finance Assistant Powergrid Corporation of India Limited Powergrid Complex G T Road
KARTARPUR 144801

M/34426
Mr Gopi E,
BCOM, ACMA
Deputy Manager HCL Technologies Ltd 4/13, V. V. Koil Street Aminjikarai
CHENNAI 600029

M/34427
Mr Mohammed Isaq,
M’COM, ACMA
Accountant Bruhat Bengaluru Mahanagara Palike O/o Assistant Controller (Finance), BBMP, Yelahanka Zone, Byatarayanapura, Bellary Road
BANGALORE 560092

M/34428
Mr Yatendra Sharma,
BCOM(HONS), ACMA
Accountan III Fluor Daniel India Private Ltd. 3rd Floor, Building No.10A DLF Cyber City, Phase II
GURGAON 122002

M/34429
Ms Mamatha J,
BCOM, ACMA
Junior Accounts Officer Andhra Pradesh Power Generation Corporation Limited O/O The FA & CCA (Audit), Accounts Block, III floor, Vidyut Soudha Khairatabad
HYDERABAD 500082

M/34430
Mr Nikunj Champaklal Parmar,
MCOM, ACMA
Specialist in Finance & Accounts Gulbrandsen Technoligies (I) Pvt. Ltd 405 Synergy Squarel Krishna Indl. Estate Gorwa
VADODARA 390016

M/34431
Mr Rohan Jayawant Datar,
MCOM, ACMA
IRIS Business Services Limited 19, Krishnamai Din Dayal Road Vishnu Nagar
DOMBIVLI (WEST) 421202

M/34432
Mr Ramesh V,
MCOM, ACMA
Assistant executive manager Sanmar Shipping Limited 9. Cathedral Road Gopalapuram chennai
CHENNAI 600086

M/34433
Mr Rakesh Kumar Singh,
BCOM, ACMA
Senior Manager DCB Bank
44, 4th floor, S D Road
SECUNDERABAD 500003

M/34434
Ms Abhilasha Kiran Kanthety,
ACMA
Business Controller DHL Supply Chain (Australia) Pty Ltd 1A Homebush Bay Drive Rhodes
SYDNEY 2138

M/34435
Mr Santosh Shantaram Lad,
BCOM, ACMA
Sr. Manager- Finance Madaus Pharmaceuticals Pvt. Ltd. Agiolax Plant, Kundaim Industrial Estate, Kundaim
PONDA 403115

M/34436
Mr Gautam Talashibhai Munjani,
ACMA
77, Swastik Row House, 77, Swastik Row House, Old Kosad Road, Amroli
SURAT 394107

M/34437
Mr Aashish Prabhakar,
ACMA
Al Dobowi Group 98/5, Double Storey Govindpuri Dist. Ghaziabad
MODINAGAR 201201

M/34438
Ms Eileen Elizabeth Correya,
MCOM, ACMA
Assistant Audit Officer O/o. The Principal Accountant General (E & RSA) Saifabad
HYDERABAD 500004

M/34439
Mr Vishal Agarwal,
ACS, ACMA
Junior Executive (Finance) W.B.S.E.D.C.L. Vidyut Bhawan Salt Lake City
KOLKATA 700091

M/34440
Mr Gurava Reddy Maddigapu,
ACMA
Project Accounting Specialist Royal Group of Companies 1st. Floor Royal Group Building Near Sh. Khalifa Park
ABU DHABI 61180

M/34441
Mr Srinivas Reddy Balannagari,
ACMA
Management Industrial Trainee Mishra Dhatu Nigam Limited Kanchanbagh
HYDERABAD 500058

M/34442
Mr Vettri Velan Balakrishnan,
MCOM,MCA, ACMA
Plot No.31/22 Selvam Nagar (Extn.) Ponniammanmedu
CHENNAI 600110

M/34443
Mr Sandeep Hari Naga Seethamraju,
ACMA
Assistant Manager Volvo India Pvt. Ltd Yalachahally, Tavarekere Hosakote
BANGALORE 562122

M/34444
Mr Rohit Madhukar Tikhe,
BCOM, ACA, ACS, ACMA
Head of Finance Garlock India Private Limited S-21, MIDC Bhosari
PUNE 411026

M/34445
Ms Sireesha Chennu,
BCOM, ACMA
Deputy Manager - Accounts Vibisha Consultants MCH No.250 Opp. to Darpan Boutique Near Birla Mandir, Adarsh Nagar
HYDERABAD 500063

M/34446
Mr Kolukuluri V K Suresh,
BCOM, ACMA
House No.12-11-1684/54/5 Ambernagar, Adikmet Nallakunta - Post
HYDERABAD 500044

M/34447
Ms Pragyan Priyadarsini Pati,
MA, ACMA
C/o. Niranjan Panda Plot No.MIG-B/25 Brit Colony, Nayapalli
BHUBANESWAR 751012

M/34448
Mr Kaustubh Kishor Pandit,
BCOM, MBA (FINANCE), ACMA
Dy. Chief Accounts Officer Gujarat State Electricity Corporation Limited Administration Building Wanakbori Thermal Power Station Kheda
THASHRA 388239

M/34449
Mr Samir Hirachand Shah,
BCOM,FCA,ACS, ACMA
Member of Executive Management & CFO HDFC ERGO General Insurance Co. Ltd 6th Floor, Leela Business Park Andheri Kurla Road Near Mumbai International Airport, Andheri (E)
MUMBAI 400059

M/34450
Ms Jyotsna S Tarigoppula,
ACMA
Oracle Functional Consultant Mahindra Satyam Vizag City Centre Resapuvanipalem
VISAKHAPATNAM 530016

M/34451
Mr Nagesha V,
MCOM, ACMA
Manager (Accounts) Bosch Limited Post Box No. 3000 Hosur Road Adugodi
BANGALORE 560030

M/34452
Mr Balaji Reddy Manohar,
BCOM, ACMA
Manager Kellogg & Andelson Management Services Private Limited Suite 902, MLS Business Centres TVH Beliciaa Towers, Phase-II, 9th Floor 1st Main Road, MRC Nagar, R. A. Puram
CHENNAI 600028

M/34453
Mr Jay Pattnaik,
ACMA
Dy Manager Isolux Corsan India Eng & Const. Pvt. Ltd Palra
AJMER 305001

M/34454
Ms Akshi Gandhi,
ACMA
Standard Castings Private Ltd 55/7, Top Floor Old Rajinder Nagar
DELHI 110060

M/34455
Mr Sachin Gopal Sawant,
BCOM, ACMA
Manager (F & A) Maharashtra State Power Generation Co. Ltd 2nd Floor, Prakashgad Anant Kanekar Marg, Bandra (E)
MUMBAI 400051

M/34456
Mr Manish Aggarwal,
ACMA
Officer - Internal Audit Lalitpur Power Generatiion Co. Ltd Bajaj Bhawan, B - 10, Sector - 3 Jamnalal Bajaj Marg
NOIDA 201301

M/34457
Mr Deepesh Ramratan Amga,
BCOM, ACMA
Executive - Costing Indian Steel Corporation Ltd 503, Mahakosh House 7/5, South Tukoganj
INDORE 452001

M/34458
Mr Pradip Ramchandra Palande,
BCOM, ACMA
Management Trainee Fiat India Automobile Ltd. B-19, Ranjangaon MIDC Tal - Shirur
PUNE 412220

M/34459
Mr K Bharathidasan,
BCOM, ACMA
36, Karunanidhi Colony Round Road Bala Krishnapuram Post
DINDIGUL 624005

M/34460
Mr Chintankumar Harishbhai Gohel,
MCOM, ACMA
23, Mahavir Society Near S.T. Depo
TARAPUR 388180

M/34461
Mr Mandar Anand Dandekar,
BCOM, MBA(FIN), ACMA
Assistant Manager (Costing) Ring Plus Aqua Ltd. A-16,17, STICE, Nashik-Shirdi Road Musalgaon, Sinnar
NASHIK 422112

M/34462
Mr Pradeep Guntamukkala,
MCOM, ACMA
District Accounts Manager O.S.H. & F. W., NRHM, ZSS D.H.H. CDMO Office DPMU, NRHM
RAYAGADA 765001

M/34463
Ms Hemamalini Krishnakumar,
BSC, ACMA
Finance Consultant
Deva Constructions & Contractors Pvt Ltd 101 B, Lakshmanaswamy Salai K.K. Nagar
CHENNAI 600078

M/34464
Ms Aarti Arun Kadam,
MCOM, ACMA
Accountant Maya Pet Food & Accessories Pvt. Ltd 8/4, Banali Apt. Karve Road
PUNE 411011

M/34465
Mr Ajith Sivadas,
BCOM, ACMA
Anugraha Vaniyar Street P.O. Nallepilly
PALAKKAD 678553

M/34466
Mr Santosh Kumar Prusty,
BCOM, ACMA
Assistant Manager - Finance SOUTHCO At - Lathiaguda SOUTHCO Division Office Near D.N.K.
MALKANGIRI 764048

M/34467
Mr Vikas Dhand,
BCOM(HONS), ACMA
AGM - Finance ISS Integrated Facility Services Pvt. Ltd 150, First Floor Udyog Vihar
GURGAON 122016

M/34468
Ms Ria Santosh Sawant,
BCOM, ACMA
Management Staff Cipla Ltd 289, Bellasis Road Mumbai Central
MUMBAI 400008

M/34469
Ms Sowmya Vijayakumar,
BCOM, ACMA
Senior Executive - Accounts Harita-NTI Limited A-3, first main road Ambattur Industrial Estate, Ambattur
CHENNAI 600058

M/34470
Mr Deepak Singh,
MCOM, ACMA
H. No.2 Nav Manak Nagar R.D.S.O.
LUCKNOW 226011

M/34471
Mr Venkatesh H,
MCOM, ACMA
Flat No.2 Capital Enclave Press Club Road
THRISSUR 680001

M/34472
Mr Umar Siddique A,
MCOM, ACMA
Manager - Finance Vestas Wind Technology India Private Limited 298, Rajiv Gandhi Salai Sholinganallur
CHENNAI 600119

M/34473
Mr Parthasarathy Sriram,
MCOM, ACMA
Manager - Accounts Formulated Polymers Ltd 59, SIDCO Industrial Estate Thirumazisai
CHENNAI 600124

M/34474
Mr Santanu Chetia,
BCOM, ACMA
Manager Accounts Food Corporation of India District Office Banderdewa 5/1, Eka Complex Dist. Papumpare
BANDERDEWA 791123

M/34475
Ms Priyanka Singhi,
ACMA
Sr. Accounts Executive Laxmi Solvex Palasia
INDORE 452001

M/34476
Mr Venkateswerlu kistaiah Ganji,
BCOM, ACMA
Sr. Cost Accountant Indian Railway Workshop Accounts Office, Matunga Centrail Railway Opp. To Matunga Railway Station
MUMBAI 400019

M/34477
Ms Jayapriya Nandakumar,
MCOM, ACMA
Team Leader Scope International Pvt Ltd No.1, Haddows Road Nungambakkam
CHENNAI 600006

M/34478
Mr Suresh Chandra Pattanayak,
BCOM, ACMA
AGM - Finance & Accounts Lanco Infrotech Ltd At - Kurunti, Kharagprasad Vill - Meramundali
DHENKANAL 759121

M/34479
Mr Gopi Kishan Upadhyay,
BCOM, ACMA
Sangam Sundari 49/1/1, Cotton Street Garodia Market
KOLKATA 700007

M/34480
Mr Baban Char,
BCOM(HONS), ACMA
Vill. Purusottampur P.O. Suryanagar Dist. Burdwan
ASANSOL 713361

M/34481
Ms Sina Cyriac,
BSC, ACMA
Cost Accountant C. Narayanan Nampoothiri & Co. Cheerakat Illam Vazhappally
CHANGANACHERRY 686103

M/34482
Mr Ratan Mal Lodha,
BBA, MBA, ACMA
Finance Executive The Taj Mahal Hotel, new Delhi 1 Mansing Road
NEW DELHI 110011

M/34483
Ms Monica Sagar Jagad,
BCOM, ACMA
Manager - Costing Y. R. Doshi & Associates C-7/14, Hem Horizon Chs Ltd Jeevan Bima Nagar Borivali (W)
MUMBAI 400103

M/34484
Mr Sandeep Kansal,
MSC,MCA, ACMA
Asstt. Audit Officer O/o. Director General of Audit (Central Expenditure) Section - (AMG-IV), A.G.C.R. Building I. P. Estate, I.T.O.
NEW DELHI 110002

M/34485
Ms Charmiben Mrugesh Patel,
MCOM, ACMA
F/84, Pujan Duplex & Tenament Near Pancharatna Hostel Darbar Crossin, Manjalpur
VADODARA 390011

M/34486
Mr Nitendra Kumar Chaturvedi,
BCOM, ACMA
General Manager Jenith Certified Chartered Accountants 118, Omer Bin Khateb Road, Deira
DUBAI 242194

M/34487
Mr Tushar Prakash Awasare,
ACMA
Sr. Officer - Costing Venkys (India) Limited Venkateshwar House S. No. 114/A/2 Pune-Sinhagad Road
PUNE 411030

M/34488
Mr Petala Nageswara Rao,
BCOM, ACMA
Officer (F & A) India Govt.
Mint (A Unit of SPMCIL)
IDA, Phase - II HCL Post
Cherlapally
HYDERABAD 500051

M/34489
Mr Jagpreet Singh Malhotra,
BCOM, ACMA
Executive (Costing Trainee)
K. L. Jaisingh & Co. J - 7,
Sector - XI Jaisingh House
NOIDA 201301

M/34490
Mr Madhav Nayak,
BCOM, ACMA
Senior Executive - Finance
Optimal Solutions Integration
)Software) Pvt Ltd Unit
201, Level II, Campus
IA RMZ Nxt, EPIP Zone
Mahadevapura Post,
Whitefield
BANGALORE 560066

M/34491
Mr Linga Reddy Baddigam,
ACMA
Subba Reddy Palem (Village)
Macherla (Mandal)
GUNTUR 522426

M/34492
Mr Shoaib Akhter,
BCOM(HONS), ACMA
Asst. Manager (Finance)
Indian Oil Corporation Ltd
Indian Oil Corporation Ltd.
(MD) Indane Bottling Plant
Phase IV, BIADA P.O.Balidih
BOKARO STEEL CITY
827014

M/34493
Mr Angirekula Venkateswara
Rao,
BCOM, ACMA
C/o. M Kondala Rao D.No.
58-2-19A, Bhagaiah Bazar
Patamata
VIJAYAWADA 520010

M/34494
Mr Ranjan Kumar Pandey,
ACMA
Deputy Manager - Finance
Tata Tele Services Ltd 2
A, Old Ishwar Nagar Main
Mathura Road
NEW DELHI 110065

M/34495
Ms Kuljeet Kaur,
ACMA
Finance Executive Macquarie
Group First Floor, Building
9B Cyber City
GURGAON 122002

M/34496
Mr Bhanu Prakash Umapathi,
ACMA
H. No. 1-5-1022/1 B. R. Rao
Nagar Old Alwal
HYDERABAD 500010

M/34497
Mr Sagar Ramesh Patyane,
ACMA
D/ 201, Suhk Sagar Virat
Nagar Virar West
VIRAR-WEST 401303

M/34498
Dr Anjana Sharma,
ACMA
Jr. Accountant Rajasthan
Rajya Vidyut Utpadan Nigam
Ltd Shed No. 12/10, Vidyut
Bhawan Jyoti Nagar
JAIPUR 302005

M/34499
Ms Hemali pravinkumar Patel,
MCOM, ACMA
27,Anjali Society Nr. Sardar
Patel High School Maninagar
AHMEDABAD 380008

M/34500
Mr Ram Babu Prasad,
ACMA
Asst. Manager NTPC Limited
Finance Deptt. H - Block,
BARH STPP NTPC Limited
BARH 803215

M/34501
Mr Umesh Kumar Garg,
ACMA
C - 27, Subhash Park
Uttam Nagar Near Santosh
Cyclewala
NEW DELHI 110059

M/34502
Ms Sriranjani R,
MBA, ACS, ACMA
L/35/K, Bharathidasan Colony
K K Nagar, Near R T O
Office,
CHENNAI 600078

M/34503
Mr Chandan Ji,
ACMA
Senior Technical Assistant
Ministry of Corporate Affairs
Shastri Bhavan Dr Rajendra
Prasad Road
NEW DELHI 110001

M/34504
Ms Shyamala Hegde,
BCOM, ACMA
Accountant associate Outforce
Services India Pvt. Ltd 89, 7th
cross, 16A Main, 4B Block,
Koramangala
BANGALORE 560034

M/34505
Mr Akhil Mathur,
ACMA
D 6/2 CFCL Township, Uttam
Nagar Gadepan
KOTA 325208

M/34506
Mr Pradeep Kumar Miglani,
BCOM, ACMA
Cost Accountant Goyal, Goyal
& Associates G - 14 LGF
Lajpat Nagar - III
NEW DELHI 110024

M/34507
Mr Firoz Tahir,
ACMA
Cost Manager Sourabh Jain
& Associates 2nd Lane, Gill
Colony Near Narainpuri
Mandir Court Road
SAHARANPUR 247001

M/34508
Mr Pankaj Yadav,
ACMA
K-244 E Street No 6B/4
Mahipalpur Extn
DELHI 110037

M/34509
Mr Mohammed Fariz,
ACMA
Kadavu (H) Azhikkal Road,
Pallikkandy P.O Kallai
CALICUT 673003

M/34510
Mr Kuldeep Pandia,
MCOM, ACMA
Accountant Neelkanth
Polymers, A unit of K.C.
(india) LTD. RIICO
Industrial Area Dist.- Churu
Sardarshahar.
SARDARSHAHAR 331402

M/34511
Mr Amit Kumar,
MCOM, ACMA
Accountant II Fluor Daniel
India Pvt Ltd 10th Floor,
Building 10C DLF Cyber City
DLF Phase 2
GURGAON 122001

M/34512
Mr Srinivasan V,
BCOM, ACMA
Manager (Accounts) IFFCO
Ltd Talwar Bawan Old Kandla
KUTCH 370210

M/34513
Mr Indranil Chatterjee,
BCOM, ACMA
Dy. Manager Neel Metal
Products Ltd. Flat No. 51,
Sector 10 A
GURGAON 122001

M/34514
Mr Anup Kumar Palo,
ACMA
Cost Accountant Atlanta Ltd
101 - Shree Amba Shanti
Chambers Opp - Hotel
Leela, Andheri-Kurla Road
Andheri - East
MUMBAI 4000059

M/34515
Mr Prince Gambhir,
ACMA
Assistant Manager Amplifon
India Pvt. Ltd. 2nd Floor, Plot
No - 97 Sector - 44,
GURGAON 122002

M/34516
Mr Satyanarayana Gandur
Subba Rao,
BE(MECH), ACMA
Sr. D G M - QM / EW &
A Bharat Electronics Ltd
Jalahalli - PO
BANGALORE 560013

M/34517
Mr Menon Rajendra Kumar Divakara Menon, ACMA
DGM Finance Landmark Retail P.O.Box 25030
DUBAI 25030

M/34518
Ms Suchitra Mishra,
BCOM, ACMA
Accountant Hotel Pal Regency Pvt. Ltd Pal Heights, Plot No. 1 / 7 Jayadev Vihar
BHUBANESWAR 751013

M/34519
Mr Samuel Babu Gandham,
BCOM, ACMA
Accounts & Finance Manager PCH Lifestyle Limited D. No. 8-2-269/4/C/D, Survey No. 403/1 5th Floor, B V Raju Bhavan Road No. 2, Banjara Hills
HYDERABAD 500034

M/34520
Ms Bijal Ashok Panchal,
BCOM, ACMA
Cost Accountant Dhananjay V Joshi & Associates "CMA Pride", Ground Floor Plot No. 6, S. No. 16/6 Erandwana Co-op. Hsg. Society, Erandwana
PUNE 411004

M/34521
Mr Himansu Nayak,
BCOM, ACMA
Audit Executive Pattnaik & Associates C/o. Kamala Kanta Pattnaik Near New Malgodown Road Sikharpur, PO- College Square
CUTTACK 753003

M/34522
Mr Seth Sahib,
ACMA
VPO - Bahalgarh Near New Tagore Girls Sr. Secondary School
SONEPAT 131021

M/34523
Mr Mahinder Singh,
ACA, ACMA
D G M (Finance) S R Foils & Tissue Ltd Rajouri Garden
NEW DELHI 110027

M/34524
Ms Ariya Priya Shankar,
BSC(HONS), ACMA
Asst. Manager Comet Conversion Services (I) Pvt. Ltd C-82, Hosiery Complex, Phase - II
NOIDA 201305

M/34525
Mr Deepak Kumar Ramrakhyani,
MCOM, ACMA
Asst. Manager (Finance) Ambience (P) Ltd L - 4, Green Park Extension
NEW DELHI 110016

M/34526
Mr Ajay Chhabra,
BCOM(HONS), LLB, ACMA
Sr. Manager (Vigilance) Hindustan Aeronautics Ltd Transport Aircraft Division
KANPUR 208008

M/34527
Ms Pradnya Tushar Dhamdhere,
MCOM, ACMA
Partner Finesol Consultants Flat No. B 703, Kadambari Apartments Sinhagad Road
PUNE 411030

M/34528
Mr Tushar Balkrishana Dave,
ACMA
Assustabt Nanager Zamil Steel Building India Pvt. Ltd Office No. 101, 1st Floor, 1st Floor Almonte Software Park, S. No. 8, Plot No. 2, Kharadi
PUNE 411014

M/34529
Mr Francis Basthu Fernandes,
MCOM, ACMA
Manager Tata Motors Ltd 18, Homy Modi Street Nanavati Mahalaya (Nr. Bombay House) Fort
MUMBAI 400001

M/34530
Mr Ketankumar Gajanan Kadam,
ACMA
Sr. Executive Fiat India Automobiles Ltd B - 19, Ranjangaon MIDC Tal - Shirur
PUNE 412220

M/34531
Mr Ashwinkumar Shekhar Kurne,
MCOM, ACMA
Asst. Manager - Finance Bag Electronics (I) Pvt Ltd Survey No. 19, Yewalewadi Kondhawa Road, Katraj
PUNE 411048

M/34532
Mr Santhosh K,
BCOM, ACMA
Dy. Manager Ashok Leyland Ltd Ashok Leyland - Unit 1 No. 175, SIPCOT Industrial Complex
HOSUR 635126

M/34533
Mr Prakash Nagarajan,
BCOM, ACMA
No. 4, Block - 4, Datthagalli 2nd Stage Arogyanagar
MYSORE 570023

M/34534
Mr Kamalakkannan R,
MCOM, MPHIL, ACMA
Asstt. Manager - Accounts Indian Furniture Products Ltd G - 106, SIDCO Industrial Estate Kakkalur, Tiruvallur
CHENNAI 602003

M/34535
Mr Mukesh Mukesh,
BCOM, ACMA
Premier Institute D - 223/1 Vikas Marg Laxmi Nagar, Nr. Metro Station Gate No. 4
DELHI 110092

M/34536
Mr Sonu Rana,
BCOM, ACMA
House No. 145, Lambi Gali Near Rana Public School Shahbad Daulatpur
NEW DELHI 110042

M/34537
Ms Nithya Rajan,
BCOM, ACMA
Assistant Manager - Finance Sundram Fasteners Ltd Mth Road, Padi
CHENNAI 600050

M/34538
Mr Tushar Ashok Shaha,
MCOM, ACMA
Assistant Manager (Audit) Amit Agrawal & Associates Off No. 69, 4th Floor, Patil Arcade Off Karve Road, Nr. to Persistgent Systems Ltd Erandwane
PUNE 411004

M/34539
Mr Krishna Kumar Sharma,
MCOM, ACMA
Assistant Professor St. Xaviers College Department of Commerce
RANCHI 834001

M/34540
Mr Kumaraguru S,
MCOM, MBA(FIN), ACMA
Sr. Manager - Accounts Karaikal Port Pvt. Ltd Marg Pancham, Futura Tech Park (Block - B) 334, Rajiv Gandhi Salai (OHR) Solinganallur
CHENNAI 600119

M/34541
Mr Sunil,
BCOM, ACMA
A - 834, Jahangir Puri
DELHI 110033

M/34542
Mr Utkersh Umakantbhai Swadia,
MCOM, ACMA
Teaching Faculty Navkar Institute 7, Pallavi Row House Opp : Memnagar Fire Station Navrangpura
AHMEDABAD 380009

M/34543
Mr Amey Dipak Tikale,
MCOM, ACMA
Cost Assistant Dhananjay V. Joshi & Associates Plot No. 6, S. No. 16/6 Erandawane CHS., Erandwane
PUNE 411004

M/34544
Ms Shweta Vivek Vartak,
MCOM, ACMA
Sr. Cost Accountant R S Raghavan - Practising Cost Accountant 101 B, Regent Park 30, Gidney Park Salisbury Park Road
PUNE 411037

M/34545
Mr E Anand,
BCOM, ACMA
Assistant Manager I B
M Daksh D 1, 2nd Floor
Manyatha Embassy Business
Park Nagawara
BANGALORE 560045

M/34546
Mr Rajeev Kumar Chechani,
BCOM, ACMA
General Manager - Finance
Oswal Industries Ltd
Block - 25B, Ahmedabad-
Mehsana Exp. Highway Tal :
Kalol,
GANDHINAGAR 382740

M/34547
Mr Manjunath Laxminarayan
Hegde,
BCOM, ACMA
Asst. Manager - F & A Kurlon
Ltd No. 303, 3rd Floor North
Block, Manipal Centre
Dickinson Road
BANGALORE 560042

M/34548
Ms Rashmi R Kulkarni,
BCOM, ACMA
Dy. Manager Bosch Ltd P. B.
No. 6887 Naganathapura Plant
Electronic City Post Office
BANGALORE 560100

M/34549
Mr Ishan Ahmed,
BCOM, ACMA
592 KA Azad Lane Shubhani
Khera Telibagh
LUCKNOW 226002

M/34550
Mr Kaushik Sen,
BSC(HONS), ACS, ACMA
Compamy Secretary Rhino
Agencies Ltd C/o. Yuksom
Breweries Ltd PO - Melli
Bazar, South Sikkim
NAMCHI 737128

M/34551
Mr Mohd sartaj taj,
ACMA
Mohalla - Ansariyan post -
Sahanpur Thysil - Najibabad,
Dist - Bijnor
NAJIBABAD 246749

M/34552
Mr Harshal Manohar Patil,
BCOM, ACMA
Manager (F&A) Maharashtra
State Power Generation
Co.Ltd 2nd Floor, Prakashgad
A K Marg, Bandra (E)
MUMBAI 400051

M/34553
Mr Vairagya Jhawar,
BCOM, ACMA
86, Khengra Patty Street
KOLKATA 700007

M/34554
Mr Rakesh Mahaveer
Bhandari,
ACMA
Sr. Accounts Executive
Cosmos Group 2nd Floor,
Cynthiandra Bldg. Gokhale
Road North Dadar West
MUMBAI 400028

M/34555
Ms Aarti Atrinath Rane,
ACMA
Business Analyst Roche
Diagnostics India Pvt. Ltd
Plot No. 115, Road No. 14 M
I D C., Andheri - East
MUMBAI 400093

M/34556
Mr Sajal Pradhan,
BSC, ACMA
106 / 1A, Brahma Samaj Road
PO - Behala
KOLKATA 700034

M/34557
Mr Atul Tanwar,
ACMA
Finance Executive Galaxy
Automobiles Pvt. Ltd 69/1A,
TSG Complex Najafgarh
Road, Moti Nagar Crossing
Moti Nagar
NEW DELHI 110015

M/34558
Mr Aniruddha Sarkar,
ACMA
Sr. Manager - Finance-
Systems Audit Hindustan
Aeronautics Limited Ojhar
Tal - Niphad
NASIK 422207

M/34559
Mr Sarthak Ahuja,
ACMA
Director Par Excellence
Management Pvt Ltd 23/7,
Second Floor Old Rajinder
Nagar
NEW DELHI 110060

M/34560
Ms Rajeswari
Chandrasekaran,
BCOM, ACMA
Junior Accounts Officer
Bharat Sanchar Nigam Ltd
III Floor, C.T.O. Budilding
Bangalore Telecom District
Telephone House, Rajbhavan
Road
BANGALORE 560001

M/34561
Mr Shunyabasi Behera,
BCOM, ACMA
Internal Auditor
Rashtriya Ispat Nigam
Ltd Visakhapatnam Steel
Plant Finance Department,
Internal Audit Section Main
Administrative Building
VISAKHAPATNAM 530031

M/34562
Mr Subhajit K Jana,
MCOM, ACMA
Manager (Accounts &
Finance) Anthea Aromatics
Pvt Ltd R-81/82, TTC
Industrial Area Rabale MIDC
NAVI MUMBAI 400701

M/34563
Mr Sanjay Kumar Jain,
BCOM, ACMA
426, SRS Tower 14/5, Main
Mathura Road Sector - 31
BALLABGARH 121005

M/34564
Mr Atish Kumar,
BCOM(HONS), ACMA
Acccountant Bharat Coking
Coal Limited Washery
Division Dhanbad
SARAIDHELA 828127

M/34565
Mr Paresh Manharlal Modi,
MCOM, ACMA
Manager Reliance Industries
Ltd Village - Mora Post -
Bhatha Surat-Hazira Road
SURAT 394510

M/34566
Mr Chaitanya Mansukhlal
Padia,
BCOM, ACMA
"Balmukund Krupa" Navin
Nagar Society Block No.8,
Nirmala Road
RAJKOT 360007

M/34567
Mr Ghanshyam Pandurang
Madane,
BCOM, ACMA
Assistant (Audit) Cma Vijay P.
Joshi 302, Sham Tower 164/2,
R.N.T. Marg
INDORE 452001

M/34568
Mr Mohsin Ansari,
ACMA
Cost Accountant S.Jha
& Associate Commerce
Soluation Singh Complex
Harmu Bazar, Harmu
RANCHI 834001

M/34569
Mr Karuna Nidhi Pandey,
BCOM, ACMA
Officer Jayprakash Associates
Ltd. Sector-128
NOIDA 201301

M/34570
Mr Samir Kumar Lobwo,
MCOM,PHD, ACMA
Associate Professor St.
Xavier's College 722/1A, M.
G. Road Thakurpukur
KOLKATA 700063

M/34571
Mr Sai Swaroop Tatavarthy,
MBA, ACMA
Partner The Sun Engineering
Co 138, R P Road
SECUNDERABAD 500003

M/34572
Mr Gopinath Posareddy,
ACMA
Senior Financial Analyst
Oracle India Pvt Ltd No.12/1,
12/2, Commerce @ Mantri N
S Palya, Bannerghatta Road
BANGALORE 560076

M/34573
Mr Misab Thadathil,
MCOM, ACMA
Thadathil House, Thanneer
Kaad Kattilangadi Road P.O.
K. Puram
MALAPPURAM 676307

M/34574
Mr Sohan Chaudhary,
BCOM, ACMA
Audit Executive Ravi Sahni
& Co D-223/1, 3rd Floor
Opposite Laxmi Nagar Metro
Station Vikas Marg
NEW DELHI 110092

M/34575
Mr Swapan Kumar Ray,
BSC, ACMA
Flat No. C - 205, Sanjay
Heights Rajaswa Colony,
Seepat Road
BILASPUR 495006

M/34576
Mr Sewna Kaliyamoorthy
Anantha Krishnan,
MCOM, ACMA
Deputy Manager - Finance
Ashok Leyland Nissan
Vehicles Limited Kochar
Towers 19, Venkatanarayana
Road T. Nagar
CHENNAI 600017

M/34577
Mr Vijay Nivrutti Guldagad,
MCOM, ACMA
Analyst Programmer In
SAP Acenture Services Pvt
Ltd Unit No.801, 8th Floor
Building No.4, Infinity Park
Ahead of Dindoshi, Malad (E)
MUMBAI 400097

M/34578
Mr Neeraj Pandey,
BCOM, ACMA
Accountant Lead Acid Battery
Co. Pvt. Ltd 61 / 3, B T Road
KOLKATA 700003

M/34579
Mr Santu Sen,
BCOM, ACMA
Jr. Manager (Accounts)
Progressive Infotech (P) Ltd
C-161, Phase - II Extension
NOIDA 201305

M/34580
Mr Momin Ahmed Shaikh
S A,
BCOM, ACMA
Assistant K. S. Kamalakara
& Co No. 999/30, Nithya
Mansion 1st Main, 4th Cross
Vijaynagar
BANGALORE 560040

M/34581
Mr Bhawani Shankar Karwa,
BCOM(HONS), ACMA
C/o. Pawan Kumar Bang 6,
Burtolla Street 4th Floor
KOLKATA 700007

M/34582
Ms Menka Mishra,
BSC(HONS), MCOM, ACMA
W/o. Abhay Kumar M-1/19,
Vinayak Society Sector - 9,
Vasundhra
GHAZIABAD 201012

M/34583
Ms Deepa Venkatachalam,
MCOM, ACMA
Manager - Accounts Sical
Logistics Ltd South India
House 73 Armenian Street
CHENNAI 600001

M/34584
Mr Jayeshkumar Khantilal
Shah,
MCOM, ACMA
Proprietor Jayeshkumar K.
Shah & Co 202, Shobhraj
Complex Nr. Jankari Hat
Waghanadi Road
BHAVNAGAR 364002

M/34585
Mr Philip Vadakaveetil,
MCOM, ACMA
Group Finance Manager Total
Marketing Middle East Fze
PO BOX 14871
DUBAI 14871

M/34586
Mr Naman Bharat Shah,
BCOM, ACMA
Assistant Manager Torrent
Power Limited Naranpura
Zonal Office Sola Road
Naranpura
AHMEDABAD 380014

M/34587
Mr Ajit Singh Panwar,
ICMA,MBA
Cost Analyst Visteon Climate
Systems India Ltd SP 812 A
Industrial Area Phase II
BHIWADI 301019

M/34588
Mr Dilip U,
MBA, ACMA
Assistant Manager
Unilever Industries Private
Limited Tower A, Prestige
Shantiniketan Whitefield Main
Road Whitefield
BANGALORE 560066

M/34589
Mr Amal Kumar Ghara,
BCOM(HONS), ACMA
Manager - Commercial
Simplex Infrastructures
Limited 27, Shekespeare
Sarani
KOLKATA 700017

M/34590
Ms Meenakshi
Suriyanarayanan,
MCOM, ACMA
Financial Analyst H.P. Global
E Business 1, Ambedkar
Street M.G.Nagar Taramani
CHENNAI 600113

M/34591
Mr Shabbirul Islam,
ACMA
29/H/32, Linton Street
KOLKATA 700014

M/34592
Mr Asif Mohammad Memon,
ACMA
Finance Manager RELIABLE
PAINTS 403, Mohammad Ali
apartment Uttam chand zaveri
pole Mandvi
VADODARA 390019

M/34593
Mr Ujjwal Kumar,
BCOM(HONS), ACMA
C/o. Vineet Dokania 35/J,
Chanditalla Lane Tollygunge
KOLKATA 700040

M/34594
Mr Prateek Kaushik,
BCOM, ACMA
10, Dr. Abani Dutta Road
Mohini Residential Flat
No.603 A
HOWRAH 711106

M/34595
Mr Rupam Kundu,
BCOM(HONS, ACMA
128, B.M. Saha Road
Nandankanan Dist. Hooghly
HINDMOTOR 712233

M/34596
Mr Sudhil Kumar Lenka,
MCOM, ACMA
At - Balajit Pada P.O. -
Balabhadrapur Via - Arnapal
BHADRAK 756116

M/34597
Mr Barun Chanda,
ACMA
Account Assistant Neo -
Parisrutan Pvt. Ltd P - 409,
Jodhpur Park
KOLKATA 700068

M/34598
Mr Rakesh Rajbhar,
ACMA
Pandu No. 3 Railway Colony
Qtr. No. BB / 9 (B) Near
Pandu Railway Colony
GUWAHATI 781012

M/34599
Mr Sarbajit Paul,
MCOM,MPHIL, ACMA
Assistant Professor Vijaygarh
Jyotish Ray College 8/2,
Bijoygarh Jadavpur
KOLKATA 700032

M/34600
Mr Niladri Paul,
BCOM, ACMA
37, Fakir Chandra Ghosh Lane
HOWRAH 711104

M/34601
Mr Manikandeswaran
Jegannathan,
BSC, MBA, ACA, ACMA
Sr. Manager - Finance TVS
Motor Company Ltd Post
Box No. 4, Harita Dist -
Krishnagiri
HOSUR 635109

M/34602
Mr Rahul Sahal,
ACMA
53 A, B. T. Road Krishna
Kunj Apartment Flat - 2C
KOLKATA 700050

M/34603
Ms Pinki Mahajan,
ACMA
Accounts Assistant Neo -
Parisrutan Pvt Ltd P - 409,
Jodhpur Park
KOLKATA 700068

M/34604
Mr Pramoda Kumar Mohanty,
BCOM, ACMA
Management Consultant
Tripathy & Co. Plot No.
8 / 2452, Behind R E O
Rasulgarh Indl. Estate Nr.
Sampark Bajaj Service Station
BHUBANESWAR 751010

M/34605
Ms Pooja Choudhary,
BCOM, ACMA
Assistant Manager - Finance
& Accounts Diaspark Infotech
Pvt Ltd 582, Labh-Ganga M.
G. Road
INDORE 452001

M/34606
Mr Amit Rajendra More,
ACMA
Manager Audit C S
Adawadkar & Co 111/112,
City Mall University Road
PUNE 410007

M/34607
Mr Saroj Kumar Pattanayak,
BCOM, ACMA
Management Consultant
Tripathy & Co. Chartered
Accountant Plot - 8/2452,
Behind - REO Rasulgarh Indl.
Estate, Nr. Sampark Bajaj
Service Station
BHUBANESWAR 751010

M/34608
Mr Kuricheti Venkateswara
Rao,
MCOM, MBA, ACMA
Lecturer A M M Degree
College Door No. 40-7-31
Near Jammichettu Mogal
Rajpuram
VIJAYAWADA 520010

M/34609
Mr Prasanna Kumar Doddi,
BCOM, ACA, ACMA
Asst. Manager - Taxation
Navayuga Engineering
Company Ltd # Plot NO. 379,
Road No. 10 Jubilee Hills
HYDERABAD 500033

M/34610
Mr Krishan Kumar Goyal,
BCOM(HONS), ACMA
32, Santosh Sagar Colony
Lane No. 4, Brahampuri Road
JAIPUR 302002

M/34611
Ms Belinda Alex D`Souza,
BCOM, ACMA
Management Accoutant
McDermott Middle East
McDermott Middle East P O
Box 3098 Jebel Ali
DUBAI 3098

M/34612
Mr Neeraj Khurana,
BCOM(HONS), ACMA
Sr. Executive Educomp
Infrastructure & School
Management Ltd 514, Udyog
Vihar Phase - III
GURGAON 122001

M/34613
Mr Rajiv Kumar Misra,
MCOM, LLB, PHD, ACMA
Accountant District Judge -
Gorakhpur (Judiciary) District
Court, Civil Lines PS - Kant
Near Dig Bangalow
GORAKHPUR 273001

M/34614
Mr Guru Prasad Narsepalli,
BCOM, ACMA
#2-1130/4/A/1 2nd Floor,
Syndicate Bank Lane Shivam
Road, New Nallakunta
HYDERABAD 500044

M/34615
Mr Parameswaran
Ramakrishnan,
MBA(FINANCE), ACMA
General Manager - (Finance
& Accounts) T. Stanes &
Company Ltd 8 / 23-24, Race
Course Road
COIMBATORE 641018

M/34616
Mr Raj Kishor Chourasia,
BCOM, ACMA
57/7, B. T. Road Cossipore
KOLKATA 700002

M/34617
Mr Ranjan Sanyal,
BCOM(HONS),
MBA(FINANCE), ACMA
Manager - Accounts Spencer`s
Retail Ltd 31, Netaji Subhash
Road Duncun House
KOLKATA 700001

M/34618
Mr Abhinab Kumar Chenmay,
BCOM(HONS), ACMA
Rajendra Chhatra Bhawan 34
A, Ratu Sarkar Lane
KOLKATA 700073

M/34619
Mr Nilesh Vasant Doshi,
ACMA
804, Tapasya Apartment
Yashodhan Nagar Lokmanya
Nagar No.2
THANE (WEST) 400606

M/34620
Mr K C Narayanan,
BE, ACMA
Asst. General Manager
Renault Nissan Technology &
Business Centre India Private
Limited Asccndas IT Park,
Mahindra Worls City No. TP
2/1, Nathan Sub Post Office
Dist. Kancheepuram
CHENNAI 603002

M/34621
Ms Shefali Shefali,
ACMA
Sr. Lead Analyst Colt
Technologies India Pvt
Ltd Unitech Business
Park Tower - B, South City - 1
GURGAON 122001

M/34622
Mr Avinash Sinha,
BCOM, ACMA
Annapurna Bhawan Aradanga
P.O. Ushagram, Dist. Burdwan
ASANSOL 713303

M/34623
Ms Sriparna Bose,
BCOM, ACMA
Sr. Manager Accounts Tuff
Tubes (Orissa) Pvt Ltd 170/A,
A.J.C. Bose
KOLKATA 700014

M/34624
Mr Prasanth C K,
BCOM, ACMA
Finance Manager Maxim
Trades (P) Ltd 34 / 135,
Meenu`s Building NH - 47,
Byepass, Edapally Ernakulam
COCHIN 682024

M/34625
Mr Yogesh Gangaram Rane,
BCOM, ACMA
4, Hanuman Sahkar Society
Utkarsh Nagar, J M Road
Bhandup (W)
MUMBAI 400078

M/34626
Mr Chandan Kumar Jaiswal,
ACMA
K.S. Bhatnagar & Associates
H. No.-1088, D-1, Ward No.1
Balti Baba Durga Mandir
Mehrauli
NEW DELHI 110030

M/34627
Mr Praveen Yalamanchili,
ACA.ACMA
Assistant Manager Capital
IQ Information Systems
(India) Pvt Ltd H. No:12-5-
32/2, Flat No.102 Sree Mitra
Prince Apartments Vijayapuri
Colony, Tarnaka
SECUNDERABAD 500017

M/34628
Mr Rajesh Bairy,
ACMA
Analyst Capital IQ
Information Systems
(India) Pvt Ltd H. No:3-
89/3, Unikicharla Village
Dharmasagar Mandal
WARANGAL 506370

M/34629
Mr Rudra Bhowmik,
BCOM, MBA (FINANCE), ACMA
Senior Manager Reliance Industries Ltd Reliance Corporate Park 5B FF, WS109, Thane Belapur Road Ghansoli
NAVI MUMBAI 400701

M/34630
Mr Vijay Dhansukhbhai Gedia,
BCOM, ACMA
604, 6th Floor, Khushal Apartment CHS Ltd Behind Municipal School Dattapada Road, Borivali (E)
MUMBAI 400066

M/34631
Mr Munesh Sharma,
BCOM, ACMA
E-170 Sector - 22 Goutam Budh Nagar
NOIDA 201301

M/34632
Ms Jyoti Sachdeva,
ACMA
K. S. Bhatnagar & Associates K-9 Sri Niwas Puri
NEW DELHI 110065

M/34633
Mr Amit Kumar,
BCOM, ACMA
C/o. Ajit Kumar Sinha Q. No. 4A, Block - 66, D I Z Area Sector - 2, Kali Bari Marg,
NEW DELHI 110001

M/34634
Mr Awadhesh Kumar,
BCOM, ACMA
47, 3rd Floor 16th Main, 16th Cross BTM 2nd Stage
BANGALORE 560076

M/34635
Mr Anuj Nigam,
ACS, FCA, ACMA
Chief Financial Officer ITRON India C - 7, Sector - 3
NOIDA 201301

M/34636
Ms Gauri Vishvanath Parab,
ACMA
Saraswat Bank Saraswat Bank Bhavan, Plot No. 953 Appasaheb Marathe Marg Prabhadevi
MUMBAI 400025

M/34637
Mr Nilesh Ramdas Shinde,
BCOM, ACMA
A / P : Nagadwadi Kandali (Shndemala) Tal : Junnar,
PUNE 412412

M/34638
Ms Swati Saxena,
BCOM, MBA(FINANCE), ACMA
Sr. Officer YES Bank Ltd A - 42, Basement, Opp : TDI Mall Vishal Enclave, Rajouri Garden
NEW DELHI 110027

M/34639
Ms Surbhi Verma,
ACMA
F - 405 Alpha - 2nd
GREATER NOIDA 201308

M/34640
Ms Sunita Sunita,
BCOM(HONS), MCOM, ACMA
House No.6 B, A - Block Phase - 5, Om Vihar Uttam Nagar
NEW DELHI 110059

M/34641
Ms Monika Kanhoria,
ACMA
K. S. Bhatnagar & Associates R-39, Private Colony Sri Niwas Puri
NEW DELHI 110065

M/34642
Ms Ankita Kamlesh Shah,
ACMA
D - 616, Highway Park E 5, Thakur Complex Kandivali (E)
MUMBAI 400101

M/34643
Mr Rizwan Khan,
BCOM, ACMA
Proprietor Sibtain Holidays Private Limited N.C - 107 Near Defence Enclave, K - Block Mahipal Pur
NEW DELHI 110037

M/34644
Mr Srinivasa R S,
ACMA
Manager - Business Controller M/s. Volvo India Pvt Ltd Division India J Y No.73/1, Brigade Metropolis Whitefield Road
BANGALORE 560048

M/34645
Mr Manjunatha M S,
BCOM, ACMA
Manager - Accounts Tally Solutions Pvtg. Ltd A M R Tech Park 23 & 24 Hongasandra Hosur Main Road
BANGALORE 560068

M/34646
Mr Akshay Gokhale,
ACMA
Dy Manager Costing B.G.Shirke Construction Technology Pvt Ltd Flat No. 306, Inna Apartments 36 Parvati
PUNE 411009

M/34647
Mr Jayeshkumar Bhagubhai Patel,
ACMA
Jr. Assistant (F & A) Hindalco Industries Ltd At/Po. Dahej
BHARUCH 392130

FOR ATTENTION OF MEMBERS

The fees payable by the members of the Institute with effect from 1st April 2013 from the Financial Year 2013–14 onwards is as under:

Category of Fees	Amount (Rs)
Associate Entrance Fee	1000/-
Associate Membership Fee	1000/-
Fellow Entrance Fee	1000/-
Fellow Membership Fee	1500/-
Certificate of Practice Fee	2000/-

The fees payable by the retired members entitled to pay at reduced rate in pursuance of Regulation 7(4) of the Cost & Works Accountants Regulations, 1959 with effect from 1st April 2013 from the Financial Year 2013–14 onwards shall be as follows:

Category of Fees	Amount (Rs)
Associate Membership Fee	250/-
Fellow Membership Fee	375/-

The fee for Duplicate Certificate stands revised to Rs 100/- in each case.

The Institute of Cost Accountants of India

SAFIM

Sri Aurobindo Foundation for Integral Management

Jointly organises

National Seminar on

Governance by Inner Consciousness

Saturday, July 13, 2013

New Delhi

Behind Every Successful Business Decision, There is always a **CMA**

Seminar Perspective:

Today, the corporate world as a whole is in the process of acquiring an ethical conscience. The new and emerging concepts in management like corporate governance, business ethics and corporate social responsibility are some of the expressions through which the emerging ethical instinct in the corporate world is trying to express or embody itself in the corporate life.

However effective implementation of an ethical ideal or concept requires two factors: creating an ethical consciousness and promoting ethical conduct and behaviour. But for the outer conduct and behaviour to be authentic, sincere and effective, is has to be a spontaneous expression of a corresponding inner state of consciousness.

In our integral perspective, the ideal of corporate governance is to create a corporate consciousness which leads to self-governance. It is to create a corporate environment in which those who display genuine ethical, social and ecological responsibility, not merely in Director's speech or annual reports but in concrete actions, prosper, progress and become leaders and decision-makers of the corporate world.

Conversely those who are obstinately unethical are either weeded out of feel the consequences of their action in the long run and others who are hovering between the two are given the opportunity and feel the pressure to take a decisive step in the ethical path. In other words, a corporate environment governed by the law of ethical Darwinism by which ethically fittest survive and prosper, the ethically ambivalent are reformed and the ethically unfit or delinquent become extinct. By the term "ethically fittest" we mean those who have fully internalized the ethical consciousness and do not need the threat of law to be ethical.

Seminar Objective:

To explore a more inward and integral approach to leadership and governance based on the principle of growth of Inner Consciousness.

Seminar will cover:

- Conscious Governance: Need of the Hour
- Role of Values in Governance
- Creating the Right Environment

Venue & Timings:

Auditorium, SCOPE Convention Centre, Lodhi Road, New Delhi

10 a.m. to 5 p.m. (Reporting time 09:30 a.m.)

4 CEP Credit Hrs for CMA Members

Interested Professionals may attend

Expected Panelists:

- **Dr A G Agarwal**
  Former Chairman & Managing Director, Central Electronics Limited
- **Shri A K Awasthi**
  Former Deputy Comptroller and Auditor General of India.
- **Dr. Ashok Haldia**
  Director, PTC India Financial Services Ltd., Member SAFIM Governing Board and Former Secretary, ICAI
- **Prof. Asish K Bhattacharyya**
  Advisor (Advanced Studies),The Institute of Cost Accountants of India and Prof.& Head, School of Corporate Governance & Public Policy, IICA and Member SAFIM Advisory Board.
- **Shri B Prasada Rao**
  Chairman & Managing Director, Bharat Heavy Electricals Ltd.
- **Justice Dilip Raosaheb Deshmukh**
  Chairman, Company Law Board.
- **Shri J K Puri**
  Member, SAFIM Advisory Board, Former President, The Institute of Cost Accountants of India and Ex-Chief Advisor Cost, Ministry of Corporate Affairs.
- **Shri Jitesh Khosla**
  Addl. Chief Secretary, Govt. of Assam.
- **CMA (Dr.) P V S Jagan Mohan Rao**
  Council Member, The Institute of Cost Accountants of India and Former President, ICSI.
- **Shri R Bandyopadhyay**
  Member, Central Administrative Tribunal, Member SAFIM Advisory Board and Former Secretary, Ministry of Corporate Affairs.
- **Justice Ramesh Chandra Lahoti**
  Former Chief Justice of India and Chairman - SAFIM Advisory Board.
- **Prof. Saikat Sen**
  Member SAFIM Governing Board .
- **Justice Shiv Narayan Dhingra**
  Member - Competition Commission of India.
- **Shri Sunil Mitra**
  Former Finance Secretary and Member SAFIM Advisory Board.
- **Shri T K Arun**
  Editor - The Economic Times Delhi.

Registration Procedure:

Limited Seats. First Come First served basis. Prior registration by sending duly filled enclosed Registration Form via e-mail at cep.regn@icmai.in

Participation Fee

Rs. 500/- per participant (Participation fee includes Course fee, Tea/Coffee & Lunch.)

The Cheque/DD in favour of "The Institute of Cost Accountants of India" payable at New Delhi, to be sent to:

CMA Nisha Dewan
Joint Secretary

The Institute of Cost Accountants of India
CMA Bhawan, 3, Institutional Area, Lodhi Road, New Delhi – 110003
Phones : 24622156, 57, 58, (D) 011-24624460,
Website: **www.icmai.in**

ABOUT ICAI

The Institute of Cost Accountants of India (erstwhile The Institute of Cost & Works Accountants of India) is a statutory body set up under an Act of Parliament in the year 1959 to provide training, education and research facilities in Cost & Management Accountancy. The Institute is a member of the International Federation of Accountants (IFAC), the Confederation of Asian & Pacific Accountants (CAPA) and the South Asian Federation of Accountants (SAFA).

The Institute headquartered at Kolkata operates through four regional councils at Kolkata, Delhi, Mumbai and Chennai and 95 Chapters situated at important cities in the country as well as 8 overseas Centres. It is under the administrative control of Ministry of Corporate Affairs, Government of India.

ABOUT SAFIM

The 'Sri Aurobindo Foundation for Integral Management' (SAFIM) is a discrete unit of Sri Aurobindo Society, Puducherry, committed to the dissemination of a new paradigm of management based on transforming values through an application of the teachings of Sri Aurobindo and The Mother.

SAFIM is a center for excellence for leadership and management focused on grooming thought leaders in the corporate arena, the power seat of our present world. SAFIM seek to bring a new message of hope and light in the world for a new tomorrow which is particularly relevant in today's economic environment weighed down by cynicism and greed, or gloom, doom and despair. SAFIM is accredited by National Foundation for Corporate Governance (NFCG) as a National Centre for Corporate Governance. The Advisory Board of SAFIM comprises persons of eminence and is headed by Justice R. C. Lahoti – Former Chief Justice of India.

CMA Hari Krishan Goel
Chairman, Continuing Education Programme Committee
The Institute of Cost Accountants of India

CMA Rakesh Singh
President
The Institute of Cost Accountants of India

Shri O P Dani
Vice Chairman
Sri Aurobindo Foundation for Integral Management
Former President The Institute of Company Secretaries of India

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)
12, SUDDER STREET, KOLKATA – 700 016.

FRESH ELECTION (BY-ELECTION) TO THE COUNCIL, 2013 FROM SOUTHERN INDIA REGIONAL CONSTITUENCY

Kolkata, the 5th June, 2013

NOTIFICATION

Submission of certified copy of Manifesto or Circular

No. BY-EL–2013/23 : In pursuance of clause (e) of sub-rule (3) of Rule 42 of the Cost and Works Accountants (Election to the Council) Rules, 2006 as amended, it is hereby notified that a certified copy of manifesto or circular should be sent by a candidate whose name has been included in the final list of nominations for Fresh Election (By-Election) to the Council, 2013 from Southern India Regional Constituency to the Returning Officer by speed / registered post within 15 (fifteen) days from of its issue in accordance with Notification No. BY-EL-2013/12 dated 4th April, 2013 already issued in this regard.

(Kaushik Banerjee)
Returning Officer

Copy to : All candidates

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)
12, SUDDER STREET, KOLKATA – 700 016.

FRESH ELECTION (BY-ELECTION) TO THE COUNCIL, 2013 FROM SOUTHERN INDIA REGIONAL CONSTITUENCY

Kolkata, the 5th June, 2013

NOTIFICATION

Presence of candidates and their authorised representatives at the polling booths

No. BY-EL–2013/24 : In pursuance of Rule 26 read with Rule 34 of the Cost and Works Accountants (Election to the Council) Rules, 2006 as amended, candidates wishing to appoint authorised representatives for Polling Booths are requested to send to the Returning Officer by name, so as to reach him not later than 20th June, 2013 upto 6.00 P.M., an intimation of their intention to appoint such authorised representatives, the number of which shall not be more than two for each Polling Booth, clearly indicating the full name, Membership Number and address of each of the authorised representatives and the number of Polling Booth at which each of them will be present. Not more than one authorised representative shall be present at a time at each Polling Booth. An authorised representative must be a member of the Institute.

The authorised representatives who are voters for any constituency and who by reason of their being on duty at a Polling Booth, are unable to be present and to vote at the Polling Booth where they are entitled to vote, may send to the Returning Officer by name so as to reach him not later than 20th June, 2013 upto 6.00 P.M., application for permission to vote at the Polling Booth where they will be on duty.

(Kaushik Banerjee)
Returning Officer

Copy to : All candidates

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)
12, SUDDER STREET, KOLKATA – 700 016.

FRESH ELECTION (BY-ELECTION) TO THE COUNCIL, 2013 FROM SOUTHERN INDIA REGIONAL CONSTITUENCY

Kolkata, the 5th June, 2013

N O T I F I C A T I O N

No. BY-EL–2013/25 : This is for information of all concerned that all the polling booths of Southern India Regional Constituency and the Headquarters of the Institute at Kolkata are declared to be Zero Tolerance Zone in accordance with Rule 42 of the Cost and Works Accountants (Election to the Council) Rules, 2006 as amended.

(Kaushik Banerjee)
Returning Officer

For information of all concerned

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)
12, SUDDER STREET, KOLKATA – 700 016.

FRESH ELECTION (BY- ELECTION) TO THE COUNCIL, 2013 FROM SOUTHERN INDIA REGIONAL CONSTITUENCY

N O T I C E

Ref. No. : BY–EL–2013/26 Kolkata, the 6th June, 2013

Appointment of date, place and time for the counting of votes

In pursuance of Rule 32 of the Cost and Works Accountants (Election to the Council) Rules, 2006 as amended, notice is hereby given that the following date, place and time is hereby appointed for the counting of votes for Fresh Election (By-Election) to the Council from Southern India Regional Constituency at the Headquarter of the Institute at 12, Sudder Street, Kolkata – 700 016 which was earlier published in the Gazette of India vide Notification No. BY–EL–2013/1 dated 4th April, 2013.

Date of counting of votes	Wednesday, the 10th July, 2013
Place of counting of votes	Auditorium of the Headquarter of The Institute of Cost Accountants of India 12, Sudder Street, Kolkata – 700 016.
Time of counting of votes	Counting of votes will commence from 10.00 a.m.

(Kaushik Banerjee)
Returning Officer

Copy to : All candidates

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)
12, SUDDER STREET, KOLKATA – 700 016.

FRESH ELECTIONS (BY-ELECTION) TO THE COUNCIL, 2013 FROM SOUTHERN INDIA REGIONAL CONSTITUENCY

N O T I C E

Ref. No. : BY–EL–2013/27 Kolkata, the 6th June, 2013

Presence of candidate or appointment of representative at the time of counting of votes

In pursuance of Rule 34 of the Cost and Works Accountants (Election to the Council) Rules, 2006 as amended, this is for information of all concerned that a candidate for Fresh Election (By- Election) to the Council, 2013 from Southern India Regional Constituency shall be entitled to be present in person or to appoint a member as a representative to be present on his behalf at the time of counting of votes to be held in accordance with the notice issued vide Ref. No.: BY–EL–2013/26 dated 6th June, 2013.

This is further to inform that a candidate or his appointed representative in compliance of Rule 34 shall be entitled to sit beside the scrutinizers for counting of votes at the time of counting. If any candidate or his appointed representative does not attend at the time of counting, it will be taken that the said candidate or his appointed representative has forgone his right to sit beside the scrutinizer as mentioned above.

The name of the representative may be informed to the undersigned latest within 1st July, 2013.

(Kaushik Banerjee)
Returning Officer

Copy to : All candidates

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)

12, SUDDER STREET, KOLKATA – 700 016.

Telephones	:	+91-33-2252-1031/1034/1035
	:	+91-33 2252-1602/1492/1619
	:	+91-33-2252-7143/7373/2204
Fax No.	:	+91-33-2252-7993/1026/1723
Website	:	www.icmai.in

BY SPEED POST

Ref. No. BY- EL/2013/POLL/6/2013 12th June, 2013

To

All members whose names appear in the List of Voters published on 4th April, 2013 and subsequent corrigendum/alterations therein and who are eligible to vote by *POLL* in the Fresh Election (By-Election) to the Council, 2013 from Southern India Regional Constituency of the Institute of Cost Accountants of India.

Dear Sir/ Madam,

The voting by poll for Fresh Election (By- Election) to the Council, 2013 from the Southern India Regional Constituency will be conducted on 5th July, 2013.

To exercise your franchise, you will be required to cast your vote at the Polling Booth indicated in the List of Voters published on 4th April, 2013 and subsequent corrigendum/alterations therein issued, provided that you satisfy all the conditions prescribed for the purpose under the provisions of the Cost and Works Accountants Act, 1959 as amended, the Cost and Works Accountants (Election to the Council) Rules, 2006 as amended and the Cost and Works Accountants Regulations, 1959 as amended. The address of your Polling Booth can be found in the enclosed list. In this connection, you may visit the Institute's website www.icmai.in wherein all the details relating to Fresh Election (By- Election), 2013 to the Council from Southern India Regional Constituency have been uploaded.

The Polling Booths will remain open on the appointed day i.e., the 5th July, 2013 from 8.00 a.m. to 7.00 p.m. Kindly make it convenient to visit the Polling Booth and cast your vote.

A Memorandum of Instructions is enclosed.

It may be noted that before the counting commences, all Ballot Papers found in ballot boxes and received by post will be completely mixed up so as to maintain secrecy of their place of origin.

Yours faithfully,

(Kaushik Banerjee)
Returning Officer

Enclo: Addresses of Polling Booths at Southern India Regional Constituency

(For Memorandum of Instructions, please see enclosed pages)

Polling Booths of Southern India Regional Constituency :

B-1	The Institute of Cost Accountants of India – Bangalore Chapter, CMA Bhawan, 81, Mallikarjuna Temple Street, Basavanagudi, Bangalore – 560004.
B-2	Institution of Agricultural Technologists (IAT), No.15, Queen's Road, Bangalore – 560052.
B-3	The Institute of Cost Accountants of India – Southern India Regional Council, CMA Bhawan, 4, Montieth Lane, Egmore, Chennai – 600008.
B-4	Southern India Chamber of Commerce & Industry, 6, Indian Chamber Buildings, Esplanade, Chennai – 600108.
B-5	South Indian National Association, Sastri Hall, No.40, Luz Church Road, Mylapore, Chennai – 600004.
B-6	C. Kandaswamy Naidu College for Men, Anna Nagar East, Near Round Tana, Anna Nagar, Chennai – 600040.
B-7	The Stenographers' Guild, 1, Guild Street, T. Nagar, Chennai – 600017.
B-8	Chellamal Women's College, No.112, Anna Salai, Guindy, Chennai-600032.
B-9	The Institute of Cost Accountants of India – Cochin Chapter, CMA Bhawan, Silver Jubilee Hall, CC/62/689, Judges' Avenue, Kaloor, Cochin – 682017.
B-10	The Institute of Cost Accountants of India – Coimbatore Chapter CMA Bhawan, 13/14, SFI Apts., Sathiamoorthy Road, Ramnagar, Coimbatore – 641009.
B-11	The Institute of Cost Accountants of India – Hyderabad Chapter, CMA Bhavan, Ground Floor, 1-2-56/44A, Gaganmahal Road, 5th Street, Himayatnagar, Hyderabad – 500029.
B-12	YMCA of Greater Hyderabad, Secunderabad Branch, S. P. Road, Secunderabad – 500003.
B-13	Mathematics Building of the Baselius College, Baselius College, K.K. Road, Kottayam- 686001
B-14	The Institute of Cost Accountants of India – Madurai Chapter, CMA Bhawan, 6, North Vadambokki Street (Upstairs), Madurai – 625001.
B-15	The Institute of Cost Accountants of India – Mangalore Chapter, CMA Bhawan, S.D.M. College Building, Mahatma Gandhi Road, Kodialbail, Mangalore – 575003.
B-16	D. Banumaiah's College of Commerce & Arts, New Sayyaji Rao Road, Mysore – 570024.
B-17	Sri Aurobindo Vidyalaya, Block 19, Neyveli – 607803. (T.N.)
B-18	No. 34, 100 Ft. Road, Cuddalore Road, Near Indira Gandhi Statue, Natesan Nagar, Pondicherry- 605 005.
B-19	The Institute of Cost Accountants of India – Thrissur Chapter, CMA Bhawan, XX/577/3, Sourabhya, Dilkush Lane, Kottappuram, Thrissur – 680004.
B-20	The Institute of Cost Accountants of India – Tiruchirappalli Chapter, CMA Bhawan, 48 (Old 34-A), Bharathidasan Salai, Cantonment, Tiruchirappalli – 620001.
B-21	The Institute of Cost Accountants of India – Trivandrum Chapter, CMA Bhawan, T.C. 31/677/00, Jawahar Lane, Vellayambalam, Thiruvananthapuram – 695010.
B-22	The Institute of Cost Accountants of India – Ranipet-Vellore Chapter, CMA Bhawan, 16, No.7A, R.G. Nagar, Bharathi Nagar, 3rd Main Road (Opp. Balaji Theatre), Katpadi, Vellore – 632007.
B-23	The Institute of Cost Accountants of India – Vijayawada Chapter, CMA Bhawan, 58-6-14, Karanamgari Street, Patamata, Vijayawada – 520010.

B-24	The Institute of Cost Accountants of India – Visakhapatnam Chapter, CMA Bhawan, Opp. Port Stadium, National Highway 5, Akkayyapalem, Visakhapatnam – 530016.

POLL

MEMORANDUM OF INSTRUCTIONS FOR FRESH ELECTION (BY-ELECTION), 2013 TO THE COUNCIL FROM SOUTHERN INDIA REGIONAL CONSTITUENCY OF THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

1. On entering the Polling Booth, a voter should proceed direct to the person in charge for identification and establish his identity. The identity of the voter must be established by a **PHOTO IDENTITY CARD PERTAINING TO A CURRENT DATE** as far as practicable, such as photo identity card issued by The Institute of Cost Accountants of India, The Institute of Chartered Accountants of India, The Institute of Company Secretaries of India, Voters' Identity Card issued by the Election Commission, PAN Card issued by the Commissioner of Income Tax, Passport, Driving License, present employer or any other authentic photo identity card issued by any duly authorized organization.

2. Every person claiming to be a voter shall be required to sign the copy of the list of members eligible to vote provided by the Returning Officer and his identity shall be verified by the polling officer in the manner specified in sl. no. 1 above.

3. If the polling officer is not satisfied as to the identity of the person claiming to be a voter, he may issue a ballot paper to such person but instead of getting the ballot paper inserted in the ballot box, he shall place the same in a separate sealed cover superscribed as "Tendered Ballot" and send it to the Returning Officer along with a letter from the person concerned together with his own observations thereon, for the Returning Officer's decision, which shall be final and conclusive.

4. In deciding the right of a person to obtain a ballot paper, the Polling Officer at any polling booth may interpret any entry in the list of members eligible to vote so as to overlook merely clerical or printing error, provided that he is satisfied that such person is same as the voter to whom such entry relates.

5. After his identity has been established, the voter will sign the Attendance List kept in the custody of the Polling Officer, when the voter will be given the Ballot Paper.

6. On receiving the ballot paper, the voter shall forthwith proceed into the secret chamber set apart for the purpose and shall record his vote on the ballot paper in the manner specified in sl. nos. 7 and 8 below. He shall thereafter fold the ballot paper, leave the secret chamber and insert the ballot paper in the ballot box provided for the purpose, in the presence of the polling officer.

7. A voter shall have one vote only, and he shall have as many preferences as there are candidates.

8. The voter in order to cast his vote:-
   (a) shall place on his ballot paper the number 1 (in Arabic or Roman numerals or in words) in the square opposite the name of the candidate for whom he desires to vote; and
   (b) may, in addition, place on his ballot paper the number 2, or the numbers 2 and 3 or the numbers 2, 3 and 4 (in Arabic or Roman numerals or in words) and so on in the squares opposite the names of other candidates in the order of his preference, upto the maximum number of preferences available to him under sl. no. 1 mentioned above.
   (c) may put ` ✕ ' against whom he has not mentioned any preference.

Cont'd…..2

-1-

9. A ballot paper shall be invalid:-

(a) if a voter signs his name or writes any word or figure upon it or makes any mark including a tick (✔)/cross (✕), not being a mark of '✕' put under sl. no. 8 (c) mentioned above, upon it by which the ballot paper becomes recognisable or by which the voter can be identified; or

(b) if it is not printed by or under the authority of the Council or it is different in any manner from the ballot papers printed; or

(c) if number 1 (in Arabic or Roman numerals or in words) is not marked on it; or

(d) if number 1 (in Arabic or Roman numerals or in words) is set opposite the name of more than one candidate; or

(e) if number 1 (in Arabic or Roman numerals or in words) and some other numbers are put opposite the name of the same candidate; or

(f) if it is unmarked or the marks made are void or cannot be unambiguously determined; or

(g) if it is so damaged or mutilated that its identity as a genuine ballot paper cannot be established.

10. Where a voter, after obtaining a ballot paper, chooses not to vote, he shall return the ballot paper to the polling officer and the ballot paper so returned shall then be marked as "cancelled-returned" and kept in a separate envelope set apart for the purpose and a record shall be kept by the polling officer of all such ballot papers.

11. Where any ballot paper, which was delivered to a voter, is found, with or without any writing thereon, in the secret chamber, it shall be dealt with in accordance with the provisions mentioned in sl. no. 10 above, as if it had been returned to the polling officer.

12. After he has recorded his votes on the ballot paper, the voter should fold the Ballot Paper, leave the secret chamber and insert the Ballot Paper in the ballot box, in the presence of the Polling Officer.

13. Special attention is invited in this connection to the Election Code of Conduct issued vide Notification No. BY- EL-2013/12 dated 4th April, 2013.

ICAI-CMA SNAPSHOTS

"Glimpses of Rabindra Jayanti and Foundation day celebrations at the Institute on 27th May, 2013"

ISSN 0972-3528

Registered KOL RMS/139/2013-2015
Publication date: 10 July 2013 RNI 12032/66

ICAI-CMA SNAPSHOTS

Seminar on Competition Law organized by the Institute on 4th June, 2013 in Kolkata. Sitting (L-R): Shri B Madhab Reddy, MD & CEO, The Calcutta Stock Exchange, Shri Sanjoy Jhunjhunwala, Chairman, Assocham, ERDC, Dr. P Ishwara Bhat, VC, WB National University of Juridical Sciences, CMA Rakesh Singh, President, ICAI, Shri Vinod Dhall, IAS, First & Founding Head of Competition Commission of India, and Shri Eamonn Doran, Partner at Linklaters, London & Head, The London Competition Group

CMA Rakesh Singh, the President addressing the audience at the seminar in Delhi on 28th June 2013. On the dais is seen the Hon'ble Chief Minister of Delhi, Smt. Sheila Dikshit, Secretary General of Assocham Shri D S Rawat among other dignitaries

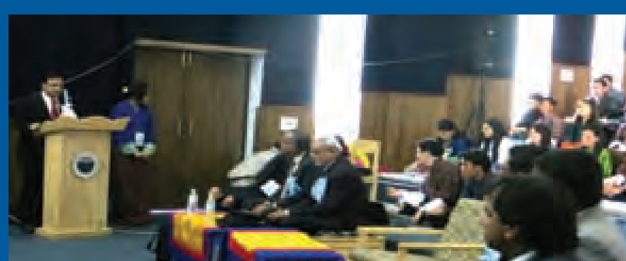
The Institute opens its 9th Overseas Centre on 14 June 2013 at Washington in the presence of Shri Sachin Pilot, Hon'ble Minister of Corporate Affairs (I/C)

CMA TCA Srinivasa Prasad, CCM with the panel members at the CMA International Management Accounting Conference 2013, on 18th-19th June, 2013 in Colombo

Release of the Knowledge Study by the dignitaries present at the Seminar in Delhi on 28th June, 2013 organized by Assocham in association with the Institute

Hon'ble Chief Minister of Delhi, Smt. Sheila Dikshit addressing the gathering at the Seminar in Delhi on 28th June, 2013 organized jointly by Assocham and the Institute

CMA S. C. Mohanty, Vice President and CMA TCA Srinivasa Prasad, CCM with the Board Members of SAFA on 17th June, 2013 in Colombo



CMA Rakesh Singh, the President addressing the audience at the International Conference organized by the GCBS, Royal University of Bhutan on 10th-11th June 2013, in Bhutan