Inside November

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

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"ICWAI 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

"ICWAI would be the preferred source of resources and professionals for the financial leadership of enterprises globally."

DISCLAIMER

The views expressed by the authors are personal and do not necessarily represent the views and should not attributed to ICWAI.

NOTIFICATION

Re : Upward revision of examination fees

The Council in its 259th meeting held on 21st December, 2009 has approved the enhancement in the examination fees from the term **December, 2010** as follows :

	New Fees (Rs.)
Foundation	800
Intermediate (Per Group)	850
Intermediate (Both Groups)	1600
Final (Per Group)	950
Final (Both Groups)	1800

S. M. Galande
Chief Executive Officer

We continue with our series on India's success in different spheres; in this edition we have chosen to highlight the pharmaceutical industry.

The Indian pharmaceutical sector has come a long way, being almost non-existing during 1970, to a prominent provider of health care products; meeting almost 95% of the country's needs. Currently the Indian pharma industry is valued at approximately \$8 billion. It ranks 3rd by volume of production (10% of global share) and 14th by value (1.5% of global share). Nearly 40% of the world's bulk drug requirement is met by India. Today the Indian pharma industry is truly global— evidenced by some big ticket acquisitions of foreign companies like Sun Pharma's acquisition of Taro Pharma, Wockhardt's acquisition of Negam Labs, Nicholas-Piramal's acquisition of Abbott Labs, DRL's acquisition of Betapharm, etc.

Generics are the backbone of Indian pharmaceutical industry with India accounting for 22% of generics in the world market. This has been possible due to 30-50% lower production costs, expertise of Indian firms in reverse engineering processes and lower personnel & capital construction costs. Generics make it possible for a large segment of the world's population (in India, Africa and the poor in the developed West) to buy affordable health care for themselves.

The Indian pharma industry has been witnessing many changes in the recent years. The size of exports has increased from 19% to 52% during the period 1996-97 to 2008-09. This indicates greater dependence of our domestic industry on international fortunes. With rise in global mortality rates and increase in incidence of "lifestyle" diseases, comprehensive yet affordable health care reforms have become the top priority of many nations. In such a scenario, the comparative advantage of Indian cheap and high quality drugs signals expanding horizons for the domestic industry. This coupled with development of 'medical tourism' through development of world class hospitals and well trained medics—can see India emerge as a medical hub of the world.

This, however, requires the Indian companies to do their homework properly. Despite being the country with the highest number of US FDA approved plants outside US, there have been many instances in the recent past of drugs manufactured at Indian sites being rejected on parameters of stringent quality control by international inspection authorities. Similarly, there was much negative publicity generated by English medical circles on a superbug "ND Mettalo-1" detected by them in India that is believed to be resistant to antibiotics. Additionally, instances of export by other countries of counterfeit drugs using Indian drug makers' label is on the rise that tarnish the reputation of Indian companies in the world market. Apart from strengthening internal systems by the Indian manufacturers, the issue of rising fraud has to be taken up at the appropriate fora by Indian authorities. It is imperative that India also resolve the matter of seizure of exported drugs in transit before reaching their destination (in violation of WTO guidelines).

As with the nature of market forces, the success story has attracted many foreign pharma majors to acquire Indian firms both to access the large market as also to reap the benefits of high quality R&D prevalent here (e.g. Daiichi Sanyo's acquisition of Ranbaxy). It is feared that this might discourage Indian arms of the foreign companies from producing generic drugs since the MNCs will only be interested in pushing costly drugs for greater profits. This is leading Indian policymakers to mull the option of restricting FDI norms.

Another issue is that of issue of patents. The number of patent filings by Indian companies has increased manifold. India enjoys process patent under compulsory licensing as per WTO norms. While this has spurred the production of essential medicines at economical rates (made possible due to reverse engineering), which would otherwise have been beyond the reach of the millions of the country's poor; India is under constant pressure from the developed nations to scrap compulsory licensing.

While this issue is one of negotiation at the global forum, an equally pressing prerequisite is of encouraging greater R&D. Though R&D in Indian pharma is a world beater and Indian companies have been hiking their R&D expenditure from 2% of their annual sales to 10% during the last 10 years, the country is often criticized of only incremental innovation without any major breakthroughs. Apart from greater outlays by the government to the area of research, financial incentives to the drug companies by way of tax exemptions to foster research which would otherwise be unviable for the companies is essential. To breed an atmosphere that encourages R&D it is also essential to develop global capabilities of scale (which requires higher capital), more skilled manpower, and clinical trials.

Benefits of scale can be enjoyed by greater inflows of FDI (examined above), becoming cost effective, and through consolidation. Currently, the Indian pharmacy industry has over 20,000 units; around 260 constitute the organized sector, while others exist in the small scale sector. This fragmented nature of the industry indicates the opportunity for consolidation in order for the industry to become scalable. During the ten year period 1996-97 to 2006-07, the Indian domestic pharmacy industry has become more concentrated with share of the 10 largest companies rising from 10% to 20%. Collaborations and alliances in discovery research and product development tie-ups like that of Ranbaxy-Eli Lilly, Ranbaxy-Bayer, Torrent-Novartis, Dr.Reddy's-Novartis etc. are some cooperative strategies that Indian companies have to undertake to adapt to the dynamic times.

As the new patent regime comes into force, prices of controlled drugs will escalate which will endanger the lives of the poor and aam aadmi. Hence, in the new scenario, cost optimization becomes very important. Outsourcing of clinical trials, contract manufacturing for active pharmaceutical ingredients (API) from independent manufacturers in the country are some methods adopted for cost reduction. Our Cost and Management Accountant friends can through their expertise in costing techniques—play a crucial role in taking the Indian pharma sector to the top.

Wishing our readers a cracking and colourful Diwali.

B. M. Sharma, President

Success is not measured by what you accomplish but by the opposition you have encountered, and the courage with which you have maintained the struggle against overwhelming odds—Orison Swett Marden

My Dear Professional Colleagues,

As the World Economy is grappling with newer methods to tackle the crisis and pave the way for Sustainable Growth, the role of Management Accountants cannot be underestimated. The revised projected growth rate of world is 4.8% by IMF which has reasonable contribution from Emerging Market Economies led by India, and it is likely to grow by around 9.0%. Reserve Bank has also announced its busy season Economic Policy for 2010-11, which I feel should provide the necessary stimulus for higher growth of Indian Economy. This would result in better opportunities for our members both in employment and practice and we should calibrate our efforts to definitely encash this trend.

The Direct Tax Code Bill, 2009

ICWAI has submitted its response before the Parliamentary Standing Committee on Finance for recognition of its due role in the DTC and various other provisions. The Institute feels that the Transfer Pricing regulations have to be strengthened by adopting the principle of "Cost plus or any other method" to determine the arms' length price for international transactions. While submitting our response, we have sought time from the Committee for presenting our views before the Committee.

Training & Placement

In my previous communiqué, I mentioned efforts initiated by the Training & Placement Directorate in organizing Campus Placements for final passed candidates (June 2010 Batch) at various places during September 2010 and October 2010. Regional Councils of ICWAI namely WIRC and SIRC have also conducted the Campus Placement of final passed candidates (June 2010 Batch) on 9th October 2010 at Mumbai and 10th October 2010 at Chennai respectively for the candidates within their jurisdiction. Many corporate houses took part in the Campus Placement. Final passed candidates were placed with these reputed corporates having pay package in the range of Rs. 5.00 - Rs. 13.00 lakhs p.a. Continued efforts are being made by Training & Placement Directorate to approach more and more corporate houses to participate in future campus placements. I thank all the corporates participating in these Campus placements for their continued patronage and wish our students who got jobs a successful journey in their respective careers.

ACES Scheme of CBEC

Members may be aware that the Institute has entered into an MOU with Central Board of Excise and Customs (CBEC) enabling Cost Accountants in practice to set up Certified Facilitation Centre (CFC) under Automation of Central Excise and Service Tax (ACES) Scheme of CBEC. The Cost Accountants with an experience of One year in whole-time practice are eligible to set up the CFC apart from other eligibility criteria. The interested members are required to apply on-line in the prescribed format hosted at Institute's Website. There are various services under Central Excise and Service Tax which could be offered by Cost Accountants in practice viz. digitization of paper documents and on-line filing/uploading of documents such as Application for Registration, filing of returns, refunds, accounting, disputes resolution, audit, provisional assessment, exports, claims, intimations and permission to assessees. For more details members may refer to the Institute's website.

Meeting with Various Government Authorities

I along with other Central Council Members and senior officers of the Institute met many officials of Ministry of Finance and apprised them about the role of CWA profession and also briefed them about the important role of Cost Accountants in effective implementation of various laws under the Ministry.

IT Initiatives

ICWAI is devising newer methods to use Information Technology to meet the expectations of the members and students. In a unique initiative, ICWAI has renewed its commitment with MCA-21 for Certified Filing Centers to be started by members. As mentioned earlier, registration for setting up ACES help desks by members of ICWAI for Central Excise Department has also been launched. To help the students, on-line submission of Examination forms for CAT course has been put in place. Further, the students and other stakeholders are requested to participate in the on-line survey initiated to get feedback for making the coaching more effective. The response of the survey would help the Council to take further steps. The first of the resultant initiative will be to explore the introduction of Online Coaching Certificate examination, in the e-learning mode as the first step from January 2011. Based on the success of these initiatives, it is also proposed to consider conduct of on-line examination for Foundation course, similar to initiatives taken by our sister institutes. This will also enable the Institute to increase the frequency of examination from bi-annual to quarterly.

Regional Cost Convention of SIRC

I had the privilege of delivering the Presidential address during Regional Cost Convention - 2010 of SIRC held on 29th and 30th October, 2010 at Madurai. It was a unique experience to share my thoughts on the theme of the Cost Strategies towards Inclusive Growth and Governance with distinguished guests including various Past Presidents of ICWAI, members, students and participants during this Convention. I congratulate the leadership of SIRC and my colleagues in Central Council for its meticulous planning.

Investor Awareness Programmes

Apart from Regional Councils and Chapters of ICWAI, we have roped in our CEP and CAT Directorates also for organizing Investor Awareness programmes in tier two and three cities of country. While CEP directorate will organize these programmes themselves, CAT directorate will be assisted by its ROCCs for the programmes. Further, ICWAI is finalizing the details of "Talk-Shows for Investors" through All India Radio, beginning at Pune being piloted by Mr. Arvind Paranjpe a senior member of the Institute. If successful, we may replicate this in other parts of country. I hope with additional resources made available from the Institute and with the inputs from our Regional Councils, Chapters, CAT ROCCs and senior members, ICWAI would surpass the ambitious target of MCA for the year 2010-11.

International Affairs

I participated in a workshop on emerging topic of "Sustainability Reporting" at Bangalore on 21^{st} October, 2010 organized under the banner of South Asian Federation of Accountants (SAFA). This workshop was aimed at CFOs of big companies to sensitize them on this issue. ICWAI provided the logistic support for this workshop. Mr. R Bandyopadhyay, IAS, Secretary to the Government of India, Ministry of Corporate Affairs was the Chief Guest. Mr. A N Raman, Vice President, SAFA and my colleague in the Central Council, who represented SAFA in this workshop, planned and contributed substantially for its organization. Det Norske Veritas AS (DNV), a leader in the field was the knowledge partner for the seminar. The workshop was a grand success having participation from public and private sector companies including delegates from SAFA member countries. I commend the Bangalore Chapter and SIRC of ICWAI for their untiring effort to make the Workshop a grand success.

UNCTAD Conference at Geneva

Shri R Bandyopadhyay, IAS, Secretary to the Government of India, Ministry of Corporate Affairs led a delegation of Indian professionals to the 27^{th} Session of UNCTAD's Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR) and Corporate Governance in the wake of the Financial Crisis held at Geneva, Switzerland in October, 2010. Shri R Bandyopadhyay IAS Secretary Ministry of Corporate Affairs was panel speaker in the plenary session and he deliberated on the various initiatives taken by India on the subject matter. Shri S C Mohanty, my colleague in Central Council of ICWAI and I represented the Institute in the Seminar. During this conclave of International Experts, we deliberated on the various international aspects and shared the insights on relevant issues for our profession.

52^{nd} National Cost Convention at Chennai

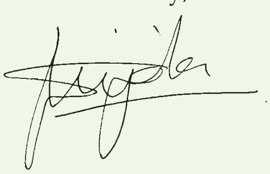
The 52^{nd} National Cost Convention is to be held at Chennai from 6^{th} to 8^{th} January 2011, organized by the Institute and hosted by Southern India Regional Council. This will be preceded by Practitioner's Convention and Students Convention on 5^{th} January 2011. The theme of the convention is "NEW ENTERPRISE CHALLENGES-SUSTAINABILITY AND VALUE CREATION". The convention will deliberate on the role of professional accountants in as Creators of value, Enablers of value, Preservers of value and Reporters of value in accelerating sustainable organizational success. Many eminent personalities from the country, abroad, top Government officials and experts have been requested to share their views on the subjects. I am sure that with active participation from all the members and their organization, the convention will lay a roadmap for the profession to emerge stronger and healthier in the coming decade.

Meeting of National Foundation for Corporate Governance

I attended the meeting of extended Board of Trustees of National Foundation of Corporate Governance (NFCG), chaired by Mr. R Bandyopadhyay, IAS, Secretary to the Government of India, Ministry of Corporate Affairs. During the meeting, deliberations on the various issues including celebration of "India Corporate Week 2010" to be held on 14th -21st December, 2010 took place. It was our privilege to have been allotted various programmes during this week. I urge my fellow members of the Institute, Regional Councils and Chapters of ICWAI to organise and participate in more number of programmes like last year, when ICWAI took the lead in this endeavour of Minstry of Corporate Affairs, Government of India.

Festival season has made its presence felt and I wish happy Deepawali, Kali Puja, Eid-ul-Zuha and Guru Nanak Birthday to all of you,

Yours sincerely,



(B.M. Sharma)
President
Date: 1^{st} November, 2010

Management Accounting in Pharmaceutical Sector — A Vital Role in the Decision-making Process

Dr. L. N. Koli*

Modern management of Pharmaceutical sectors are faced with a number of decision-making problems every day. Profitability is the main criterion for selecting the best course of action. Marginal costing through 'contribution' assists Pharmaceutical's management in solving problems. Some of the decision making problems that can be solved by marginal costing are Profit Planning, Pricing of Products , Make or Buy decisions, Product mix etc. In this paper I discuss the role of management accounting in the decision making.

Decision making is an important and prime function of Top Management. Management Accounting may make the decision-making process more modern and scientific by providing significant information relating to various alternatives in terms of cost and revenue. With the help of techniques provided by management accounting, data relating to cost, price, profit or saving for each of the available alternatives may be collected and analyzed and these provide a base for taking sound decision. Management Accounting deals with a number of techniques which could be used in judging the profitability and feasibility of the alternative selected on the basis of cost and revenue data.

Decision making is a process of choosing among competing alternatives. Decision making is inherent in each of three management functions like planning, organizing and controlling.

The decision making process includes :

- Identifying a problem requiring managerial action
- Identify alternatives as possible solutions to the problem
- Eliminate unrelated alternatives
- Collect relevant cost and benefit data associated with alternative
- Specifying the objective or goal to be achieved
- Listing the possible alternative course of action
- Gathering the information about the consequences of each alternative
- Making a decision, by selecting one of the alternatives.

Management accounting plays a critical role in the decision-making process. Management Accounting system contains a storehouse of valuable information for predicting the results of various courses of action. The management accounting can assist the management in formally structuring decision-problems as well as placing the alternatives and their consequences in a form that will be easier for the management to evaluate.

It should be understood that the management accountant sometimes needs to do special analyses and develop information for some decisions which are made at relatively infrequent intervals, such as whether to build a new factory, introduce a new product, or enter a foreign market. The data for such decisions and analyses may be readily available in the needed form. The management accountant in such a situation determines what data are needed, presents those data in an understandable form and manner, and explains the analyses and report to the managers who are to make decisions.

While developing and gathering information for decision-making purposes, the management accountant should include qualitative information also in his report to help managers better in their decision-making tasks. **Dominiak and Londerback III** observe :

"Although managers use accounting data extensively as they make decision, such data do not answer the questions that managers face. People make decision and people bring to decision making their experience, values and knowledge which often cannot be incorporated into quantitative analyses. An action that seems based on an analysis of the accounting data might not be taken because of some factor not captured in those data. For example, because the managers of a firm want the company to maintain technological leadership, they might launch a new product that is expected to be unprofitable. Quantifying the benefits of such leadership is not easy. It is unlikely that such a quantification would be included in the management accountant's analysis of the desirability of bringing out the new product. It is, however, quite likely that a report of that analysis would include a comment about the inability to quantify such benefits. That is, reports from management accountants are very likely to recognize

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factors whose financial implications are not incorporated in the reports."

There are number of techniques and tools of management accounting, which are used by the business in decision making. Marginal costing is one of them. Marginal costing is a technique in which only variable costs are considered for product costing, inventory valuation and other allied management decisions. The core of marginal costing is the contribution margin. Contribution margin is the difference between sales revenue and variable costs. It is out of the contribution that the fixed costs are met and the excess of contribution over fixed costs represents the profit. The contribution approach is useful for decision making.

Application of Marginal Costing Techniques in Decision Making

Basically, marginal costing is a technique and not a method of cost determination. It deals with the principle of treating the cost of producing marginal unit. Thus it is very much concerned with the finding out marginal cost by segregating fixed cost and variable cost and it also studies the profitability at various levels of production. Thus it is a method of ascertaining profit and is popularly known as 'Marginal Approach to Profit Determination' or 'Contribution Approach to Profit Determination or Accounting for Decision making.'

Marginal Costing is an extremely valuable technique with the management. The cost volume profit relationship has served as a key to locked storehouse of solutions to many situations. It enables the management to tackle many problems which are faced in the practical business. According to **Prof. R.S.N. Pillai and Prof. Bugavathi (2001) :** " All the introduction of marginal cost principles does is to give the management a fresh, and perhaps a refreshing, insight into the progress of their business." In the words of **Prof. Jawahar Lal (2004**), "marginal costing is a costing technique in which only variable manufacturing costs are considered and used while valuing inventories and determining cost of goods sold. That is, only variable manufacturing costs are considered as product costs and are allocated to products manufactured."

Now, we explain the application of the techniques of marginal costing in certain important spheres of any pharmaceutical sector. Marginal costing helps the management in decision making in respect of the following vital areas of Pharmaceutical Industry :

1. Profit Planning : Profit is the main goal of any Pharmaceutical Industry. Profit planning thus becomes a vital starting point of all managerial functions. Marginal Costing is extensively used by the management in profit-planning. A profit target is fixed and management tries to achieve it by bringing changes in one or more factors affecting the profit. These factors are:

- Selling Price
- Quantity Sold
- Variable Cost per unit
- Total Fixed Costs
- Sales-mix

With the help of marginal costing, the impact of the changes in above variables can easily be evaluated and desired profit can be achieved by the management. Again, management can also examine the improvement in profit position and find out the contribution of each step taken by it.

2. Profitable Mix of Sales : A Pharmaceutical Industry, which has a variety of product lines, can employ marginal costing in order to determine the most profitable sales mix from a number of selected alternatives.

3. Pricing : Pricing is a very difficult problem and the basic problem involved in pricing is the matching of demand and supply. Marginal costing is sometimes used to determine prices, a simple and familiar example being the railway ticket. The normal fare will usually be more than the charge collected for excursion fare [concession fare], for the normal fare is calculated to cover all the railway costs including fixed overheads, which is a considerable item; whereas the excursion fare will probably cover only marginal cost (which is relatively small) and some contribution towards profit.

The marginal costing technique can help management in fixing prices in such special circumstances as :

- A trade depression in the industry
- Spare capacity in the factory
- A seasonal fluctuation in demand; and
- When it is desired to obtain a special contract.

4. Dropping a Line or Product or Department : Basically this problem is very much related to the profitability of a product or department. The best possible and maximum profitable utilization of limited resources of a Pharmaceutical Industry clearly demands the continuance of the production of that product/line/department, which will ensure the maximization of profit. This requires on the part of management to fix priorities for various products/lines. Management will also have to decide whether the production of one or more products/lines should be dropped or curtailed. Such decision may be effective and judicious only when it is based on the *Comparative Study of Contributions* made by each production/line or department. Here comes the role of marginal costing with the help of which marginal cost and contribution statement is prepared and decision data are made available.

While preparing this statement, the following points must be kept into account :

(a) If a product/line is dropped, there will be some disengaged capacity, which may be left unused or may be used to increase the production of products/lines selected to be continued.

(b) If any factor of production is Key Factor (i.e., available in restricted quantity or supply is short), then contribution should be expressed in terms of per unit of Key Factor.

It is also suggested that the following guiding principles should be followed in taking a decision to drop a product/line or department:

- Product yielding highest contribution should be accorded top priority in production programme.
- No product/line should be dropped, if it yields any amount of positive contribution.
- If management insists to drop a line/product in any case, that line/product should be dropped—which will maximize the profit.
- If any factor is key factor, that line/product should be dropped—which provides least contribution per unit of key factor.

5. Market Expansion : Schemes of sales promotion as discussed earlier would aim at increasing the sales volume within the usual sales territories. Sales volume can also be increased by tapping new territories. This can be done either by extending its own marketing organization (such as opening a Branch/Depot/Shop) or through local distributors. A sort of competition may also be there due to the attachment of customers of that area to some other brand, removal of which will involve higher selling and distribution costs. Again, marginal costing will be helpful in providing adequate and relevant data for taking a decision in this regard.

6. Level of Activity Planning : Pharmaceutical Industry may have plans to expand or contract the level of activities depending upon the conditions prevailing in the market. Such planning is to be considered before the events overtake the business. Marginal costing is very useful for taking such decisions by enabling management to compare the contribution at different levels of activities.

7. Cost Control : The two types of costs—variable and fixed—are controllable and non-controllable, respectively. The variable cost is controlled by production department and the fixed cost is controlled by the management.

8. Closure of a Department or Discontinuing a Product : Marginal costing technique shows the contribution of each product to fixed costs and profit. If a department or a product contributes the least amount, then the department can be closed or its production can be discontinued. It means the product which gives a higher amount of contribution may be chosen and the rest should be discontinued.

9. Selection of Profitable Product Mix : In a multiproduct concern, a problem is faced by the management as to which product mix or sales mix will give the maximum profit. The product mix which gives the maximum profit must be selected. Product mix is the ratio in which various products are produced and sold. The marginal costing technique helps the management in taking decisions regarding changing the ratio of product mix which gives maximum contribution or in dropping unprofitable product line. The product mix which has comparatively less contribution may be reduced or discontinued.

10. Introduction of a New Product : A producing firm may add additional products with the available facility. The new product is sold in the market at a reasonable price, in order to sell it in large quantities. It may become popular. If favourable, the sales can be increased; thus the total cost comes down and contributes some amount towards fixed costs and profits.

11. Decision to make or buy : A Pharmaceutical Industry may make some products, parts or tools related to operation or sometimes it may buy the same thing from outside. The management must decide which is more profitable to the Industry. If the marginal cost of the product is lower than the price of buying from outside, then the Industry can make the product.

12. Accept or Reject New Order and Sub-contracting : In times of taking decisions to accept or reject new order or in sub-contracting, the contribution analysis is made as to whether it is profitable to accept or reject new order or in sub-contracting.

13. Key or Limiting Factor Analysis : Marginal costing can also be used in budgeting, to help management to determine the profit-maximizing budget. Planning is necessary when one or more factors of production or other business resources are in short supply. Marginal costing really shows its merit when scarce resources are being considered.

Examples of resources restrictions which may apply are :

- Limit to the availability of a particular grade of labour
- Shortage of raw materials
- Limit to machine capacity
- Shortage of cash to finance production (working capital).

In labour supply, materials availability, machine capacity or cash availability limit production to less than the volume which could be achieved, management is faced with the problem of deciding what to produce and what not to be produce, because there are insufficient resources to make everything. The limiting factor is often sales demand itself, in which case the business should produce enough goods or services to meet the demand in full, provided that sales of the goods earn a positive contribution towards fixed costs and profits. However, when the limiting factor is a production resource, the business must decide which part of sales demand it should meet, and which part must be left unsatisfied. Marginal costing analysis can be used to indicate the profit-maximizing.

To sum up, it can be said that marginal costing helps the management of Pharmaceutical industry with more appropriate information in taking vital business decisions like make or buy, pricing continue or discontinue a product/division/sales territory, selection of suitable product mix, introduction of a new product etc. ❐

NOTIFICATION

The Examination Committee of the Council of ICWAI at its 272th meeting decided to open new examination centers at—

(a) Solapur (Center Code 128) (b) Vapi (Center Code 129) (c) Vashi (Center Code 130) and Akurdi-Pune (Center code 131) with effect from December 2010 term of examination.

While selling the existing Examination Application forms the Chapters and Regions are requested to inform the students accordingly.

C. Bose

Sr. Director-Examinations.

ANNOUNCEMENT

The Management Accountant — December, 2010 will be a special issue on **'COST AND MANAGEMENT ACCOUNTANTS IN TELECOM SECTOR'** Articles, views and opinions on the topic are solicited from readers to make it a special issue to read and preserve. Those interested may send in their write-ups by e-mail to research @icwai.org, followed by hard copy to the Research & Journal Department, 12 Sudder Street, Kolkata-700016 to reach by 15th November, 2010.

Role of Cost and Management Accountant (CMA) in Pharmaceutical Sector

Dr. Tanuja Talwar*
Pooja Sareen*

In a global market in the contemporary economic environment all business needs relevant and appropriate information quantitative as well as qualitative information, which is adequate to survive and grow in a market. The cost and management accountant serves the business by providing adequate and timely information which enables the organization to understand and identify weaknesses in terms of efficiency improvement and quality improvement of its products and services compared to its major competitors and suggest cost effective measures to improve organizational flexibility and innovative potential to meet competitive pressures increased competition and uncertain business conditions. Cost control system plays an important role in every industry in general and pharmaceuticals in particular. Where cost is important, the role of CMA becomes more important. This paper tries to enumerate the role of CMA in the growth of pharmaceutical sector in India.

Introduction

In a global market in the contemporary economic environment all business needs relevant and appropriate information—quantitative as well as qualitative information—which is adequate to survive and grow in a market. In current times the market is unpredictable and dynamic in nature. The main objective of business organization is to maximize owner's wealth. The most important is the financial management information system because the business has to earn profit given the risk of operations. The cost and management accountant serves the business by providing adequate and timely information which enables the organization to understand and identify weaknesses in terms of efficiency improvement and quality improvement of its products and services compared to its major competitors and suggest cost effective measures to improve organizational flexibility and innovative potential to meet competitive pressures, increased competition and uncertain business conditions. As well, give the organization the capacity to grow with minimum volatility in its profitability performance. The CMA develops a cost control system for planning and controlling operations and suggests solutions to improve organizational efficiency and productivity of the organization as a whole. In our country there is a tremendous growth in the pharma sector. CMA played a vital role in the growth of this sector by providing appropriate information regarding the cost of the product, cost of research and developments, giving suggestions regarding launching of new products.

History of Indian Pharmaceutical Sector

The government started to encourage the growth of drug manufacturing by Indian companies in the early 1960s, and the Patents Act, in 1970, removed composition patents from food and drugs, and though it kept process patents, these were shortened to a period of five to seven years. The lack of patent protection made the Indian market undesirable to the multinational companies that had dominated the market, and, while they streamed out, Indian companies started to take their places. They carved a niche in both the Indian and world markets with their expertise in reverse-engineering new processes for manufacturing drugs at **low costs**. The Indian pharmaceuticals industry has grown from a mere US$ 0.32 billion turnover in 1980 to approximately US$ 21.26 billion in 2009-10.The country now ranks 3rd in terms of volume of production (10% of global share) and 14th largest by value.

Major Pharmaceutical Public Sector Undertakings

- Indian Drugs & Pharmaceuticals Limited (IDPL)
- Hindustan Antibiotics Limited (HAL)
- Bengal Chemicals & Pharmaceuticals Limited (BCPL)
- Rajasthan Drugs and Pharmaceuticals Ltd. (RDPL)
- Karnataka Antibiotics & Pharmaceuticals Ltd. (KAPL)

Major Pharmaceuticals Industries in India

- Aurobindo Pharma Ltd
- Aventis Pharma Ltd
- Cadila Pharmaceuticals Ltd.
- Cipla Ltd.
- Dabur Pharma Ltd.
- Dey's Medical Stores Mfg. Ltd.

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- Dr. Reddy's Laboratories Ltd.
- Elder Pharmaceuticals Ltd.
- Glenmark Pharmaceuticals Ltd.
- GlaxoSmithKline Pharmaceuticals Ltd.
- Lupin Ltd.
- Merck Ltd, India
- Piramal Health Care
- Novartis India
- Pfizer Ltd.
- Ranbaxy Laboratories Ltd.
- Wockhardt Limited
- Wyeth Laboratories Ltd.

Growth of Indian Pharmaceutical Industry from 2002-03 to 2008-09

Figures in Rs Crore							
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Domestics Market	30365	32575	34128	39989	45367	50946	55454
Export	12826	15213	17857	22216	24942	30760	38433
Imports	2865	2956	3139	4515	5867	6734	8552
Total Market							
Size	42326	47332	52029	62566	68442	78610	89335

Source: Annual Report 2008-09,Department of Pharmaceuticals, Government of India

Exports

India currently exports drug intermediates, Active Pharmaceutical Ingredients (APIs), Finished Dosage Formulations (FDFs), Bio-Pharmaceuticals, Clinical Services to various parts of the world.

Export of drugs and pharmaceuticals from 2002-03 to 2009-10 (May,09)

Year	Exports	Growth %
2002-03	12826	
2003-04	15213	18.61
2004-05	17857	17.38
2005-06	22216	24.41
2006-07	26895	21.06
2007-08	30760	14.37
2008-09	38433	24.94
April 2009	3043	14.80
April 2009-Dec 2009		

Source : Directorate General of Commercial Intelligence and Statistics (DGCIS), Kolkata

Top 20 destinations of Indian Pharma products during 2008-09

S. No.	Importing country	2008-09 (figure in Rs. Crore)
1	USA	7103.27
2	Russia	1519.20

(contd.)

(contd.)

S. No.	Importing country	2008-09 (figure in Rs. Crore)
3	Germany	1441.87
4	Austria	1417.15
5	UK	1233.09
6	South Africa	1126.75
7	Canada	1090.43
8	Brazil	1001.89
9	Nigeria	1001.74
10	Ukraine	687.22
11	Israel	686.22
12	Netherlands	669.98
13	Spain	620.02
14	Turkey	614.20
15	China	561.53
16	Kenya	543.86
17	Vietnam	536.62
18	Belgium	520.90
19	Italy	57.85
20	Mexico	501.54

Source : Directorate General of Commercial Intelligence and Statistics (DGCIS), Kolkata

Export of domestic drugs and pharmaceuticals from 2003-04 to 2008-09

S. No.	Domestic Indian market (figure in Rs Crore)	Growth Rate (%)
2003-04	32575	7.28
2004-05	34128	4.77
2005-06	39989	17.17
2006-07	45367	13.45
2007-08	50946	12.30
2008-09	55454	8.85

Source : Annual Report 2009-10, Department of Pharmaceuticals, Government of India

Key Strengths of Pharma Sector

- Low cost of innovation/Manufacturing costs
- Low cost scientific pool on shop floor leading to high quality documentation. A Proven track record in design of high tech manufacturing facilities.
- Excellent regulatory compliance capabilities for operating these assets.
- Recent success track record in circumventing API/formulation patents.
- About 95% of the domestic requirement being met through domestic production.

- India is regarded as a high-quality and skilled producer in the world.
- It is not only an API and formulation manufacturing base, but also as an emerging hub for : Contract research—Bio-technology-Clinical trials and Clinical data management.
- The country has the distinction of providing quality healthcare at affordable prices.

Role of Cost and Management Accountant in the Growth of Pharma Sector

There are numerous factors responsible for its growth like R&D, Govt.Policy, Patent Act etc., besides these factors there is one important input which enables Indian Pharma Sector to compete with other players, i.e. cost effectiveness. CMA works hard in supplying the required cost data for enabling the decision makers in taking strategic decisions like launching of new generic drugs, making alliances with other firms, capital investment in technology, infrastructure building. The CMA uses the various cost and management accounting tools like : Planning and Budgeting Tools

* Operational Budgeting
* ABM/Std. Budgeting
* Capital Budgeting Decision-Support Tools
* Quantitative Techniques
* Breakeven Analysis
* Internal Transfer Pricing Product Costing Analysis Tools
* Traditional Costing
* Overhead Allocations Performance Evaluation Tools
* Benchmarking Management of costs by our CMAs helped Indian Pharma Sector in achieving the following advantages :

Leadership position through cost effectiveness

The domestic Pharma Industry has recently achieved some historic milestones through a leadership position and global presence as a world class cost effective generic drugs' manufacturer of AIDS medicines. Many Indian companies are part of an agreement where major AIDS drugs based on Lamivudine, Stavudine, Zidovudine, Nevirapine will be supplied to Mozambique, Rwanda, South Africa and Tanzania which have about 33% of all people living with AIDS in Africa. Yet another US Scheme envisages sourcing Anti Retroviral from some Indian companies whose products are already US FDA approved.

Quality Control

Many Indian companies maintain highest standards in Purity, Stability and International Safety, Health and Environmental (SHE) protection in production and supply of bulk drugs even to some innovator companies. This speaks of the high quality standards maintained by a large number of Indian Pharma companies as these bulk actives are used by the buyer companies in manufacture of dosage forms which are again subjected to stringent assessment by various regulatory authorities in the importing countries. More of Indian companies are now seeking regulatory approvals in USA in specialized segments like Anti-infective, Cardiovascular, CNS group. Along with Brazil & PR China, India has carved a niche for itself by being a top generic Pharma player.

International Regulatory Approvals

Increasing number of Indian pharmaceutical companies have been getting international regulatory approvals for their plants from agencies like USFDA (USA), MHRA (UK), TGA (Australia), MCC (South Africa), Health Canada etc. India has the largest number of USFDA—approved plants for generic manufacture. Considering that the pharmaceutical industry involves sophisticated technology and stringent "Good Manufacturing Practice (GMP)" requirements, major share of Indian Pharma exports going to highly developed Western countries bears testimony to not only the excellent quality of Indian pharmaceuticals but also its price competitiveness. More than 50% share of exports is by way of dosage forms. Indian companies are now seeking more Abbreviated New Drug Approvals (ANDAs) in USA in specialized segments like anti-infective, cardio-vascular and central nervous system groups.

Increase in Exports

The Domestic pharma sector has been expanding and has estimated at US$ 11.72 billion (Rs 55454 crore) in 2008-09 from US$ 6.88 billion (Rs 32575 crore) in 2003-04. Indian exports are destined to various countries around the globe including highly regulated markets of USA, Europe, Japan and Australia.

Research and Development

In no other Industry segment innovative R&D is as critical as in Pharma industry. Here, the New Drug Discovery Research (NDDR) has to keep pace with the emerging pattern of diseases as well as responses in managing existing diseases where target organisms are becoming resistant to existing drugs. The NDDR is also an expensive activity. It is encouraging to observe that at least 10 Indian companies are into new drug discovery in the areas of infections, metabolic disorders like diabetes, inflammation, respiratory, obesity, and cancer. Most of these companies have increased their R&D spending to over 5% of their respective sales turnovers. Western Pharma companies have recognized the attractiveness of India as a R&D outsourcing destination due to low cost scientific manpower, excellent infrastructure, top quality with capability to conduct modern research under GLP, GCP guidelines. Many of them have set up independent R&D centers in India.

Low Cost Clinical Trials

Clinical Trials to establish safety and efficacy of drugs constitute nearly 70% of R&D costs. Considering the low cost of Research and Development in India, several MNC Pharma companies as well as global Clinical Research Organizations are increasingly making India a clinical research hub. In conclusion, new drug discovery in India has made a promising start wherein at least five to six potential candidates in the areas of Malaria, Obesity, Cancer, Diabetes and Infections are likely to reach Phase II clinical trials.

Contract Manufacturing

Many global pharmaceutical majors are looking to outsource manufacturing from Indian companies, which enjoy much lower costs (both capital and recurring) than their Western counterparts. Indian companies are proving to be better at developing Active Pharmaceutical Ingredients (APIs) than their competitors from target markets and that too with non-infringing processes. Indian drugs are either entering into strategic alliances with large generic companies in the world of off-patent molecules or entering in to contract manufacturing agreements with innovator companies for supplying complex under-patent molecules. Some of the companies like Dishman Pharma, Divis Labs and Matrix Labs have been undertaking contract jobs for MNCs in the US and Europe. Even Shasun Chemicals, Strides Arcolabs, Jubilant Organosys, Orchid Pharmaceuticals and many other large Indian companies started undertaking contract manufacturing of APIs as part of their additional revenue stream. Top MNCs like Pfizer, Merck, GSK, Sanofi Aventis, Novartis, Teva etc. are largely depending on Indian companies for many of their APIs and intermediates.

Launching of new generic products

Over the last two years the pharmaceutical market value has increased to about US $ 355 million because of the launch of new products. According to an estimate, 3,900 new generic products have been, launched in the past two years. These have been, by and large, launched by big brands in the pharma sector. And in the year 2005, Indian pharmaceutical companies captured around 70% of the domestic market.

Conclusion

Indian pharmaceutical sector is accounting for two percent of the world's pharmaceutical market. It has an estimated market value of about US $8 billion. It's at 4th rank in terms of total pharmaceutical production and 13th in terms of value. It is growing at an average rate of 7.2 % and is expected to grow to US $ 12 billion by 2010. PWC predicts that from the other parts of the world many companies will transition manufacturing from traditional low-tax locations in Ireland, Puerto Rico and Singapore to emerging markets, such as China and India. Agile supply networks will require companies to employ more advanced management tools to enhance operations, reduce risk and achieve robust financial and tax planning. From this report of PWC we can visualize the role that will be played by our CMAs in the near future. They must equip themselves with the advanced tools and techniques of cost and management accounting and also try to develop new methods of making the companies more cost effective. ❒

ANNOUNCEMENT

We at ICWAI are committed to encourage sustainable development policies for the future. One such issue very dear to the Institute's heart is environmental preservation. Towards this end we propose to come out with a special edition of the Research Bulletin on 'CLIMATE CHANGE AND PROTECTION'.

We request the active participation of all readers through sharing of news, views and opinions on the abovementioned topic. The articles may cover a wide canvas touching upon issues of the economic, social and physical impact of climate change; variants of urban pollution and rural environmental damage; and steps for controlling the damage with special emphasis on improvement of quality of human life, rehabilitation measures and costs of preservation. Write-ups containing case studies and live examples will be preferred.

All interested can send their write-ups to Research & Journal Dept., ICWAI, 12 Sudder Street, Kolkata 700 016 or email to research@icwai.org.

Pharmaceutical Sector and Role of Cost and Management Accountants

Dr. Sukamal Datta*
Abhik Datta**

Introduction

The earliest drugstore was found in Baghdad in 754 by Arabian pharmacists. Then it spread throughout the medieval Islamic world as well as medieval Europe. But in the 19th century larger pharmaceutical companies developed in Europe and, North America. Most of the today's large pharmaceutical companies were formed in late 19th and early 20th centuries due to invention of some mass usage drugs like insulin and penicillin between 1920 and 1930. Initially big pharmaceutical companies were formed in Switzerland, Germany and Italy; then followed by the UK, the USA, Belgium and the Netherlands. Sophisticated manufacturing techniques, systematic scientific approaches and understanding of human biology including DNA made this sector flourish from 1950. During two decades 1950s and 1960s numerous new drugs were developed, mass-produced and marketed.

India took over as the primary center of pharmaceutical production without patent protection from 1978. By the mid 1980s, for the survival of small biotechnology firms, they mutually formed beneficial partnerships with large pharmaceutical companies. As a result a few large companies dominat the pharmaceutical market throughout the world. On the other hand, some companies produce medicines within their own country. In the 1990s, after the new era of liberalization, a new business atmosphere became institutionalized, mergers and takeovers have been initiated, a drastic increase in the use of contract research organizations for both clinical development as well as basic Research and Development have been observed. In the 1990s marketing system also changed drastically due to use of internet for direct purchase of medicines by drug consumers and of raw materials by drug producers which, in turn, transform the nature of business. At present, pharmaceutical industry is one of the world's largest industries and its revenue is approximately US$ 2.8 trillion. In recent year, major changes have been observed in the pharmaceutical industry which, in turn, place new demands on payers, providers and manufactures.

Global Scenario of Pharmaceutical Sector

The research conducted by 'Eversheds', the international law firm, showed that the pharmaceutical sector is one of the most optimistic areas of the global economy and has taken a positive approach to combat the present economic climate. It is also revealed from the research that the companies involved in this sector have been most focused on increased Customer Relationship Management (CRM) activity to aid recovery during the last one and a half years. Eversheds' "Tool and Recovery" report—which was made in consultation of views of more than 1,000 senior business figure across the US, Europe, China and United Arab Emirates (UAE)—also found that pharmaceutical companies are planning to invest in three key areas during the next year—changing product and services, CRM activity and increasing staff reorganizations.

The global pharmaceutical contract manufacturing industry has registered steady growth during the past few years. A study on "Global Contractual Manufacturing Market Analysis" revealed that demand for contract manufacturing services has been continuously increasing, mainly to reduce the cost pressure of pharmaceutical companies. On the other hand, most of the developed countries of Europe and America are finding ways to reduce their drug expenditures after the global economic slowdown. To cope with the changing economic scenario of the world and to reduce the drugs manufacturing cost, the global contract manufacturing market is expected to grow around 12% during 2010-2012. It is also observed that some developing countries like India, China, Singapore and Brazil are considered as the developed markets for contract manufactures and some countries like Vietnam, South Korea and Bangladesh are rapidly emerging among other contract manufacturing destinations.

Now we give a list of top 15 pharmaceutical companies by 2008 in terms of sales that are dominating the global pharmaceutical market.

Table 1 : Top 15 Pharmaceutical Companies by 2008 sales

Rank	Company	Sales($M)	Bases/Headquartered in
1	Pifzer	43,363	US
2	GlaxoSmithKline	36,506	UK
3	Novartis	36,506	Switzerland

contd.

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contd.

Rank	Company	Sales($M)	Bases/Headquartered in
4	Sanofi-Aventis	35,642	France
5	AstraZenece	32,516	UK/Sweden
6	Hoffman-La Roche	30,336	Switzerland
7	Johnson & Johnson	29,425	US
8	Merck & Co.	26,191	US
9	Abbott	19,466	US
10	Eli Lilly and Company	19,140	US
11	Amgen	15,794	US
12	Wyeth	15,682	US
13	Teva	15,274	Israel
14	Bayer	15,660	Germany
15	Takeda	13,819	Japan

Source : http://en.wikipedia.org/wiki/pharmaceutical industry

It is observed from the Table 1 that out of top 15 pharmaceutical companies, 7 companies' headquarters are in the United States and 5 companies' headquarters are in Europe. So it is very clear from the Table 1 that the US and some countries of Europe are dominating the whole world's pharmaceutical sector. In terms of population Asia is top but, out of top 15 companies, only 2 companies are in Asia, one in Israel and the other in Japan. Now we present a list of the largest 20 pharmaceutical and biotech companies along with origin of country, total revenues, healthcare, R&D, net income or loss and total number of employees in 2006.

Table 2 : List of the 20 Largest Pharmaceutical Companies in 2006

Revenue Rank	Company	Country	Total Revenues (USD millions)	Healthcare R & D 2006 (USD millions)	Net income/ (USD millions)	Employees 2006
1	Novartis	Switzerland	53,324	7,125	11,053	138,000
2	Pifzer	USA	48,371	7,599	19,337	122,200
3	Bayer	Germany	44,200	1,791	6,450	106,200
4	Glaxo Smith-Kline	United Kingdom	42,813	6,373	10,135	106,000
5	Johnson and Johnson	USA	37,020	5,349	7,202	102,695
6	Sanofi-Aventis	France	35,645	5,565	5,033	100,735
7	Hoffmann-La Roche	Switzerland	33,547	5,258	7,318	100,289
8	AstraZeneca	UK/Sweden	26,475	3,902	6,063	50,000+
9	Merck & Co.	USA	22,636	4,783	4,434	74,372
10	Abbott Laboratories	USA	22,476	2,255	1,717	66,800
11	Wyeth	USA	20,351	3,109	4,197	66,663
12	Bristol-Myres Squibb	USA	17,914	3,067	1,585	60,000
13	Eli Lilly and Company	USA	15,691	3,129	2,663	50,060
14	Amgen	USA	14,268	3,366	2,950	48,000
15	Boehringer Ingelheim	Germany	13,284	1,977	2,163	53,000
16	Schering-Plough	USA	10,594	2,188	1,057	41,500
17	Baxter International	USA	10,378	614	1,397	38,428
18	Takeda Pharmaceutical Co.	Japan	10,284	1,620	2,870	15,000
19	Genentech	USA	9,284	1,773	2,113	33,500
20	Procter & Gamble	USA	8,964	n/a	10,340	29,258
	SUM		**497,519**	**70,843**	**110,077**	**1,342,700**
	AVERAGE		24876	3542	5504	67135

Source : Top 50 Pharmaceutical Companies Charts & Lists, Med Ad News September 2007

It is depicted from the Table 2 that out of the largest 20 pharmaceutical and biotechnology companies in 2006, 12 companies are USA base company and 7 companies are European companies. Credit of only 1 company out of top 20 goes to Japan of Asia though Asia is the highest populated continent in the world. So there is a wide scope to establish more and more pharmaceutical companies in India where the cost of production in all respect is much lower than America and Europe. From the point of number of employees directly engaged in those companies it is observed that all the companies absorbed huge employees. Net income or loss column of the Table 2 showed that all the companies earned profit, no company suffered loss in 2006. Inviting multination pharmaceutical companies for their functioning in India will obviously reduce the import of pharmaceutical products; on the other hand, increase the export of Indian drugs and solve, to some extent, the problem of huge unemployment of India.

Pharmaceutical Sector in India

Indian pharmaceutical industry started its journey in 1903 when Professor P.C. Roy formed Bengal Chemical and Pharmaceutical Works in Kolkata. During the first half of the 20th century the colonial government was not interested in local production, so India remained largely dependent on the UK, France and Germany for medicines. The new and independent government in 1947 emphasized on industrialization to achieve self-reliance and, therefore, invested heavily in pharmaceuticals among other industries and reduced import of medicines. The

Government took its first concrete steps towards self-reliance in pharmaceutical sector in 1954 with the establishment of Hindustan Antibiotics Ltd. (HAL), and in 1961 by establishing Indian Drug and Pharmaceuticals Ltd. (IDPL).

Until 1991, India's industrial policy regime was amongst the most inward-looking anywhere. But in June 1991 the scenario had drastically changed and marked the turning point of India's policy regime towards the world. As a part of the overall integration with the global economy, India has also accepted GATT/WTO, Intellectual Property Rights (IPR) regime. In the past, Indian pharmaceutical companies have earned huge revenues by selling copies of Western companies' patent product. In 2005, this practice has come to an end with implementation of stronger intellectual property (IP) protection laws.

It is observed from a study that the future of Indian pharmaceutical industry depends upon the ability to play productive roles for itself in the post 2005 environment. The most important reaction of Indian companies from 2005 has been the development of drug discovery programmes by some companies such as DRL, Ranbaxy, Wockhardt and Dabur that plan to use product patent protection as an incentive to produce their own IP. But Indian drug discover programmes face considerable obstacles. Indian companies have neither the capital bases nor the experience to face their counterpart multinational company (MNC) competitors. It may be argued that considerable share of new MNCs rely on marketing arrangements with local companies and other MNCs to distribute their own products. Therefore, the changes in the Indian pharmaceutical sector will permanently alter its structure.

Globally, at present, the Indian pharmaceutical industry ranks 4th in terms of volume (8% share of global sales) and 13th in terms of value (1% share of global sales). Indian pharmaceutical industry is a highly organized sector and it is estimated to be worth US$ 4.5 billion, growing at over 9% annually. Currently this sector is in the front position of India's science based industries in the complex field of drug manufacture and technology. Indian pharmaceutical sector's value of output grew more than tenfold from US$ 1.1 billion in 1990 to over US$ 12.4 billion during 2005-06 due to low costs, knowledge skills, increasing number of enterprises, improved quality and buoyant demand—both in domestic and international market.

Indian pharmaceutical market value has been increased to about US$ 355 million over the last two years due to launch of new products. According to an estimate, 3,900 new generic products have been launched during last two years and these have been launched by big brands. Indian pharmaceutical companies are able to supply almost all the domestic demand for formulations and nearly 70% of demand for bulk drugs. India is also, at present, one of the top five active pharmaceutical ingredient (API) producers (6.5% share) and has the world's third largest manufacturing industry valued at US$ 2 billion.

This industry plays important role in promoting and sustainable development in the field of global medicine. The industry has reached a new height in the field of production, development, manufacturing and research due to huge availability of educated and skilled manpower at a cheap rate which, in turn, reduces the manufacturing cost. The domestic pharmaceutical market is likely to increase at an annual growth rate of 9.9% up to 2010 and subsequently at 9.5% till 2015. In 2007-08 India exported drugs worth US$ 7.2 billion to the US, Europe, Africa and Latin America. The retail pharmaceutical market in India is expected to cross US$ 12 to 13 billion by 2012. The Indian pharmaceutical sector received foreign direct investment to the tune of US$ 1.43 billion during the period April 2000 to December 2008. There are about 34 foreign drug companies engaged in Indian pharmaceutical industry and out of them there are 15 to 20 world's largest pharmaceutical companies.

Export has become an important driving force for growth of this industry with more than 50% revenue coming from the foreign markets. A survey conducted by FICCI, the oldest industry chamber in India, has predicted 16% growth in the export of India's pharmaceutical growth during 2009-2010. The industry ranks 17th in terms of export value of bulk activities and doses.

India holds the lion's share of the global contract research business. At present, India's share is 1.5 per cent and it is expected that, within 10 to 15 years, 30 per cent of global clinical research will be conducted in India. The reasons of being the global hub in India for contract research and manufacturing services (CRAMS) are the combination of low cost and world-class quality standards. In fact this is expected to touch US$ 30 billion by 2010. At present more than 15 prominent contract research organizations (CROs) are operating in the country and they are attracted by India's ability to offer efficient research and development at competitive costs. Some of those companies are Novartis, Jhonson & Johnson, Astra Zeneca, Bristol-Myers Squibb, Glaxo Smith Kline and Pliva.

It is observed that, over the last 5 years, six pharmaceutical companies have been acquired by multinational drug companies.

Table 3: The Major Deals between 2006 and 2010 in Domestic Pharmaceutical Companies and MNCs.

Domestic Operation Acquired	Multinational Company	Year	Amount$ Million
Matrix Lab	Mylan Inc	2006	736
Dabur Pharma	Fresenius Kabi	2008	219
Ranbaxy	Daiichi Sankyo	2008	4.6
Shanta Biotech	Sanofi Aventis	2009	783
Orchard Chemicals (injectible business)	Hospira	2009	400
Piramal Health Care (domestic formulations)	Abbott Laboratories	2010	3.72

Source: Business Line, Business Daily from the HINDU group of Publications, Monday, August 23, 2010 e-Paper

The Commerce Ministry is expected to take a close look at the present system of 100 per cent automatic approval for foreign investment in this sector and see that more guarded investment policy may be implemented or not to protect the interest of the domestic companies. Indian multinational companies like Dr. Reddy's Lab, Cipla, Ranbaxy, etc. have been made aware of the foreign players about the Indian market prospects in the international pharmaceutical market. Food and Drugs Administrative (FDA) and Drug Master File (DMF) have played an important role in making India a cost-effective and high quality product manufacturer. In addition to that change in the patent law, i.e., change of process patent to product patent, has also helped in reducing the risk of loss for intellectual property.

Pharmaceutical industry in India is one of the largest industries among the developing countries. This industry provides employment to millions of people and ensures essential drugs at affordable prices which are very important for the poor people of India. Almost every type of drug, from simple painkillers to sophisticated antibiotics and complex cardiac compounds, is now made indigenously. This industry produces around 70% of the country's demand for bulk drugs, drug intermediates, pharmaceutical formulations, chemicals tablets, capsules, orals and vaccines. Regulatory authorities of the USA and the UK approved a number of Indian companies for attaining highest quality standards.

Indian pharmaceutical industry exports to more than 200 countries including highly regulated markets of the USA, Europe, Japan and Australia. In spite of global economic slowdown the pharmaceutical exports of India have shown good buoyancy in growth.

At present the key players in Indian pharmaceutical sector are Ranbaxy Laboratories Limited, the biggest pharmaceutical manufacturing company in India, Dr. Reddy's Laboratories, the manufacturers and marketers of a wide range of pharmaceutical both in India and abroad, Clipla, the Indian pharmaceutical company renowned for the manufacture of low cost anti AIDS drug, Nicholas Piramal, the second largest pharmaceutical healthcare company in India, GlaxoSmithKline(GSK), a UK based world's second largest pharmaceutical company, and Zydus Cadila.

SWOT Analysis of Indian Pharmaceutical Sector

We may focus on perspective of the Indian pharmaceutical sector by carrying out a SWOT (Strength, Weakness, Opportunity and Threat) analysis. This analysis reveals the position of the pharmaceutical sector in respect to its internal as well as external environment.

Strengths

- Owing to the availability of advanced technology at low costs, the companies can produce drugs at low costs.
- There is a good scope of contract research and manufacturing services due to a combination of low cost and world-class quality standards.
- The cost of hiring a chemist in India is roughly one-fifth of what the pharmaceutical companies pay abroad.
- There exists a well-developed infrastructure for the pharmaceutical industry.
- The growth of middle class society in the century has resulted in fast changing lifestyles in urban and to some extent in rural areas. This opens a huge market for lifestyle drugs, which have a very low contribution in the Indian market.
- India with a population of more than one billion is a largely untapped market and per capita expenditure on health care in India is US$ 93 while the same for countries like Brazil is US$ 453 and that of Malaysia US$ 189.

Weakness

- The National Pharma Pricing Authority (NPPA) decides the various pricing parameters, sets prices of different drugs, which leads to lower profitability for the companies. The companies, which produce at lowest cost only get the advances while those which cannot produce at that cost either stop production or bear losses.

- In India it is very difficult to predict future conditions—which adversely effect the smooth functioning of pharmaceutical companies.
- Indian pharmaceutical market is one of the least penetrated market in—he world. As a result Indian large companies are relying on exports for their growth. India's population is almost 16% of the world population while the total size of the industry is just only 1% of the global pharmaceutical industry.
- Indian pharmaceutical industry is highly fragmented with about 300 large manufacturing units and about 1,800 small units spread across the country due to very low barriers to entry. This compelled the companies to be more competitive which reduces the growth of the industry in value term.
- In India acquired patents are poorly protected.

Opportunities

- Introduction of health insurance sector and at the same time the expected increase of per capita income are the key growth drivers from a long-tern perspective. Expansion of health care industry is obviously expanding the pharmaceutical industry which is an integral part of it.
- With respect to India's huge population it is an excellent centre for clinical trials.
- Indian companies can become a global outsourcing hub for pharmaceutical products due to lowest cost producer along with FDA approved plants. Indian companies bagged 23.11 per cent of the total approvals granted by US Food and Drug Administration (FDA).
- Indian houses have excellent laboratories with world class facilities.

Threats

- Threats are coming from other low cost pharmaceutical countries like China and Israel. But from the point of quality India's position is better than China.

Role of Cost and Management Accountants in Pharmaceutical Sector

Cost and Management Accountants (CMAs) play an important role in the Indian pharmaceutical sector from different angles. Indian companies get cost advantage in clinical trials domain compared to Western countries. CMAs with expertise knowledge in costing of pharmaceutical products have to analyze every component cost and see that the Indian companies will be able to keep the lower cost of production in future also. Low production cost countries like China and Israel are also competing India. Efficient CMAs will be able to find out the way to win the game in competition with other countries. CMAs occupy very important position in the pharmaceutical company. They generally report to the Managing Director. They measure performance against given plans and standards and interpret the result of operations to all levels of management. They establish, coordinate and maintain an integrated plan for control of operations.

The Cost and Management Accountants with expertise knowledge of costing, management, accounting and taxation may advice the top management in such a way that the concerned company may be able to fully utilize all the opportunities prevail in the present situation. They also advise how actively and efficiently utilize the strength of Indian pharmaceutical firms. At the same time advice the management how the company will be capable to overcome its weakness. The CMAs also will make aware about the threats that may come in near future from the foreign countries.

CMAs also perform variety of functions including advising on mattes relating to raising and investing funds in the most judicial manner so that shareholders' wealth would be maximize. They have to apply their analytical and expertise ability and skills while performing their various functions. They have to analyze and assess the effect of various economic and fiscal policies of the Government and also to evaluate the impact of different external factors that have positive or negative impact on that company. In the light of new developments due to WTO regime, management may have to take important decisions about the market strategies, establishing branch verses establishing manufacturing unit, mange and acquisition, patent etc. CMAs in all the areas can provide sufficient and reasonable support to the management in taking right decisions by doing analysis such as Cost-Benefit Analysis etc.

Under the Companies Act, 1956 certain companies require compulsory cost audit. In that case CMA may be appointed as a cost auditor. CMAs may also be engaged in doing audit under Central Excise, Customs and State Vat Acts or GST in future.

With expert knowledge, CMAs can provide analytical overview of Indian pharmaceutical market including information about past, present and future trends with focus on entire structure, composition and working of the pharmaceutical market. They can also analyze opportunities and challenges expected to arise within and outside the pharmaceutical market. If they get responsibility they can study and analyze the industry and its various components with comprehensive study of the changing market behaviour. The CMAs accuracy and data precision benefits the company in terms of pricing and time management that assist in meeting the objectives cost effectiveness.

They are the Cost and Management Accountants who can help and advise the top level management of pharmaceutical companies to reduce the cost of production as maximum as possible and aware the management about all possible weaknesses of the company and probable threats that may come from outside. Ultimately the CMAs should serve the company in such a way so that the profitability will be maximized in long run and, thereby, enhances the stakeholder's value creation. ❐

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Hearty Congratulations to

MR. K. K. SHARMA, a graduate in Commerce and Law and a very senior fellow member of the ICWAI—has been elevated to the position of President — Management Audit, by Birla Corporation Limited. Widely experienced, he has held high positions in leading cement companies and has contributed articles on various facets of the cement industry, which have been published in several dailies and in the journal of the Institute. The ICWAI publication on 'Benchmarking in Cement Industry' is largely based on inputs provided by Mr. Sharma. We wish Mr. Sharma the very best and hope he continues to upgrade the image of the profession.

Growth Scenario in Pharmaceutical Sector

CMA Sudarshan Maity*

Pharmaceuticals has emerged as one of the leading industries, with the domestic market showing an unprecedented growth of around nine percent. This dramatic growth in the Indian pharmaceutical industry can be attributed to several factors such as growing middle class population, rapid urbanization, increase in lifestyle-related diseases and acceptance of health insurance. Besides, the product patent regime has provided ample support to the industry to sustain its growth pace despite the global economic downturn. This article will help the readers to understand the present position and growth prospect of the Indian Pharmaceutical Sector.

The Indian pharmaceutical industry, which is now meeting over ninety five percent of the country's pharmaceutical needs, was almost non-existent before 1970. It is growing at an average rate of nine percent from INR 4 billion in 1970 to INR 554.5 billion (US$ 11.1 billion) in 2009. The pharmaceutical sector has shown tremendous growth over the years.

It ranks very high amongst all the Third World countries, in terms of technology, quality and the vast range of medicines that are manufactured. It ranges from simple headache pills to sophisticated antibiotics and complex cardiac compounds, almost every type of medicine is now made in the Indian pharmaceutical industry.

The highly fragmented Indian pharmaceutical industry has around 30,000 players, out of which 330 are in the organized sector.

Over the last two years the pharmaceutical market value has increased to about US $ 355 million because of the launch of new products. According to an estimate, 3900 new generic products have been launched in the past two years. These have been, by and large, launched by big brands in the pharmaceutical sector. And in the year 2010 Indian pharmaceutical companies captured around ninety five percent of the domestic market.

As in the present scenario, only a few people can afford costly drugs, which have increased price sensitivity in the pharmaceutical market. Now the companies are trying to capture the market by introducing high quality and low price medicines and drugs.

At present, a large number of Indian pharmaceuticals companies are looking for tie-ups with foreign firms for in-license drugs. GlaxoSmithKline is among the top choices for the firms that wish to launch their product in India.

The Growth Scenario

The Indian pharmaceutical industry has witnessed a compound annual growth of 19.8% from 1970 to 2003 and about 7-10% over the last few years and is expected to touch US$ 12 billion by 2010. Pharmaceutical industry has given employment to approximately 2.86 million people.

India produces bulk drugs related to various therapeutic areas. Indian pharmaceutical industry manufactures over 400 bulk drugs and about 60,000 finished medicines used in different formulations.

Playing a key role in promoting and sustaining development in the vital field of medicines, Indian Pharmaceutical Industry boasts of quality producers and many units approved by regulatory authorities in USA and UK.

According to the All India Organisation of Chemists and Druggists (AIOCD), the pharmaceuticals industry in India will grow by over 100 per cent over the next two years.

"The people are increasingly becoming health conscious and the sell of all types of medicines, particularly antibiotic, will zoom up in the coming years. We expect the business to double by 2012", as per JS Shinde, President, AIOCD.

Research & Development Cost

One of the distinctive characteristics of the big Pharmaceutical companies is a very high level of investments in research and development. The expenditure incurred by In-house R&D units in industry has steadily increased. Through industry efforts, many new drugs and devices have been developed and marketed. These drugs have led to striking declines in mortality from heart disease and stroke over the past 40 years.

A few years ago, investment in R&D was as low as 0.001% of the total R&D worldwide, but now

* M.COM., AICWA.

companies are focusing on drug discovery and R&D. They are spending over 5% of their turnover on R&D e.g. Wockhardt (8%), Cipla (4%), Cadila (4.45%).

Mergers and Acquisitions/ Licensing Deals

- Orchid Chemicals & Pharmaceuticals Ltd, a Chennai-based pharmaceutical company, has entered into an agreement to acquire US-based generic marketing company Karalex Pharma LLC, in an all-cash deal.
- In May 2010, Glenmark Pharmaceuticals licensed its chronic pain molecule to Sanofi Aventis for a cumulative deal of US$ 321.7 million.
- Dr Reddy's Laboratories has signed an agreement with Alchemia, an Australian pharmaceutical company, for marketing Fondaparinux sodium (which is used for the treatment and prevention of deep vein thrombosis (DVTs)) in all markets outside North America. According to the agreement, Dr Reddy's will pay to Alchemia a royalty on sales at an agreed proportion.
- Super Religare Laboratories (SRL), a diagnostic chain, has signed a definitive agreement to buy Piramal Healthcare's diagnostic chain for US$ 128.6 million, making it the country's largest diagnostic player.

Exports

Export of pharmaceutical products from India increased from US$ 5.92 billion in 2006-07 to US$ 6.23 billion in 2007-08 and to US$ 8.7 billion in 2008-09—a combined annual growth rate (CAGR) of 21.25 per cent. According to Mr Jyotiraditya M Scindia, Minister of State for Commerce, pharmaceutical exports from the country have recorded growth rates of 21.61 per cent, 14.37 per cent and 28.54 cent, respectively, in the three consecutive years 2006-07, 2007-08, and 2008-09.

Pharmaceutical exports during April-December 2009 were worth US$ 6.33 billion, according to the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers.

According to Mr Srikant Kumar Jena, Union Minister of State for Chemicals and Fertilisers, India tops the world in exporting generic medicines and currently, the Indian pharmaceutical industry is one of the world's largest and most developed.

Government Initiative

Government has allowed hundred per cent foreign direct investment (FDI) under the automatic route in the drugs and pharmaceuticals sector including those involving use of recombinant technology (DIPP).

The drugs and pharmaceuticals sector has attracted FDI worth US$ 1707.52 million between April 2000 and April 2010, according to data published by the Department of Industrial Policy and Promotion (DIPP) in April 2010.

The Government plans to set up a US$ 639.56 million venture capital (VC) fund to give a boost to drug discovery and strengthen the pharmaceutical infrastructure in the country.

Steps to Strengthen the Industry

Indian companies need to attain the right product-mix for sustained future growth. Core competencies will play an important role in determining the future of many Indian pharmaceutical companies in the post product-patent regime after 2005. Indian companies, in an effort to consolidate their position, will have to increasingly look at merger and acquisition options of either companies or products. This would help them to offset loss of new product options, improve their R&D efforts and improve distribution to penetrate markets.

Research and development has always taken the back seat amongst Indian pharmaceutical companies. In order to stay competitive in the future, Indian companies will have to refocus and invest heavily in R&D.

The Indian pharmaceutical industry also needs to take advantage of the recent advances in biotechnology and information technology. The future of the industry will be determined by how well it markets its products to several regions and distributes risks, its forward and backward integration capabilities, its R&D, its consolidation through mergers and acquisitions, co-marketing and licensing agreements.

The future of Indian pharmaceutical sector is very bright because of the following factors

- The country is committed to a free market economy and globalization.
- Clinical trials in India cost US$ 25 million each, whereas in US they cost between US$ 300-350 million each.
- Indian pharmaceutical companies are spending 30-50% less on custom synthesis services as compared to its global costs.
- In India investigational new drug stage costs around US$ 10-15 million, which is almost 1/10th of its cost in US (US$ 100-150million).
- It has a good network of world-class educational institutions and established strengths in Information Technology.

- India has a pool of personnel with high managerial and technical competence as also skilled workforce.
- India has a 63 year old democracy and hence has a solid legal framework and strong financial markets. There is already an established international industry and business community.
- For the first time in many years, the international pharmaceutical industry is finding great opportunities in India. The process of consolidation, which has become a generalized phenomenon in the world pharmaceutical industry, has started taking place in India.

In the given below illustration financial position of a company of XYZ Limited (name withheld) has been presented with high growth in sales at Seventy Five percent and profit after tax (PAT) at Nine percent in the financial year 2009-2010 from its previous financial year 2008-2009.

Profit and Loss Account of
XYZ LIMITED
For the year ended 31st March 2010

(Rs. In Lac)

	Year ended 31.03.2010	Year ended 31.03.2010	Percentage Change
INCOME			
Sales	7,013.71	4,004.13	75.16
Other Income	1.22	0.40	
	7,014.93	4,004.53	75.17
EXPENDITURE			
Material Cost	6,081.53	3,130.41	
Manufacturing Cost	109.71	98.11	
Personnel Exp.	114.62	122.94	
Depreciation	88.16	87.92	
Operating & Other Expenses	173.03	180.95	
Financial Charges	375.28	315.25	
Preliminary Expenses W/Off	0.67	0.36	
	6,943.01	3,935.93	76.40
Profit before tax for the year	71.92	68.60	
Less : Taxation	11.11	12.87	4.85
Profit after tax	60.81	55.73	9.13

The above financial position of XYZ Limited expresses how the Indian Pharmaceutical Sector is growing rapidly.

Price control

Pharmaceutical companies have to operate in a highly regulated environment; the degree of regulation to a significant extent depends on the country and type of the product.

One of the most important aspects of government regulation for pharmaceutical companies is price regulation.

SWOT Analysis of Pharmaceutical Sector

Strengths

- Cost effective technology
- Strong and well-developed manufacturing base
- Clinical research and trials
- Knowledge based, low-cost manpower in science & technology
- Proficiency in path-breaking research
- High-quality formulations and drugs
- High standards of purity
- Non-infringing processes of Active Pharmaceutical Ingredients (APIs)
- Future growth driver
- World-class process development labs
- Excellent clinical trial centers
- Chemical and process development competencies

Weaknesses

- Low Indian share in world pharmaceutical market
- Lack of strategic planning
- Fragmented capacities
- Low R&D investments
- Absence of association between institutes and industry
- Low healthcare expenditure
- Production of duplicate drugs

Opportunities

- Incredible export potential
- Increasing health consciousness
- New innovative therapeutic products
- Globalization
- Drug delivery system management
- Increased incomes
- Production of generic drugs
- Contract manufacturing
- Clinical trials & research
- Drug molecules

Threats

- Small number of discoveries
- Competition from MNCs
- Transformation of process patent to product patent (TRIPS)
- Outdated sales and marketing methods

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Role of Cost and Management Accountants in the SME sector of Indian pharmaceutical industries

CMA Ela Sen*

Introduction

Pharmaceutical industry is a typically knowledge based industry. Development of this sector has been made possible since the 20th century with the rapid advent of medical science and technology. Insulin was discovered in 1920 and penicillin in 1930. Numerous drugs were developed by 1950. The second half of the century was marked by extensive research in DNA and genetics and many path-breaking discoveries including treatment for heart diseases, AIDS and even some cancer drugs. Simultaneously, search for alternate medicines, nutrients, suppliants were also going on. All these have profound impact on society in general. No wonder the commercial world came forward to take up their position. On one hand their financial strength was necessary to spread the result of these discoveries for the better benefit of humankind. On the other hand. they wanted their share of the cake too!

Today's pharmaceutical industries are characterized by their intensive research based activities, multifarious line of products, a plethora of rules and regulations and yet one of the most profiteering industry in the world.

Indian Scenario

Today giant companies, all coming from "developed" countries, [popularly known as big pharma with annual revenue in excess of USD3billion for each] capture the world's pharmaceutical market. However, India, though being a poor country, has been making a perceptible appearance in this market. As per available statistics, globally it ranks fourth in volume and 14th in value terms! The industry is having a good record in export performance—particularly in the field of generic medicines. It has quality producer approved by regulatory authority of US & UK. The market is growing steadily at a pace of 17-20% per annum and expected to reach USD40billion by 2020.

Small and medium enterprises (SMEs) play a vital role in the value chain of Indian pharma industry. Their share in the Indian market is 87% of production by volume and 40% by value. They are manufacturing 89% of USA based companies' drugs in India. There are about 6,000 plus licensed SMEs in pharma sector in India producing bulk drugs, formulations and Active Pharmaceutical Ingredients. The sector has a pool of highly qualified entrepreneurs. They are the largest employer in the industry. Their manufacturing cost is generally low compared to big industries and, hence, they could provide medicine at cheapest price. Without their assistance it will not be possible for the country to offer medicines at cost effective prices.

During recent economic downturn cost containment has been the major issue in the developed countries. Huge expenditure in R&D activities with poor results therefrom has affected the profitability of the pharmaceutical sector in a big way. Further, a large number of patents are now on the verge of expiry and, due to some disagreement on the pricing issue of the patented drugs the government, of those countries are now placing increasing emphasis on the use of generic drugs [non patented drugs]. Competition in the global pharmaceutical industry is thus going to be steeper. All these have become a matter of major concern for the giant pharmaceutical MNCs of those countries. They are now earnestly looking for low cost manufacturing facilities. India has thus become their focus of attention.

A number of opportunities are now opening up. Negotiations for contract manufacturing are on the way. Joint venture between foreign and Indian companies are being formed. Outsourcing of clinical trial including basic researches is taking place. Various projects are coming up. Small and medium enterprises have to chalk out a defining role in this transforming scenario. The two main features of Indian industry, which is drawing the attraction of developed world, are its low manufacturing cost and talented human resources. SMEs fulfil both the criteria rather in a better way. They have got both the expertise and facilities approved by the regulatory authority to meet the challenge. Besides, they have better access to rural market which the foreign companies are now targeting.

However, to enter the global market and become globally competitive, though possible, will not be an easy task. The market will be highly demanding. Quality assurance will be a strong point. Continuous updating of technology will be needed. Product/ Services will have to be cost efficient. Competition from other countries, mainly China, will be there.

* AICWA & Senior Manager, Allahabad Bank.

Every change in market position will ultimately translate into money. Due to their weak financial strength the SMEs are always more vulnerable and unable to absorb any severe shock. Unless the sector learns to manage their limited resource in an efficient way it will be hardly possible for them to cope up with the position they are being confronted with. In the end they may either be completely driven out of the picture or remain to be exploited by the large MNCs.

The government is extending necessary helps to this sector in form of exemption from excise duty up to certain category, reservation of specific drugs for SSI sector, formation of Pharmaceutical Technology Up-gradation Fund, establishment of 18 pharma SEZs, allowing facilities from National Institute of Pharmaceutical Education and Research (NIPER) at discounted rate, and so on. But these may not prove adequate.

Here the industry genuinely needs the professional advice of cost and management accountants. They are the persons who can guide the promoter in planning, monitoring and controlling the cost. They collect cost information from within the organization, analyze these and devise ways to reduce it as far as possible. They can place their valuable guidance regarding which alternative is to choose. Thus they can draw up a good resource utilization programme and cost saving mechanism so as to improve the organization profit. They are apt to address any specific problems concerning cost management and come out with a solution. Promoter of a business unit in SME sector in pharmaceutical industries generally comes with pharmacology background. They have thorough knowledge of their own subject but may lack in financial understanding. It will be a wise step if they take the assistance of a professional person at this juncture which will not only help them to pass through the initial stage but also to survive in the long run.

Below are given several areas in relation to the SME sector in pharmaceutical industries in India where a CMA's active participation may prove to be helpful.

GMP Compliance

Good manufacturing practice —GMP in short—is a set of rules and guidelines promulgated by the US foods and drugs authority covering all manufacturing aspects that are to be followed by a manufacturer in the pharmaceutical industry to ensure that the products are made in pure hygienic conditions.

Drugs and Cosmetics Act of India, 1940, regulates the manufacture, distribution, and sale of drugs in the country. It is in the Schedule M of the said Act, as amended in 2005, that the provisions of good manufacturing practices and requirements of premises, plant and equipments for pharmaceutical products have been laid down Every industry in the pharma sector will now have to be GMP compliant to obtain or hold their manufacturing license.

The provisions of GMP are quite stringent and its compliance requires crores of rupees. While most of the large and medium pharma companies have restructured and upgraded their facilities to comply with Schedule M, as well as with international standards, small businesses have been slow to respond due to resource constraints on the finance, managerial and technology fronts.

The cost of Schedule M compliance varies based on the company's existing infrastructure, but generally ranges from Rs 40Lakhs to 1.5 Crores. "Only 30 percent of SME pharmaceutical companies have implemented GMP."

GMP rules, in fact, specify every detail regarding setting up a unit. According to these the factory room should be adequately spacious so as to avoid risk of contamination or mix-ups. The production area should be sufficiently lighted and ventilated. There should be separate air handling unit to maintain required temperature, purity and humidity of the air in the production area to prevent the raw material and finished goods from any deterioration. Equipments should be placed in order of sequence with sufficient space in-between for movement of personnel. Walls and floors should be smooth and washable. There should not be any open drainage or recess. There should be separate waste disposal system, water treatment plant, warehouse and store rooms, change rooms—each maintained in proper hygienic condition. It is apparent that the regulatory authority is not ready to compromise in any way with quality. GMP compliance is a serious issue and any deviation from it will result in closure of the unit. At the same time, implementation of it requires huge capital investments.

A cost and management accountant has a useful role to play here. He will make cost benefit analysis of the project and find justification for every expenditure. GMP compliance initially involves construction of factory premises as per specification, installation of air handling plant and GMP model equipments etc. CMA will have to work out the optimum cost of each component while satisfying GMP requirement. Selection of plant size may be a challenging task. An entrepreneur will want to make the plant of capacity within his affordability. But GMP specification would require some minimum investment which needs to be recovered from internal generation. It is necessary to obtain the viable plant size which will help the company to sustain without entangling it in a debt trap. In fact, many SMEs have to close down their unit due to lack of this foresight.

Another important work for management accountant would be to design a proper recording system where the SMEs are often lagging behind. Proper documentation is required to be made for manufacturing process, material testing, waste disposal, cleaning and maintenance etc. The documents should be made available for inspection by regulatory authority for the purpose of GMP audit. This is an essential part of GMP compliance and CMA's professional knowledge to handle the subject of documentation will be of much assistance.

Manufacturing expenses

Manufacturing expenses probably start from selection of product. Some products—to be precise 74 bulk drugs and formulations prepared from them—are under drug price control. Some products need special safety measures. Before going into production it is preferable to ensure that these can be produced in a profitable way. Selection of site may be another major factor. A unit in EFZ [excise free zone] will give the manufacturer price advantages but the corresponding transportation cost may take away the entire benefit.

Manufacturing expenses consist of material cost, conversion cost, and packaging cost. In a pharmaceutical industry primary concern in entire production process is quality assurance. Materials are tested at the time of receipt to ensure that these are of desired quality at the time of issue to the production department to see that there has been no deterioration in quality during storage, and after the production, to verify that the finished goods meet all the necessary specification. Any deviation would be traced back to the supplier, storage condition, or production condition respectively. These are the areas where unwarranted costs may arise and should be kept under strong surveillance. Sub-standard quality means discarding of entire batch which, in turn, may be translated into money eating up the company's bottomline. Regular recording and monitoring will help to detect any pitfalls and to take immediate action. Many sophisticated instruments have been devised to ensure in-process quality control as well as to test the quality of finished goods. However, cost of these equipments have no upper limit and one will have to strike a balance between the investment costs and savings from reduction in wastage.

Marketing and promotional expenses

Marketing and promotional expenses occupy a significant portion in the total expenses in a pharmaceutical industry. In India, direct advertisement to the public of all prescription only drugs and even some non-prescription drugs are prohibited by a voluntary commitment by the pharmaceutical industry. As such, most of the sales are made through medical representatives. This is less costly also. Sales are made through stockists and distributors either under company's own employment or by an outsider under contract.

Large companies spend huge money every year for their sales promotional activities. This is unavoidable for companies even in SME sector because these have to compete continuously against their larger counterparts. Their competitive advantage is their lower price. But unfortunately, particularly in case of medicines, lower price does not always assure higher sales. People generally believe the higher priced products to be more superior in quality and in case of medicines they do not want to compromise with quality. Hence the objective of these companies should be to keep the price lower and, at the same time, take necessary measures to popularize their product and to instil confidence among their customers, viz., patients and prescribing doctors. To boost up sales the companies offer large commissions to their sales persons and arrange attractive programme for their clienteles. These costs may be soaring high if not controlled at the right moment. Control can be exercised only when proper records are maintained for every expense duly supported by authenticated vouchers. These are to be cross-checked from time to time to see whether the expected results—both in terms of sales and profitability—are being achieved. Else the expenditure should be curbed.

In India, the maximum allowable post-manufacturing expenditure [MAPE] is restricted to100% out of which 30% goes towards retailer's profit and the balance towards manufacturer's profit including selling expenses. It is essential that the costs remain within this limit—failing which the question of unethical practice may arise.

Research and development expenses

At present small companies do not invest much in research works. But the growing interest of the MNCs to outsource their R&D activities including clinical trial and even some basic research works to the small companies in India has made the SME sector an active participant in this field. At present there is around 150 contract research organizations working all over India—mostly from the small sector. Control of research cost is a difficult job because no tangible result may come out from this. A research project may continue for a number of years and it may be hard to determine which expenses could be capitalized [if permissible, and which not. Even when the project is successful its profitability could be arrived after calculating net present value of the past expenditure. In case the contract research work is an ancillary activity of the company, proper allocation and absorption of common cost may become a major issue. Only a person with professional knowledge could solve such problems.

For control of research costs the only advisable steps are prepare a detailed budget for the research project, record monthly expenditure activity-wise and item-wise and compare these with the budgeted cost. Such control is not intended as a restriction upon the initiatives but is for the purpose of ascertaining that the proper amount is expended on each project commensurate with its importance in relation to all other projects, particularly when the research organization is engaged in multi-project activities. Moreover, in case of contract research, it can be well presumed that the foreign partner will also be inclined to see such records.

Conclusion

Pharmaceutical industry—including SME sector—is an extremely policy-ridden industry. It is controlled by a number of ministries and governed by a number of rules and regulations.

While the sector is in urgent need of management accountants, a management accountant has to be thoroughly conversant with these rules and regulations to be of any assistance to them. He has to continuously update his knowledge. Only then will he be able to provide any meaningful service to them. ❒

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- Non-tariff barriers imposed by developed countries

Cost & Management Accountant in Pharmaceutical Sector

Cost and Management Accountants are appointed in the pharmaceutical sector in various functional areas in the top managerial position in finance, production, accounts, costing etc and they have major roles for growth of the company, growth of the sector and, ultimately, growth of the nation.

In the pharmaceutical sector, products are being useless or to be destroyed due to expiry date if the products are not being sold in the market. Also, short expiry products are sold with a higher discount to clear off the stock. Due to overestimation of demand and poor inventory management in respect of finished goods as well as inputs, the pharmaceutical company may incur heavy loss due to expiry and short expiry of the product. Expiry products are also harmful for the nation. So, as per market demand, proper production planning may be done. In the era, the cost and management accountants have major roles of proper production planning with proper product mix, higher quality and low cost.

Conclusion

Indian multinational companies like Dr. Reddy's Lab, Cipla, Ranbaxy, etc have created awareness about the Indian market prospects in the international pharmaceutical market. Indian pharmaceutical industry exports its products to more than 200 countries, including highly regulated markets of Europe, Japan, USA and Australia. The Good Manufacturing Practices (GMP) developed by the industry facilitates the production of different dosage forms.

According to Mr Srikant Kumar Jena, Union Minister of State for Chemicals and Fertilisers, the Department of Pharmaceuticals has prepared a "Pharma Vision 2020" for making India one of the leading destinations for end-to-end drug discovery and innovation and for that purpose provides requisite support by way of world class infrastructure, internationally competitive scientific manpower for pharma research and development (R&D), venture fund for research in the public and private domain and such other measures.

And last but not the least, Indian pharmaceutical industry can be defined as a success story providing employment for millions and ensuring that essential drugs are available at affordable prices to the vast population of the Indian sub-continent. ❒

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Role of Cost and Management Accountant in Implementation of Six Sigma in Pharmaceuticals Industry — An Overview

CMA Arindam Banerjee*

The services of Cost and Management Accountants (CMAs) are increasingly becoming important for the Industries in this era of globalization. The present article discusses the importance of the role of CMAs in implementation of Six Sigma in a Pharmaceutical Industry. The articles begins with the concept of Six Sigma and further discusses the role of CMAs in the implementation of Six Sigma and the challenges to be faced by the CMAs in such implementation.

Introduction

Six Sigma has become a dynamic methodology, which has been utilized by a number of companies worldwide so as to improve processes, reduce the costs so as to increase profitability, and growth of the company in long run. Motorola first initiated it in 1980.

Six Sigma is a Greek letter, which stands for standard deviation. The standard deviation measures the variation in a process. Six Sigma is powerful data driven management methodology that delivers validated improvement in profitability and productivity.

In a pharmaceutical company, where a large amount of money is invested in the Research and Development work, implementation of Six Sigma can work wonders not only in reducing unnecessary costs but also improvement of the processes involved so as to increase its efficiencies, thus, ultimately, resulting in the increase of profitability of the organization. Pharma Business leaders and regulators increasingly understand the importance of implementation of the Six Sigma and it is all set to revolutionize the pharma manufacturing sector.

Implementation of Six Sigma in a pharmaceutical company like Cipla, Ranbaxy etc in India will surely help the company to utilize its resources in a proper manner, which will be significantly reflected in their Income Statement with increasing profits.

In a pharmaceutical company Six sigma can be utilized in every span of area of the company like Production, Research and Development, Accounting and Finance, Maintenance etc.

Some of the areas where Six Sigma can be utilized are —

- Reducing lead-time for a product development
- Reducing Billing Errors
- Increasing Machine Efficiency
- Increasing and Enhancing the process of new Technology and equipment
- Reducing defects and a proper control and check on Quality level
- Having a proper Inventory Control System in the organization
- Increase in the quality of the customer service.
- Improvement in the process of Marketing and Sales and Logistics.

Key strategies can be suggested to launch a Six Sigma effort within the pharmaceutical companies :

➢ To focus on integration of technology and workflow improvement in meeting challenges and extend new ventures not possible using conventional isolated implementation of technology or homegrown process improvement methodologies.

➢ Provide tested research approaches for the quantitative evaluation of the clinical development and the process improvement strategies, the integration of which highly correlates with strong financial performance.

➢ Begin to change the traditional method of conducting clinical trails by campaigning for the implementation of the needed integration initiatives through the use of Six Sigma with a commitment from the Top Down leadership.

The entire implementation of Six Sigma is divided into 5 phases (DMAIC)

1. Define Phase
2. Measure Phase
3. Analyze Phase
4. Improve Phase
5. Control Phase

1. **Define Phase :** At this phase the six-sigma team identifies the goal and objectives, establishes the benchmark, identifies the suppliers, processes the input, output and the customers.

2. **Measure Phase:** At this phase the team establishes and evaluates measurement system and control to determine whether they are capable enough so as to measure the key input variables, output characteristics with desired accuracy.

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3. **Analyze Phase :** At this stage the team performs a number of statistical and graphical analyses so as to develop hypothesis for improvement. It tries to identify the reason for the poor performance of the company.

4. **Improvement Phase :** At this phase the Six Sigma Team emphasizes on the improvement of the processes by incorporating correct changes through statistically designed experiments for improvement of output variables related to cost, quality and customer services.

5. **Control Phase :** At this phase the desired results are controlled and maintained by various means like internal control system and auditing.

Importance of CMAs in today's globalized scenario

Cost and Management Accountants play a very vital and important role in every business concern. He is very vital to strategic resource planning and allocation—particularly to industries highlighted by growth and competition. Gone are the days where his task was limited to preparation of financial statements and ascertainment of the costs. With the world becoming a global village a CMA's task has become manifold. He is now a key decision making manager in the organization whose task includes wide range from cost control, cost management as well as strategizing cost to financial planning in the decision making process of the organization. He has to perform varieties of functions by utilizing his analytic skills and ability and occupies a responsible and significant position in the organization chart. CMAs establish, coordinate as well as maintain an integrated plan for control of operations. He advises the company regarding various financing, investment and dividend decisions so as to maximize the wealth of the shareholders. He also makes a comparative analysis of the budgeted with the actual performance of the organization and suggests measures so as to plug the loopholes in the organization. Apart from this he is also responsible for maintenance of internal control system in the organization besides supervising the matters related to the taxes, auditing etc. Thus it can be observed that in today's era of liberalization, globalization and privatization CMAs play a very vital role in the success of the organization.

Role of Cost and Management Accountants in Six Sigma

As already mentioned in the earlier paragraphs the concept of Six Sigma can be applied in all types of industries because of its wide coverage area and covers almost all the departments of an organization like manufacturing, R&D, Accounting, Finance etc. Especially in pharmaceuticals companies—where a major chunk of investment is done in the Research and Development effective implementation of Six Sigma often forms a vital component in increasing the profitability of the organization. Example: Six Sigma can be implemented so as to reduce the lead-time for the product development and scale up in the pharmaceuticals company.

Considering the wider role of the Cost and Management Accountant in today's globalized environment, he has a wider role to play in the implementation and effective maintenance of Six Sigma in the organization so as to increase its profitability.

It is often seen that the role of the Cost and Management Accountant is restricted to looking into the integrity of Financial and Cost data. But apart from this primary role his function should be extended to overseeing the Six Sigma Process right from the initial stage to the concluding stage and beyond it.

His role in the Six Sigma project in the organization is manifold and can be highlighted as :

➢ **Initial Phase** : CMA should be essentially part of the Initial Phase of the implementation of the Six Sigma Project in the organization. CMAs, by their virtue of knowledge and analytic skills, should be part of the decision making process of selection of appropriate projects which have the desired potential impact. They should make proper gap analyses so as to determine the gap between the existing conditions and the desired condition under the best case so as to determine the most realistic project expectations. They should provide decision so as to avoid projects where the expected savings don't justify the investment made on the Six Sigma implementation because it would mean wastage of resources and not enhancing the profitability of the organization. The reason behind this is that the company should not waste money and resources on projects which don't have potential payback. Thus, CMA should be part of the decision making team of Six Sigma so as to reduce the cost associated with wasteful utilization of the resources which may provide negative returns to the company.

➢ **Measurement Phase :** A CMA, being an important executive in the Six sigma Team, should take a leading role in evaluating the measurement system the team will utilize so as to gather accurate and precise data and information for the project. He has to identify the key variable to success for the organization and initiate an effective tracking system. CMAs should maintain a set of appropriate tracking metrics, which will help the Six Sigma Team to measure the contribution of the projects to the success and profitability of the organization.

➢ **Analysis Phase :** At the analysis phase the expertise of the CMA should be taken into consideration to continuously monitor the project costs and the expected savings. Their expertise to interpret data and information and also their expertise to utilize the various analytical and statistical techniques of problem solving makes them formidable candidates to be the team leader of the Six Sigma Team. CMA should be properly trained in the Six Sigma Black Belt which will definitely be value added to their efficiencies and help them to take decisions and communicate and think objectively about potential solutions.

➢ **Improvement Phase :** At this stage the CMA needs to continuously monitor the improvement occurring due to the implementation of Six Sigma. They are required to perform a number of complex statistical and financial analyses and also required to implement various experimental design and regression analyses. Thus their function at this stage is not only to verify the improvement but also suggest measures so as to continue the improvement process in the organization due to the implementation of the Six Sigma in the organization.

➢ **Control Phase :** CMAs also have a great role to play at this stage. He should ensure that there is proper adequate control mechanism in place in an organization so as to maintain and monitor proper control so as to sustain the gains and keep track of savings also. Control basically involves traditionally statistical techniques, accounting control like Audits to ensure sustainability of the improvement achieved.

The Cost and Management Accountants, having expertise knowledge in the field, do have an edge over other professionals in implementation process of Six Sigma in the Pharmaceutical Industry.

Challenges to be faced by CMAs in implementation of Six Sigma

One of the important challenges faced by the CMAs in Six Sigma is choosing the appropriate project that meets the guidelines of Six Sigma and includes the criteria of cost savings, customer impact, expected time of completion as well as degree of difficulty. Often the companies overestimate the potential saving by implementation of a project but the CMA, being an expert, can properly guide the company regarding project selection and Goal Setting Phase. Often the Cost and Management Accountants may have a daunting task in front of them in making the companies understand that the savings may not be immediate but will happen in future reporting period and need to be very much upfront and inform the management about realistic expectations.

Real Time Application of Six Sigma in some Pharmaceutical companies

Eli Lilly

Eli Lilly is one of the few pharma companies in India which have initiated Six Sigma so as to make their processes error free and more efficient. At present there are 2 lean Six Sigma projects which help the organization so as identify the NVA (Non value added) and remove them to make the organization more customer—centric and efficient.

Zydus Cadila

At present Zydus Cadila is planning to implement Kaizen a quality improvement system in its plant. It has a team in Gujarat to oversee the quality assurance and quality control ensuring product of highest quality. Machinery arriving at plant are put through stringent tests:

a) Onsite inspection
b) Installation Qualification (IQ).
c) Installation Qualification (IQ).
d) Performance Qualification (PQ)

FMEA (Failure Mode Effective Action) is carried out for the processes to preempt any failure in manufacturing. All the processes at the plant are controlled through SOPs and the document control are exercised by the quality assurance.

Dr. Reddy Laboratories Limited

Targeting the streamlining of new product development process, Dr. Reddy's implemented project Rachna uses Microsoft Accelerator for Six Sigma. This is helping the company in taking key decisions to launch the right products in the market at the appropriate time. This has also enabled the company to quickly identify the opportunities and develop new products catering to those requirements.

Pfizer

Pfizer has adopted a strategic tool known as RFT (Right First Time) to achieve Global Manufacturing Mission, which is aimed at transforming the way in which the company works in terms of quality, assurance of regulatory compliance, customer service and cost improvement. RFT is realized when the processes are carried out correctly as designed the first time.

Conclusion

Indian pharmaceutical companies are increasingly focusing on the adoption of the comprehensive management tools for enhancing productivity and overall improvement of the organization. However, the use of Six Sigma is still far off from getting a strong foothold in India.

CMAs—by virtue of their diversified knowledge and specialization in tracking cost etc—are best placed to be Six Sigma Specialist and lead the Six Sigma Team and embrace the methodology and philosophy of Six Sigma and add value to the company's profitability and growth.

ICWAI—being the premier body in India regulating the cost and management accounting profession in India—also should take steps so as to provide training to the CMAs regarding Six Sigma as it provides vast opportunities for the Cost and Management Accountants of India. ❐

Challenging Role of Indian Pharmaceutical Industry in Global Market : The Way Ahead

Dr. Parimal Kr. Sen*, CMA Indrani Saha**
Palash Garani***

This paper examines the challenges of competition and opportunities being faced by the Indian pharmaceutical industry in the present competitive global market. The major challenges are the new Patent Law that came into existence from 1st January 2005, insufficient investment in research and development, low FDI inflow in the pharma sector, tough market competition from leading multinational companies' front, etc. In spite of these various types of challenges the industry is contributing well in terms of total volume of production, export and international market share. The major three components of pharmaceutical products are herbal products, formulation drugs, and bulk drugs, including fine chemicals. It also intends to highlight the role to be played by a Cost and Management Accountant in facing the present day's challenges by the industry.

Introduction

The economic development of a nation depends heavily on the contribution of pharmaceuticals industry. This sector is one of the largest and most advanced segments in the world, as it contributes to the development of various drugs, medicines as well as other pharmaceutical formulation. The existence of well-defined and strong pharmaceutical industry is important for promoting and sustaining research and development efforts and initiatives in an economy as well as making available the quality medicines to all, at affordable price. The improvement in the health status as a whole is very important to contribute positively in the growth of economy and regional development of a country.

Recent globalization and development of the information superhighway have brought the countries of the world closer. From a business perspective, the world is one market place. The American pharmaceutical industries have played a pioneering role in the development of the drug industry through in-depth bulk manufacturing of drug products. But USA pharmaceutical industries—though enjoy market leadership position—at present cannot confine its focus only on USA and European market. India being the second largest country in the world in terms of population, with substantial purchasing power of more than 300 million middle class population, cannot be overlooked by the USA's leading pharmaceutical companies (like, Merck, Bristol, Abbott, Triangle, Trimeries, Pfizer, Johnson & Johnson, etc.).

Indian Pharmaceutical Industry—An Overview

The Indian drug and pharmaceutical industry, over the years, has shown tremendous progress in terms of infrastructure development, technology base creation as well as product usage. India holds third position in terms of volume and thirteenth position in terms of value of pharmaceutical products in the world. It has also developed excellent 'Good Manufacturing Practices (GMP)' complaint facilities in leading manufacturing companies.

After the enactment of the Patent Act, 1970, and the Patents (Amendment) Act, 2005, the entire pharmaceutical sector has ushered into a new era. The new patent regime has entered in the era of product patents for the pharmaceutical sector, in line with the obligations under the World Trade Organization (WTO) and Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement. The Indian pharmaceutical industry, too, in several areas, has become self-reliant and has developed more sound and technologically advanced R & D facilities within this industry. There has been a paradigm shift in the policies and programs governing Indian pharmaceutical industry.

Recently India has been recognized as one of the leading global players in pharmaceutical sector. The annual turnover of the industry in the year 2008–09 was estimated to be Rs.1,00,611 crores (Source: Annual Report 2008–09, Department of Pharmaceuticals, GOI). Indian pharmaceuticals exports are destined to more than 200 countries around the world including highly regulated markets of USA, Europe, Japan and Australia. India's total volume of production is about 10% of global shares and now ranks third in terms of volume of production. The industry has grown not only in terms of volume of production but its growth has been stimulated by exports which have grown from Rs. 6,256 crores in 1998–99 to Rs. 38433 crores in 2008-09. In domestic front pharmaceutical industry

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has reached Rs.55,454 crores in 2008–09 (Source: Annual Report 2008–09, Department of Pharmaceuticals, GOI).

Table 1

Comparative Analysis of Market Share of Indian Pharmaceutical Industry

	Figures in Rs. (crore)		
Year	Domestic Market	Exports	Imports
2004-05	34,128	17,857	3,139
2005-06	39,989	22,216	4,515
2006-07	45,367	24,942	5,867
2007-08	50,946	30,760	6,734
2008-09	55,454	38,433	8,552

Source : Compiled and computed from data available in:

Annual Report 2008-09, Department of Pharmaceuticals, GOI

Figure 1

Graphical Representation of Market Share of Indian Pharmaceutical Industry

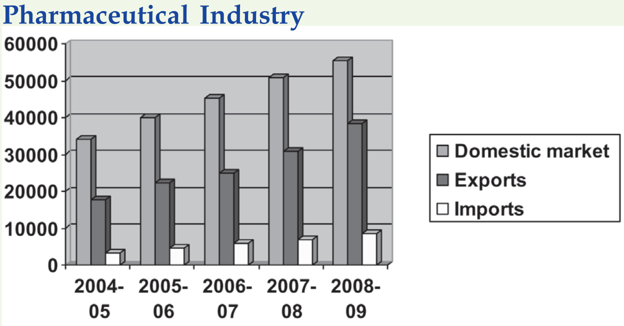


Table 2

Distribution of Pharmaceutical Units in India

State-wise Number of Manufacturers of Pharmaceutical Units in India

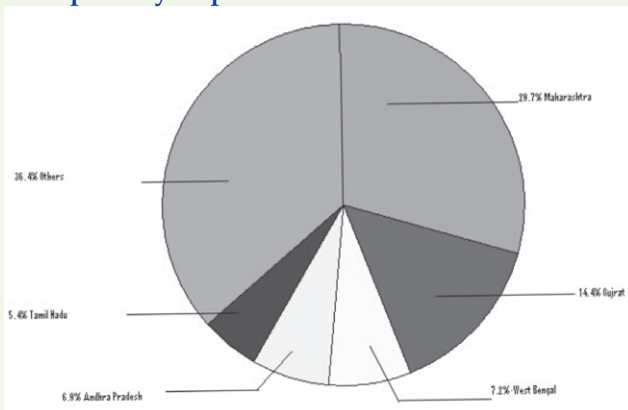
Sl. No.	States	Number of Manufacturing Units				Cumulative (%)
		Formation Drugs	Bulk Drugs	Total Share	% of share	
1.	Maharashtra	1,928	1,211	3,139	29.7	29.7
2.	Gujrat	1,129	397	1,526	14.4	44.1
3.	West Bengal	694	62	756	7.2	51.3
4.	AndhraPradesh	528	199	727	6.9	58.2
5.	Tamil Nadu	472	98	570	5.4	63.6
6.	Others	3,423	422	3,845	36.4	100
	Total	**8,174**	**2,389**	**10,563**	**100**	**–**

Source: Compiled and computed from data available in :

Annual Report 2008-09, Department of Pharmaceuticals, GOI

Figure 2

Graphically Representation of State-wise Share



According to the first "Directory of Pharmaceuticals Manufacturing Units in India" brought out by the Department of Pharmaceuticals, GOI, there are 10,563 pharmaceuticals units. Out of these 77.4% i.e. 8,174 are manufacturing formulation drugs and remaining 22.65% are engaged in manufacturing of bulk drugs.

Global Recession and the Indian Pharmaceutical Industry

Despite global recession and financial crisis, during the year 2008-09 and 2009-10, pharmaceutical industry managed to expand its revenue. The reasons behind the growth of pharmaceutical industry are: strong domestic demand, growing preference for generic version drugs worldwide and favourable rupee-dollar exchange rate. The aggregate income of the drugs and pharmaceutical companies for the first two quarter of 2010-11 grew by 13% and 7.8%, respectively, as compared to the previous year. As per the report of Centre for Monitoring Indian Economy (CMIE) the estimated growth in aggregate income for the next two quarters would be 9.5% and 10.2%, respectively.

Table 3

Growth in Exports of Drugs and Pharmaceuticals from 2004-05 to 2008-09

Year	Exports	Growth (%)
2004-05	17,857	– –
2005-06	22,216	24.41
2006-07	26,895	21.06
2007-08	30,760	14.37
2008-09	38,433	24.94
April'09-Dec'09	29,551	

Source: Compiled and computed from data available in :

Report of Director General of Commercial Intelligence and Statistics, Kolkata

Table 4

Exports of Indian Pharmaceutical Products to Top 5 Countries (2008-09)

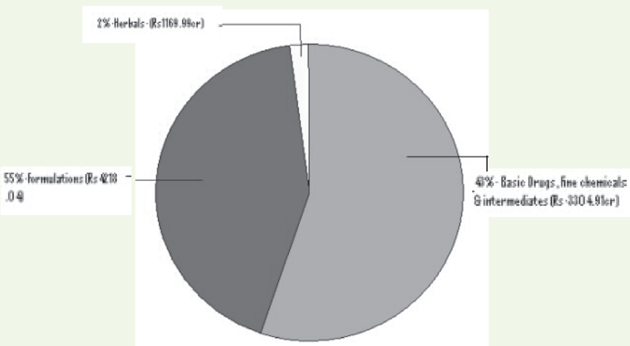
Importing Country	Rs. in Crores
USA	7,103.27
Russia	1,519.20
Germany	1,441.87
Austria	1,233.09
U.K.	1,126.75
Total	**12424.18**

Source : Compiled and computed from data available in :

Report of Director General of Commercial Intelligence and Statistics, Kolkata

The export market of three components of Indian pharmaceutical products (i.e. Herbal Products, Formulation Drugs, and Bulk Drugs, including fine chemicals & intermediates products) for the year 2008–09, is graphically shown below in Figure 3 :

Figure 3



Top Ten Pharmaceutical Companies in India

Business Insights have published list of top ten pharmaceutical companies in India, on the basis of growth strategies, performance and SWOT analysis. Each company is assessed on the basis of their market share, marketed products, therapeutic focus and key growth strategies.

In 2008, Cipla with 5.3% market share leads the Indian pharmaceutical industry followed by Ranbaxy, GSK (India), Piramal Healthcare, Dr. Reddy's Laboratories, Zyduswell, Cadila, Sun Pharma, Lupin, Alken, Sanfoi-Aventis (India) and Mankind.

R&D Expenditure and the Indian Pharmaceutical Industry

The key to success in this industry is the research and development of drugs and the approval of the patent from Food and Drug Association (FDA) of USA for the world market. Research and Development is the starting point of the industry value chain and also the most important value creator. India is putting efforts to develop modern technology in pharmaceutical industry. The key issue in promoting research and development is to induct technology at par with the advanced countries. The Government of India is encouraging private and public sectors through Public–Private Partnership (PPP) model in terms of ownership of assets and responsibility and also in attracting the foreign investors to increase FDI inflow through automatic route in the pharma sector research and development. In recent years some positive initiatives and measures have been taken by the Government. Of them are the following important :

- Recognition of the pharmaceutical industry as a knowledge-based industry.
- Reduction in interest rates for export financing.
- Additional deduction in computation of tax liability for research and development expenses, and also tax-holiday facility.
- Reduction in the price control of pharmaceuticals.

The Indian pharmaceutical industry is taking full advantage of benefits offered by the Government and has been allocating money to research and development. The industry's focal points are drug discovery & patent approval, development of drug delivery systems, and biotechnology and bioinformatics. Twentyfive leading Indian drug manufacturers have spent nearly 17% overall turnover in 2008-09. A number of firms increasing their investments in R & D to above 40% (Source: a local survey published in Pharma Times dated 22.12.2009).

The companies like Sanofi (Fench), Jubilant Organosys, Matrix Lab. (USA), Piramal Health Care, Sun Pharma, Advance Research Company Stride Acrolab, have increased their research and development expenditure by more than 40%, Biocon, Cadila Healthcare, IPCA, Fresenius Kabi Oncology (German) (formerly Dabur) and Lupin, Calyx Chemicals and Pharmaceuticals have increased their spending on research and development to the tune of Rs. 4.71 billion—2.4% more than the previous year. The next biggest investor in research and development was Dr. Reddy's Laboratories followed by Lupin. In 2008–09, the research and development which grew by single digit amounts include Cipla, Sun Pharma, Torrent and Alembic (Source: Survey Published in Pharma Times, December 2009).

In a list of 1,000 publicly traded companies in the world (2008) which were biggest spenders on research and development, only four Indian companies i.e. Tata Motors, BHEL, Dr. Reddy's Laboratories, and Sun Pharma appeared.

Table 5

Investment in R & D by Top Ten Indian Companies in 2008-09

(Rs. In Crores)

Sl. No.	Company Names	Sales	Expenses	R&D Investment (% sales)
1.	Ranbaxy Laboratories Ltd.	3,656.2	460.5	12.6
2.	Dr. Reddy's Laboratories Ltd.	4,146.2	292.8	7.1
3.	Sun Pharma Inds Ltd.	1,722.1	188.3	10.9
4.	Cipla Ltd.	3,658.0	175.7	4.8
5.	Cadila Health Care Ltd.	1,758.5	161.8	9.2
6.	Lupin Ltd.	2,051.7	142.1	6.9
7.	Wockhardt Ltd.	1,189.0	126.7	10.7
8.	Torrent Pharmaceutical Ltd.	8,95.2	112.1	12.5
9.	Panacea Biotech Ltd.	843.0	107.2	12.7
10.	Aurobindo Pharma Ltd.	1,991.0	107.2	12.7

Source: Compiled and computed from data available in : Centre for Monitoring Indian Economy (CMIE) database processes

Table – 6

R&D Expenditure of Pharmaceutical Companies during 2009 – 10

Company's Name	Investment in R&D as % of sales
Dr. Reddy's laboratories Ltd.	10.09
Lupin	8.7
Sun Pharma	8.0
Cipla	5
Aurobindo Pharma Ltd.	3.06
Glaxo Smith Kine	0.42

Source : Compiled and computed from data available in : Different Company's Annual Reports 2009-10

It is well known that research and development expenditure in pharmaceutical industry is the biggest cost and also more time consuming with long gestation periods and uncertain outcomes. Though Indian companies have shown significant growth in terms of market share, they have not made much contribution in the field of innovation. Therefore, fiscal incentives and grants are necessary to boost research and development. Expenses incurred on different stages, like basic research and pre-clinical trials and development, bioequivalence studies, human trials, regulatory review & approvals and patent fillings made outside India are legitimate R & D expenditure, should be recognized and accorded the same preferential treatment as other forms of R & D expenditure by the Government. This will ensure that capital is directed to this important area, critical for long term-term success. The Government should allow data protection for new chemical entities and phyto products for a period of 3-5 years, subject to safeguards. The creation of an independent regulator like central drug authority is imperative to monitor and safeguard the interest of the consumer and industry.

Pricing of Pharmaceutical Products

In the past, the Government has made extensive use of price control mechanism to control selected formulation drugs and bulk drugs including fine chemicals. With the advent of liberalization in Indian economy drug prices—which were earlier extensively controlled by the Government—are no longer strictly regulated by the Government. There is an intense competition among the manufacturers, which itself has made medicines in India affordable. The prices in India are the lowest in the world and have gone up marginally by 1-2% per year which is much lower than the rate of inflation.

The Role of Cost and Management Accountant in the Pharmaceuticals Sector

"Cost Audit" in the pharmaceuticals sector in India gained recognition by Cost Accounting Records (Bulk Drugs) Rules, 1974, and latest Amendment by GRS No. 707(E) dated 28.09.2001, both as an effective tool of cost-control in the hands of management to control costs and produce at competitive rates and also as a monitoring mechanism on behalf of all the stakeholders including last and final consumers and the government. Cost Audit acts as a review of the activities of the various cost centers of the company and points out the avoidable wastages and losses which may reduce the prices of the medicines. The expertise and experience of the Cost Accountant may significantly contribute and helps them in knowing the exact areas having the scope in the field of cost control and cost reduction through inter-firm comparison with standard industrial norms or peers in the industry. Government, in turn, ensured that the consumers are able to obtain their requirements at a fair price and do not pay for the inefficiency of manufacturers. Cost Audit is the verification of the cost of production of any product, service or activity on the basis of accounts maintained by an enterprise in accordance with the accepted principles of cost accounting.

FDI in Indian Pharmaceutical Industry

From Table 7 we observe that there is a sudden decrease of FDI inflow in the pharmaceutical industry.

This needs attention and matters have to be investigated. The inflow of FDI through the automatic route in the research and development field will definitely improve the quality of medicines and strengthen the competitiveness of India's thriving pharmaceutical industry in the international market orientation.

Table 7

Year (Jan-Dec)	No. of FDI cases approved	Amount of FDI approved Rs. (in million)	Amount of FDI approved US $ (in million)
2005	12	318.05	7.29
2006	2	35.02	0.78
2007	1	6.17	0.16
2008	3	2794.85	70.91

Source: Compiled and computed from data available in :

(i) Report of Department of Industrial Policy and Promotion (DIPP), 2008

(ii) Pharmaceuticals Exports Promotion Council (Pharmexicl), Commerce Department, GOI.

Conclusion and Future Perspective

India is emerging as a force to reckon with in the global pharmaceutical space. Every fifth application for marketing a generic drug in the USA, the world's largest pharmaceutical market, is filed by an Indian company. The domestic market in pharmaceutical industry has seen a phenomenal growth. The new patent regime, that came into existence on 1st January 2005, presents both challenges and opportunities for the pharmaceutical industry. The domestic market is gradually moving towards consolidation and only players with strong technical and research capabilities and global visions are likely to survive. Globally there is intense competition, price erosion and squeeze on margins. In spite of this, several Indian pharmaceutical companies are beginning to prove their mettle in the international market. They however, need to make sustained R & D investments to remain successful. It is well known that the research & development expenditure in pharmaceutical industries is enormous and more time consuming with long gestation periods and uncertain outcome. Fiscal incentives and grants are necessary to encourage the R & D operations in the sector by the government. Expenses incurred on clinical trials, bioequivalence studies, regulatory approvals and patent filings to Food and Drug Association (FDA) in America, made outside India are legitimate R&D expenses and should be recognized and accorded same preferential treatment as other forms of R&D expenditure by the Government. This will ensure that capital is invested in R &D for long term success. Mr. G.V. Prasad, Vice-Chairman and MD of Dr. Reddy's Laboratories, in his interview in the Economic Times, dated 21st Sept. 2010 said that in generic version drugs, Indian companies are becoming significant as can be seen from market share. But Indian companies have not made significant contribution in innovation. They have done innovation in bits and pieces here and there but it is probably the third horizon that will happen sometime later.

The prices in India among the lowest in the world and have gone up only marginally by just 1-2% per year and this holds true for over 80% of the medicines. In India there are over 20,000 manufacturers in India. There is an intense competition and this in itself has made medicines in India very affordable. The Indian Government should encourage that and not put unnecessary controls. Any move to bring price control measure will hinder the much needed effort capital required for crucial R&D efforts. ❐

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THE INSTITUTE OF COST AND WORKS ACCOUNTANTS OF INDIA

52nd National Cost Convention - 2011

Theme

New Enterprise Challenges - Sustainability & Value Creation

On 6th,7th & 8th, January 2011

at Le Royal Meridien,
#1, GST Road, St. Thomas Mount, Chennai - 600 016

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52nd NATIONAL COST CONVENTION – 2011
THEME : NEW ENTERPRISE CHALLENGES- SUSTAINABILITY AND VALUE CREATION

Preamble :

The greatest challenges that are faced by business enterprises today, are alignment to global competition and creating sustainable value. At the same time the financial reporting has to comply not only with the relevant disclosure regime but also provide proactive information on the challenges that are faced by the enterprise. With the wholesale transformation happening in taxation regimes, the cycle becomes complete. The enterprises expect the professionals to translate the complex issues into the normal business language and also help to integrate them into the systems that are put in place. The competent and versatile Cost and Management Accounting Professionals working inside the organizations, become a key enabler for this transformation.

The apex body of the Cost and Management Accounting Professionals, The Institute of Cost and Works Accountants of India (ICWAI), keeping this aspect in view recognize the four pillars of management accounting, namely regulatory, financial reporting, strategy and management. The curriculum, training and post qualification programmes of the Institute essentially follow this structure.

The National Convention, which is held on annual basis in various regions address the contemporary issues or challenges that are faced by the enterprises, to trigger a thought process, for a detailed study and arriving at a set of possible solutions by the Institute. The proposed convention is expected to enable experience sharing besides becoming a common forum for generating improved solutions, backed by best practices.

The broad structure of the convention and the road map for the deliberations are as follows:

Plenary Session:

Transformation of the Management Accountant

Sustainability of organizational success is an integral part of the business strategy and management accountants play a key role in the process. It has become an essential element of corporate activities that subserves the interest of all stakeholders and makes sound business sense, because accountability, transparency, governance, reporting and risk management all form part of drivers for sustainability.

Management accountants generate or create value through the understanding of the drivers of stakeholder value and organizational innovation. Management accountants provide expertise to organizations in formulating strategy, planning, decision making and risk management and business assurance.

Technical Session I- Value Creators and Value Enablers

Conformance and Performance

Enterprise governance is the combination of conformance and performance. The management accountant's focus is on enterprise performance, which consists of

- risk management, evaluation & mitigation strategy and
- value creation, measurement and management.

(i) **Value Maximisation - Risk Management Perspective**

Value maximizes when management sets strategy & objectives to strike an optimal balance between growth & return and related risks, through efficiency and effective deployment of resources towards achieving the objectives.

(ii) Performance Management- Measure to Manage

Performance management applies the practices of organizing, integrating, automating and analyzing business methodologies, processes and systems that drive successful business performance.

Technical Session II- Value Reporters

IFRS- Challenges and Approach to Transition

As the enterprises move towards IFRS, the major issues are transition challenges, valuation dynamics and a principle based fair and transparent reporting. The outcome of the deliberations will strive to find an approach for complex convergence issues, impact of IFRS on pricing policies, costs involved in transition, information technology and system changes etc

Technical Session III- Value Preservers

Towards Accelerated Economic Growth

(i) Direct Tax Code- Structural Changes in Direct Taxes

As a part of tax reforms initiative GOI proposes to revise, simplify and consolidate the direct tax laws into a single legislation called Direct Taxes Code. DTC proposes substantial changes to the existing direct tax legislation and is likely to have significant impact on the business community.

(ii) GST- Comprehensive Indirect Tax Regime

Will create single unified market to make economy stronger. It is estimated that India will gain $15 billion a year through its implementation and would promote exports and boost growth. It will divide tax burden amongst manufacturing and services equally and avoid cascading effect of taxes across the manufacturing to consumer value chain, thereby reducing the burden on the ultimate consumer.

Technical Session IV- Value Preservers

Promoting Ethical Competition and Growth

Emerging regulatory practices

(i) Competition Commission – Creating Consumer Responsive Markets

"The main objective of competition law is to promote economic efficiency using competition as one of the means of assisting the creation of market responsive to consumer preferences. The advantages of perfect competition are three-fold: allocative efficiency, which ensures the effective allocation of resources, productive efficiency, which ensures that costs of production are kept at a minimum and dynamic efficiency, which promotes innovative practices."- A recent judgement extract. The certified cost information and the cost audit report gives an assurance mechanism on key aspects mentioned above

(ii) Regulatory Practices in Banking - Transparency and Consumer Friendly

The largest metamorphism is happening in the banking sector, where the Indian policies being retuned to converge to international practices, at the same time having a cautious approach to cater to local realities. The pricing model in this sector is also different than the normal manufacturing cost model, as the resources and the cost of the resources become key drivers rather than the infrastructure providing the services. To that extent, an element of cross-subsidisation may also be there. These and related issues will be dealt with in the session.

Technical Session V- Value Creators- Industry Perspective

Power Sector- The Engine for Industrial Growth

Challenges for the Power Sector

The biggest challenge for the scorching growth phase set by the Indian industry, is the availability of quality power on a consistent basis from the power sector. The actual additions to the generating capacity vis-à-vis the growth projections, are at an abysmal rate. In addition, we also have to focus on clean power, on environmental consideration.The solutions to overcome these impediments will be discussed during the session. The power regulators will also discuss, how their function has moved in alignment with the business process.

The convention will conclude with a CFO and Regulator's session, which will highlight the issues that are of common concern both to the industry which are under regulation as well as regulators, who may have to wear an iron glove with a light touch so that they act as active facilitators for enterprise sustenance , removing the thorn from the growth path, at the same time ensuring ethical practices. The session will also address the aspect of how cost audit addresses the cost management as well as provide certified cost information to the regulators under their respective legislations, to help them to achieve their main objective.

Take Away:

The IFAC document on "How professional accountants in business drive sustainable organizational success", visualises four key role plays from the professional accountants. They are

- Creators of value
- Enablers of value
- Preservers of value and
- Reporters of value

They are custodians of key reporting mechanisms whether external (financial reporting) or internal (management accounting). The conference aims at providing the road map to identify, deliberate and re-skill themselves, so that they are able to face the new challenges faced by them in the enterprises they work for, and emerge as better CFOs.

Dr. I. Ashok
Co- Chairman, Convention Committee

M. Gopalakrishnan
Chairman, Convention Committee

PROGRAMME SCHEDULE

DAY 1 - January 6, 2010	
09.00 AM	Registration
09.30 AM to 11:30 AM	Inauguration
11.45 AM to 01:15 PM	Plenary Session- Key Note Address Transformation of Management Accountant - Drive for sustainable organizational success
01.15 PM to 02:00 PM	Lunch
02.00 PM to 04:00 PM	Technical Session-1 -Value Creators & Value Enablers - Risk Management- Enhancing the capacity to build value - Performance Management- Measure to Manage
04.15 PM to 05:15 PM	Technical Session-2 -Value Reporters - IFRS- Challenges and approach to transition.
06.30 PM	Cultural Programme - Followed by Conference Dinner

DAY 2 - January 7, 2010	
09.30 AM to 11:30 AM	Technical Session-3 -Value Preservers Towards accelerated economic growth - Direct Tax Code- Structural changes in Direct Taxes - GST- Comprehensive Indirect Tax Regime
11.45 AM to 01:30 PM	Technical Session-4 -Value Preservers Promoting ethical competition and growth. - Competition Commission - Creating consumer responsive markets - Regulatory practices in Banking - Transparency and consumer friendly.
01.30 PM to 02:30 PM	Lunch
02.30 PM to 04:30 PM	Technical Session-5 -Value Creators-Industry Perspective Power Sector- The engine for Industrial growth. - Emerging Challenges for the industry - Changing role of Regulators

DAY 3 - January 8, 2010	
09.30 AM to 11:30 AM	CFO/Regulator Session
11.45 AM to 01:30 PM	Valedictory Session

Venue:

Le Royal Meridien,
1, GST Road, St. Thomas Mount,
Chennai - 600 016

Venue distance from:

Chennai Airport	- 5 km
Chennai Central Railway Station	- 22 km
Chennai Egmore Railway Station	- 20 km

Contact

The Institute of Cost and Works Accountants of India
Southern India Regional Council
No.4, Montieth Lane, Egmore, Chennai – 600 008.
Tel: 28554443/28529139 Fax: 044 28554651 www.ncc2011.in Email: sirc@icwai.org

CEP Credit 10 Hours

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S.SATYANANDA RAO	Chiarman Vishakapatnam Chapter
P.NARAYANA RAO	Chairman Godavari Chapter
N SRINIVASAN	Cost Accountant-Hyderabad

DELEGATE FOR CONVENTION

Dear Sir,

We invite you / your company to register / sponsor delegates for the 52nd National Cost Convention - 2011 to be held from 6th to 8th January 2011 at Le Royal Meridien, Chennai

Participants

Corporate Directors, CFOs, Cost and Management Accountants and other Senior Management Executives in the Corporate Sector, Practising Professionals in Secretarial, Financial, Legal and Management Disciplines, Researchers and Academicians would benefit from participation in the Convention.

DELEGATE FEE AND REGISTRATION PROCEDURE

Particulars	Payment by Cash, Demand Draft or Pay Order
Members	₹ 4000
Non-members	₹ 5000
Cost Accountants-in-practice	₹ 2000
Students	₹ 2000
Spouse	₹ 2000
Foreign Delegates	$ 100

The entire fee is payable in advance and is not refundable once the nomination is received. The registration form duly completed along with a crossed demand draft drawn in favour of "National Cost Convention - 2011" payable at Chennai may please be sent to :

The Delegates Committee, SIRC of ICWAI, 4, Montieth Lane, Egmore, Chennai – 600 008

Thanking you,
Yours Sincerely
P. Raju Iyer
Chairman, Delegate Committee

52nd NATIONAL COST CONVENTION - 2011
DELEGATE REGISTRATION FORM

To,
The Chairman,
Delegates Committee,
National Cost Convention - 2011
The Institute of Cost and Works Accountants of India
Southern India Regional Council,
4, Montieth Lane, Egmore,
Chennai – 600 008

Dear Sir,

Please register the following delegates for attending the 52nd National Cost Convention - 2011 on January 6th,7th & 8th 2011 at Le Royal Meridien, Chennai . The particulars of the delegates are as under:

1. Name of the delegate(s)

Name of the delegate	Designation	Address of the Delegate (for Convention Correspondence)

Membership No. / Student No.	Practising/ Non Practising	Tel No.	Mobile No.	Email-ID

2. Details of the Payment
3. Mode of Payment:

   a) Cash:
   b) A Bank Draft / At par Cheque bearing No. .... dated ....
   favouring "National Cost Convention - 2011" payable at Chennai is enclosed.

Yours faithfully,

52nd National Cost Convention – 2011

Theme: NEW ENTERPRISE CHALLENGES- SUSTAINABILITY AND VALUE CREATION

SPONSORSHIP FORM

To

I\We wish to Sponsor ....in connection with the National Cost Convention-2011 on 6th, 7th and 8th January, 2011 at Chennai.

A crossed, Cheque/DD No.............................Dated for ....drawn on............... ....Bank in favour of National Cost Convention - 2011

Name of the Organisation....................................... Signature...

Address... Name:...

....

.... Designation.......................................

Telephone No.................................... Mobile...

Fax......................... Email.. Website...................................

RATES OF SPONSORSHIP

PARTICULARS	₹
Platinum	10,00,000
Gold	5,00,000
Silver	3,00,000
Dinner	3,00,000
Lunch	2,50,000
Convention Kit	2,00,000
Mementos	1,00,000
Cultural Event	1,00,000

SOUVENIR ADVERTISEMENT FORM

To,

The Chairman,
Souvenir Committee,
National Cost Convention - 2011
The Institute of Cost and Works Accountants of India
Southern India Regional Council,
4, Montieth Lane, Egmore,
Chennai – 600 008

We are pleased to release the following advertisement for the Souvenir to be brought out at the National Cost Convention - 2011

Advertisement in Souvenir	₹	✓*
Back Cover- 18 cm X 24 cm	75000	
Front Inside Cover- 18 cm X 24 cm	50000	
Back Inside Cover- 18 cm X 24 cm	50000	
Center Spread (Colour) 18 cm X 24 cm	20000	
Special Full Page (Colour) 18 cm X 24 cm	15000	
Ordinary Full Page 18 cm X 24 cm	5000	
Half Page (18 cm X 12 cm)	3000	

*Tick whichever is applicable

I\We wish to release ....in connection with the National Cost Convention-2011 scheduled on 6th, 7th and 8th January, 2011 at Chennai.

A crossed, Cheque/DD No............................Dated for ....drawn on.............. ....Bank in favour of National Cost Convention - 2011 is enclosed herewith.

Name of the Organisation.................................... Signature...

Address... Name:...

....

.... Designation.......................................

Mobile...

Telephone No..........................Fax.........................Email...

Hotel Tariff

Sl No	Name & Location	Phone	A/C Single Rs	A/C Double Rs
1	Hotel Ambassador Pallava No. 30, Montieth Road, Egmore, Chennai - 600 008 E Mail: pallava@ambassadorindia.com	28554476 28554068 FAX : 28554492 Mobile:9840325111	3750 + Tax @ 12.5%	4400 + Tax @ 12.5%
2	Hotel Vestin park No. 39, Montieth Road, Egmore, Chennai – 600 008 E Mail: vestinpark@vsnl.net	28529533 28529561 FAX : 28518417	2500 + Tax @ 12.5%	2950 + Tax @ 12.5%
3	Royal Plaza Hotel No. 3, Adjacent To Omni Bus, Terminus & Opp To Koyembedu Flower Market, E Road, Koyambedu, Chennai - 600107 Email:gm@hotelroyalplazaonline.com,	23790066 Mobile: 9840967148	2600 + Tax @ 12.5%	3000 + Tax
4	Nachiappa Park New No. 29 Old No. 12, Opp To Shiva Visnu Temple, Mahalakshmi Street, Usman Road, T. Nagar, Chennai - 600017 Email:nachipark@yahoo.co.in	42176666, 42129119, 42128118 Mobile: 9841311001	1425 + Tax @ 12.5%	2150 + Tax @ 12.5%
5	Kences Inn Hotel No. 50, Opp. To Karaikudi Restaurant, B.N. Road, T. Nagar, Chennai - 600017 Email:kencesinn@hotmail.com	28152175, 28154438 Mobile: 9444649946 Fax:+91-(44)- 28154428	-----------	1600 + Tax @ 12.5%
6	GLM Meridian Hotel No. 80 A, Near Nandanam Signal, Dr. Sivaji Ganesan Salai, T. Nagar, Chennai - 600017 Email:glm_meridian@yahoo.com	42070555 Mobile: 9840172828	2000 + Tax @ 12.5%	2500 + Tax @ 12.5%
7	Thulasi Park Hotel No. 21, Near Kodambakam Bridge, Periyar Road, T. Nagar, Chennai - 600017 Email:thulasipark@yahoo.co.in	42022022 Mobile: 9840922077 Fax:+91-(44)- 42022055	1400 + Tax @ 12.5%	1700 + Tax @ 12.5%

Sl No	Name & Location	Phone	A/C Single Rs	A/C Double Rs
8	Zen Garden Hotel No. 86 Block No 5, Next To Canara Bank, Mount Road, Guindy, Chennai - 600032 Email:reservation@zengardenhotel.in	30910100, 30910200 Mobile: 9841998125	1950 + Tax @ 12.5%	2350 + Tax @ 12.5%
9	Bhimaas Hotel G.S.T. Road, Guindy, Chennai - 600032 Email:hotelbhimaas@yahoo.com	24812481 Mobile: 9444976008, 9677096401	---	1400 + Tax @ 12.5%
10	Southern Crest Hotel Old No. 2 New No. 3, Near Panagal Park, Venkatnarayana Road, T. Nagar, Chennai - 600017 Email:enquiry@southerncrest.com,	24313333 Mobile: 9840911705 Fax:+91-(44)- 24313325	2100 + Tax @ 12.5%	2350 + Tax @ 12.5%
11	Rain Tree Hotel No. 120, St. Mary's Road, Alwarpet, Chennai - 600018 Email:reservations@raintreehotels.com	42252525, 24304050 Fax:+91-(44)- 24333535	5000+ Tax @ 12.5%	6000 + Tax @ 12.5%
12	Taj Connemara Hotel No. 2, Behind Spencer Plaza, Binny Road Anna Salai, Mount Road, Chennai - 600002 Email:connemara.chennai@tajhotels.com	66000000 Fax:+91-(44)- 66000555	7125 + Tax @ 12.5%	7875 + Tax @ 12.5%
13	Taj Mount Road Hotel No. 2, Opp. To Spencer Plaza, Signal, Club House Road, Mount Road, Chennai - 600002 Email:mountroad.chennai@tajhotels.com	66313131 Fax:+91-(44)- 66313030	8,000 + Tax @ 12.5%	9,000 + Tax @ 12.5%
14	Hotel Savera No. 146, Dr. Radhakrishnan Road, Chennai – 600 004 E Mail: banquets@saverahotel.com	9710947360 044-28114700 FAX 28113475	4500 + Tax @ 12.5%	5500 + Tax @ 12.5%
15	Taj Coromandel Hotel No. 37, Mahatma Gandhi Road, Nungambakkam, Chennai - 600034 Email:coromandel.chennai@tajhotels.com	66002827 Fax:+91-(44)- 66002089	17,000 + Tax @ 12.5%	18,500 + Tax @ 12.5%
16	Sheraton Chola Hotel No. 13, Cathedral Road, Chennai - 600086 Email:sheratonchola@itcwelcomgroup.in	28110101, 44001889 Fax:+91-(44)- 28110202	8000 + Tax @ 12.5%	9500 + Tax @ 12.5%
17	Hotel Raj Park No.180, T.T.K. Road, Alwarpet, Chennai - 600 018	28110101, 44001889 FAX-42257777 9710944269	3000+TAX @12.5%	3600+ Tax @ 12.5%

IAS 29, Financial Reporting in Hyperinflationary Economies — A Closer Look

CMA K.S. Muthupandian*

International Accounting Standard (IAS) 29, Financial Reporting in Hyperinflationary Economies, establishes the requirements for restating the financial statements of any entity whose functional currency is the currency of a hyperinflationary economy. In November 1987, the International Accounting Standards Committee (IASC) issued the Exposure Draft E31, Financial Reporting in Hyperinflationary Economies. In July 1989, the IASC issued IAS 29, Financial Reporting in Hyperinflationary Economies, effective from January 1, 1990. In 1994, the IASC reformatted IAS 29. In April 2001, the International Accounting Standards Board (IASB) resolved that all Standards and Interpretation issued under previous Constitutions continued to be applicable unless and until they were amended or withdrawn. On May 22, 2008, IAS 29 was amended for Annual Improvements to IFRSs 2007. The effective date of the May 2008 amendments to IAS 28 was fixed as January 1, 2009.

Objective

The objective of IAS 29 is to establish specific standards for entities reporting in the currency of a hyperinflationary economy, so that the financial information provided is meaningful.

Scope and Application

IAS 29 shall be applied to the financial statements (including consolidated financial statements) of any entity whose functional currency is the currency of a hyperinflationary economy.

Indicators of a Hyperinflationary Economy

IAS 29 does not establish an absolute rate at which hyperinflation is deemed to arise. It is a matter of professional judgement when restatement in accordance with IAS 29 becomes necessary. Hyperinflation is indicated by characteristics of the economic environment of a country which include, but are not limited to, the following :

a. the general population prefers to keep its wealth in non-monetary assets or in a relatively stable foreign currency (e.g. amounts of local currency held are immediately invested to maintain purchasing power)
b. the general population regards monetary amounts not in terms of the local currency but in terms of a relatively stable foreign currency (e.g. prices may be quoted in that stable currency)
c. sales and purchases on credit take place at prices that compensate for the expected loss of purchasing power during the credit period, even if the period is short
d. interest rates, wages and prices are linked to a price index
e. the cumulative inflation over three years is approaching, or exceeds, 100 per cent.

Which jurisdictions are hyperinflationary?

IAS 29 defines and provides general guidance for assessing whether a particular jurisdiction's economy is hyperinflationary. But the IASB does not identify specific jurisdictions. The International Practices Task Force (IPTF) of the Centre for Audit Quality (CAQ) of the American Institute of Certified Public Accountants (AICPA) monitors the status of 'highly inflationary' countries. The Task Force's criteria for identifying such countries are similar to those for identifying 'hyperinflationary economies' under IAS 29. From time to time, the IPTF issues reports of its discussions with the United States Securities Exchange Commission staff on the IPTF's recommendations of which countries should be considered highly inflationary, and which countries are on the Task Force's inflation 'watch list'. On February 1, 2010, the CAQ issued Alert #2010-11 *Monitoring Inflation Status of Certain Countries*, which states the following view of the Task Force:

The following countries should continue to be considered highly inflationary as of September 30, 2009 :

- Myanmar
- Zimbabwe

The following country should be considered highly inflationary for periods beginning on or after December 1, 2009 :

- Venezuela

The following countries are on the Task Force's inflation 'watch list':

- Democratic Republic of Congo

* M.Com., FICWA and Member of Tamil Nadu State Treasuries and Accounts Service, presently working as Treasury Officer, Ramanathapuram District, Tamil Nadu. Email: ksmuthupandian@ymail.com/ksmuthupandian@gmail.com

- Ethiopia
- Guinea
- Iran
- Iraq
- Sao Tome and Principe
- Seychelles

Recognition and Measurement

The basic principle in IAS 29 is that the financial statements of an entity whose functional currency is the currency of a hyperinflationary economy (based on a historical cost approach or a current cost approach) shall be stated in terms of the measuring unit current at the reporting date.

The corresponding figures for the previous period shall be stated in terms of the measuring unit current at the reporting date.

The gain or loss on the net monetary position shall be included in net income and separately disclosed.

Prescribed Accounting Treatment

Financial statements at historical cost—Balance Sheet

The figures in balance yet in terms of the current unit value at the balance sheet date are applied to restate a general price index.

Monetary items are not restated because they are expressed in the current unit value at the balance sheet date. Monetary items are cash balances held and to receive or pay cash.

Assets and liabilities linked by agreement or agreements, changes in prices, such as indexed bonds or loans, are adjusted according to the agreement or convention to express the amount outstanding at the balance sheet date. These items are recorded in the restated balance sheet for the amount calculated in this way.

All other assets and liabilities are non-monetary. Some non-monetary values shall be recorded in the current year-end reporting, such as the net realizable value or fair value, so no need restated. All other assets and liabilities are restated.

Most non-monetary assets are recorded at cost or at cost less depreciation and, therefore, are expressed at amounts current at their date of acquisition. The cost of each item restated, or cost less depreciation, is defined by its historical cost and accumulated depreciation, the change of a general price index from the date of acquisition until the end of the period under report. For example, tangible assets, stocks of raw materials and goods, goodwill, patents, trademarks and other similar assets will restate from the date of acquisition. The inventory of ongoing and finished products will restate from the date you incurred the costs of buying and processing.

The records of the dates of acquisition of the elements of the tangible assets are not available, and sometimes it is not feasible to estimate. In such circumstances it may be necessary, for the first year of implementation of this Standard, to use an independent valuation of a professional in respect of such items and to serve as a basis for their restatement.

There may not be available a general price index which refers to the period for which, according to this Standard, will require the restatement of tangible fixed assets. In such circumstances, it may be necessary to use an estimate based, for example, on movements in the exchange rate between the functional currency and a relatively stable foreign currency.

Some non-monetary items are carried as current values at different times than the stock or the acquisition; for example, this can occur when the components of tangible assets were revalued at a previous date. In such cases, the books will restate amounts from the date of revaluation.

When the restated amount of a non-monetary item exceeds its recoverable amount is reduced according to the appropriate standards and interpretations. For example, the restated amount of tangible fixed assets, goodwill, patents and trademarks will be reduced to its recoverable amount and the amount restated for the stock is reduced to its net realizable value.

An enterprise which is counted by the method of participation—you can report in the currency of a hyperinflationary economy. The statement of financial position and status of the overall result of this is shared according to restate—this rule to calculate the investor's participation in its net assets and results—where the restated financial statements of the investee are in a foreign currency are converted using the exchange rates of closure.

Generally, the impact of inflation is recognized in the financial costs of borrowing. It is not appropriate to proceed simultaneously to restate disbursements for investments financed with loans and, simultaneously, capitalizing on the part of the financial costs that compensates the lender for inflation in that period. This part of the financial cost is recognized as an expense in the year incurred in the same.

An entity may acquire assets through an agreement allowing it to defer payments, without explicitly accounting for a charge for interest. When it is not possible to separate the amount of implicit interest, such assets would restate using dates of payment and not acquisition.

At the beginning of the first year of implementation of this Standard, the components of equity, except retained earnings and reserves for revaluation of assets, restate applying a general price index to the various items, from the dates on which they were made, or from the time they came in any other way. For its part, any revaluation surplus that arose before will be removed and the amounts of retained earnings will be determined based on the remaining items, as restated, of the balance sheet.

At the end of the first year of implementation and in subsequent years, it shall restate all the components of net assets by applying a general price index to the items since the beginning of the period or since the date of contribution, if later. The movements during the exercise, in equity, are presented in accordance with IAS 1, *Presentation of Financial Statements*.

Financial statements at historical cost — Income Statement

This standard requires that all items in the income statement are expressed in the monetary unit current at the reporting date. For this reason, all amounts need to be restated by using the variation experienced by the general price index from the date on which income and expenditures were initially recorded.

Financial statements at historical cost — Gain or Loss on net monetary position

Over a period of inflation, any entity that maintains an excess of monetary liabilities over monetary assets, lost purchasing power, and any entity that maintains an excess of monetary liabilities over monetary assets, gain purchasing power, provided that such items are not subject to a price index. These gains or losses arising from the net monetary position may be determined as the algebraic sum, considering this is the sign of the quantities of all adjustments made for restatement of items for non-monetary assets, equity, the state of the overall result and corrections of the assets and liabilities indexed. This gain or loss can be estimated also by applying the change in the overall index price to the weighted average for the year, the difference between monetary assets and liabilities.

The loss or gain resulting from net monetary position is included in income for the year.

The adjustment in assets and liabilities indexed is offset by the gain or loss from net monetary position. Other income and expenses, such as income and expenses and exchange differences on foreign currency related to money lent or borrowed, are also associated with the net monetary position. Although these items are disclosed separately can be useful for presenting clustered with the gain or loss from net monetary position in the state of the overall result.

Financial statements at current cost — Balance Sheet

Items valued at current cost are not subject to restatement because they are already valued in terms of unit value in the current balance sheet date.

Financial statements at current cost — Income Statement

Generally, the income statement shows the current cost to current cost of items in the time the relevant transactions and events occurred. The cost of sales and depreciation costs are recorded as current at the time of consumption, sales and other expenses are recognized for their monetary amounts to be carried out. Therefore, all these items need to be restated in terms of the current unit value at the balance sheet date, and this is done by applying a general price index.

Financial Statements at current cost — Gain or loss on net monetary position

Gains and losses resulting from net monetary position is calculated and included in net income and disclosed separately.

Income Taxes

The restatement of financial statements in accordance with this rule may result in differences between the carrying amount of individual assets and liabilities on the balance sheet and the corresponding tax bases. These differences are accounted for in accordance with IAS 12, Income Taxes.

Statement of Cash Flows

IAS 29 requires that all items in the cash flow statement are expressed in terms of the measuring unit current at the reporting date.

Corresponding figures

Prior reporting period's corresponding figures (whether based on a historical cost approach or a current cost approach) are restated by applying a general price index so that the comparative financial statements are presented in terms of the measuring unit current at the end of the reporting period.

Consolidated financial statements

A parent that reports in the currency of a hyperinflationary economy may have subsidiaries that also report in the currencies of hyperinflationary economies. These subsidiaries' financial statements need to be restated by applying a general price index of the country in whose currency it reports before consolidation by the parent. Where the subsidiary is a foreign subsidiary, its restated financial statements are translated at closing rates.

Where the financial statements with different reporting dates are consolidated, all items shall be restated into the measuring unit current at the date of the consolidated financial statements.

Selection and use of the General Price Index

The restatement of financial statements in accordance with IAS 29 requires the use of a general price index that reflects changes in general purchasing power. It is preferable that all entities use the same index, particularly when it involves the same economy.

Economies ceasing to be hyperinflationary

When an economy ceases to be hyperinflationary and an entity discontinues the application of IAS 29, the entity shall treat the amounts expressed in the measuring unit current at the end of the previous reporting period as the basis for the carrying amounts in the subsequent financial statements.

Prescribed Disclosures

Required disclosures include

- the fact that the financial statements and corresponding figures for previous periods have been restated for the changes in the general purchasing power of the functional currency and, as a result, are stated in terms of the measuring unit current at the reporting date
- whether the financial statements are based on a historical cost approach or a current cost approach
- the identity and level of the price index at the reporting date and the movement in the index during the current and the previous reporting period.

Interpretations

The Standards Interpretations Committee (SIC) of the IASC and the International Financial Reporting Interpretations Committee (IFRIC) of the IASB has issued the following four Interpretations relating to IAS 29 :

- SIC 19, Reporting Currency—Measurement and Presentation of Financial Statements under IAS 21 and IAS 29 [issued in November 2000 and superseded by IAS 21, The Effects of Changes in Foreign Exchange Rates (Revised 2003)]
- SIC 30, Reporting Currency—Translation from Measurement Currency to Presentation Currency [issued in December 2001 and superseded by IAS 21 (Revised 2003)]
- IFRIC 7, Applying the Restatement Approach under IAS 29 Financial Reporting in Hyperinflationary Economies (issued on November 24, 2005, effective from March 1, 2006)

IFRIC 7: IAS 29 requires that the financial statements of an entity that reports in the currency of a hyperinflationary economy should be stated in terms of the measuring unit current at the reporting date. Comparative figures for prior period(s) should be restated into the same current measuring unit. IFRIC 7 contains guidance on how an entity would restate its financial statements in the first year—it identifies the existence of hyperinflation in the economy of its functional currency.

The restatement approach on which IAS 29 is based distinguishes between monetary and non-monetary items. However, in practice, there has been uncertainty about how an entity goes about restating its financial statements for the first time, especially deferred tax balances and comparatives.

The main requirements of the Interpretation are

- In the period in which the economy of an entity's functional currency becomes hyperinflationary, the entity shall apply the requirements of IAS 29 as though the economy had always been hyperinflationary. The effect of this requirement is that restatements of non-monetary items carried at historical cost are made from the dates at which those items were first recognised; for other non-monetary items the restatements are made from the dates at which revised current values for those items were established.
- Deferred tax amounts in the opening balance sheet are determined in two stages :

a. Deferred tax items are remeasured in accordance with IAS 12 after restating the nominal carrying amounts of the non-monetary items in the opening balance sheet by applying the measuring unit at that date.

b. The deferred tax items remeasured in this way are restated for the change in the measuring unit from the date of the opening balance sheet to the date of the closing balance sheet.

Comparative Indian Standard

The Institute of Chartered Accountants of India (ICAI) notes that the hyperinflationary conditions do not prevail in India. Accordingly, the subject is not considered relevant in the Indian context for issuance of Accounting Standards by the ICAI.

Conclusion

IAS 29 requires companies to value all non-monetary items – both variable and constant items – in units of constant purchasing power by applying the CPI at the financial year end date. But unfortunately IAS 29, as it is currently formulated, does not incorporate continuous financial capital maintenance in units of constant purchasing power during hyperinflation. ❒

Supply Chain Practices in Indian FMCG Sector : A Swot Analysis

Dr. Swami Prasad Saxena*
Sonam Bhadauriya**

"The right product at the right price in the right place at the right time."
The pace of change and the uncertainty about how markets will evolve has made it increasingly important for companies to be aware of the supply chains they participate in and to understand the roles that they play. Those companies that learn how to build and participate in strong supply chains will have a substantial competitive advantage in their markets. This paper examines supply chain systems of selected top FMCG companies in India and also tries to find the strengths, weaknesses, opportunities and threats of supply chain practices of Indian FMCG sector.

To succeed in the competitive markets that make up todays economy; companies must learn to align their supply chains with the demands of the markets they serve. Supply chain performance is now a distinct competitive advantage for companies who excel in this area. Supply chain management (SCM) is the coordination of production, inventory, location, transportation and information among the participants in a supply chain to achieve the best mix of responsiveness and efficiency for the market being served. Companies in any supply chain must make decisions individually and collectively regarding their actions in these five areas.

In the wider view of supply chain thinking, these additional activities are now seen as part of the work needed to fulfill customer requests. Supply chain management views the supply chain and the organizations in it as a single entity. It brings a systems approach to understanding and managing the different activities needed to coordinate the flow of products and services to best serve the ultimate customer.

Effective supply chain management requires simultaneous improvements in both customer service levels and the internal operating efficiencies of the companies in the supply chain. Customer service at its most basic level means consistently high order fill rates, high on time delivery rates, and a very low rate of products returned by customers for whatever reason. Internal efficiency for organizations in a supply chain means that these organizations get an attractive rate of return on their investments in inventory and other assets and those they find ways to lower their operating and sales expenses.

The central thought of the paper is to study the supply chain system/practices adopted by Indian companies in FMCG (Fast Moving Consumer Goods) sector. This paper is organized in four sections. The first section briefly outlines the overview of supply chain system/practices in Indian FMCG sector, and then discusses need, objectives and methodology adopted. Section two describes SCM practices in selected top five Indian FMCG companies. In section three an attempt has been made to present an analytical

Fig. 1 : Effective Supply Chain System

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vision of the strengths, weaknesses, opportunities and threats (SWOT) of supply chain practices in Indian FMCG sector. Section four wraps up the work with some material suggestions.

Need of Study : Distribution is critical factor for FMCG, to achieve higher product visibility and lesser inconvenience for the customer in obtaining the product. There is no one right model for a supply chain. So the need is felt to analyze the supply chain practices of top FMCG companies and identify their strengths and weaknesses.

Research Objective : Present paper is aimed at SWOT (Strengths, Weaknesses, and Opportunities & Threats) analysis of SCM practices in Indian FMCG companies with special reference to Hindustan Unilever Limited, Gujarat Cooperative Milk Marketing Federation (AMUL), NESTLÉ India, Asian Paints & Dabur India Limited.

Methodology : A descriptive research design has been employed in the course of this study. The present paper is describing the SCM practices of five Indian FMCG companies selected from the list of top ten Indian FMCG companies provided by naukrihub.com. Information with regard to their supply chain practices have been collected from the research papers, books, internet websites, literature of selected companies, news papers etc. Information collected is analyzed by using SWOT analysis technique.

Supply Chain Practices in Indian FMCG Sector

India is rated the fifth most attractive emerging retail market. It has been ranked second in the Global Retail Development Index (GRDI) of 30 developing countries drawn up by AT Kearney.[1] The Indian FMCG sector is the fourth largest in the economy and has a market size of US $13.1 billion. Well-established distribution networks, as well as intense competition between the organized and unorganized segments are the characteristics of this sector. In India it has a strong and competitive presence of MNCs across the entire value chain.

The performance of the industry during the period from 2000 to 2003 was inconsistent in terms of sales and growth. In this period, the investors in the sector could not get returns at par with other booming sectors.

But, after two years of sinking performance, year 2005 witnessed the FMCGs demand growing. In year 2006, with rise in disposable income and improving health of economy, various segments of the economy registered strong growth, the urban consumers also continued with their shopping spree.[2]

FMCG sector is expected to grow by over 60% by 2010 that will translate into an annual growth of 10% over a five year period (2005-2010). It has been predicted that the FMCG market will reach to US $ 33.4 billion in 2015 from US $ billion 11.6 in 2003.[3] The middle class and the rural segments of the Indian population are the most promising market for FMCG, and give brand makers the opportunity to convert them to branded products. Most of the product categories like jams, toothpaste, skin-care, shampoos, etc, in India have low per capita consumption as well as low penetration level, but the potential for growth is huge.

SCM at Hindustan Unilever Limited

We cannot think of FMCG Industry in India without Hindustan Unilever Limited (HUL), taking care of 110 brands with 950 pack sizes across categories as diverse as foods and soaps. TCI Logistics has applied all its transportation and warehousing expertise for managing complex supply chain system of HUL. To meet the ever-changing needs of the consumer, HUL has set up a distribution network that ensures availability of all their products, in all outlets, at all items. This includes maintaining favorable trade relations, providing innovative incentives to retailers and organizing demand generation activities among host of other things.[4]

HUL has followed a strategy of building its distribution channels in a transitional manner; and in different successive phases of the evolution of its distribution system. It has penetrated well into the rural markets. Though, HUL works on the hub and spoke (H&S) system, but, its large number of stock keeping units (SKUs) and brands demand a more sophisticated version of the hub & spoke system. In the present, HUL uses not only one-tier H&S model, but a three-tier setup.

In the first phase of HUL's distribution network, wholesalers directly place orders in bulk with the company. Large retailers are also allowed to place direct orders, which comprise almost 30 percent of the total orders collected. The company salesmen group all these orders and place an indent with the Head Office. Head Office sends goods to company salesmen (as consignee) who collect and distribute the products to the respective wholeselers/retailers,

1. At Kearney, Equity Research on FMCG, www.scribd.com

2. Indian Industry Overview, www.naukrihub.com.

3. Ibid

4. Enroute, (Oct-Dec), 2004

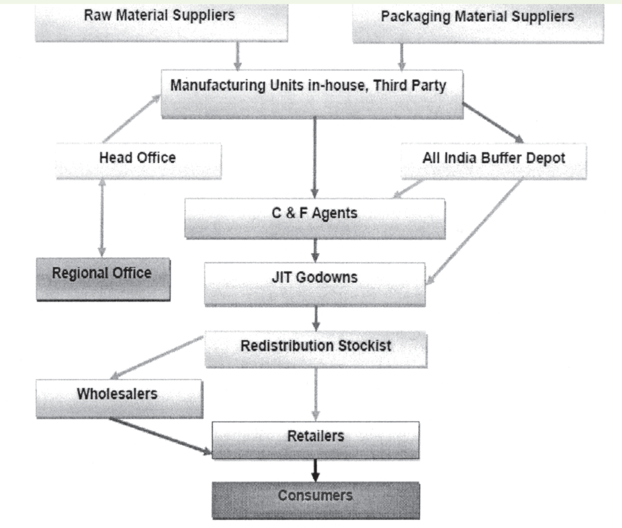

Fig. 2 : Hindustan Unilever's Supply Chain

against cash payment. The salesmen remit the money collected from wholeselers/retailers to the company. The carry & forward agents (C&FA) system results in cost savings in terms of direct transportation and reduced time lag in delivery.

The focus of the second phase is to provide desired products and quality service to the company. customers. In order to achieve this, one wholesaler in each market is appointed as a "Registered Whole saler," a stock point for the companys products in that market. The company salesman still covers the market, canvassing for orders from the rest of the trade. Then he distributes stocks from the Registered Wholesaler through distribution units maintained by the company. The Registered Wholesaler gains a margin of one per cent to cover the cost of ware-housing and financing the stocks held by him. The Registered Wholesaler system, therefore, increases the distribution reach of the company to a larger number of customers.

The highlight of the third phase is the concept of "Redistribution Stockist" who replaces the Reg-istered Wholesalers. The Redistribution Stockist finances his stocks and provides warehousing fa-cilities to store them. The Redistribution Stockist also undertakes demand stimulation activities on behalf of the company.

SCM AT GCMMF (AMUL)

Gujarat Cooperative Milk Marketing Federation (GCMMF)—popularly known as AMUL—is a dairy cooperative in western India that is been pri-marily responsible, through its innovative practices, for India to become the world's largest milk producer. Starting with a single shared plant at Anand and two village cooperative societies for milk procurement, the dairy cooperative movement in state of Gujarat had evolved into a network of 2.12 million milk producers (called farmers) who are organized in 10,411 milk collection independent cooperatives (called village societies). These Village Societies (VS) supply milk to thirteen independent dairy cooperatives (called Unions). AMUL is one such Union. Milk and milk products from these Unions are marketed by a common mar-keting organization (called Federation).

From the very early stages of the formation of AMUL, the cooperative realized that sustained growth for the long-term was contingent on matching supply and demand. Accordingly, AMUL and GCMMF adopted a number of strategies to assure such growth. At the time AMUL was formed, the vast majority of consumers had limited purchasing power and was value conscious with very low levels of consumption of milk and other dairy products. Thus, AMUL adopted a low price strategy to make their products affordable and guarantee value to the consumer.[5] The success of this strategy is well recognized and remains the main plank of AMUL's strategy even today. The choice of product mix and the sequence in which AMUL introduced its products is consistent with this philosophy.

GCMMF has 42 regional distribution centers in India. It serves over 500,000 retail outlets and exports to more than 15 countries. With a view to reduce the cost to the consumers and also to increase returns to suppliers GCMMF changed its supply chain paradigm. GCMMF's distribution network is quite reasonable with appropriate access to rural areas of the country.[6]

From the very beginning, processing of milk and production of dairy products are being considered as the core activities for the Unions. At the present too, Unions focus their efforts on these activities and also on related technology developments. The mar-keting efforts (including brand development) are assumed by GCMMF. All other activities are en-trusted to third parties. These include logistics of milk collection, distribution of dairy products, sale of products through dealers and retail stores, some veterinary services etc. It is worth noting that a number of these third parties are not in the organized sector, and many of them are not professionally managed. Hence, while third parties perform the activities, the

5. Pankaj Chandra & Devanath Triupati, ''Managing Complex networks in emerging markets : The story of Amul'', Working Paper No. 2002-05-06, Indian Institute of Mangement, Ahmedabad, India, May 2002.
6. Ibid

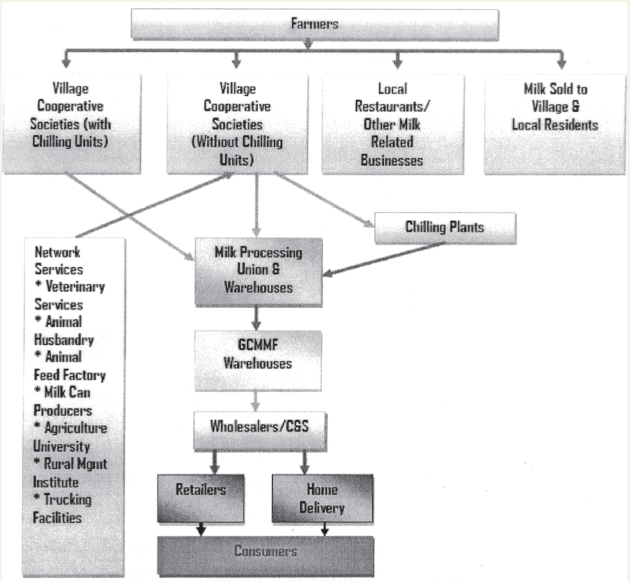

Fig. 3 : GCMMF (Amul)'s Supply Chain

Unions and GCMMF are developing a number of mechanisms to retain control and assure quality.

From supply point of view, majority of the suppliers of AMUL are small or marginal farmers who are often illiterate/untrained, poor, and with liquidity problems as they lack direct access to financial institutions.

AMUL and other cooperative unions are adopting a number of strategies to develop the supply of milk and ensure steady growth. The short term strategies include: (i) Determination of procurement prices with a view to provide fair and reasonable return to the farmers; (ii) Cash payments to milk supplies with minimum of delay with a view to tackle their liquidity problems. This practice continues even today with many village societies making payments upon the receipt of milk.

For the long-term, Unions are following a multi-pronged strategy of education and support. For example, only a part of the surplus generated by the Unions is paid to the members in the form of dividends. A substantial part of this surplus is used for activities that promote growth of milk supply and improve yields. The ideas of core competence and the role of third parties in managing the supply chain were recognized well before in AMUL which are well practiced by GCMMF and AMUL.

SCM at Nestlé India

With an employee strength of over 3,000 and turnover of US$ 497 million in 2003, Nestlé India is one of the leading companies in the FMCG space in India. The company is acknowledged amongst India's 'Most Respected Companies. and amongst the, Top Wealth Creators of India. Milk is Nestlé's top business line and comprises about 25% of its global sales. Nestlé operates 91 milk factories in 45 countries, and purchases about 12 million tons of fresh milk from 300 000 milk farmers each year. Milk products and nutrition account for around 45 per cent of Nestlé India's total revenues. The company's beverage products generate 22 per cent of the company's total revenues, while prepared dishes and cooking aids generate 18 per cent, and chocolate and confectionery 15 per cent of total revenue of the company.[7]

The culture of innovation and renovation, continuous improvement and the thrust on value-for-money and affordability help the company to focus on adding value for the consumers. The company continuously focuses on operational efficiency; product improvement, availability and visibility of product. It also emphasizes on initiated efforts to make its products more relevant to the consumers.

Nestlé has employed unique milk collection model using computerized system where information on each farmer, cow and batch of raw fresh milk is tracked from pickup to delivery and production. In this model, every batch of milk received needs to pass a series of strict quality checks before it is 'lead sealed' prior to being transported to the factory.

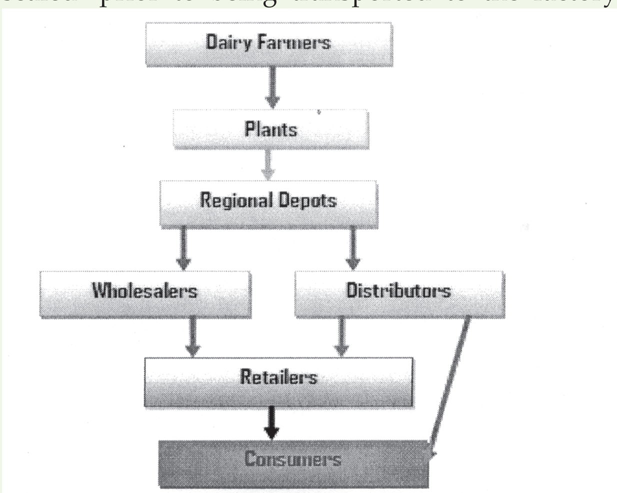

Fig. 4 : Nestle India's Supply Chain

SCM is especially critical for the food industry because of the ease of spoilage. Seen that way, SCM becomes a branding issue. When Nestlé places its logo on a product, the logo represents "a seal of quality." Protecting that quality makes Nestlé responsible for its entire supply chain. Even though Nestlé feels responsible for every link in the supply chain, it outsources many of those activities.

7. Fortune 500 Companies in India, 2004.

Nestlé defines SCM as the two-way management of the flow of goods, services and information from suppliers to manufacturers, wholesalers, distributors, stores to the end users. For the last few years, Nestlé India is focusing on improving the supply chain to reduce wastage, improve efficiencies and to provide fresh stocks to consumers all the time. In this regard the company has adopted various measures. Some of the main steps taken by the company are :

- Reduction in the finished goods inventory pipeline to improve freshness of stocks and reduction in working capital.
- Control on distribution costs through innovative measures.
- Sustained improvement in customer service levels to improve product availability across all geographies and channels.
- Reduction in obsolescence of materials distribution strategy.

Nestlé is developing its distribution channels which ensure the availability of its product to buy wherever and whenever the consumer wishes to purchase it. Nestlé tries to supply goods through as many outlets as possible—both wholesaler and retailer channels.

SCM at Asian Paints

Asian Paints is India's largest paint company and is ranked among the top 10 decorative coatings companies in the world. The company provides innovative solutions for decorative home improvement, industrial and automotive painting requirements. Asian Paints sells products through near about 25,000 local retailers, who resell its products to home users, contractors and painters. The company also sells paints and colors to original equipment manufacturers (OEM) and to large contractors serving the OEM marketplace. To serve those demanding market segments, Asian Paints produces more than 1,200 standard paint product SKUs and many made-to-order formulations.

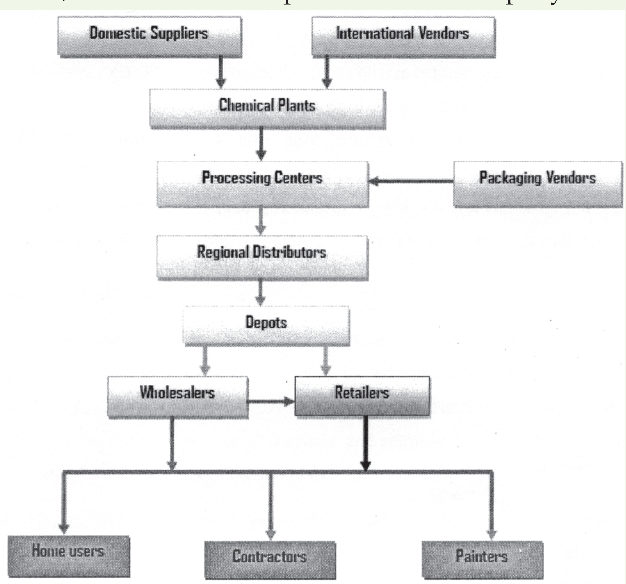

Fig. 5 : Asian Paints' Supply Chain

Asian Paints operates about 80 sales offices to support its marketing and distribution efforts. The company sources raw materials from both domestic suppliers and a set of international vendors from various parts of the world. With a view to manage its crucial supplies the company uses a sophisticated materials planning system. At the present Asian Paints has 2 chemical plants, 18 processing centers, 380 raw material & intermediate suppliers, 140 packaging vendors, 6 regional distribution centers and 72 depots.[8]

Asian Paints applies advanced master planning technologies to decide which products should be produced at which manufacturing plants, incorporating variables such as cost, demand volume, capacity, current inventory levels, environmental requirements and other factors. Further, it optimizes production across multiple objective levels like capacity, demand satisfaction, safety stock requirements, inventory optimization and transportation costs.

Asian Paints owns three layers of the supply chain, viz. the paint factories, the regional distribution centres and the sales depots. Though the company explored certain other areas also in SCM theory, like transshipment, these were shown to be difficult to implement in practice. Company's enhanced master planning system enables Asian Paints to optimize the kinds and size of inventory it holds, and to deal more effectively with fluctuations in the volatile paints market. Further, a better material planning system allows the company to create more complex paint formulas, and to select the best vendor and manufacturing method for any given situation. In terms of market performance, improved supply chain planning and execution systems have allowed the company to grow. It is now four times in terms of size it was 10 years ago, while drastically reducing the on-hand inventory needed to serve its customers.

SCM at Dabur India Limited

Dabur India Limited is one of India's leading FMCG companies. Building on a legacy of quality and experience for more than 120 years, Dabur is India's most trusted name and the world's largest Ayurvedic and Natural Health Care Company. Dabur has come a long way in popularizing and making a whole range of products based on the traditional

8. www.supplychainleader.com

science of Ayurveda, and setting very high standards in developing products and processes that meet stringent quality norms.

Presently, Dabur has 16 ultramodern manufacturing facilities spread throughout the globe. Its products are marketed in more than 50 countries.[9] The company has strengthened its demand forecasting capabilities which has resulted into greater operational efficiencies and lower inventory costs. The new approach allowed employees to shift their focus from simple transactions to more strategic procurement efforts such as cost management. The company has developed a "comprehensive retail strategy" marked as Dabur's first significant effort in identifying key customer segments in urban and rural markets, customizing sales programs for key accounts, and in reorganizing company.s sales teams by one of four trade channels (viz. modern trade, rural trade, "mom-and-pop", and the drugstores).

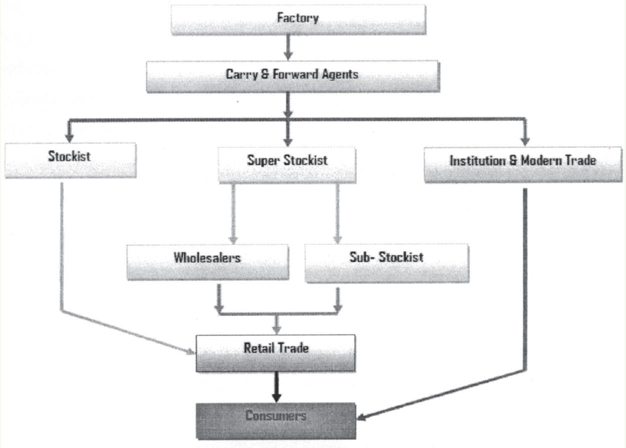

Fig. 6 : Dabur India's supply chain

In the area of product distribution, the company focuses on bolstering efficiencies and rural market penetration and design a channel-specific strategy for grocers, chemists, modern trade, wholesalers and convenience stores. In developing an effective sales program, Dabur pays special attention to Indian mega retailers, which are expected to account for more than 15 percent of consumer product sales by 2010.[10]

For this group of customers, the company has established a new operating model that includes a pricing architecture framework to aid negotiations, an activation strategy to guide tactical initiatives, and revised roles and responsibilities for all members of the trade field force. In devising this strategy, the Dabur team is optimizing company's internal logistics and distribution processes for mega retail customers, and put metrics and incentives in place to drive specific goals such as consistency of sales in grocery stores, improved service to drug stores and increased sales via wholesale channels.

The basic product distribution model of Dabur includes dealers, wholesalers, C&F agents, retailers and kirana stores. However, the company now has higher distribution footprint and enhanced visibility for the food business, post integration of food and CCD, which is expected to have increased contribution to the total sales. Though, losses from the new retail ventures may put pressure, on bottom line but, despite inflationary pressure the company doesn.t see any pressure on overall top line as the market is still underpenetrated. However, keeping margins at the current level may be a challenge considering that the company is entering into new product categories (surface cleaner, malted food drinks) and aggressively relaunching and reinventing its product portfolio.

Swot Analysis

SWOT analysis is a means to understand the external and internal environment. Through such analysis, strengths and weaknesses—which exist within the internal environment—are matched with the opportunities and threats operating in the external environment so that an effective action plan/strategy can be formulated. An effective action plan is one that capitalizes on the opportunities through the use of strengths and neutralizes the threats by minimizing the impact of weaknesses.

An understanding of environment in terms of the strengths, weaknesses, opportunities and threats is crucial for the existence, growth and performance of any sector/component of the economy. The Strengths, Weaknesses, Opportunities and Threats (SWOT) of Supply Chain Mechanism of Indian FMCG sector as available in existing literature and observed by the researcher through discussion with executives and companies. representatives are :

Strengths

- Presence of well-known brands.
- Large raw material base suitable for food processing industries.
- Proper availability of raw materials due to the diverse agro-climatic conditions.
- Advantage of low cost of production because of low labor and delivery costs.
- Well established distribution networks extended to both urban and rural area.
- Enabled IT solutions for improvement of whole supply chain activities.

9. Dabur India Limited Research, 16 May, 2008
10. Ariba, 2008, www.ariba.com

- Proper company support agricultural & technical assistance to farmers for improved productivity & quality.
- Presence of Indian companies across the value chain of FMCG sector right from the supply of raw materials to packaged goods in the food-processing sector brings India a more cost competitive advantage.
- Low throughput time/production cycle, and flexible operations.

Weaknesses

- The "Me-too" products, which illegally mimic the labels of the established brands, narrow the scope of FMCG products in rural and semi-urban market.
- Lower scope of investing in technology and achieving economies of scale, especially in small sectors.
- Low exports level due to high degree of competition in global market.
- FMCG companies still raising prices of products even as raw materials are getting cheaper.
- Companies focus more on creating power brands and earning higher margins.

Opportunities

- Find areas to produce high quality materials and cost-effective ways to meet demand.
- India FMCG companies have suppliers identifying opportunities to decrease costs and suggest ideas on ways to improve the supply chain. FMCG companies should make efforts to perform joint costreduction/quality improvement programs.
- India has a large domestic market as population is 1.2 billion. FMCG companies have immense possibilities for growth in rural areas as the presence of 12.2% of the world population live in the villages of India.
- Increased focus on farm sector will boost rural incomes, hence, providing better growth prospects to the FMCG companies.
- Globalization of business has opened new horizons for Indian FMCG companies. Indian FMCG companies have immense export potential.
- Health-based products are becoming more popular in the world, including in India. FMCG companies should take advantage of this.
- FMCG market has also growth potential in the urban areas as increase in the urban population, along with increase in income levels and the availability of new categories, would help the urban areas maintain their position in terms of consumption.
- Indian IT companies have started focusing on Indian industry. So this may be a unique opportunity for the Indian FMCG companies to exploit the capabilities available with Indian IT industry. The FMCG companies should not invest in technology for the sake of it. They must ensure that there is a linkage between IT investments and supply chain improvements.

Threats

- To enable the suppliers both in rural and urban parts of India. Rural India is spread across 627,000 villages and possesses a serious distribution challenge for FMCG companies.
- Challenges related to requirement of professionals, IT sourcing, procurement activities, and to bring more members into the network and increase their capabilities.
- Increased competition from foreign brands due to globalization and removal of import restrictions resulting in replacing of domestic brands.
- There is a lack of technological advancement, internet connectivity, low level of computer literacy, and poor infrastructure issues which is unique to India and require innovative solutions.
- Challenges related to dealing with suppliers of different cultures, languages, and time zones throughout the world. Challenges concerned with management of diverse set of suppliers spread across the globe.
- Complex distribution structures and a large number of customers at the bottom of the economic pyramid.

Conclusion

Decisions relates to place are all about the storing and transporting of products, and also selecting the products. channel of distribution. These decisions are critical to the success of an organization. Effective supply chain management drives down costs and enhance product quality. To succeed in the competitive markets that make up today's economy; companies must learn to align their supply chains with the demands of the markets they serve. Supply chain performance is now a distinct competitive advantage for companies who excel in this area. One of the largest companies in North America is a testament to the power of effective supply chain management. Wal-Mart has grown steadily over the last 20 years and much, if not most, of its success is directly related to its evolving capabilities to continually improve its supply chain. ❏

An Overview of Earnings Management

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Introduction

There is nothing absolute in accounting. Although, now-a-days, with the introduction of various accounting standards, the scope of differences in opinion has been minimised, still there are enough scope differences in opinion, which may be purposeful or not. In other words, still there are some loopholes in accounting guidelines, which have been utilized fully by various organisations in order to achieve their objectives by manipulating the accounting books—without violating any rules. The companies are twisting their bottomline (i.e., profit) by managing the earnings, which is collectively known as earnings management.

Earnings management may be defined as implementing intentional window dressing to the earning figures, to meet the desired objectives set by the management. These objectives may be set by the management themselves or for any other reasons (discussed subsequently). Put differently, earnings management is an 'inter-temporal' transfer of income between two or more periods, i.e., by implementing aggressive accounting a firm can borrow from future, and vice versa.

There are four major techniques of earnings management—Cookie Jar Reserves, Big Bath Accounting, Revenue Recognition and Materiality. Collectively, these are known as creative accounting. Creatively produced income statement, in most of the cases, may not reflect the real picture of the organisation, yet they are not illegal—but surely violate the spirit of the GAAP.

The objectives of this article are: (a) to find out the reasons behind managing earnings, (b) to throw some light on various techniques used for earnings management. And (c) to see how the investors can solve the problem of managing the earnings by the companies, i.e., some indicators to detect these things and way to handle the same.

Managing Earnings : Why?

There are various reasons for the managers to manage their earnings. We try to discuss some of them in a brief manner.

Smoothening of earnings

The primary force behind managing the earnings is lying with the 'TARGET' which is set by the company. This is also known as 'BENCH-MARKING'. If the company fails to achieve the target by a big margin then they generally want to show the position more badly, by advancing the expenses or otherwise (discussed later), with an intention to show higher future earning. This type of creativity is referred to as 'BIG BATH ACCOUNTING'.

Again, when the company over-performed, i.e., achieves much more than the target, then they want to hide some amount of 'excess profit over the target', with an intention to utilise those in the bad period. Managing the earning in this way is referred to as 'COOKIE-JAR ACCOUNTING'. Moreover, when the company misses the target by a short margin, they want to make-up the gap of the bottomline by some creative devices.

Minimising the cost of capital

In order to achieve the value maximisation criteria (maximizing the wealth of the shareholders), a company must minimise its cost of capital. This is because of the fact that, as the discount rate (read as cost of capital) of the project cash flow increases, the NPV of that particular project gets decrease. The cost of capital is very much dependent on the riskiness of the firm and this riskiness directly varies with the fluctuation of the earnings figure. Therefore the management tries to keep their prime figure non-volatile as much as possible by utilising the loopholes of the existing accounting rules and framework.

Dealing with agency costs

Agency costs mean the various restrictions to management imposed by the debt holders. Maintaining a minimum level of working capital is one of them. If we take working capital as a difference between current assets and current liabilities, one can manipulate both the figures and, as a consequence of that, the figure of incomes and expenses would be

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manipulated. For example, by charging lower provision for bad debts, an entity can show higher amount of current assets as well as higher amount of profit. Therefore, by following this route the profit figure may be managed according to the desire of the management. However, working capital in true sense will be unaffected, irrespective of the degree and nature of creativity.

Getting favourable deals in mergers and takeovers

Merger and takeover are popular strategic weapons to the managers in order to avoid com-petition or to diversify the business. The accounting figures play a big role in the deal of merger and acquisitions. Needless to mention that earning figure is a prime factor of that deal. Therefore, in order to get the intended response from the counter-party, they have some incentives to manipulate these figures. In this respect this is to be remembered that intended response means either to get higher amount of purchase consideration or to get rejected by the counterparty. The latter one is equally important because some companies do not want to be acquired by other companies—for that they want to show themselves less attractive to the bidders, up to the extent possible.

Avoiding political and other interventions

The companies earning large profits often hesitate to disclose that in the financial statement as they think that this will attract the eye of regulatory and various other authorities. The legislators may get tempted to think that the company is enjoying a high degree of monopoly power and exploiting their customers. On the basis of this premise they may impose some restrictive measures in the form of legislation. Thus the companies exercise a certain degree of creative devices to hide their profit. Apart from that the well known 'Tax Avoidance' factor is one of the driving force for that.

Getting favourable price in option trading

By managing earnings, a company can get options at a low strike price and exercise them at high price as much as possible. Researchers have shown that management generally postpones good news and prepones bad news just prior to the option grant awards, which allow them to get options at a lower price and to make them much more valuable. In other words, they exercise profit reducing creativity before getting the options and thereafter some creativity to increase the profit prior to the exercise of that option.

Managing Earnings : How?

Management has a variety of options to manage its earning. Managers may adjust the stream of their earnings by using income increasing creative accounting methods at initial stage and, subsequently income decreasing creative method, or vice versa, depending upon the situation. The various techniques may involve creativity in revenue accounting or creativity in form of manipulation of expenses. In discussing the reasons behind earnings management we have already discussed about the Cookie-Jar reserves and Big-Bath accounting techniques of managing earnings.

The other techniques used for managing earnings are discussed in this section :

Revenue recognition

Manipulation of timing of revenue recognition is, perhaps, the easiest way to manage earnings. Normally, revenues are recognised at the time of realisation with certain exceptions and the possibility of creativity is hidden in these exceptional areas. For example, an organisation that sells goods with warranty for certain or specified period may manipulate the timing of revenue recognition and this depends upon how much profit the management wants to show in the current year and how much they want to shift in the coming years.

Increasing revenue through liberalizing credit standard

A firm, particularly at the time of facing deficiency of turnover, may boost up the sales by relaxing credit standards or by offering higher discount etc. This process of increasing the revenue definitely involves higher possibility of bad debt losses, higher opportunity loss in form of discount, and so on. With an intention to show desired amount of profit the management may not show adequate amount of bad debt provision. However, this weapon is primarily used for creative accounting but not exclusively to manage earnings, because, with the possibility of bad debt loss, the counter-adjustment of earnings on the later years may become uncontrollable to the firm.

Channel loading

Managers can show higher revenue by creating artificial transactions and giving their effect in the books of accounts. One of the popular methods is to accelerate revenue recognition just prior to the end of the accounting period by showing the marginal sales (a portion of which may relate to the next year) as current year sales, or vice versa, depending upon the situation. Another application of this route is that the reporting firm may attempt to get inventory off their books by booking them as revenue, though the buying firm does not agree to buy such additional quantities. Such procedure is known as 'CHANNEL LOADING'.

Under this situation the ratio of receivables to sales will increase. In extreme cases this sale transaction may be an outright fraud, by moving the inventory in to unnamed godown and showing them as actual sales or, in some cases, a false sale entry is passed (but without any movement of inventory) and, in the next year, the same is recorded as purchase (without any movement of inventory) from the same or different party. There are also certain other related techniques such as recording the advance received from customers or goods sent to customers on approval basis (on which time period allowed to the customer is not over) as actual sales.

Depreciation

Depreciation is the distribution of total cost of asset over its useful life. The definition looks very simple but this is the most controversial topic in profit accounting. By complying the framework given in AS 6, AS10, AS26 and AS28, managers can manage their earnings form various sides such as change in method of depreciation, change in estimated useful life (remaining), upward or downward revaluation of asset, etc. :

(i) Change in method of depreciation: The amount of depreciation on straight line method is higher than that of diminishing balance method if the rate of depreciation is constant. By complying the rule framed in AS6, if an organization changes its method from straight line to diminishing balance it can show higher amount of profit in the current year (by crediting P & L A/c to the extent of excess amount of depreciation charged earlier) and for the future periods also. Similarly, the organization can show the lower amount of profit by following the reverse route.

(ii) Change in estimated life of the fixed asset: As per AS6, by changing the estimated useful life of the asset, the amount of depreciation can be changed. In consequence to that, the amount of profit can also be twisted.

(iii) Upward or downward revaluation and impairment of fixed asset: An organization is allowed to revalue its fixed asset (AS10) in certain circumstances. The figure of profit of the current year can be reduced by way of downward revaluation of fixed asset. On the contrary, the profit cannot be increased by way of upward revaluation, as the same is treated through revaluation reserve account. The above rules are applicable for first time revaluation only. However, the subsequent upward or downward revaluation—depending upon the impact of first time revaluation—may or may not have the direct impact on the profit.

Similarly, as per AS28, the impairment loss is to be recognized through P & L A/c. The impairment loss is defined as the difference between carrying amount and recoverable amount of fixed asset. An organization can exercise enough discretion to determine the recoverable amount (higher of net selling price and value in use), hence the profit figure can be twisted easily.

Accrual

Accruals are the differences between earnings and cash flows and most of the earnings management is based on these accruals. A huge amount of accounting entries involves creation of accruals. For example, purchasing goods on credit involves creation of accruals because a payable is recognised along with the purchase, although there is no cash outflow as yet on that account. Most of the accruals are in place simply because of matching principle of accounting and tends to reverse out over time. For example, a payable today disappears tomorrow if the cash is paid. But from these procedures one can manage its earnings. Actually earnings management is an 'inter-temporal' transfer of income between two or more periods, i.e., by implementing aggressive accounting a firm can borrow from future and by implementing conservative accounting it can save up for the future.

Detecting Earnings Management

A very brief framework from accounting point of view is provided below to detect earnings management :

1. Compare volatility of accrual income measures (such as operating income or net income) with underlying volatility of sales and cash from operations.
2. Find out the accounting policies and methodologies followed by a particular firm, particularly with respect to the key decision areas.
3. Evaluate the above policies in the light of the policies followed by the competitors. If there is any significant deviation, analyse that.
4. Find out what type of accounting policies is followed by the firm in the past years—aggressive or conservative. Analyse (or predict) and match the impact of those decisions in the later years.
5. There are some common accounting indicators (provided in Box 1 below) by which we can detect a firm managing its earnings :

Box 1 : *Some general signals of a firm managing its earnings*
➢ Sudden changes in accounting policies, particularly when the performance is bad. ➢ Abnormal increase in accounts receivable to sales ratio.

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Turmoil in Indian Aviation Sector : Challenges Ahead

Mausumi Bhattacharyya*

Civil aviation sector in India has been witnessing a dull phase during the last few years. Initial trouble started with the opening up of the sector to private players. Protected public sector airlines started feeling the heat of competition from low cost private carriers. Rising fuel prices, lack of adequate infrastructure, shortage of skilled stuff, unfavourable fiscal policy and global recession resulted in declining profitability and added to the woes of the Indian aviation industry. The sector, however, holds immense potential as the rising middle class population with reasonably high affordability is going to comprise the largest customer segment in the days to come. Cost and management accountants have a crucial role to play in translating this potential into reality.

According to the Centre for Asia Pacific Aviation (CAPA), the Indian civil aviation sector, at present, is the ninth biggest aviation market in the world. But in recent times aviation sector in India has stolen the headlines for landing up at financial turmoil. The financial condition of the sector continues to be precarious with most airlines being saddled with huge debt and soaring interest burden. Though the passenger growth has surged enabling airlines to improve the load factor and their factor productivity, profitability is still inadequate to pay-off the debt and liabilities accumulated during the excesses of 2006-09. All the air carriers have been running into heavy financial losses over the past few years. The most prestigious public sector airline, Air India was forced to ask for a bailout package from government. Other private sector airlines are also crippled with host of problems jeopardizing their smooth functioning. The sad state of aviation sector comes as a paradox when India is seen as one of the fastest growing aviation markets in the world. The present paper aims at delving into reasons behind the sorry state of the sector as also at putting up a roadmap for the revival of the industry.

Sector overview

The genesis of civil aviation in India dates back to 1912 when the first domestic air route between Karachi and Delhi became operational under the aegis of Indian State Air Services in collaboration with UK based Imperial Airways. Tata Airline, the first private airline in India, was set up by JRD Tata in 1932. Tata Airlines became a public limited company on 29 July 1946 under the name *Air India* (AI). In 1948, after the independence of India, 49% stake of the airline was acquired by the Government of India, with an option to purchase an additional 2%. In return, the airline was granted status to operate international services from India as the designated flag carrier under the name *Air India International*. On 1 August 1953, the Government of India exercised its option to purchase a majority stake in the carrier and Air India International Limited was born as one of the fruits of the Air Corporations Act that nationalised the air transportation industry. Accordingly, Indian Airlines Corporation and Air India International were set up to provide domestic and international air travel services respectively. On 8 June 1962, the airline's name was officially truncated to Air India (AI). At the time of independence, nine airlines were operative in India. Government of India nationalised all the nine airline companies vide the Air Corporations Act, 1953. At the same time, all these domestic services were transferred to Indian Airlines (IA). The Act ensured that IA and AI had monopoly over the Indian skies. Air India International entered the jet age in 1960. On 11 June 1962, Air India became the world's first all-jet airline. The monopoly of government-owned air services continued till mid 1990s.

In April 1990, the GOI adopted open-sky policy and allowed private airlines to operate flights from any airport, both on charter and non-charter basis, with complete freedom of deciding time schedule and cargo or passenger fares. By replacing the Air Corporation Act of 1953 by the Air Corporations

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(Transfer of Undertaking and Repeal) Act, 1994, GOI ended the monopoly of AI and IA in air transport service. With this development, private operators were allowed to enter the Indian aviation industry. Foreign direct investment (FDI) up to 49% and NRI investment up to 100% were permitted in the domestic air transport sector. However, foreign airlines were barred from holding any equity stake in a domestic airline. The Director General of Civil Aviation (DGCA) controlled every aspect of aviation and finally Airport Authority of India (AAI) was entrusted with the charge of administering every aspect of air transport through air traffic control. With the liberalisation of Indian aviation sector, the industry witnessed the entry of many privately owned full service and low cost airlines like Jet, Sahara, NEPC, East West and Damania. By the year 1995, private airlines accounted for more than 10 per cent of air traffic. Among the private carriers, only Jet and Sahara managed to survive competition. IA, which had dominated Indian air transport sector, started losing market share to Jet and Sahara. As in April 2010, Jet Airways and its subsidiary Jet Lite had the highest number of passengers at 10.28 lakhs but among the budget airlines, IndiGo was the leader with 6.25 lakh passengers. The Jet Airways-Jet Lite group now has 25.4 per cent of the market followed by Kingfisher at 22.2 per and Air India at 18 per cent. Thus, with the deregulation and consequent emergence of private airlines in India, the saga of the sorry state of public sector airline, namely AI and IA, made a beginning.

Classification of aviation sector

The Indian aviation sector mainly consists of (i) scheduled air transport service which includes domestic and international airlines according to a published or scheduled time table (ii) non-scheduled air transport service which fly on charter basis and the operators of which are not permitted to publish time schedule of the flights and sell tickets to passen-gers, and (iii) air cargo services usually carrying cargo and mail within India on either scheduled or non-scheduled basis. For flying abroad they need to seek special permission from DGCA.

The aviation industry in India comprises three types of players, namely (i) full-cost carriers (ii) low-cost carriers, and (iii) start-up airlines. With the liberalization of the Indian aviation sector, aviation industry experienced rapid transformation. The primarily government-owned aviation industry of India is now dominated by full service low cost private players. Private airlines account for around 75% share of domestic aviation market. Emergence of large middle class population coupled with cheaper airfare made air travel affordable to a sizable section of Indian population.

Problems surfacing in aviation sector

Indian aviation sector is undergoing a tough time as plethora of problems surfaced during the last few years. The sector is badly affected by financial turmoil, with the domestic air traffic in 2009 dropping at five-year low. Nation's air carriers are trying to tide over the problems. Global financial crisis, high fuel prices, rising labour cost, shortage of skilled staff, intense price competition and infrastructure con-straints are among the major hurdles that the aviation sectors will have to overcome. Following are the crucial issues plaguing the sector :

Fuel price

Rising fuel prices are playing havoc on the aviation sector. Fuel prices in India are about double that of international prices. This is squeezing the airlines' profits. Fuel taxation policy of the Indian Government is largely distorted leading to low airlines' profitability. With the Union Budget imposing a 5% custom duty on crude oil, fuel costs of airlines have gone up proportionately, making their profitability even more vulnerable to the price war. The concern has been heightened due to the niggling fear of a further rise in crude oil prices in the international market.

Fiscal policy

Taxes within any country have a direct bearing on the performance of domestic or foreign carriers. Additional costs are carried forward to the consumer in terms of airfares (Doganis, 2002). The 2010-11 budget proposals, however, have led to an increase in aviation turbine fuel prices owing to imposition of customs and excise duties on imported crude oil and pe-troleum products. In addition, service tax will now be levied on airlines passengers. In the present scenario, it looks difficult for airline companies to absorb this level of taxation and it may have to be passed on to consumers in the form of a hike in air fares. This will, in turn have an impact on the volume of air passenger traffic and, ultimately, once again affect the profitability of the India's airlines sector.

Infrastructure bottleneck

Lack of proper infrastructure is also a major hurdle in the aviation sector development. The growth in the aviation sector and capacity expansion is constrained by poor infrastructure facilities. Airport and air traffic control infrastructure is inadequate to support growth. The lack of infrastructure to support the high growth in the aviation sector has left some big holes which have created doubts about the safety standards of the sector. The recent Mangalore crash is partly a fall out of poor infrastructure at the airport.

Staff shortage

Shortage of trained and skilled manpower is another obstacle in the growth of aviation sector. The shortage of skilled staff force high attrition rate and consequent increase in salary for retaining the staff. Shortage of trained pilots, co-pilots and ground staff limits the sector's growth prospects. The shortage of pilots has forced the airlines to employ over 500 pilots of foreign origin to fly planes. The other gaps include lack of examiners to certify pilots, lack of training facilities and shortage of skilled ground engineers to certify the planes before they go for flights. There is also shortage of controllers for Airline traffic control. All these have important bearings on safety of flying.

Competition

Indian aviation sector has been left open to the world without making its domestic airlines, particularly public sector ones, competitive. Quite obviously, the public sector domestic airlines faced a huge crisis in competing with the private sector ones. The sorry state of AI and IA amply bears out the testimony of unparallel competition.

Declining profits

Low cost carriers dominate the Indian aviation market with around 75% of market share. Lure of high return has attracted many players, which, in turn, enhanced competition. Stiff competition forced the players to cut down fares. With the sharp costs escalation, profits decline following the reduction in air fares. However, low fares have induced demand growth for air travel. But such fares do not even allow airlines to recover their costs.

Global recession

Every sector of global economy has felt the heat of global meltdown. Indian aviation sector is no exception to it. Aviation business largely depends on the overall performance of the economy. Doldrums in other sectors affect aviation sector significantly. However, Indian economy is recovering well, which might have a corresponding influence on our aviation sector.

Air India experience

The entry of low cost carriers in the Indian aviation sector posed a huge threat to the country's most prestigious airline, Air India. Since the formation of National Aviation Company of India Limited (NACIL) in 2007 by the merger of Air India and Indian Airlines, the merged entity has been posting huge losses. Air India failed to become an efficient organization in competitive market. In fact, it had never run on purely commercial line as it was meant to service politicians and bureaucrats. Such practices distorted the playing field for the airline and artificially shore up Air India's performance. In that sense, Air India was made to run on indirect government subsidies.

Air India's problems should be attributed more to operational inefficiencies arising from inappropriate authority structures and lack of accountability than to poor marketing. A change in its business strategy must be preceded by change in the management structure for the revival of the airline.

Apart from managerial inefficiencies, a major problem that plagues Air India is that it is hugely overstaffed. The success of low cost carriers, in contrast, lie in their capacity to curtail staff expenditure. The cash-strapped AI's employee-cost currently runs over Rs. 3,000 crore annually. The airline has now been targeting a reduction in employee cost to the tune of Rs. 500 crore per annum. There is every doubt as to whether such a move would yield any tangible outcome because wages account for just 16 per cent of Air India's total costs. So the scope for reducing losses through wage or employee reductions is quite small (Ram Mohan, 2010). At present, the merged carrier has around 31,000 employees (Rediff.com, 2009). It has strong unions to fight for the protection of their own interests.

Therefore, reduction in workforce may not be a viable way out. Moreover, the continuous strikes and cease work by the AI employees further dampen its image and, consequently, rendering its prospects of revival bleak. AI suffers from a bloated work force typical of the public sector. It performs in-house a wide range of functions that other airlines outsource. Still, Air India's workforce per aircraft compares favourably with that of several other airlines. Thus, either outsourcing some of its in-house operations or focusing on efficiency of employees, AI may attempt a turnaround.

Even though Air India is the national flag carrier, there is increasingly a feeling that the airline must revamp and restructure or be allowed to sink or swim on its own. The latest reports for 2009-10 indicate, however, that Air India—which merged with the domestic carrier Indian Airlines in 2007—has shown a decline in operating losses. Going by published reports, operating losses have declined by Rs. 1,300 crore during the financial year owing to a 14 per cent rise in passenger traffic. The airline's load factor also rose to 64.5 per cent as compared to 58.5 per cent during the previous year.

Air India still has a long way to go as the total losses of the entity are estimated at around Rs. 5,400 crore. The government has assured funds for restructuring the NACIL, but this will have to be accompanied by efforts to cut costs by the airline itself. The budgetary support will be in the form of equity infusion and the first tranche of Rs. 400 crore was to be given earlier this year. The 2010-11 budget proposals also envisage an outlay of Rs 1,200 crore for financial restructuring of NACIL. Air India is to bear the burden of enormous losses that would have pushed any private airline to close down but governmental support is propping up this flag carrier. The question is how long this artificial respiration be allowed to continue.

Experts feel that the failed merger is partly responsible for the non-performance and losses of NIACL. Since 2001, Air India made a profit every year until 2006-07. Indian Airlines made a profit in three out of those six years. NACIL ran up losses of Rs 2,200 crore in 2007-08. Losses for 2008-09 estimated at over Rs 5,000 crore. In 2009-10, losses could exceed Rs 12,000 crore (Rammohan, 2010). The synergies expected from the merger could not be realized in practice. Thus, the saga of tumultuous Air India is an outcome of short sightedness and failed vision of the policy makers.

Besides merger, very high fuel costs, the global economic downturn and comparatively low yields due to heightened competition also contributed to the rise in AI losses, which have been estimated by the International Air Transport Association (IATA) to account for one-third of the losses of the global aviation industry.

Avenues ahead

In recent years, the capacity expansion of airlines has outpaced the demand for the same. It is true that while air travel demand grew at a rate of 2 to 2.5 times the GDP growth rate, airlines increased capacity at a rate faster that that of growth of demand (Management Review, 2010). Air fares were slashed so as to remain competitive and also due to the perishable nature of air line seats. So, the fares charged do not actually match the costs. Therefore strategies need to be adopted to align the balance of demand and supply in the short-run.

For the revival of Indian aviation industry, huge foreign direct investments (FDI) are urgently required. Removal of the regulatory constraints on FDI by foreign airlines may redress the problem. The cap on FDI (49 per cent) in the Indian aviation sector was contemplated to protect the interests of Indian Airlines at a time when Singapore Airlines sought to enter our domestic aviation sector through a joint venture with Tatas. But things have changed a lot since that time. At present, the sector is badly in need of capital. Thus, the FDI cap needs to be removed for the restructuring the sector. The consolidated document on FDI policy, released on March 31, 2010, reveals that for the civil aviation sector, FDI up to 100 per cent is allowed under the automatic route for greenfield projects and, for existing projects, FDI up to 100 per cent is allowed. Investments up to 74 per cent under the automatic route and beyond 74 per cent, under the government route, are permissible.

In the west, success of low cost carriers (LCCs) lies in the existence of secondary airports. A secondary airport is usually an under-utilized, reliever airport that complements a city and its primary airport. Sometimes this airport is far away from a city's centre and sometimes it is close. There is no formal definition of a secondary or primary airport. A secondary airport is usually within a specific radius of a city's centre. In India, such secondary airports hardly exist. The present regulatory structure does not allow airports to be closer than 150 km to each other (IIMB Management Review, 2010). Development of secondary or feeder airports may boost the demands for air traffics in the primary airports.

For connecting smaller cities, Hub and Spoke model is quite effective. The hub and spoke model is a system which makes transportation much more efficient by greatly simplifying a network of routes. It is extensively used in commercial aviation for both passengers and freight. The model is named after a bicycle wheel, which has a strong central hub with a series of connecting spokes. An airline routes all of its traffic through one central hub or regional hubs. For example, Kolkata is the hub for all air traffics to North-east, similarly Mumbai acts as a hub for the western part of the country. Although the physical routing in India is Hub-and-Spoke-based, the ticket pricing is not. As the punctuated journeys are separately priced, total fare goes beyond commoners' affordability. Moreover, scheduling of the flights is not always Hub-and-Spoke based. That is, time schedules of the connecting flights do not always match.

The design of a Hub and Spoke model is highly efficient for a myriad of reasons. It facilitates day to day operations of an airline or freight company. By centralizing control, the company can manage with smaller staff which concentrates on management from a central location. In the case of freight, all packages can be sorted at the hub, rather than at multiple locations. This makes the freight company much more efficient, and reduces the risk of error. The Hub and Spoke system also ensures that most flights are full or near full.

There are, of course, disadvantages to a Hub and Spoke model. Any disruption at the hub, such as bad weather or a security problem, can create delays throughout the system. The overall operating efficiency is also limited by the capacity of the hub. Many airlines consciously choose different cities for hubs, so that two major airlines do not consider the same airport as a hub. The airline must also schedule flights very carefully to ensure that all of the spokes are getting the service they need, and to keep passengers content.

Many airlines supplement their Hub and Spoke model with code-share, partner flights, or a small commuter airline. Code-share is an aviation business terminology for the practice of multiple airlines selling space on the same flights, where a seat can be purchased on one airline as if actually operated by a cooperating airline under a different flight number or code. It allows greater access to cities through a given airline's network without having to offer extra flights, and makes connections simpler by allowing single booking across multiple planes. Private carrier Jet Airways would now be able to provide connectivity to 38 US cities from India as it entered into a new code share agreement with America's United Airlines very recently (The Economic Times, 2010). Practice of effective code sharing may provide passengers with more convenient travel package and render airline industry more profitable.

The aviation industry is susceptible to external economic factors because it depends on and also influences a number of industries. As the air services range across borders of a country, economic state of other parts of the world too influence the domestic airline sector. Fiscal policies of domestic and destination countries, wage inequality and various positive and negative externalities have a definitive bearing on the operation of the aviation sectors of a country. Many people in India have got a renewed interest in availing aviation service for spreading their business across the borders of India. Experts assert that aviation industry has numerous effects on the GDP of the country. Providing substantial amount of employment directly or indirectly is a major contribution of the aviation sector. Besides, it boosts tourism and hospitality sectors. The aviation industry has the potential of bringing trade improvement, enhancement of business efficiency, boost investments, among other direct or residual benefits.

There are certain negative externalities as well. Most critical among them is environmental hazard owing to its fuel consumption pattern. Aviation sector is responsible for high carbon emission into the atmosphere, for which many governments have passed regulations requiring airlines to curb emissions from aircraft. Aircraft companies are responding to this environmental sustainability issue by changing the designs of the engines. Aircrafts are now available which consume much less fuel than the old ones used to consume. Indian aviation sector needs to pay attention to the environmental sustainability. But, accommodating such changes will require huge outlay causing further financial trouble for the airline company (Keller & Buttler, 2000).

Concluding remarks

The annual Economic Survey, presented before the budget 2010, highlighted the improved performance of the aviation industry. It said the civil aviation sector had shown signs of slowdown in passenger traffic during 2008 due to the steep rise in fuel price coupled with the impact of global economic slowdown. The survey pointed to the fact that signs of recovery had become visible in the second half of 2009 with scheduled domestic passenger traffic having gone up from 40.8 million in 2008 to 43.3 million in 2009. On the other hand, it noted that cargo traffic remained in doldrums and showed almost no growth (Ramachandran, 2010).

The survey observed that the airline industry appeared to be looking up after the crisis in the latter half of 2008. It was at this time that large scale retrenchments by major companies like Jet Airways had created a hue and cry in the country. The scale of revival is indicated by official traffic data released recently showing that domestic passenger traffic increased by as much as 23 per cent in January 2010, compared to the same period last year.

The dynamics of the airline industry are becoming increasingly pronounced as deregulation and competitions increase. Technology and government involvement are no longer grantees of success. However, the business model is becoming the leading factor of survival in this industry. Cost and management accountants have a major role to play in the revival of airline industry. Cost saving without compromising at the quality standard of the service is the secret of profitability. Aviation sector needs the thoughtful guidance from efficient cost and management accountants in finding out ways and means in rejuvenating the sector. Rising middle class population with reasonably high affordability will comprise the largest customer segment in the days to come. For them, LCC will be the most acceptable option. Hence airline industry must work out hard to capture this huge business potential by redrawing their cost structure. ❑

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contd. from page 930

- ➢ Abnormal change in accounts payable to purchases ratio.
- ➢ More or less consistent earning figures in the last few years.
- ➢ Existence of profit boosting transactions such as sale of fixed assets.
- ➢ Increasing volume of write-off and write-back of provisions.
- ➢ Increasing gap between reported profit and cash flow from operating activities.
- ➢ Increasing gap between reported profit and profit for tax purposes.
- ➢ Increasing volume of related party transactions.
- ➢ Increasing volume of fourth quarter accounting adjustments.
- ➢ Change in auditors or qualified/adverse audit report.

6) For any manipulative figures in the financial statements, try to restate those for the purpose of decision making.

Conclusion

Needless to mention that nowadays, in spite of several accounting standards, laws, rules and regulations etc., manipulation in the accounts can not be prevented. In consequence to that, management of earnings by the managers is quite obvious. The managers are utilizing the loopholes of the rules to manage their earnings. This may serve the personal agenda of the managers but it is surely a very harmful practice form overall point of view, as it causes harm to the majority of the stakeholders in the long run.

A careful investor or analyst must take care of various factors of detecting earnings management— before deploying their fund. ❐

e-Voting Revolution — In Pusuit of better Corporate Governance

Joffy George Chalakkal*
Prof. (Dr.) K. Sasikumar**

e-Voting is an internet based system through which shareholders can login and register their votes on company resolutions. The system would process and record votes automatically and facilitate declaration of voting results quickly. It is believed that e-Voting system would be relatively more efficient, convenient and cost effective. The Companies (Passing of the Resolution by Postal Ballot) Rules, 2001 issued by Central Government under Section 642 of the Companies Act, 1956, includes electronic voting. The e-Voting system would permit a company or its registrar to set up the schedule on the e-voting website and upload the resolution and register of shareholders. The online voting system is aimed at enhancing corporate governance and increasing shareholder participation in listed companies, and is a common feature in advanced countries. However, all the advantages are futile if they can be abused and the election results can be manipulated. e-Voting in India must be accompanied by proper plan and adequate information and communication technology infrastructure. At the same time special emphasis must be given to the cyber security aspect of e-voting mechanism in India.

Literature has shown that countries with strong democratic traditions are not yet using electronic voting systems intensively, given citizens' and policymakers' concerns about the security of such systems. To date, commercially available technology requires an infrastructure that poses complex technical challenges for reliability and security. Despite our technological process, e-voting technology does not yet provide a completely "secure e-transaction environment". Some claim that e-voting will never be error-free and that it is good in theory, but, in practice, the risks are too large.

The contradictions are apparent: most countries in the developed world have held off adopting e-voting systems given their concerns about security and their knowledge of the implications of insecure systems for democracy. However, costly technological systems are being imposed in less developed countries.

Indian stock markets have recently seen a phenomenal growth in volume as well as in number of investors. Today, between the two depositories, NSDL and CDSL there are more than 1.60 crore Beneficial Owners Accounts. Most of these account holders are retail investors. These investors—by virtue of their equity holding—are the ultimate owners of the companies issuing the equity. The legislature provides for their participation in the overall management of the companies by exercising the voting right in the relevant meetings of the shareholders of the companies.

e-Voting Revolution

e-Voting is an internet based system through which shareholders can login and register their votes on company resolutions. The system would process, record votes automatically and facilitate declaration of voting results quickly. It is believed that E-Voting system would be relatively more efficient, convenient and cost effective. The Companies (Passing of the Resolution by Postal Ballot) Rules, 2001, issued by Central Government under Section 642 of the Companies Act, 1956, includes electronic voting.

An issue which has been the subject of recent interest is the possibility of company shareholders voting for the purposes of a shareholders' meeting by electronic means—through the internet or by email.

With this revolutionary development, shareholders can now cast their votes on corporate proposals through the click of a mouse without having to worry whether their response has reached the company or not. The e-Voting system would permit a company or its registrar to set up the schedule on the e-voting website and upload the resolution and register of shareholders. The online voting system is aimed at enhancing corporate governance and increasing shareholder participation in listed companies, and is a common feature in advanced countries like the United States, United Kingdom, China, Japan, Australia, and South Korea.

Electronic voting offers shareholders convenience and alternatives for attending a shareholders' meeting. Furthermore, shareholders coming from remote areas can easily exercise their proxies without traveling. Last but not the least, the inability of attending shareholders' meetings accidentally scheduled on the same day can be thus easily avoided.

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Shareholders have no better way to get their point across than to vote. The government agrees and is urging investors to vote early and often. But the mechanics of shareholder voting do not reflect the technological capabilities of the 21st century; the paper-based system is cumbersome and expensive. One alternative is electronic voting. There is no way to make company Boards feel more accountable than to force them to poll their shareholders on crucial issues.

Use of Information and Communication Techlology in General meetings

One of the central issues of information and communication technology in company law matters relates to the admissibility of electronic voting, being the shareholder directly casting his or her vote with the company. Although this type of voting is considered very desirable by most listed companies, it is not without consequences. At present, the general meeting is still an assembly of shareholders, few or many, gathering in a specific place and expressing their opinion on the future of the company in light of the statements made by the Board and questions posed by the shareholders. By allowing for electronic voting, there is a danger that the mechanism of the general meeting might be reduced to a mere voting device, without any discussion and little possibility for shareholders to have any impact on the decision. The general meeting will end up in a system of adding up the votes cast.

It is useful to distinguish between electronic voting during the meeting and distance voting. The former does not raise specific problems, as it is merely an alternative technique for counting the votes. The second is much more controversial: here voting may occur while the meeting is taking place, or before the meeting, the votes having been cast and stored in the electronic ballot box.

Legal Framework

To increase the participation of retail investors in the decision-making process of companies, the Ministry of Corporate Affairs notified the Companies (Passing of the Resolution by Postal Ballot) Rules, 2001. However, due to the large number of shareholders, this option also has received a limited response. A more convenient means for exercising the voting rights will help to increase shareholder participation in the decision-making process. Rule 2(b) of The Companies (Passing of the Resolution by Postal Ballot) Rules, 2001, defines postal ballot as :

"Postal Ballot" includes voting by shareholders by postal or electronic mode instead of voting personally by presenting for transacting businesses in a general meeting of the company.

Also, the proposed Companies Bill, 2009, has provision for offering electronic voting facility to shareholders for resolutions placed at General Meetings. Thus, e-Voting system can be used not only for electronic voting for postal ballot, but also at General Meetings, once the Companies Bill is passed.

Legal Difficulties

Specific provisions allowing electronic voting exist under Australian law, and also under the laws of American states, Canada and the United Kingdom. Necessary amendments to the Companies Act would be necessary to make it clear that electronic voting is permissible, subject to appropriate safeguards. The risk in allowing electronic voting is that, if, as a matter of law, that does not comply with the Companies Act, the whole shareholders' meeting, and the resolutions passed at it, could be invalid.

The position needs to be clarified by legislation. Specific provisions allowing electronic voting exist under Australian law, and under the laws of American states, Canada and the United Kingdom.

Similar provisions are proposed to be inserted in the Indian Companies Act by the Companies Bill, 2009.

Benefits of e-voting to companies/Registrar and Transfer Agents

- The voting process will be faster and cost efficient.
- Reduce administrative cost of postal voting as there will be no need to get the physical votes back, no verification of signature, and counting of ballot votes
- Increased accuracy
- Faster results
- Reduces the time involved in sending the notice and completing the entire process.

Benefits of e-voting to shareholders

- Participation in the decision making process
- Ease of voting
- Invalid votes cannot be cast
- Transparent process
- Impersonation not possible.

Benefits of e-voting to Capital Market

- Fairness of a voting platform provided by third party wins more trust from the society.
- Reduce cost of proxy process for the capital market.
- Enhance efficiency of proxy process for the capital market.

- Promote investors' awareness of "Shareholders' Democracy" concept.
- Materialize and fortify company's perception of "Corporate Governance".

International Scenario

European Union (EU)

The European Parliament recently gave its approval to the proposal that was agreed upon by the Council. The possibility of voting by electronic means strengthens the position of small investors and thus prevents random majorities. Moreover, the new rules will contribute to the further integration and continued stability of the European capital market. The Directive removes obstacles which previously had to be overcome by shareholders if they held shares in companies listed in other EU countries and wanted to exercise their rights there.

The days when small investors with company shareholdings in another Member State did not learn of important shareholder decisions until the day after the general meeting took place are, therefore, now in the past. Now every shareholder can participate in real time.

Article 8 of the European Shareholders' Rights Directive obliges Members States to provide listed firms with the right to offer their shareholders electronic participation in the general meetings, electronic voting being one of the suggested mechanisms. Shareholders' electronic voting has been contemplated by Spanish Company Law since 2003.

United Kingdom

In UK, every FTSE (Financial Times Stock Exchange) 100 companies now allows electronic voting or is taking steps to do so. This increase is expected to cascade rapidly into the next tier of companies by market capitalisation. There has also been more use of electronic voting facilities by institutional investors over the years, although take up is still not universal and not all institutional votes are cast electronically.

Taiwan

The Company Law was amended and promulgated on June 22, 2005, and came into effect on June 24 of the same year. In response to the technological progress in electronic communication, Company Law was revised to incorporate communication voting in order to facilitate proxy process and encourage participation from shareholders to vote proposals. This revision also allows companies to accept proxies either in printed format or electronically from the shareholders. Shareholders who vote electronically are deemed no distinction to those who attend the meeting in person.

Conclusion

Electronic voting (e-voting) is a process that allows casting of votes through different electronic mechanisms. It includes both casting of votes as well as the counting of the same through electronic methods. The e-voting technology and platform may include punch cards, optical scan voting systems, and specialised voting kiosks, telephone, SMS, etc.

However, all the advantages are futile if they can be abused and the election results can be manipulated. E-Voting in India must be accompanied by proper plan and adequate information and communication technology infrastructure. At the same time, special emphasis must be given to the cyber security aspect of e-voting mechanism in India.

While the use of e-voting may help expanding the voting community yet there must be a suitable policy and regulation to prevent and remedy misuses arising out of such voting system. Every new system brings its own peculiar problems and the proposed e-voting system would also face the same. Only time would tell how effective this system would be.

The system is by no means perfect and—as long as we continue to hear stories of votes being lost due to clerical errors—improvements are necessary. It is incumbent on all participants to take the necessary remedial actions. ❑

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THE INSTITUTE OF COST AND WORKS ACCOUNTANTS OF INDIA

Examination Time Table & Programme – December 2010

Certificate in Accounting Technicians [CAT]

Day & Date	Time	Foundation Course (Entry Level) Part I
Tuesday, 14th December, 2010	02.00 P.M. to 05.00 P.M.	Organisation and Management Fundamentals
Wednesday, 15th December, 2010	02.00 P.M. to 05.00 P.M	Accounting
Thursday, 16th December, 2010	02.00 P.M. to 05.00 P.M.	Economics and Business Fundamentals
Friday, 17th December, 2010	02.00 P.M. to 05.00 P.M.	Business Mathematics and Statistics Fundamentals

Day & Date	Time	Foundation Course (Entry Level) Part II
Friday, 10th December, 2010	09.30 A.M. to 12.30 P.M.	Financial Accounting
Saturday, 11th December, 2010	09.30 A.M. to 12.30 P.M	Applied Statutory Compliance

	Examination Fees	
Inland Centres	**Foundation Course (Entry Level) Part I**	**Rs. 730/-**
	Competency Level Part II	**Rs. 730/-**

1. Application Forms for CAT Examination can be down loaded from Institute's website www.icwai.org and filed on line also.
2. Last date for receipt of Examination Application Forms without late fee is **11th October, 2010** and with late fee of Rs. 100/- is **20th October, 2010**.
3. Examination Fees to be paid through Bank Draft of requisite fees drawn in favour of "ICWAI A/C CAT" payable at New Delhi.
4. Student will send their Examination Application Forms along with the fees to Directorate of CAT at "ICWAI Bhawan", 3, Institutional Area, Lodi Road, Delhi – 110 003.
5. **Examination Centres** : Agartala, Ahmedabad, Akurdi, Allahabad, Alwar (Rajasthan) Asansol, Aurangabad, Bangalore, Baroda, Bhilai, Bhopal, Bhubaneswar, Bilaspur, Bokaro, Berhampur(Ganjam), Calicut,Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Durgapur, Ernakulam, Faridabad, Ghaziabad, Guwahati, Hardwar, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jammu, Jamshedpur, Jodhpur, Kalyan, Kannur, Kanpur, Kolhapur, Kolkata, Kota, Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naihati, Nasik, Neyveli, Noida, Panaji(Goa), Patiala, Patna, Pondicherry, Pune, Rajahmundry, Ran chi, Raigarh (Chattisgarh), Rourkela, Salem, Shillong, Solapur, Surat, Shahjahanpur, Thrissur, Tiruchirapalli, Tirunelveli, Trivandrum, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyanagar, Waltair.
6. A candidate who is fulfilling all conditions will only be allowed to appear for examination.
7. Probable date of publication of result : Foundation Course (Entry Level) Part – I is **1st February 2011** and Competency Level Part – II is **20th February 2011.**

C. Bose
Sr. Director (Examination)

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS OF INDIA

(Established by an Act of Parliament)

Examination Time Table & Programme – December 2010

Programme for Syllabus 2008

Day, Date & Time	Intermediate 09.30 A.M. to 12.30 P.M.	Final 02.00 P.M. to 05.00 P.M.	Foundation 02.00 P.M. to 05.00 P.M.
Friday 10th December 2010	Financial Accounting	Capital Market Analysis & Corporate Laws	
Saturday 11th December 2010	–	Financial Management & International Finance	
Sunday 12th December 2010	Commercial and Industrial Law & Auditing	Management Accounting Strategic Management	
Monday 13th December 2010	Applied Direct Taxation	Indirect & Direct — Tax Management	
Tuesday 14th December 2010	Cost & Management Accounting	Management Accounting — Enterprise Performance Management	Organisation and Management Fundamentals
Wednesday 15th December 2010	–	Advanced Financial Accounting & Reporting	Accounting
Thursday 16th December 2010	Operation Management and Information Systems	Cost Audit & Operational Audit	Economics and Business Fundamentals
Friday 17th December 2010	Applied Indirect Taxation	Business Valuation Management	Business Mathematics and Statistics Fundamentals

Programme for Management Accountancy — December 2010 Examination

Friday 10th December 2010 09.30 A.M. to 12.30 P.M.	**Friday** 10th December 2010 02.00 P.M. to 05.00 P.M.	**Saturday** 11th December 2010 09.30 A.M. to 12.30 P.M.	**Saturday** 11th December 2010 02.00 P.M. to 05.00 P.M.	**Sunday** 12th December 2010 09.30 A.M. to 12.30 P.M.
Management Accountancy	Advance Management Techniques	Industrial Relations & Personnel Management	Marketing Organisation & Methods	Economic Planning & Development

Examination Fees

Group (s)	Final Examination	Intermediate Examination	Foundation Course Examination	Management Accountancy Examination
One Group (Inland Centres) (Overseas Centres)	Rs. 950/- US $100	Rs. 850/- US $90	Rs. 800/- US $60	Per Group Rs. 2500/-
Two Groups (Inland Centres) (Overseas Centres)	Rs. 1800/- US $100	Rs. 1600/- US $90		

1. Application Forms for Foundation Course, Intermediate and Final Examinations are available from Institute's Headquarters at 12, Sudder Street, Kolkata, Regional Councils and Chapters of the Institute on payment of Rs. 30/- per form. In case of overseas candidates, forms are available at Institute's Headquarters only on payment of US $ 10 per form.
2. **Last date for receipt of Examination Application Forms without late fees is 11th October 2010** and with late fees of Rs. 200/- is **20th October 2010**.
3. Examination fees to be paid through **Bank Demand Draft** of requisite fees drawn in favour of the Institute and payable at Kolkata.
4. Students may submit their Examination Application Forms along with the fees at ICWAI, 12 Sudder Street, Kolkata –700 016 or Regional Offices or Chapter Offices. Any query can be sent to Sr. Director (Examination) at H. Q.
5. **Finance (No. 2) Act 2009, involving Assessment Year 2010-2011, will be applicable for the subjects Applied Direct Taxation (Intermediate), Applied Indirect Taxation (Intermediate) and Indirect & Direct—Tax Management (Final) for the purpose of December 2010 term of Examination under Revised Syllabus 2008.**
6. **Examination Centres** : Agartala, Ahmedabad, Allahabad, Asansol, Aurangabad, Akurdi, Bangalore, Baroda, Bhilai, Bhopal, Bhubaneswar, Bilaspur, Bokaro, Berhampur (Ganjam), Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Durgapur, Ernakulam, Faridabad, Ghaziabad, Guwahati, Hardwar, Howrah, Hyderabad, Indore, Jaipur, Jabbalpur, Jalandhar, Jammu, Jamshedpur, Jodhpur, Kalyan, Kannur, Kanpur, Kolhapur, Kolkata, Kota, Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naihati, Nasik, Neyveli, Noida, Panaji (Goa), Patiala, Patna, Pondicherry, Pune, Rajahmundry, Ranchi, Rourkela, Salem, Shillong, Solapur, Surat, Thrissur, Tiruchirapalli, Tirunelveli, Trivandrum, Udaipur, Vellore, Vijayawada, Vindhyanagar, Vapi, Vashi, Waltair, and Overseas Centres at Dubai and Muscat.
7. **A candidate completing all conditions will only be allowed to appear for examination.**
8. **Probable date of publication of result** : **Foundation — 1st February 2011, and Inter & Final — 20th February 2011.**

C. Bose
Sr. Director (Examinations)

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS OF INDIA

12, Sudder Street, Kolkata - 700 016

Telephones : (033) 22521031/34/35

Fax : 033-22521026, website : www.icwai.org, e-mail : exam.cb@icwai.org

Application for Inclusion in the panel of Moderators Paper-Setters, Head-Examiners and Examiners in the following Proforma in the following address to :

Chairman, Examination Committee, The ICWA of India, 12, Sudder Street, Kolkata-700 016.

Name in Full ....

Date of Birth ....

Address with Pin-code No...

Telephone No. .... Mobile No. ....

e-mail ....

Qualifications : Academic ....

Professional ....

Distinction, if any ....

Subject in which specialized ....

If Member of ICWAI : Membership No. .... Associate/Fellow ....

Present Position held ....

Period ....

Teaching Experience if any give details :

Name of the College/University/Institute	Subject	Years of Experience

Terms served as an Examiner in ICWAI and the Subject ....

....

If acted as a Paper Setter, Moderator, Head-Examiner or Examiner elsewhere :

	For how long	Subject	Name of the University/Institution
As a Paper Setter			
As a Moderator			
As a Head-Examiner			
As a Examiner			

Books Published, if any ....

Preference for appointment as Paper Setter or Head-Examiner or Examiner : ....

Subject preference .... Any Other Relevant Information (Whether able to do the above job in Hindi medium) ....

**Extra sheet may be added if space is inadequate*

Signature of the applicant

FOR ATTENTION OF MEMBERS

"CD of List of Members, 2010 will be made available for sale to the Members at a price of Rs. 100/- per copy. Members interested to procure the same may remit Rs. 100/- by Demand Draft drawn in favour of 'ICWA of India', payable at Kolkata, addressed to the Secretary, ICWAI."

BENEVOLENT FUND FOR THE MEMBERS OF THE INSTITUTE OF COST AND WORKS ACCOUNTANTS OF INDIA

An Appeal

Benevolent Fund for the members of the Institute of Cost and Works Accountants of India was created with the noble purpose of extending grants and financial assistance of prescribed amount to the members and beneficiaries of the Fund for medical treatment, financial distress and death. In the recent past, although the grants and financial assistance could be extended to the eligible members and beneficiaries of the Fund in time, it would have been possible to provide enhanced benefits if the membership of Fund had been larger. We, therefore, appeal to those members of ICWAI who have not yet become members to apply for life membership of the Fund immediately. For details and application form, please visit the website : www.icwai.org.

FOR ATTENTION OF MEMBERS

PROCEDURE FOR CHANGE OF ADDRESS & OTHER PARTICULARS

Members are requested to check their status from the option **Members -> Member Details -> Search Details & Check Dues** from the website www.icwai.org and inform the Institute with respect to the following :

1. In case of any change in the **professional address and other particulars**, the same is to be intimated through a signed hard copy preferably in the format **(Format "A" – Please see Annexure I)** given below to :	Additional Director-cum-Joint Secretary Membership Department The Institute of Cost and Works Accountants of India 12, Sudder Street Kolkata – 700 016. The signed intimation may also be sent by fax to no. 033-22521723. Otherwise, a scanned file of the signed intimation may be sent to e-mail address: membership.kb@icwai.org
2. If the **journal mailing address** is desired to be changed as per the professional address, the intimation in **(Format "A" – Please see Annexure I)** is also to be made to :	Additional Director-cum-Joint Secretary Membership Department The Institute of Cost and Works Accountants of India 12, Sudder Street Kolkata – 700 016.
3. In case of any change in the **journal mailing address only**, the same is to be intimated through a signed hard copy or by e-mail preferably in the format **(Format "B" – Please see Annexure I)** given below to :	The signed intimation may also be sent by fax to no. 033-22521723. Otherwise, a scanned file of the signed intimation may be sent to e-mail address: membership.kb@icwai.org Deputy Director (Research & Journal) The Institute of Cost and Works Accountants of India 12, Sudder Street Kolkata – 700 016. e-mail: research@icwai.org/rnj.arpan@icwai.org

ANNEXURE I

Format "A"

IN BLOCK LETTERS	CHANGE OF ADDRESS & OTHER PARTICULARS IN THE LIST OF MEMBERS			
	NAME IN FULL :			
	MEMBERSHIP NO. :			
	QUALIFICATION :			
	ADDRESS :			
	CITY :			
	STATE :			
	PIN CODE :			
	PHONE NO. (OFFICE) :			
	PHONE NO. (RESIDENCE) :			
	PHONE NO. (MOBILE) :			
	E-MAIL :			
	SIGNATURE OF MEMBER :		DATE:	

NOTE : PLEASE INDICATE N.A., IF ANY OF THE COLUMNS IS NOT APPLICABLE.

Format "B"

IN BLOCK LETTERS	CHANGE OF ADDRESS IN THE JOURNAL MAILING LIST			
	NAME IN FULL :			
	MEMBERSHIP NO. :			
	QUALIFICATION :			
	ADDRESS :			
	CITY :			
	STATE :			
	PIN CODE :			
	SIGNATURE OF MEMBER :		DATE:	

NOTE : PLEASE INDICATE **N.A.**, IF ANY OF THE COLUMNS IS NOT APPLICABLE.

For Attention of Practising Members
Procedure for Change of Professional Address & other Particulars

Practising members are requested to check their status from the option **Members -> Practising Cost Accountants -> Search Details** from the website www.icwai.org and inform the Institute with respect to their professional address and other particulars as reflected in the List of Members Holding Certificate of Practice.

In case of any change in the professional address and other particulars, the same is to be intimated by furnishing a duly filled in and signed Professional Development Information Form given below to:

Additional Director-cum-Joint Secretary
Membership Department
The Institute of Cost and Works Accountants of India
12, Sudder Street
Kolkata – 700 016.

The signed intimation may also be sent by fax to no. 033-22521723.

Otherwise, a scanned file of the duly filled in and signed Professional Development Information Form may be sent by attachment to e-mail address : membership.kb@icwai.org.

PROFESSIONAL DEVELOPMENT INFORMATION FORM

For ICWAI Members in Practice

Date……………….

Please return this Form duly filled in and signed to :

Additional Director-cum-Joint Secretary
Membership Department
The Institute of Cost and Works Accountants of India
12, Sudder Street
Kolkata – 700 016.

for inclusion in the "List of Members Holding Certificate of Practice."

IN BLOCK LETTERS

Name ……………………………………………………………………………………

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Qualification ……………………………………………………………………………………

Professional Address ……………………………………………………………………………………

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Telephone Number(s) Office : ……………………………………………………………………

Residence: ……………………………………………………………………

Mobile : ……………………………………………………………………

Fax Number ……………………………………………………………………………………

E-mail Address ……………………………………………………………………………………

(Signature of Member)

Membership No……….…..

CEP Notice

The **Continuing Education Programme Directorate is Organising Following Programmes— For Further Details** and on-line registration **visit our website** http://mdp.icwai.org/ OR www.icwai.org (click the link Management Development Programmes)

Contact Person

Mr. D Chandru
Additional Director (PD&P)
CEP Directorate,
ICWAI Bhawan, 3rd Floor
3 Institutional Area, Lodi Road
New Delhi 110 003
Tel 011-2464 3273 (D), 24622156/157/158

Name of the Programme	Duration	Course Coverage	Venue	Fee (Rs.)
Internal Auditing for Effective Management Control	21-24 Dec. 2010	• Changing Role of Internal Audit in an emerging Scenario of Globalization • Sarbanes-Oxley Act and Internal Control • ERP and Internal Audit • Environment & Safety Audit • Corporate Governance and Functional Audit • Reporting System and Model of Reporting, Communication Skills of Internal Auditor • Internal Audit vs Statutory Audit • Best Practices in Internal Audit	SHIRDI Hotel Shraddha Inn Pimpalwadi Rd Datta Nagar Shirdi 423 109. Ph. 02423-256629-32	Rs. 30,000/- (Rupees thirty thousand only) per participant on single room
Advance Tax, TDS and Tax Planning	21-24 Dec. 2010	• Provisions relating to Advance Tax, Planning for Advance Tax and Penal Consequences for not complying with the provisions of the Advance Tax • Provisions, procedures relating to tax deduction at source highlighting the recent amendments introduced • Provisions and procedure relating to tax deduction at source on salary income, rental income, payment to contractors and professionals • Issues relating to tax deduction at source on remittance to OCB and NR • Tax Planning aspects in respect of cross border transaction • Provisions relating to MAT and planning thereof. • Re-structuring of business (internal & external), Tools for tax planning • Tax incidence and planning in respect of CAPEX and OPEX and also the impact of such expenditure on the corporate tax • Accounting laws vs taxation laws • Discussion on Penal Interest on Secs. 234B, 234C and 234D and computation thereof at Taxation	SHIRDI Hotel Shraddha InnPimpalwadi Rd Datta Nagar Shirdi 423 109. Ph. 02423-256629-32)	Rs. 30,000/- (Rupees thirty thousand only) per participant on single room
Emerging Trends in Financial Management	01-11 Dec. 2010	• Corporate Financial Decision • Financial Strategies • Behavioural Finance • Global Sourcing of Capital • Enterprise Governance • Capital Budgeting and Investment Decisions • Corporate Risk Management including Financial Risk Management • International Financial Reporting Standards (IFRS)	Singapore, Kualalumpur (Malaysia) and Bangkok (Thailand)	Rs.2,25,000/- (Rupees two lakh twenty five thousand only) per participant on single room

ANNOUNCEMENT

Konkan Chapter of ICWAI collaborates with R P Gogate College of Arts & Science & R V Jogalekar College of Commerce, Ratnagiri (Reaccredited as "A" Grade by NAAC and UGC's College with Potential for Excellence) to organise two days International Seminar on **IFRS : Challenges before Indian Accountants and Companies on Friday 26th and Saturday 27th November 2010** at Ratnagiri, Maharashtra state

- The Seminar is targeted at Professional Accountants and Academicians
- Special focus for participation on states in Western Region viz. Maharashtra, Goa, Daman Diu, Madhya Pradesh, Chhattisgarh, Gujarat and Karnataka
- IFRS has a separate version for SMEs , mainly without fair value emphasis. Seminar will focus on IFRS for SMEs—Differences in IFRS for SMEs and Indian standards, difficulties in implementation.
- Two speakers in each Session : one will cover industry, aspect and second the academic side.

First Day : Friday 26th November 2010

10 am : 11-30 am : Inauguration by Chancellor/Vice Chancellor of Mumbai University.

Address by Chief Guest Hon CMA Brijmohan M. Sharma—President ICWAI

Guest of Honour Hon CMA M. Gopalakrishnan—Vice President ICWAI

and Keynote Address by Hon CMA A N Raman, Vice-President SAFA and CCM – ICWAI.

1st Technical Session : Current Reporting Practices and IFRS : CMt Balwinder Singh

2nd Technical Session : Importance of IFRS for Industry : CA Chandrashekhar Chitale—Pune

3rd Technical Session : Importance of IFRS for Accountants and Academicians : CMA D V Joshi—Past President ICWAI

Second Day : Saturday 27th November 2010

4th Technical Session : Challenges and Probable solutions for Industry—Accountants—Academicians : CA B. Sekkizhar Director, Deloitte Haskins & Sells

Followed by : Open discussion—Panel Speakers and Valedictory

Papers are invited on above topics up to 2500 words (with abstract 500 words) to reach us on or before 3rd November 2010 as Word document File [Arial font 12 point size]

Contact details : (1) CMA Uday Bodas at bodas.uday@yahoo.co.in (2) gjcrtn@gmail.com (3) Konkan Chapter konkan@icwai.org

Seminar fees [Non-Residential] : Rs 1200/- for Academicians and Self sponsored Professionals
Rs. 2500/- Sponsored Delegates
Rs 600/- Students
$100 for Foreign Delegates

Seminar fees may be paid by Cheque/Demand Draft/Pay Order favouring Konkan Chapter of Cost Accountants, payable at Mumbai

Last date for registration — 15th November 2010

Payment of Seminar Fees may also be made to Chapter's Bank Account using Net Banking facility. Necessary information is given below.

Name of Account :	Konkan Chapter of Cost Accountants
Bank Name :	The Cosmos Coop Bank, Vile Parle East Branch
IFSC :	COSB0000017
Type of Account :	SAVING BANK ACCOUNT
Account Number :	0170501053862
Address :	Konkan Chapter of Cost Accountants 208, Bee Jumbo Darshan Society, Kol Dongari Road 2, Andheri [East], Mumbai 400069

Pls send Transaction details, name, address, telephone number with STD Code, mobile number and ICWAI Membership Number by email to : konkan@icwai.org

For Other Information as Train Connectivity, Hotel Tariffs, Places to visit etc Click Here:http://cmaindia.informe.com/forum/information-icwai-related-f115/ifrs-seminar-at-ratnagiri-information-regarding-t4121.html#p15010

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