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Dr. K.R. Sharma  
Chief Editor

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Editorial

A change in Editorial Board was made at the General Body meeting of Indian Accounting Association at Bangalore on 1st February 1998. It was a privilege as well as a challenge to meet the exacting standards set by the predecessors. Difficulty was experienced initially in sourcing good, research based articles for the issue. However, with the cooperation of the reviewers and authors, the level of articles could be uplifted upto expected standard. Release of June 1998 issue of the Journal as per schedule is a matter of satisfaction.

The presidential address delivered by Prof. Bhagwati Prasad at XXI Conference of IAA given at the outset gives a clarion call for making the text books and teaching of accounting lucid and oriented to real life situations. It implores the researchers to take up the exploration of socially relevant areas like eco-accounting.

Surveying the position in India Dr. V.K. Vasal has emphasized upon wholesome disclosure of contribution by business enterprises towards ecology and sustainable economic growth. Dr. A.C. Brahmbhatt and Prof. B.H. Desai have attempted to establish the utility of computer aided application of Correspondence Analysis and ASYMOFACE techniques for inter-firm comparison. With the case study of warrant package issue of Lloyds Finance, Dr. B. Ramesh has tried to show how certain information given in fine print in company documents are not properly read and understood by investors, reflecting lack of prudence in investment decisions.

Presenting a survey of contemporary research in accounting, Dr G. Soral has attempted to examine the trends and stressed upon greater behavioural and quantitative input in curricula. In the context of recent policy changes regarding interest, depreciation and taxation in India, Shri Rajni Kanta Raul concludes that the impact of the changes on tax provisioning by private sector companies was not significant.

Research based articles are solicited for future issues of the Journal from scholars and researchers. Reactions of enlightened discriminating readers shall be most welcome.

Udaipur
Junę 15 1998

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Presidential Address

Delivered by Dr. Bhagwati Prasad, President, Indian Accounting Association at the XXI Conference of Indian Accounting Association at Bangalore

Hon'ble President of today's function, Dr. N.R. Shetty, Vice-Chancellor, distinguished Chief Guest of the day, Sri K.R. Ramamoorthy, Chairman and C.E.O., the Vysya Bank Limited, Guest of Honour Sri K. Rehman Khan and other dignitaries on the dais, ladies and gentlemen.

I am indeed grateful to the fraternity in the accounting profession for having bestowed on me the great honour of looking after the affairs of the Indian Accounting Association in the capacity of its President for the year 1997. I am further obliged to the Vice-Chancellor and various authorities for extending invitation to hold the annual session of the IAA at Bangalore under the auspices of the Faculty of Commerce and Management. Bangalore branch of the IAA too deserves thanks for sharing the responsibility in hosting the annual session.

On this occasion, I have a desire of sharing my views on the discipline and profession of accounting. The subject has traversed a long path over the last 50 years or so. Accountancy used to be the backbone of Commerce education, though the discipline itself sprang out of Economics. I have seen students toiling hard in remembering and committing to memory the rules of debit and credit, tallying the trial balance, passing rectification entries and converting the accounts based on Single Entry System into Double Entry Book Keeping. As a teacher, I have solved numerical problems in the class-room and have helped students to learn the skill to solve difficult issues in the numerical questions. Students at different levels have always found accounting a very difficult subject and if I am not wrong, most of the time at their disposal has always been utilised by the students in attempting to solve accounting problems.

Coming to the quality of questions, let me place on record that drafting of problems has been far from satisfactory. They instead of being based on business situations, have been an exercise in complicating issues and presenting business situations in a highly confused style. The students have been put to lot of inconvenience in appreciating complicated drafts prepared by text book authors and university examiners. The situations
these numerical questions are supposed to describe have been found to be quite unreal and hypothetical. They are in general couched in irritating language. In the examinations students are put to mind-boggling and totally irrelevant situations which unnerve the examinees due to poor drafting of the questions. At times they are asked to solve exercises or give solutions to those issues on which even the text-book writers are not unanimous. In fact, all of you might have come across the numerical solved problems in text books which have been solved in a number of different ways without reason or rhyme. Poor students often become victims of competition among authors of text books who try to excel each other to draft more difficult sums to solve. The result has been that the students have found the subject dry, drab, difficult and monotonous and as a result they have been unable to appreciate real business situations.

Coming to the development of the discipline, certain areas have branched out of accounting in forties and fifties. Costing came first with Management Accounting closely following during late fifties and early sixties. Then followed Financial Management and its tributaries. Slowly, the emphasis in real business world has shifted from traditional learning of only debit and credit to preparation and reading of annual accounts, nay, annual reports.

The accounting profession is at a critical point in its history. Demand for improved corporate governance, better evaluation systems for internal and external performance and increased corporate accountability require accountants to change and raise the quality of work they perform.

In addition, accountants are being pressed to confront issues associated with legal and ethical responsibilities. The savings and loans debacles have raised the issue whether accountants and auditors are responsible to the shareholders or corporate management or boards of directors, or the tax-paying public. The accountants' professional standard and code of conduct as well as personal code of conduct have of late become a focal point for discussion. Legal settlements and judgements in hundreds of cases have brought into focus the necessity of re-examination of the role of accountants in society.

It is obvious that the public's view of the auditor's role is far different from the auditor's view of that role. This expectation gap needs to be addressed. Without a reconciliation of this the future of the accounting profession is in jeopardy. Further, as the public's reliance on auditors has increased, their trust of management has fallen. This credibility gap also needs to be looked into, if problems of corporate governance and corporate accountability are to be resolved.

The emphasis having been shifted to the users of accounting
information, be they shareholders, investors, banks, financial institutions, stock brokers, analysts, governments, SEBI, Company Law Board etc, accountants have become the cynosure of public eye. It is, therefore, necessary that they become more responsive to the internal and external users by offering the following services:

* Better corporate accountability and better information on the quality of corporate governance.
* Improved quantitative and qualitative data to evaluate corporate and management's past performance and forecast future performance.
* Information on critical non-traditional areas of reporting that are becoming more important due to increased financial impact and changes in social concerns.
* Information that will allow them to make investment decisions within the scope of services that are currently expected of accountants and auditors.

Today's shareholders want assurance that the company has an extensive internal control system that eliminates the possibility of significant mis-statement due to either error or fraud. They want more disclosure by management and more verification by auditors. Further, more, they have become more self-reliant and want to become more active in corporate governance.

Today's managers are expected to work for the interest of shareholders and other stakeholders exclusively. Corporate annual reports are expected to contain information necessary to make intelligent investment decisions and evaluate the quality of corporate governance. If the annual report does not contain this information, the shareholders hold the management, the accountants and the auditors liable. I would, therefore, expect increasing number of complaints with regard to management and accountants' negligence relating to lack of disclosure of items critical to the investment decision-making process.

As regards the quality of information available in the annual reports, educated users of corporate financial statements agree that the balance sheet provides very little information useful for investment decisions. Uneducated users do not understand why the values of the assets do not represent current values and why shareholders' equity has no relationship with the market value of the shares.

The accounting profession is in crisis. The external users deride the accountants for not disclosing enough, whereas top management maintains that the increased disclosure is unnecessary, costly and could cause
competitive dis-advantage.

In the late 1980's, environmental concerns that had long remained dormant quite suddenly came to the forefront of public opinion. Concerns over the impact of 'greenhouse effect', destruction of rain-forests, acid-rain, increasingly high level of pollution and depletion of natural resources received wide publicity. Companies initially responded defensively, to deflect the attention of green pressure groups, and of course to comply with law. However, opportunities were presented with the advent of the green consumers who were willing to pay a premium for products that were perceived as being 'environmentally friendly', however dubious the reality. Green investment also began to become more prominent. As companies became greener it was inevitable that the accounting profession would have to consider its response to the newly emerging green agenda. As Owen observed in the 'Business and the Environment' that such developments would have considerable repercussions for accounting, particularly if companies used their annual reports as the major means of communication in respect of environmental and social issues. This would require 'green Management Information Systems' to support.

A new discipline appears to be emerging out of accounting with the nomenclature of Environmental Management Accounting (EMA). EMA will be a part of the Management Accounting, but it will not be Management Accounting of the traditional approach. Researchers in accounting have a duty to help develop this discipline. We may have to work hard to develop theories for quantification of the non-quantifiable issues. EMA will take care of the following, even if these items are covered in Management Accounting.

1. Help in planning, controlling, decision making and appraising performance.

2. Ensure that the key feature of information is its relevance for the intended purpose.

3. The information supplied by EMA shall be future oriented and shall reflect environmental and economic realities unfettered by accounting conventions.

4. EMA shall be concerned with the provision and interpretation of information which may assist management. EMA shall be aware of the behavioural consequences of actions and informations. Goal congruence will be encouraged.

5. EMA systems shall be designed in accordance with the system principles and shall be improved by judicious use of statistical and operations research techniques.
6. Uncertainty existing in all business situations and information supplied by environmental management accountant must reflect uncertainties and variabilities of the situations.

In formulating a response to the challenges presented by attempting to 'green' the accounting function, there are difficult issues to address. Hines made a point in 'On Valuing Nature' that nature is excluded from accounting. Natural resources are inter-dependent. Rain and forests can not be separated from soil. How can accounting quantify fresh air or a sunset? Therefore, at present, accounting methodology is fundamentally flawed when it comes to recognizing environmental and economic inter-dependence.

There are two principal reasons for this condition. Firstly, accountants can not account for the full cost of production, including the cost of consuming essential natural resources, such as air, water and land, because these resources have no assigned monetary value. Accountants are trained to measure financial transactions, rather than consumption of resources. Secondly, accounting rules and conventions penalize, rather than encourage, environmentally aware companies.

Companies today are grappling with the substance and timing of shareholder disclosures about the effect of environmental laws and regulations.

Auditors are also faced with the task of assessing environmental liabilities, which are to be properly reflected in a company's financial statements before stating that they are prepared in accordance with Generally Accepted Accounting Principles.

A wide variety of financial risks exist for companies due to the environment. These include funds for environmental compliance, toxic tort liability for personal injury or property damage, fines for knowing violations, environmental laws and regulations and redemption or clean-up costs.

In the light of the above, let me now wind up by formulating the agenda for our researchers, thinkers and scholars, including practising accountants. The first thing they have to do is to attempt writing text books for those who would not be practising Accountancy but would be dealing with accountants and financial experts. I have in mind, you are right in guessing, our MBA students who come from various disciplines and who have to be taught the basics of accounting as one semester course. Teaching them is a big challenge for any accounting teacher. To my utter surprise I have found management teachers teaching accounting the same hard way and making the subject so difficult for the beginners that they start shivering
with simple sight of the subject. Most of the students simply bide time. I would suggest modification in syllabus for them and writing text books differently for use by management students.

It would be in the fitness of things that our researchers devoted time in developing theories to incorporate green effects in annual reports. Environmental liability reflected in the financial statements would be an interesting segment for users of the reports. The liability can be direct as well as indirect through the use of their products.

I am sure my friends in the profession would rise to the occasion and lead their compatriots in pursuing research in the areas indicated above. We may easily be the leaders in the world once, only if we wake up from the slumber. Thank you so much for bearing with me during the reading of these pages.
Accounting for Sustainable Economic Development: Issues and Evidences

Dr. V.K. Vasal

1. The Bigger Picture

Based on her newly acquired knowledge of threats from economic systems to the life supporting environmental systems society in general has begun to express overtly her need for a sustainable economic development (SED). That is, SED is currently a matter of serious concern to the human society, arguably the most important one. In a broad sense, SED is a term for the dual, imperative economic growth and environmental sustainability' (Magretta 1997). To elaborate SED is concerned with creating a global economic system which the natural environment of the Earth is capable of supporting indefinitely. Notably, a steady increase in the importance of SED over the last three decades or so has brought about a definite change in the manner the businesses are currently conducting their operations (Hart 1997).

Historically, the nature of Economics was prima facie against the nature's economy. Accordingly, accounting as a system for measuring economic events and communicating information resulting therefrom to the interested user groups for their economic decision making purposes has traditionally evolved without giving due importance to matters such as environment(1). However, with the SED (and environmental matters in particular) assuming the status of a necessary goal for economic activities at both macro and micro levels (UNCED 1992; and Crosby and Knight 1995), the existing accounting model needs to be reoriented for meeting the new informational needs of various user groups. In fact, with environment being termed as a strategic business issue par excellence, information reporting on environmental impacts of business is becoming a critical input in such managerial decisions as ‘pollution prevention', ‘product stewardship', and ‘clean technology' (Crosby & Knight 1995; and

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Hart 1997). Some of the companies that are already using information on the environmental impact of their operations in their managerial decision making process are ABB, Dow, Dupont, Monsanto, Philips, Sony and Xerox. It is only appropriate to state here that many a companies like Monsanto have already revised their business philosophy from that of just being green (alleviation of environmental stress through conservation and protection of the environment) to a more external, strategic focus on sustainable development. Surely, with these dynamic changes in the philosophy of businesses, information on environmental accountability of a business unit needs to be disclosed publicly on a regular basis, say through the medium of annual reports.

2. Indian Scene

As elsewhere in the world, public awareness in India towards the environmental issues like the ‘environmental pollution’, ‘environmental preservation’ and ‘environmental development’, have grown tremendously over the past few years. This is evident from the regulatory regime that is taking shape for businesses in India. Some major developments concerning periodic environmental reporting by business in this regime are discussed here.

In the context of requiring environment related information from business on a periodic basis, the first public announcement was made at the level of Government of India in 1991, a year when whole of the world was fully charged for the ensuing 'Earth Summit'. It was in 1991 that the then Union Minister of Law, Justice and Company Affairs in reply to a question in Parliament had acknowledged receiving a proposal from the Minister of Environment and Forests requiring as under:

"Every company shall, in the Report of its Board of Directors, disclose briefly the particulars of compliance with environmental laws, steps taken or proposed to be taken towards adoption of clean technologies for prevention of pollution, waste minimization, waste recycling and utilization, pollution control measures, investment on waste reduction, water and other resource conservation."

The minister had also stated in his reply that his ministry was examining the need for amending the Indian Companies Act so that the aforesaid proposal on environmental reporting by the companies could be put into effect. Accordingly, a proposal requiring disclosures of the nature quoted above did find a place in the Companies Bill, 1993 (since withdrawn). In the re-drafted Companies Bill, 1997 too (since presented in the Parliament), Section 173 had proposed that every company, inter alia, should disclose through its Board of Directors' Report the measures
taken for the protection of environment in such manner as may be prescribed in the light of the picture painted in Section I above. However, the Companies Bill 1997 has dealt with the issues of public disclosure of environmental impacts through the annual reports only in part.

At the beginning of 1992, vide a notification, the Ministry of Environment and Forests mandated a periodic 'Environmental Audit Report'. According to the notification issued, at the end of every year, the aforesaid report is to be submitted by every person carrying on an industry, operation or process requiring consent under section 25 of the Prevention and Control of Pollution Act 1974 to the concerned State Pollution Control Board. Strangely, however, such information is still not being required by the Government to be publicly disclosed, say through an annual report. Consequently as of now any disclosures on the environmental matters in the annual report of an Indian company are voluntary in nature(2). Incidentally, it may be stated here that every new project in India, beginning 1994, is required to prepare and file with the regulatory authorities, an 'Environmental Impact Assessment Statement'. But such a statement is obviously not required to be filed on an ongoing basis.

3. Objective

The primary objective of the present study is to examine the quality of environmental reporting in annual reports of companies in India. In the study, environmental reporting behaviour has been analyzed for both the public and the private sector companies. As a part of the study, those sections of the annual report have also been identified wherein Indian companies have predominantly disclosed information on their environmental accountability.

4. Sample and Data

In the present study, a random sample of 144 Indian companies – 72 companies each from public and private sectors, is taken. The sample of public sector companies is drawn from the list of the Central Public Sector Companies (CPSC) manufacturing goods in India during the year 1995. Such a list is prepared by the Department of Public Enterprises (DPE), Government of India, on an annual basis. On the other hand, sample from the private sector is taken from manufacturing companies which are listed on at least one recognized stock exchange in India.

5. Research Findings

Using sample data described in section 4 above, results on some aspects of the quality of environmental reporting in India are summarized in Table 1 and Table 2.
### Table 1

**Environmental Reporting in India - 1995**

(Percentage values in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>Public Sector</th>
<th>Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sample companies</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Companies not reporting</td>
<td>36</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>(50.00)</td>
<td>(77.78)</td>
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<tr>
<td>Companies reporting</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(50.00)</td>
<td>(22.22)</td>
</tr>
<tr>
<td>Stand Alone Environmental Report</td>
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<td>-</td>
</tr>
<tr>
<td><strong>Section of the Annual Report</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chairmans' Speech (CS)</td>
<td>06</td>
<td>03</td>
</tr>
<tr>
<td></td>
<td>(16.67)</td>
<td>(18.75)</td>
</tr>
<tr>
<td>Director's Report (DR)</td>
<td>35</td>
<td>03</td>
</tr>
<tr>
<td></td>
<td>(97.22)</td>
<td>(81.25)</td>
</tr>
<tr>
<td>Financial Statements - Annual Accounts (AA)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Schedule of Accounts (S)</td>
<td>04</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>(11.11)</td>
<td>(6.25)</td>
</tr>
<tr>
<td>Notes to Accounts (N)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Supplementary Statement (voluntary) (VR)</td>
<td>06</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>(16.67)</td>
<td>(12.50)</td>
</tr>
</tbody>
</table>

* Percentages for the sections of the annual reports have been computed with reference to the number of sample companies reporting on environmental matters.

### Table 2

**Sections of Annual Reports and Forms of Environmental Reporting**

(Percentage values in parentheses)

<table>
<thead>
<tr>
<th>Forms of Reporting</th>
<th>Sections of Annual Reports</th>
<th>CS</th>
<th>DR</th>
<th>S</th>
<th>VR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PS</td>
<td>PVT</td>
<td>PS</td>
<td>PVT</td>
<td>PS</td>
</tr>
<tr>
<td>Narrative</td>
<td>05</td>
<td>02</td>
<td>23</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>Quantitative</td>
<td>01</td>
<td>01</td>
<td>06</td>
<td>02</td>
<td>-</td>
</tr>
<tr>
<td>Monetary</td>
<td>-</td>
<td>-</td>
<td>06</td>
<td>01</td>
<td>04</td>
</tr>
<tr>
<td>Total</td>
<td>06</td>
<td>03</td>
<td>35</td>
<td>13</td>
<td>04</td>
</tr>
</tbody>
</table>

**Legend:**
- CS - Chairman's Speech
- DR - Directors' Report
- S - Schedule to Accounts
- VR - Supplementary Statements (voluntary)
- PS - Public Sector
- PVT - Private Sector
An analysis of results presented in Table 1 has shown that first 36 (50\%) and 16 (22.22\%) companies in public and private sector respectively disclosed information on their environmental impact through their respective annual reports. In order to test the statistical significance of this difference in the reporting behaviour of companies in the two sectors, a test of significance for difference in proportions has been performed. The computed Z-value of the statistic (43.34) has rejected the null hypothesis even at 1\% level of significance. The results have, thus, implied that the proportion of companies disclosing information on environmental impacts is significantly higher for public sector companies. Notably, an important finding of the results is that the practice of preparing stand alone environment reports is yet to take roots in India(3). Surely this is a virgin area wherein some of the forward looking Indian companies with a progressive and pro-active managerial outlook may like to come forward and assume the role of a leader.

An interesting finding of the results presented in Table 1 is that all but one public sector companies and more than four-fifths of the Indian private sector companies are reporting on environmental matters, at least through the 'Directors' Report' section of their respective annual reports. 'Directors' Report' happens to be the predominant section in the annual reports through which both public and private sector companies are reporting on their environmental impacts. Other sections of the annual reports through which some of the Indian companies are reporting on their environmental impacts are 'Chairman's Speech', 'Schedules to Accounts' and 'Supplementary Statements'.

Table 2 shows the results on the forms of reporting used by the sample companies in exhibiting information on the environmental matters in different sections of the annual reports. Incidentally, three forms of reporting (in progressively superior order), alternatively termed as three levels of measurement, used for classification in the studies conducted heretofore are, narrative, quantitative and monetary (financial). (See for example Ahmed and Zeghal 1986). Using the aforesaid classification, a perusal of the results has shown that the form of measurement used by the Indian companies to disclose information on environmental impacts is narrative in most of the cases, a lower form of reporting than quantitative or monetary (financial).

A further analysis on the types of environmental reporting has shown that out of 36 companies in public sector that are reporting on the environmental matters, 33 (91.67\%) have reported on the alleviation of environmental stress, and 23 (63.89\%) have made disclosures on the restoration and regeneration of the environment. Out of 16 companies reporting on the environmental aspects in the private sector, the corresponding figures are 15 (93.75\%) and 6 (37.5\%). That is, the
percentage of companies reporting on matters such as pollution prevention, is much higher than that on issues like environmental recovery, say through tree-plantation.

6. Summary and Conclusions

In the background of corporate accountability towards the sustainable economic development, the present study has aimed at examining the quality of environmental reporting in the Indian companies' annual reports. In the study, environmental reporting behaviour of select Indian companies has been analyzed for the sample year 1995.

Using annual reports of 72 manufacturing companies, 36 each from the public and the private sector, the study has inferred the following: First a significantly higher proportion of Indian public sector companies are disclosing information on their environmental impacts vis-a-vis their counterparts in the private sector. Second, Directors' Report is the most important section in corporate annual reports through which both public and private sector companies are disclosing information on environmental impacts of their activities in India. Third, the predominant form of reporting for both, the public and private sector companies, is 'narrative', an inferior form of reporting in comparison to 'quantitative' and 'monetary (financial)' forms of disclosure. Lastly, the proportion of companies disclosing information on being 'green' (alleviation of environmental stress through conservation and protection of the environment), is comparatively higher than that on the environmental recovery (restoration and regeneration of the environment). The above research findings have established a case for improving the quality of information disclosed on the environmental matters through the medium of Indian corporate annual reports.

Endnotes

1. The environment can be structured in several ways, including components, scale/space and time. In the present paper, the term 'environment' is taken to mean physical environment, that is all media susceptible to pollution (see Glasson et al 1994).

2. As against the Indian environment, the Securities and Exchange Commission (SEC) in the USA has mandated some disclosures on pollution related activities of a firm in the report to be filed with the Commission every year (Jaggi 1997). Importantly, this report is a document open to public scrutiny.

3. Globally, some of the companies identified preparing 'stand alone environmental report' in the recent past are 'British Petroleum Company', 'Chevron Corporation', 'Exxon Corporation', and 'Georgia Pacific Corporation' (Vasal 1997).

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Computer-Aided Inter-Firm Comparison

Dr. A.C. Brahmbhatt*
Prof. B.H. Desai**

PART-1 INTRODUCTION

1.1 An overview:

A sample study of pharmaceutical and chemical units in India was made with the twin objectives of analysing their financial performance and experimenting with some sophisticated computer softwares as tools of analysis. The units selected for the purpose were those having their shares quoted in the Bombay Stock Exchange and reported in the Directory (Vol. 14). It provided the basic time-series data in regard to the sample units under study.

Seven important financial ratios were selected for the study, as given in the Directory. The ratios that were not considered, including liquidity ratio, displayed more or less uniform pattern over the time-span. The technique of Correspondance Analysis (CA) was employed in order to study the Association amongst ratios, amongst companies and also between companies and ratios. Another very important but much less known technique ASYMOFACE was used and six faces were drawn for an elaborate inter-firm comparison.

1.2. Correspondance Analysis and Asymoface

1.2.1. Correspondance Analysis (CA):

Correspondance Analysis (CA) is a French procedure designed to perform Principal Component Analysis of either rows or the columns of the data-matrix presented in the form of a contingency table. The basic feature of the procedure is that the CA of the data finally produces graphical representation of rows or columns or a joint display of both. It is referred to as CA because either analysis of rows or columns automatically produces the output for the columns or the rows respectively by a transition formula. It was originated in France by Beazeneri and later on the works

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of Lebart, Tennehouse, Diday and Tambah in the University of Paris further developed it. Later on Prof. G. Greenacre\(^2\) who took his doctoral degree from the University of Paris went to South Africa as a Professor of Mathematical Statistics and produced the first English software dealing with Simple Correspondence Analysis entitled SIMCA.

1.2.1. \textbf{ASYMOFACE}:

Chernoff\(^3\) proposed the method of representing multi-variate data in a graphical form by drawing faces. He originally proposed drawing of symmetric faces. Chernoff's model is described in Wang\(^4\). In 1981, Flury & Riedwyl\(^5\) in the University of Bern (Switzerland) proposed variation of Chernoff method and presented the software and algorithm to produce assymetric faces. Prof. M. Schpbach (University of Bern) prepared the software - IBM-PC version, entitled ASYMOFACE.

Each side of face is composed of 18 parameters. Each information from data is assigned to one or more parameters of a face as described in the manual. The parameters have names like EYSI (Eye-size), PUSI (Pupil size), CUEB (Curvature of eye-brow), HPEB (Horizontal position of eye-brow), UPHA (Upper hair line), SIMO (Size of mouth), etc.

\textbf{Part - 2 : Methodology}

2.1 Sampling Plan and Sample Size:

A convenient sample of 12 units was selected keeping in view the constraints like data requirement for the computer software, such as CA and ASYMOFACE as described above, in addition to the budget constraint.

2.2 Computer Softwares used:

In order to break away from the conventional use of ratio analysis for inter-firm comparison, the computer software viz. Correspondance Analysis (CA) and ASYMOFACE were employed. They helped increase not only the accuracy of findings but also provided a scientific framework of inter-firm comparison, multi-dimensionally.

2.3 Procedure Followed:

The Correspondance Analysis (Annexure : 1) was carried out with respect to 12 units and of seven financial ratios. It produced three different graphical displays (Graph 1,2 & 3) based on first two dimensions, and it explained 74.82% variation.

Graph 1 suggests the clusters of financial ratios, Graph 2 depicts the clusters of companies, whereas Graph 3 gives a joint display of ratios and companies.
GRAPH - 3
JOINT DISPLAY OF RATIOS AND COMPANIES
The companies, in sharp contrast with each other, performance wise, were isolated on the basis of the graphical plots provided by CA (Graph 2). The companies in the opposite quadrants were further submitted as an input to ASYMOFACE. There were four such companies and for their six pairs, six faces were drawn (Annexure 2).

Two contrasting companies were represented on a single face—one company represented by its left side and the other by its right side. Seven ratios were assigned to seven different parameters on both the sides of a face. An attempt was made to find out the points of similarities and differences between the performance of the two companies on each face.

2.4 Abbreviations used:
The abbreviations used for 7 ratios and 10 companies under study are listed along with details in Annexure 3.

Part - 3 : Findings

3.1 Findings based on CA:

3.1.1 A study of Graph 1 suggests some clusters of the financial ratios:

i) Following ratios form a cluster:
(a) EC (Equity Capital plus Reserves/Net Worth plus Debentures)
(b) RY (Return on Investment)
(c) NW (Net Worth/Total Assets)

ii) TP (Tax Provision/Profit before Tax) and &S (Net Sales/Plant & Machinery at Cost)

iii) DI (Debenture/Net Worth plus Debentures) and SD (Sundry Debtors/Average Daily Sale) seem to be independent.

3.1.2 TP (Tax Provision/Profit Before Tax) and &S (Net Sales/Plant & Machinery at Cost) though farfetched, seem to be identical on first factor, but not on the second factor.

3.1.3 While assigning ranks, on the basis of factor :1, NW (Net Worth/Total Assets) stands 1st, RY (Return of Investment) stands 4th, and EC (Equity Capital plus Reserves/Net Worth plus Debentures) 5th. This suggests that NW is relatively more important than the other two.

3.1.4 A study of Graph :2 provides the following clusters of companies

i) mb (May & Baker), em (E. Merk) ce (Cellulose Products) form a cluster. They receive ranks 10, 9 and 11 respectively on first factor.

ii) de (Deepak Nitrite) and gl (Glaxo), form another cluster where gl is assigned rank 1 and de assigned rank 3 on first factor.
iii) ni (Nicholas) and am (Amrutanjan) go together on first factor.

iv) ri (Ranbaxy) and ro (Roche) fall in the same quadrant with their respective ranks 12 and 8 on first factor.

3.1.5 Graph 3 displays the clusters of ratios and companies:

i) The three ratios EC (Equity Capital plus Reserves/Net Worth plus Debentures), RY (Return on Investment) and NW (Net Worth/Total Assets) go with gl (Glaxo) suggesting that they best define gl. Future financial appraisal could be viewed in the light of these ratios for gl.

ii) &S (Net Sales/Plant & Machinery at Cost) defines am (Amrutanjan), TP (Tax Provision/Profit Before Tax) loosely defines al (Alembic), uc (Unichem), ni (Nicholas) and bt (Boots).

iii) DI (Debentures/Net Worth & Debentures) defines rl (Ranbaxy), SD (Sundry Debtors/Average Daily Sale) defines ce (Cellulose) and also loosely defines mb (May & Baker) and em (E Merck).

iv) ro (Roche) and de (Deepak Nitrite) are not properly defined by the ratios under study.

v) The three ratios EC (Equity Capital plus Reserves/Net Worth plus Debentures), RY (Return on Investment) and NW (Net worth/Total Assets) do not define other companies properly except gl (Glaxo).

This is further evident from the Rank Correlation between item and total, which has turned out to be too low i.e. 0.20.

3.1.6 The Chi-square statistic obtained from CA is highly significant (Annexure 1). It suggests that the ratios and companies under study are closely associated.

3.2 Findings based on ASYMOFACE

The companies in sharp contrast to each other were isolated on the basis of Graph 2 provided by CA earlier. These companies gl (Glaxo), ce (Cellulose), ri (Ranbaxy) and am (Amrutanjan) served as an input to ASYMOFACE. There are six faces drawn by ASYMOFACE representing six pairs of these four companies viz. gl-ce (Glaxo-Cellulose), ce-ri (Cellulose-Ranbaxy), rl-gl (Ranbaxy-Glaxo), gl-am (Glaxo-Amrutanjan) and am-ce (Amrutanjan-Cellulose).

The comparison of these faces on seven characters is presented in a tabular form in Table 3.1.
TABLE : 3.1
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Referring to table 3.1, the following observations can be made in respect of each of the four companies:

3.2.1 Glaxo Laboratories (India) Ltd. (gl):

i) As compared to ce (Cellulose), gl is leading in respect of all the ratios under study except DI (Debentures/Net Worth plus Debentures ratio).

ii) As compared to rl (Ranbaxy), gl is ahead in respect of ratios NW (Net Worth/Total Assets), &S (Net Sales/Plant & Machinery at Cost), TP (Tax Provision/Profit Before Tax) and EC (Equity Capital plus Reserves/Net Worth plus Debentures). But on SD (Sundry Debtors/Average Daily Sale) both of them have equal performance.

iii) Compared to am (Amrutanjan) again on ratios NW, &S, SD, DI & EC gl seems to have an edge over am. But on RY (Return on Investment) and TP (Tax Provision/Profit Before Tax), am surpasses gl. It can be further observed that gl performs very well on ratios NW, &S, SD and EC.

3.2.2 Cellulose Products of India Ltd. (ce):

i) As compared to rl (Ranbaxy), ce is superior clearly to rl on all the ratios under study except EC (Equity Capital plus Reserves/Net Worth plus Debentures) ratio where rl demonstrates equal performance.

ii) As compared to gl (Glaxo), ce is much behind on all ratios, except on DI (Debentures/Net Worth plus Debentures) ratio, where it fares better.
Comparing it with am (Amrutanjan) it seems to be surpassing on ratios, NW (Net Worth/Total Assets), &S (Net Sales/Plant & Machinery at Cost), DI (Debentures/Net Worth plus Debentures) and EC (Equity Capital plus Reserves/Net Worth plus Debentures) but lagging behind on ratios SD (Sundry Debtors/Average Daily Sale), RY (Return on Investment) and TP (Tax Provision/Profit Before Tax).

3.2.3 Ranbaxy Laboratories Ltd. (rl):

i) As compared to am (Amrutanjan) rl is superior only on two ratios viz. DI (Debentures/Net Worth plus Debentures) and EC (Equity Capital plus Reserves/Net Worth plus Debentures). In respect of the rest of the ratios, either am is superior or equal to rl.

ii) As compared to gl (Glaxo), rl is again doing well only in respect of DI (Debentures/Net Worth plus Debentures) ratio.

iii) Comparing it with ce (Cellulose) it is superior only on two ratios viz. SD (Sundry Debtors/Average Daily Sale) and RY (Return on Investment).

3.2.4 Amrutanjan Ltd. (am):

i) As compared to gl (Glaxo), am is superior only on two ratios viz. DI (Debentures/Net Worth plus Debentures) and EC (Equity Capital plus Reserves/Net Worth Plus Debentures). In respect of the rest of the ratios, either am is superior or equal to gl.

ii) As compared to ce (Cellulose), of course, it is superior on SD (Sundry Debtors/Average Daily Sale), RY (Return on Investment) and TP (Tax Provision/Profit Before Tax).

iii) Comparing it with rl (Ranbaxy), am is doing well only in respect of &S (Net Sales/Plant & Machinery at Cost) and TP (Tax Provision/Profit Before Tax). Of course on SD (Sundry Debtors/Average Daily Sale) and RY (Return on Investment) it does not lag behind rl.

It can be further observed that am performs very well on SD (Sundry Debtors/Average Daily Sale), RY (Return on Investment), &S (Net Sales/Plant & Machinery at Cost) and TP (Tax Provision/Profit Before Tax) ratios.

In sum, the above companies can be rank-ordered as Glaxo Laboratories Ltd., Cellulose Products of India Ltd., Amrutanjan Ltd. and Ranbaxy Laboratories Ltd.
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ABBREVIATIONS USED

I. RATIOS :

NW : N.W./T.A. (Net Worth/Total Assets)
&S : N.S./P.M. (Net Sales/Plant & Machinery at Cost)
SD : S.D./A.D.S. (Sundry Debtors/Average Daily Sale)
RY : R.O.I. (Return of Investment)
TP : T.P./P.B.T. (Tax Provision/Profit Before Tax)
DI : D/N. W+D [Debentures/(Net Worth plus Debentures)]
EC : E.C.+R/N. W.+D. (Equity Capital plus Reserves/Net Worth plus Debentures)

II. COMPANIES :

em : E. Merck (India) Ltd.
ri : Ranbaxy Laboratories Ltd.
ce : Cellulose Products of India Ltd.
de : Deepak Nitrite Ltd.
ucl : Unichem Laboratories Ltd.
gl : Glaxo Laboratories (India) Ltd.
btl : Boots Co. (India) Ltd.
mb : May & Baker (India) Ltd.
al : The Alembic Chemical Works Co. Ltd.
rod : Roche Products Ltd.
am : Amrutanjan Ltd.
nii : Nicholas Laboratories India Ltd.

REFERENCES

The Emergence of Warrants in India: A Case Analysis of Warrants Package Issue of Lloyds Finance

Dr. B. Ramesh*

Financial innovation is at the helm of affairs of Indian corporate sector since the advent of the process of deregulation of capital market. Greater freedom and flexibility have given necessary fillip to innovation and introduction of new financial instruments. Increased interest rate volatility, the frequency of tax and regulatory changes, increased competition for mobilisation of funds, heavy demand for investment, investor maturity etc are some of the factors stimulating the process of financial innovation. The array of financial instruments available today for investors, for long-term investment, are equity shares, preference shares, CCPs, Public Deposits, Debentures—cumulative, non-cumulative, secured, unsecured, convertible, non-convertible, Zero-Coupon, Deep Discount Bonds, Zero-Coupon Convertible Bonds, Flexi Bonds, Warrants, SPNs or a combination of the features of some of these instruments into one, mutual funds' units etc. A better understanding and appreciation of each of these instruments, specially the new instruments like warrants, SPNs etc on the part of general investors will enable them to make better judgement of the investment alternatives. In this article the concept of warrant, which is emerging as a promising and powerful financial instrument in India, purpose of issue of warrants and valuation of warrants are discussed.

A warrant confers on the holder a right, but not an obligation, to purchase or sell a fixed amount of an underlying asset at a fixed price and on a fixed future date. Warrants are thus essentially options of four basic types.

First, Executive Option is a stock reward given to an executive, rather than purchased by him, for helping the company to prosper and for showing loyalty. Such an option is non-tradeable and it expires if not exercised by the employee. Such warrants also expire on the employee leaving his employment with the company.

Second, Call and Put Option is an artificial creation of a broker or an

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investor. A call option confers the right on the buyer to purchase the stated number of shares, at a pre-determined price, within a specified period. A put option is the converse of a call option and entitles the holder to sell a specified number of shares, at the pre-determined price, within the stipulated period. The price at which a call option is exercised is usually a little more than the current quotation and converse is the price in case of put option. A Double Option permits the holder either to buy or sell the shares at a given price. Executive options and call and put options are not yet legalised in our country, though there continues to be considerable interest for the introduction of the same. The SEBI had appointed a committee headed by Prof. J.R. Varma to prescribe the manner of issue of employee stock option. Similarly, Dr. L.C. Gupta Committee was appointed by the SEBI to report on the introduction of Options and Futures in Indian stock market.

Third, Right Issue is an option given to an existing equity share-holder of a company to buy a certain number of new shares in the company at a fixed price (which is normally lower than the current quotation), so as to retain his proportionate corporate ownership, or to renounce the right in favour of another person. This is a short-term option exercisable within a stipulated period, say 30 or 40 days and arises occasionally. This option is quite prevalent in India.

Fourth, and quite an attractive option offering speculative investment opportunity, is warrant. A warrant is a call option issued by a company granting the buyer a right to purchase a number of shares (usually one with each warrant) of its equity share capital at a given exercise price during a given period in future. The typical warrant has a period in terms of number of years during which it is exercisable. As a warrant holder, the investor has no equity rights in the company, like dividend and voting rights. The usual terms specified in the warrant certificate include, the number of shares attached with each warrant, the exercise (purchase) price per share, the expiration date of the warrant, tradeability (detachable or non-detachable) warrant adjustment provision in case of stock splits, stock dividend or right issue etc.

Factors Behind Warrant Issues:

Firstly, warrants are typical instruments issued during company re-organisation. In the initial years of re-organisation, a company strives to strengthen its resources-base by depriving the warrant holders of their current equity dividend rights in the company and, at the same time, keep up the enthusiasm of the warrant holders by providing tradeability for the warrants. Secondly, in case the terms of issue of bonds or NCDs, or CDs or preference shares issued by the company fall short of the expectations of the investors, warrants are issued in conjunction with such less attractive
issues as inducement. Thus warrants are offered as a package with a debt instrument when it is costly to assess the risk of debt and as such warrants are termed as 'equity kickers'.

Thirdly, in private placement of debt, or equity in some cases, a route which is cheaper, convenient and less risky than public issue especially in case of new projects, companies offer a package of debentures with warrants or equity with warrants. Fourthly, specially the long expiration warrants are also used by companies for cash planning. The companies enjoy flexibility in timing, for exercising the call option by the warrant holders at any time during the specified period of the life of the warrant, according to its convenience and cash requirement. This is where warrants (converted against cash payment) score over convertible debentures or bonds. And lastly, warrants are used to compensate investment bankers for underwriting services and to executives as a long-term option to buy stock (Executive Stock Option), as incentive.

However, there is skepticism also about the issue of warrants in some corners. The issue of warrants by companies amounts to 'heads I win, tails you lose', is one such apprehension. For example, a company which sells warrants at a price for cash and exercisable at a specified price (above the equity market price at the time of issue) at a future period for equity stock of the company. If warrants are exercised for equity (which happens when the exercise price is lower than market price of the equity share at the time of conversion), the company gains with the exercised value of the warrants and if warrants are not exercised, the company looses nothing but gains by the amount of cash realised through the initial sale price of warrants, which becomes a clear profit to the company. Warrants per se involve a great amount of risk and the investors have to wear a safe jacket to protect themselves from such risk to realise above-normal return. Warrants issued as a package with debt instrument offer attractive return with safety cushion for most conservative investors.

**Value of a Warrant :**

The value of a warrant is the function of four variables viz. expected rise in the underlying equity stock, the leverage (stock warrant ratio), expiration period of the warrant and its tradeability or marketability. The price of warrant is influenced by the expectation of the investors regarding the price of the underlying stock in future. A warrant will be more valuable if the investors expect the stock's price to rise above the exercise price during the life of the warrant and vice versa. In case of market price remaining equal to or less than the exercise price, the theoretical value of warrant is naught. Theoretically, the minimum value of a warrant is equal to the excess of current market price of the associated 'equity share over the exercise price of the warrant. And the maximum value of the warrant
is equal to the current market price of the associated equity share, as a warrant does not possess income potential more than that of the associated equity share (assuming one warrant provides one equity share). A warrant is traded by the investors during its life period at different values falling in the range of the above stated minimum and maximum value of the warrant. The value of a warrant is also influenced by the volatility of the underlying equity share price. Stock warrant ratio or magnification index (share price/warrant price) also influences the value of warrant (premium or discount over the minimum value of a warrant). Investment in warrants with high stock warrant ratio provides much higher returns as a percentage of investment than the direct investment in the associated equity shares in the market. This holds good if the equity share prices are moving upwards. This leverage can put the warrant holders to loss, if the equity share prices move downwards.

The value of a warrant also depends on the time remaining for the expiration of warrant. The premium on a warrant (the excess of market price of a warrant over its theoretical or minimum value) will shrink as the expiration date of the warrant approaches.

And lastly, the marketability of the warrant also influences its value significantly. The warrants of companies whose shares enjoy market fancy, have regular and bulk trading, are largely held by general investors, are traded in multiple stock exchanges, possess good market potential and have higher value. The minimum number of warrants issued, especially as a package by a company to an investor that can provide a marketable lot of equity shares after exercising option, also affects the value of warrant. The volume of warrants available for trading on stock exchanges also determines the marketability of warrants and the price.

**Warrants Package of Lloyds Finance Ltd.**

Warrants which were existent in the USA for more than 6 to 7 decades entered Indian corporate sector for the first time in 1989, when Deepak Fertilizers and Petro-chemical Corporation Ltd. issued 19,00,000 14% Debentures of Rs.100 each along with a detachable warrant. Following its success, a host of companies started issuing warrants in India thereafter. Essar Gujarat Ltd., Ceat Tyres, Ranbaxy Laboratories, Bharat Forge, Proctor & Gamble, ITC Agro-Tech., JCT Industries, Steel Tubes India Ltd. and TISCO were the prominent companies which had issued warrants. Most of the companies issued detachable and tradeable warrants except Steel Tubes India Ltd., which had convertible and non-convertible debentures as host instruments. Most of these companies gave option to the investors to exercise their warrants by surrendering the debenture or a part of the debenture value or by paying cash in exchange of equity shares. Very few companies issued warrants with short-life period and at par value of equity.
share. Thus, warrants to a large extent were used so far by Indian companies as 'sweetener' i.e. as incentive for adequate response for the debt instruments.

Lloyds Finance Ltd. (LFL) came out with a public issue of 10 million Optionally Fully Convertible Debentures (OFCDs) with warrants in the last week of February, 1996. LFL was one of the top ranking finance companies in India. It had a history of serving its equity shareholders well, seen in terms of high and consistent dividend paid during the last 3 years (average of 38.5% p.a.), two attractive bonus issues during the last 4 years, a healthy current book value of Rs. 93 per share and a very low current P/E ratio of around 5 times. The company planned to double its equity base by March 1998, from the existing level of Rs. 23.5 crores to Rs. 43.5 crores, through the issue of 10 million OFCDs at Rs. 190/- each, with detachable warrants. The company mopped up a debt capital of Rs. 70 crores for 6 months and Rs. 120 crores for 18 months period at a mere 15% interest per annum, which was to be eventually converted, into equity in total, at premium. An additional equity of Rs. 1 crore was also to be created through the conversion of 1 million warrants into equity shares at par value at the end of 12 months from the date of allotment. Though the return on OFCDs paid by the company during the life period was not a matter of great attraction at a time when interest rates in the market were very high, the investment in OFCDs after conversion could provide a very attractive average rate of return on investment during the holding period, provided the funds were deployed profitably in LFL business and the market price of the LFL shares moved in the expected direction upwards. However, the investors were also expected to exercise prudence in investment decision on the following few points with regard to the above issue:

(1) As stated in the prospectus and application form by the LFL under Internal Risk Factors (serial number three), the deployment of the proceeds of the present issue was to be entirely at the discretion of the management of the company. Further, the risk exposure of the LFL Group companies, associates and subsidiaries, by no means could be overlooked by the investors, especially when two of them were in red and the LFL had already pumped in Rs. 685 lakhs in the form of 'Loans and Advances' as on 30.9.95 (serial number nine). The management's perception on the above risk factors in the prospectus and application form was very conspicuous by its absence, when it gave its perception of justification on other risk factors. It was also projected by the LFL in its prospectus and application form to raise the loans and advances (other than lease and hire purchase disbursements) from Rs. 685 lakhs on 30.9.95 to Rs. 10,100 lakhs (half of current OFCDs issue size of Rs. 19,000 lakhs) during 1995-96 and to Rs. 7,500 lakhs during 1996-97 (given as 'Other Advances' in Funds Flow Statement). When
half the current issue amount was to go as 'Other Advances' at nominal cost to its subsidiaries for the next two years, it remained to be seen how the LFL could sustain its own equity earnings on its increased equity capital in future.

(2) The recent move of the Central Board of Direct Taxes (CBDT), which is also reported to have been consented by the Institute of Chartered Accountants of India, to create a distinction between an operating lease and a financial lease in future, is expected to have an adverse impact on the fortunes of companies engaged in lease financing business. The CBDT circular had proposed that in case of a financial lease, the lessee would be allowed the benefit of depreciation, instead of the leasing company. With the proposal coming into effect, the tax benefit of accelerated depreciation in initial years of the asset's life period, would henceforth be denied, bringing the deferred profits of a leasing company under tax net. If such tax benefits are withdrawn from a leasing company, the business of the company may be reduced to hire-purchase transaction. The profit of the LFL was expected to be impaired to the extent of the company's exposure to lease finance business in such an eventuality, though the industry was vehemently opposing such a move.

(3) The ICICI study of a sample of 150 companies revealed that the Return on Capital Employed (ROCE) in the LFL was twice of that of the sample and its Debt-Equity Ratio was less than 1 : 1, as against more than 4 : 1 for the sample. This clearly indicated that the LFL did not exploit the leverage benefit to enhance the equity earnings. A low debt-equity ratio, especially in case of a finance company like the LFL, though provided absolute safety but did not maximise the return on equity (EPS). The current issue of OFCDs of Rs. 190 crores, though were to serve as a debt capital in the short term, eventually at the end of 18 months was expected to double the existing equity capital of the LFL, which means further fall in the debt-equity ratio and the consequent dilution of the EPS.

(4) One of the objectives of the proposed issue of OFCDs as stated in the prospectus was, 'to strengthen its existing net worth and conform to higher Capital Adequacy Standards'. In fact, the LFL was already enjoying a Capital Adequacy Ratio of over 25%, as against the stipulated ratio of 6% prescribed by the RBI for Non-Banking Finance Companies. Though the increase in net worth always strengthens the safety cushion, the question that still loomed at large was whether the funds mobilised would be deployed in the business of the LFL or its group companies? The company had not made any explicit assurance on this question in its prospectus.
(5) With non-participation in the proposed issue by the promoters, the promoters' equity holding in the enhanced equity after full conversion was to come down from the present level of 50.74% to 26.73%. The dilution in promoters' equity holding and non-participation by the IDBI, the appraising institution in the proposed OFCDs issue, did not send right signal to the potential investors for investment in a finance company. To the extent of lock-in-period, the shares of OFCDs or the promoters' shares were released in the market, due to their non-participation in the new issue, the volume of shares available for trading was expected to increase, which in turn was expected to affect the LFL market price adversely.

(6) The offer of OFCDs by itself was not an attractive proposition to the investors, and the warrants were used as 'sweetener' to the OFCDs, much less than its literal sense. Warrant-OFCD ratio of 1:10, first of all, was not an attractive offer, though a warrant was to be converted into one equity share at par value. An investor putting in an investment of Rs. 19,100 (for a minimum of 100 OFCDs and exercising the warrant option by paying Rs. 100 for 10 equity shares) was to end up with an odd lot of 10 equity shares through warrant conversion at the end of one year from the date of allotment (of course, in addition to 100 equity shares from Part A conversion of OFCDs at the end of 6 months). Either the investor was to make a minimum investment of 500 OFCDs (at Rs. 95,500) and get a market lot of 50 equity shares through the conversion of 50 warrants or to buy the equivalent warrants (40 warrants) from the market to make his 10 warrants into a marketable lot (from the post conversion point of view). While the first alternative deterred the investor in doing so due to disproportionate investment amount involved, the second alternative was not feasible in the sense that he may not find it worth to buy 40 warrants from the market so as to make, along with his lot of 100 warrants, into 50 warrants for getting them converted into marketable lot of equity shares. Instead, the investor may find it convenient to dispose off his 10 warrants or 10 equity shares after conversion as odd lot. An investor can not always realise the best value from sale of his warrants (which do not constitute a marketable lot after conversion) due to volatile market price during the life period of warrants and also due to lack of transparency in trading and market quotations of warrants.

Thus, the terms of offer of issue of warrant by the LFL do not seem to be really sweet for investors. Of the proposed new equity of 21 million shares through OFCDs, the fact that the equity through warrants' conversion constituted only 1 million shares, proves more the doubt that the warrants are attached to OFCDs only as sweeteners without actually adding sweetness to them.
Towards Examining Trends in International Accounting Research

Dr. G. Soral*

In recent past, liberalisation in national economies around the globe, the unprecedented advancement in information technology and such other techno-politico-economic factors have affected the world of business a great deal. Accounting – the language of business – has, as a result, come across a phase of transition which is full of challenges and opportunities. The knowledge in this vital subject has grown with required intensity to cope up with the emerging scenario of business. For the professionals and academicians, this is high time to review their process of thinking and experimentation to add to the available accounting knowledge. It is in this context that the present study attempts to highlight the trends in international accounting research which have emerged during the past decade or so.

Objective :

The prime objective of the study is to examine the trends in contemporary accounting research around the world so that the accounting fraternity can take stock of the situation, have further clarity of perception regarding research, and be better equipped to decide the desired course of action for future.

Scope :

The present study encompasses within its scope review of research articles published in the following five journals of international repute in the field of accounting:

1. Accounting Review (AR) : This is a quarterly journal of American Accounting Association, 11 volumes of which from January 1985 to October 1987 are covered under the study.

2. Accounting and Business Research (ABR) : This is a journal published by the Institute of Chartered Accountants in England and

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Wales and is also a quarterly publication. 16 volumes of the journal published from 1985 to 1993 are referred for the study.

3. **Journal of Finance (JF)**: The journal of American Finance Association is published monthly and its 12 volumes published from 1985 to 1993 are covered under the study.

4. **Journal of Accounting Research (JAR)**: This is a semi-annual publication of the Institute of Professional Accounting from University of Chicago, USA and 3 volumes of the same, published during 1985 and 1993, are considered for present study.

5. **Indian Journal of Accounting (IJA)**: The Indian Accounting Association publishes this semi-annual journal and its 4 volumes published from 1992 to 1996 are covered for the study.

The sample thus taken is deliberate and based on convenient availability of the volumes.

**Methodology**:  
The volumes of various journals as indicated above are reviewed in terms of the articles published therein. Titles of articles, as instances of direction and intensity of research, are then selected and arranged subject-wise for presentation. The principal criterion for selection of articles has been to cover diverse areas of research as have come up. In order to highlight the contents of the articles, a brief explanation is also given along with the title.

**Findings**:  
Findings of the study are presented in Table 1 to Table 9.

**Table 1: Research Articles on Accounting Education, Research and Profession**

<table>
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<th>A. Education</th>
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<td>i. School Accounting Qualification and Student Performance in First Level University Accounting Examination.</td>
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<td>Gives the results of a study of the effect of possession of school accounting qualifications on students’ first level university accounting examination performance. Indications are that students without previous accounting background may need extra attention from the faculty.</td>
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<tr>
<td>Describes algorithmic basis for the conduct of CVP analysis for situations in which product mix is stable and relationships are price-wise linear. The algorithm had been programmed for a microcomputer</td>
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and was demonstrated for both single product and two product mix situations.

iii Evaluation of Teaching Techniques for Introductory Accounting Courses³.
Tests the effect of homework collection and quizzes on examination scores. Results indicated that the selected teaching techniques did not significantly affect the examination scores.

iv Admission to Accounting Programme : Using a Discriminant Model as a Classification Procedure⁴.
Uses Discriminant Analysis as a foundation for an admission policy for accounting majors. The model, *inter alia*, is found capable of identifying the students' performing exceedingly well in accounting up to the same percentage level as other courses. This technique, together with review and appeal procedure, provides a basis of restricting the enrolment and still making quality students available.

v Within-Person Expectancy Theory Predictions of Accounting Students' Motivation to Achieve Academic Success⁵.
Presents evidence to support the proposal that the force model of Expectancy Theory (Vroom 1964) provides a useful conceptual framework for understanding a student's motivation to strive for academic success. The present study employs within-person decision modelling approach to test the proposal.

vi Accounting Education in India : Current Issues⁶.
Examines the current state of accounting education in India by touching upon its various aspects such as school-college levels, courses, teaching, examination, faculty development, organisational structure, universities versus professional institutes etc and makes several recommendations.

vii Accounting Education in Developing Countries : Perceptions of Interested Parties and Cultural Influences : A Case Study of Papua New Guinea⁷.
Analyses the perceptions of accounting practitioners, accounting academics and accounting students with regard to issues concerning aims and objectives and inputs for accounting education in Papua New Guinea. The results of the empirical study indicate that there are differences due to cultural factors.

B. Research :

i Applying Citation Analysis to Evaluate the Research Contributions of Accounting Faculty and Doctoral Programs⁸.
Applies Citation Analysis to evaluate the research contributions to Contemporary Accounting Research (CAR), CAR is defined as all
main articles published in four journals of international repute during 1976 to 1982. The advantages and disadvantages of the technique were also discussed.

ii **Doctoral Research in India: Survey of Gujrath State**

   Presents a survey of doctoral level researches in various universities of Gujrath during late 1970s and 1980s and reveals that the state of such researches is far from satisfactory. The paper also identifies reasons responsible for the same and puts forth certain suggestions.

iii **Doctoral Research in Accounting in India: To Prepare Agenda Ahead**

   Compares doctoral researches in accounting in India with those in the United States during the late 1980s. The researches in the USA were found more diversified, had larger scope and the topics were more pin-pointed than those in India. An agenda for near future is also suggested.

C. **Profession:**

i **Graduate Recruitment Procedure in the U.K. Accountancy Profession: A Preliminary Study**

   Examines the selection procedures employed by the chartered accountancy profession in the U.K. by using structured questionnaire methodology. Adoption of formal statistical procedure to process biodata for predicting a candidate's subsequent performance was in particular recommended. More research on the nature and requirements of the work of an accountant is called for.

ii **Advancement for Women Accountants in India: Perceptions of Students Compared to Reality of Working Women Accountants**

   Evaluates perceptions of female accounting students and female chartered accountants. Wide disparities are revealed. In general, female students perceive less of an 'uphill climb' and a 'hostile' culture than the one that awaits them following graduation.

### Table 2: Research Articles on Accounting History

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| i | **Judicial Views on Accounting in Britain before 1889**

   Examines the accounting content of British legal cases decided during the fifty years period before 1889. These cases dealt with such important topics as periodicity, uniformity, matching, realisation and such expositions which relate to the development of accrual accounting.

| ii | **A Spanish Treatise of 1706 on Double Entry Accounting**

   Discusses accounting part of a Spanish treatise by Gabriel de Souza Brito.

| iii | **The Heros in Accounting History: An Assessment of the Role of Biography**

   |
Presents an assessment of biographical research which was considered to be an important source of insight into the development of accounting.

**Table 3: Research Articles on Accounting Information and Disclosures**

1. **Disclosure of Management Earning Forecasts in Financial Statements: Challenges for Developing Countries**\(^{16}\).
   Evaluates the need for disclosure of forecast information for policy implications for developing countries. It concluded with the observation that investors should be provided with information on firm's future performance for designing their investment strategy, and that this may be made mandatory.

2. **Capital Structure and the Informational Role of Debt**\(^{17}\).
   Attempts to provide a theory of capital structure based on the effect of debt on investors' information about the firm and on their ability to oversee management. This is contended that managers do not always believe in the best interest of their investors and debt may serve as a disciplining device for them.

3. **The Information Content of Non-earning Accounting Numbers as Earnings Predictors**\(^{18}\).
   Provides empirical evidence on the predictive ability and information content of non-earnings' annual report numbers beyond that contained in earnings. A valuation link between stock returns and the annual-report-based predictions is also documented.

4. **Information Content of Insider Trading Around Corporate Announcements: The Case of Capital Expenditure**\(^{19}\).
   The innovative feature of the paper is the model trading by corporate insiders (subject to disclosure regulation) as one of the signals of price reaction. Detailed testable predictions are described for the interaction of corporate announcements and concurrent insider trading. Such an interaction is shown to depend crucially on whether the firm is a growth firm, a mature firm or a declining firm.

   Provides the first formal examination of the information content of current cost income and historical cost income within a time-series context. The incremental information content is found (at best) only for a small subset of industries where correlation between historical cost income and current cost income is low. For the majority of industries, the two income measures convey essentially the same
information.

vi A Longitudinal Study of Readability of Chairman's Narratives in the Corporate Report of a U.K. Company
Outlines an investigation of the readability of Chairman's narratives as determined by the Flesh Score of a U.K. company's corporate reports from 1952 to 1985. It supports earlier studies which demonstrated that corporate reports were difficult to read and had become more difficult to read overtime. The correlation between turnover and readability was negative and significant.

vii Incremental Information Content of Accrual vs. Cash Flows
Provides evidence on the role of accrual (i.e. earning and working capital from operations) and cash flow measures in an explanatory model of security prices. The results suggest that cash flow information is consistent with the information impounded in security prices and also has incremental explanatory power beyond that contained in accrual flow alone.

viii Information Content of Cash Flow Figures
Investigates the link between earnings and share prices for a sample of U.K. companies for the year from 1961 to 1977. Three measures of earnings were used, the traditional historical Cost Accounting return and two which were closer to cash flow measures. The results indicated that while there was substantial information content in the traditional historical cost rate of return, there was very little information conveyed by the measures close to pure cash flow.

ix The Incremental Information Content of Annual Report
Statistical procedures employed in the study failed to detect evidence which may be consistent with the view that the incremental data-set contained in the Annual Report to shareholders induced changes in the expectations that led to revision in equilibrium security prices. Additional research is sought for to resolve the issue whether individual investors use Annual Reports for investment decisions or not. And accordingly the question of spending significant resources on enriching the content of reports be resolved.

x The Use of Annual Reports by U.K. Investment Analysts
Presents some findings of a project undertaken to investigate the use of and usefulness to investment analysts of the information contained in annual reports and accounts. The investment analysts were asked to think aloud when they reviewed accounts for tape-recording their views. The findings highlighted certain areas for improvement in the annual reports for the purpose.

xi An Investigation into Annual Report Readability and Corporate Risk-Return Relationships
Canadian annual reports for 1982 and 1983 were examined for readability levels. Flesch and Fog Readability Formulas were used as predictive measures of the extent to which messages contained within the chairman's address and footnotes section were comprehensible to readers. The overall reading score finding was classified as 'difficult' to 'very difficult'.

xii **Similarities in Measurement Needs of Equity Investors and Creditors**

Reports the results of the test of the hypothesis that the information needs of financial statement users were similar. The findings supported the hypothesis that financial analysts making share investment decisions had measurement needs that were generally similar to those of bankers making term loan decisions. However, certain limitations of the study were also narrated to make the readers careful.

xiii **Bond Exchanges in the Airline Industry: Analyzing Public Disclosures**

A bond exchange is a transaction in which a corporation with an outstanding bond issue offers the current bondholders a new bond in exchange for the outstanding bond. Taking example of an Airline, the paper reviews the sequence of public disclosures involving an exchange offer, illustrates the present value method for evaluating bond exchanges and compares the reported results with the 'economic results' obtained from this method.

xiv **Annual Report Readability: The Use of Readability Techniques**

Extends prior accounting research in the application of readability formulae by employing greater number of measures such as Flesch, Fog, Kwolek, Dale-Chall indices and also the Lix formula and Fry graph. Lix formula has been identified as particularly useful due to its simplicity, multi-language applicability etc.

### Table 4: Research Articles on Accounting Standards

i **An Analysis of the Content of Corporate Submissions on Proposed Accounting Standards in U.K.**

Content Analysis was used to investigate corporate submissions on proposed accounting standards on two levels, first, the written submissions of companies on most of the ED's issued by the ASCs/ASSCs were examined for economic or political references and second, to identify relative significance to corporate management of the EDs by simply comparing absolute and relative numbers, both of respondents and lines in their comments. It seems to be a useful descriptive tool for the purpose.

ii **Standard Setting for the Financial Reporting of Religious
Business Organisations: The Case of Islamic Banks. Reports that currently almost every Islamic bank sets its own accounting policy through a process which involves in-house religious advisers and the financial auditors of the bank. However, Islamic banks have recently agreed to establish a standard setting body to regulate their financial accounting and reporting. This is argued that perhaps the fear of possible future intervention by the regulatory agencies have influenced this decision.

iii Implementation of Accounting Standards in Public Sector Enterprises of Gujrat: A Case Study.
Examines how far the financial accounting and reporting practices of some selected public sector enterprises operating in the state of Gujrat conform to the standards issued by the ICAI and to the statutory requirements and guidelines issued by the BPE. It is concluded that the standards and guidelines are generally followed, but a conscious effort by the management in the direction is lacking.

iv The Effect of SSAP 16 on Performance Measurement.
Reports the effect CCA had made on various indicators of performance of top 100 companies in the UK during the first accounting period the SSAP 16 was made mandatory. Findings, with reservations, support the proposition that whilst the use of CCA alters the absolute value of the performance indicators, it does not alter the relative importance of those indicators.

Analysis of the logical foundations of the principle of user primacy is provided, based on recent work in ethics and social and political philosophy. According to the principle, the interest of the users of financial reports takes priority over the interests of the preparers of financial reports. A clear and complete statement of the principle is proposed as a guide to standard setting bodies.

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Table 5: Research Articles on Auditing

A. Audit Sampling

i A Corrected Strategy for More Efficient Audit Sample Determination.
Extends the proposition of Roy (1984) to undertake two-stage approach to audit sampling which uses results from the audit of category J to justify a smaller sample size in category J+1 to reduce overall audit costs. It establishes that a smaller sample should be taken up first for cost saving. Information from the smaller sample can be then used to make savings on the larger sample.
Dollar-Unit Sampling: A Comparison of Quasi-Bayesian and Moment Bounds\textsuperscript{36}.

Compares the two new methods recently advocated for Dollar-Unit Sampling viz., Quasi-Bayesian Bounds and Moment Bound Extensive Simulation. Studies of 96 representative receivable accounts and inventory populations were conducted. Either method is though found suitable for successful implementation, the moment method appears to be easier to implement on currently available Personal Computers.

Sample-Error Characteristics and Projection of Error to Audit Populations\textsuperscript{37}.

Discussions with auditors and previous descriptive researches suggest that auditors may be inclined to isolate ‘unique’ or unusual sample errors. However, analysis suggests that isolation of errors is seldom justified in auditing. Nonetheless, a large majority of auditors favoured isolating errors that appeared to be unique. The results suggest that members of certain firms are more likely to isolate errors and that additional experience reduces judgement errors related to error projection for certain errors.

EDP Audit:

Empirical Evidence on Internal Control in Minicomputer-based Accounting Information Systems\textsuperscript{38}.

Examines the Irish manufacturing sector during 1984, regarding exposure of firms to loss from minicomputer-based accounting information systems, if not well-controlled, highlighting internal control problems therein etc. This is concluded that the stated minicomputer environment in the available literature provides a reasonable basis for discussion in the case, with some significant differences. Serious and wide-ranging internal control problems were also indicated.

Audit and Control Issues for the Small Computerised Business\textsuperscript{39}.

Reviews the relevance and usefulness to the audit process of internal controls in microcomputer-based systems. Among others, a list of hardware and software solutions has been explored along with drawing attention towards events (or ledgerless) accounting. Opines that the microcomputer may offer a degree of control to the auditors in the areas where none was possible.

Others:

Audit Qualifications on the Accounts of Nationalised Industries\textsuperscript{40}.

The paper examines the content of auditors reports of enterprises to test the validity of the allegation that nationalised industry auditors were not reporting the cases of manipulations. After review of theoretical issues and professional guidelines concerning auditing for nationalised industries, empirical evidence and comparison with
private industries are presented. The overall conclusions refute the allegation against nationalised industry auditors.

ii The Small Company Audit Qualifications: A Preliminary Investigation\textsuperscript{41}.
Investigates empirically whether organisational, financial, size and auditor variables possess any explanatory power in respect of the receipt of a 'Small Company Audit Qualification.' The results show that the distribution of small company audit qualifications was far from random. Factors responsible for increasing likelihood of a company getting such qualifications have been identified.

iii Decision Support and Expert Systems in Auditing: A Review and Research Directions\textsuperscript{42}.
Provides a model of task complexity to identify areas of application of Decision Support Systems and knowledge-based Expert Systems in auditing and also provides specific audit examples of these from the literature. The paper further critically reviews the literature and suggests research directions in the area.

iv Experimental Research in Auditing: Field vs. Laboratory Settings\textsuperscript{43}.
Examines the impact of audit report on bank lending process and finds that the presence of a qualified audit report significantly impacted the lending process. It further compared the impact of experimental settings – field vs. laboratory, and no differences were observed there-between.

v An Examination of the Effect of Experience and Task Complexity on Audit Judgements\textsuperscript{44}.
Compares the judgements of subjects with varying levels of audit experience across three decision settings – structured, semi-structured and unstructured tasks. Significant decision differences were consistently found between experienced staff and other subjects for unstructured and semi-structured tasks.

vi An Examination Study of the Audit Expectation-Performance Gap\textsuperscript{45}.
Postulated that the audit expectation-performance gap has two major components: reasonableness gap and performance gap, the latter being further divided into deficient standards and deficient performance. Empirical research, outlined in the paper has strongly supported this structure. The research suggests the requirement of analysing and narrowing-down the gap whenever identified.

vii Auditors Consensus on Going Concern Judgements\textsuperscript{46}.
Seeks to provide some empirical evidence on the performance of auditors when formulating going concern judgements. Reveals that auditors are able to reach a relatively high level of consensus when
formulating such judgements. This has provided some evidence that auditors are sufficiently competent to formulate judgements regarding the ongoing ability of a business concern.

viii Consensus Among Auditors in Evaluating the Internal Audit Function\cite{47}.
Assesses the degree of agreement among auditors in evaluating the internal audit function with respect to various factors. All in all, a good deal of agreement is indicated.

ix Stochastic Audit Planning and Control using GERT Simulation\cite{48}.
Uses Graphical Evaluation and Review Technique (GERT) as an alternative to CPM and PERT for estimating audit time and consequently audit planning and control. The use of GERT is supported by many factors. Constant monitoring of new information and revision of the basic model are recommended for its successful use.

x Strategic Considerations in Auditing\cite{49}.
A simplified audit setting is used to illustrate the crucial nature of strategic interactions in audit planning and in assessing audit risk. A game theoretic approach has been recommended.

xi Audit Conflict : An Empirical Study of the Perceived Ability of Auditors to Resist Management Pressure\cite{50}.
Investigates how several contextual factors in audit conflict between client management and audit firm affect financial statement user's preceptions of the auditors' ability to resist management pressure. The results indicate that a client in good financial condition is perceived as being more likely to obtain its preferred outcome to an audit conflict than a client in poor financial condition etc.

xii A Multi-Variate Analysis of the Auditors’ Going-Concern Opinion Decision\cite{51}.
Attempts to determine the extent to which auditors' going-concern opinion decisions could be predicted using publicly available information. Discriminant Analysis was used on samples of manufacturing companies. While the going-concern opinion does not appear to have additional information content for the majority of companies, in specific cases, the qualification has marginal information content. Modelling difficulties were presented.

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Table 6 : Research Articles on Taxation

- A Note on Globalisation of Tax Reforms : An International Trade Perspective\cite{52}.
  Examines the export-oriented trade policy in India and tax reforms in
the wake of globalisation and analyses the pros and cons of
globalisation policy in terms of India's foreign trade. Suggestions have
been made to strengthen Indian industry for becoming internationally
competitive.

ii The Reforms of Personal Taxation: A Review Article. 
Propounds the need to review personal taxation systems from time
to time and presents a detailed review of UK personal taxation system,
particularly regarding personal allowances, taxation of married
couples, integration of Income Tax and national insurance contributions,
and tax administration.

iii Some Empirical Evidence on Tax-payer's Rationality. 
Attempts to determine the extent of individual and corporate taxpayers’
rationality in terms of speed and accuracy of their collective response
to change in tax law. Using a multiple time series model and the case
of California, it was found that individuals and corporates quickly and
relatively accurately adjust their income tax prepayments in response
to a tax increase.

iv An Analysis of Reformed Corporation Tax: A Comment and an
Extension. 
The comment questions the methodology used and the conclusions
drawn by Mole (ABR, Autumn 1987) who examined the effect of the
change in the corporate tax system on investment in plant and
machinery. It also extends the analysis to investment from new equity
finance and concludes that the new system (in UK) creates less
disincentive than the former one.

v The Structure and Incentive Effects of Corporate Tax Liabilities. 
Describes situations in which tax liabilities assume the form of a
negative position in a call option. This structure motivates an
examination of the investment decisions of taxed corporations in the
presence of risk. It is shown that the structure of tax liability creates
incentive to under-invest in more risky projects and incentive for
conglomerate merger. This is further evaluated.

vi Capital Gains Taxation and Volume of Trading. 
Major finding is that turnover is higher for winners (stocks, the prices
of which have increased) than for losers, which is not consistent with
the tax prediction. It is concluded that taxes influence turnover, but
other motives for trading are more important.

Table 7: Research Articles on Accounting for Managers

A. Research:

i In Search of Relevance in Management Accounting Research. 
The generation, dissemination and utilisation of management accounting
research is likely to be a complex process involving organisational policies, power plays, incentive structures, beliefs and attitudes, in both researcher and management communities. Some of these issues have been discussed. In conclusion, the broad purpose of practice relevant management accounting research is to sensitise practitioners to new issues, turn non-problems in policy issues, and convert existing problems into non-problems.

ii **Starting Out in Management Accounting Research**\(^{59}\).
Outlines the multiple uncertainties faced by a new researcher in Management Accounting that lacks well-defined boundary agreement on desirable methodology, and indicators of potential publishability. The paper sets out three guiding principles, namely (1) to adopt a mode of doing research that is consistent with his psychological orientation, (2) to recognize the unattainables and imperfections of real-life research, and (3) to pursue 'interesting' themes as a mean to publication.

B. **Capital Budgeting:**

i **The Application of the Incremental Principle in Capital Investment Project Evaluation**\(^{60}\).
Compares and discusses theory and practice with regard to the Incremental Principle and its application to capital investment decision making. Evidence has been quite contrary to theoretical perception, and provided in the use in practice, of adjustments to include a share of all assets and expenses in the evaluation of an individual project.

ii **An Empirical Study of the Adoption of Sophisticated Capital Budgeting Practices and Decision-Making Effectiveness**\(^{61}\).
Examines the trend towards greater sophistication in investment selection techniques and control processes, and their impact on capital budgeting decision effectiveness. A sample of 100 large U.K. firms over an 11 year period has been studied. Clear evidence is found to suggest that senior finance executives believe that the adoption of sophisticated investment practices gives rise to improved effectiveness in the evaluation and control of large capital projects.

iii **Ijiri's Cash Flow Accounting and Capital Budgeting**\(^{62}\).
Analyses whether Ijiri's cash recoveries and investment flows are suitable for discounting. Conclusion is that the Ijiri model provides different results than those of conventional discounted cash flow approach. In addition, the analysis suggests that project rankings can be revised on an internal rate of return basis by using the Ijiri's model. However, the concept of cash recovery rate is termed as 'fundamentally unsound' and a better definition is suggested for the same.
C. Accounting Ratios:
   i. Sector and Size Effects in Ratio Analysis: An Indirect Test of Ratio Proportionality\(^{63}\).
   Attempts to draw initial inferences about financial ratio behaviour in different sectors and also for different sizes of firm. Concludes that it cannot be said that the proportionality assumption of ratio analysis remains tenable after allowing for sector and size effects. However, it can be said that generalisations about the ratios as a set are imprudent. Thus, the effect can vary considerably from one financial ratio to another.

   ii. Empiric Pertinence of Ratio Analysis\(^{64}\).
   Argues that despite limitations the accounting ratios are widely and fruitfully used in different important areas through univariate and multivariate treatments. However, while applying statistical techniques utilising ratios, certain shortcomings need be considered carefully.

D. Budgeting:
   i. Budgetary Systems and the Control of Functionally Differentiated Organizational Activities\(^{65}\).
   Reports an empirical investigation in which the marketing and R&D units of a large electronics firm were compared, both in terms of environmental conditions faced by them and effects of their control system choices on management performance, within the two functional areas. The results provided limited support for predicted environmental difference. However, strong support was found for the hypothesis that budgetary participation would be more effective in R&D than in marketing.

   Authoritarianism and Participative Budgeting: A Dyadic Analysis\(^{66}\).
   Suggests that the understanding of the effects of participative budgeting can be improved by including the authoritarianism of superiors and subordinates involved in the budgetary situation as a moderating variable. An important finding was the existence of significant association between outcomes and dyadic configurations of authoritarianism. Certain results are consistent with findings in psychology.

E. Application in Marketing Management:
   i. Product Pricing Behaviour Under Different Costing Systems\(^{67}\).
   Product pricing under \textit{ex-ante} imperfect marginal cost information is examined. Major findings indicate that under conditions of increasing (decreasing) average total (variable) cost, absorption (variable) costing results in outcomes closer to economic optimum. In addition, cost accounting systems interact with price elasticity of demand resulting
in greater (lesser) decision deviations from economic optimum under absorption costing, when costs are decreasing (increasing).

F. Relevance:

i. The Impact of Structure Environment and Inter-dependence on the Perceived Usefulness of Management Accounting Systems\(^8\). Studies characteristics of Management Accounting Systems (MAS) perceived by managers to be potentially useful for their administrative tasks. The study, like some earlier ones, suggests that it is helpful to consider MAS designs in terms of general information characteristics. The study further indicates that organizational inter-dependence is important when designing an MAS.

ii. Management Accounting's Diminishing Post Industrial Relevance: Johnson and Kaplan Revisited\(^9\). Revisits Johnson and Kaplan (1987) who claimed that Management Accounting's minimal post-1925 development, reduced the development of traditional techniques to today's giant corporations. Their argument does not draw on the structural and micro-economic consequence of technological changes of this century. An alternative explanation of technical stagnation lies in the rising dominance of small service firms. The conventional focus of Management Accounting Research and teaching is problematic because of a fundamental misconception of location and nature of accounting and other work.

G. Others:

i. Allocations and the Validity of the Incremental Principle\(^0\). Examines the proposition that common costs need to be allocated for the purpose of investment decision making. The theoretical arguments against allocation, it is argued, are invalid. The available evidence suggests that fully allocated costs are likely to be better estimate of long-run incremental cost.

ii. Value Added as a Measure of Business Performance\(^1\). Explores the concept of value-added income and examines how far the value-added data can be used as a basis for measuring the performance of business firms. Also discusses certain controversial issues related with value added accounting and the limitations of value added income.

<table>
<thead>
<tr>
<th>Table 8: Research Articles on Security Analysis and Portfolio Management</th>
</tr>
</thead>
</table>


These announcements are found responsible for most of the observed
time of day and days of the week volatility patterns in these markets.
Some more findings are also given.

ii The Determinants of the Value of Unlisted Shares: Opinions of
Professional Valuers in Canada. Surveys the opinions of expert valuers of shares of Canada, where
98 percent of the companies are unlisted, on the determinants of
value, and investigates nine specific issues, which among others,
could form the basis of future research. Using a variety of statistical
techniques and opinion surveys, it was found that future earnings
prospect is perceived to be the most important variable in the valuation
of unlisted shares. Further, differences exist between the opinions of
open valuer groups and national valuer groups, while there is
reasonable agreement within a particular group.

iii. A Semi-autoregression Approach to the Arbitrage Pricing
Theory. Develops a semi-autoregression approach to estimate factors of APT
that have the advantage of providing a simple asymptotic variance co-
variance matrix for the factor estimates. The findings confirmed that
the APT describes asset returns slightly better than the CAPM,
although there is some mispricing in the APT model.

iv The Week-end Effect in Common-Stock Returns: The International
Evidence. Examines the daily stock market returns for four countries viz. the
U.K., Japan, Canada and Australia. A so-called 'Week-end Effect' is
found in each country. In addition, the lowest mean returns for the
Japanese and Australian stock markets occur on Tuesdays.

v Stock Dividends, Stock Splits and Signalling. Provides evidence that firms signal their private information about
future earnings by their choice of split factor. Furthermore, price
changes and stock dividend and split announcements are significantly
correlated with split factors, holding other factors constant, and with
earnings forecast errors.

vi Intra-day Price Change and Trading Volume Relations in the Stock
and Stock Option Markets. Investigates intra-day relations between price changes and trading
volume of options and stocks for a sample of firms whose options
were traded on the CBOE during the first quarter of 1986. After
purging the price change series of the effects of bid/ask spreads,
multivariate time series analysis is used to estimate the lead/lag
relation between the price changes in the markets. The results indicate
that price changes lead the option market by fifteen minutes. The
trading volume analysis indicates that the stock market lead may be even longer.

vii Intra-year Trends in the Degree of Association between Accounting Numbers and Security Trends\textsuperscript{78}. Examines empirical hypotheses on the relationship between the age of accounting data and the relevance of the data for explaining security prices. The results indicated that given sets of accounting data generally become more relevant for the explanation of security prices as the reporting data approached. Furthermore, an examination of the trend in explanatory power after the reporting data showed a decline in explanatory power as the accounting data became increasingly outdated.

viii Equity Issues and Stock Price Dynamics\textsuperscript{79}. Presents an information-theoretic, infinite horizon model of equity issue decisions. The model predicts that (A) equity issues on average are priced by an abnormal positive return on the stock, although for some firms the issue is preceded by a loss, (B) equity issues on average are preceded by an abnormal rise in the market, and (C) the stock price drops at the announcement of an issue.

ix Evaluating the Performance of International Mutual Funds\textsuperscript{80}. The performance of a sample of fifteen US-based internationally diversified mutual funds is examined between 1982 and 1988. Two performance measures are used—the Gersen measure and the positive period weighting measure proposed by Grinblatt and Titman. No evidence is found that the funds provide investors with performance that surpasses that of a broad, international equity index over this sample period.

x Measuring and Testing the Impact of News on Volatility\textsuperscript{81}. Defines the news impact curve which measures how new information is incorporated into volatility estimates. Various new and existing ARCH models, including a partially non-parametric one, are compared and estimated with daily Japanese stock return data. Results suggest \textit{inter alia}, that model of Glosten, Jagannathan and Runkle is the best parametric model.

\begin{table}[h]
\centering
\caption{Research Articles on Miscellaneous Topics}
\begin{tabular}{|l|
\hline
i & A Framework for Triple-Entry Book-Keeping\textsuperscript{82}. An earlier monograph (Iijiri 1982) showed that Double Entry Book-Keeping is logically extendable to Triple Entry Book-Keeping by including a set of accounts called ‘force’ in its third axis. This paper develops a framework for and illustrates the Triple Entry Book-Keeping. Debit and credit has further been extended to Trebit. The new frame work will hopefully direct management’s attention and sensitivity to
\hline
\end{tabular}
\end{table}
factors at a level deeper than the level of wealth and income.

ii Ethics in Accounting: A Plea for a New Conceptualization. Highlighting different aspects of ethics in accounting, it is opined that codes of ethics are violated to serve individual, familial and group interests. If ethics is redefined in a positive way to favour the cause of the enlightened accountant, instead of threatening to penalise him, the accounting profession and the domain of ethical conduct get unified.

iii The Theory and Development of a Matrix-Based Accounting System. Analyses in detail various views expressed over the period 1957 to 1972 regarding the development of a matrix-based accounting system which was warranted mainly because of computer technological advancements. A computer-based accounting system has been designed which incorporates matrices to store the effects of transactions on account balances. The closing entries, reversing entries, extraction of trial balance based thereupon have also been explained.

iv Accounting for State-Regulated Enterprises: An Agency Perspective. Concerned with the theory of accounting for state-regulated enterprises, it is based upon a set of assumptions which are a stylisation of the pattern of financing, reporting and objectives adopted for some nationalised industries in Britain during post-war period.

v Deprival Value of Durable Assets. In wake of divergent views, the article attempts to give a reasonably unified treatment of deprival value under certainty when the purchase price of asset is higher than the net realisable value.

vi Users' Preferences for Descriptive Versus Technical Accounting Terms. Empirical findings suggest that the well-educated non-business users terminology preferences were different from the preferences of the sophisticated users in so many cases. The argument that financial analysts serve as interpreters of financial information for unsophisticated user is also found clouded.

vii Predicting Current Cost Operating Profit Using Compound Models Incorporating Analysts Forecasts. Examines the accuracy of forecasts of one-year-ahead current cost savings using four component models. Data for 1976 to 1981 are used in calculating current cost earnings for a sample of 129 firms. Subject to certain limitations and consistent with the already existing evidence that analysts' forecast of historical cost earnings is significantly more
accurate than that of time-series models, the results of this study recommend the forecasts of annual current cost earnings one-year-ahead.

viii Sourcing with Unverifiable Performance Information\textsuperscript{89}. Examines the optimal resolution of the incentive problems for both the supplier and the buyer under the 'buy regime.' Attempts to determine the most efficient way, both to induce the supplier to work diligently and to motivate the buyer to report his private information honestly (in the context of a two-sided moral hazard problem). For long-on settings of make or buy, reputational issues are also considered.

ix Moral Hazard and Adverse Selection: The Question of Financial Structure\textsuperscript{80}. Shows that (1) investment and financing are non-separable, (2) there is an under-investment problem for better firms, and (3) simultaneous use of both debt and equity can resolve this difficulty. A connection between expected terminal firm value and debt-promised payment level and between share-retention and standard deviation is also established.

x Top Managerial Compensation and Capital Structure\textsuperscript{91}. The inter-relationship between top management compensation and the design and mix of external claims issued by a firm is studied. A detailed analysis of optimal management compensation for the cases is carried out when the external claims are (1) equity and risky debt, and (2) equity and convertible debt. A negative relationship between pay-performance \textsuperscript{\text{\textcopyright}} sensitivity and leverage is derived. Results also explain the dynamics of top management compensation in firms going through financial distress and re-organisation.

\begin{center}
\textbf{Conclusion}
\end{center}

The tables in the previous section summarizing the contemporary research in accounting and related areas reflect a wide spectrum of areas being covered by the researchers. What emerges in common from the study is that the broad trends in international research in accounting have shown behavioural inclination, drawing upon psychology and sociology and touching upon surveys of needs, preferences, perceptions etc. Further the researchers are found to employ highly sophisticated quantitative analyses based upon advanced mathematical and statistical techniques. This may call for more inter-disciplinary input in the curricula at graduation and post graduation levels, drawing particularly from disciplines such as Mathematics, Operations Research and Psychology to orient the upcoming research in a direction which matches with the international order.
References

(Note: Full titles of articles appear in the text)

Tax Amnesties and Private Corporates: An Empirical Analysis

Rajni Kanta Raul

Corporate Sector & Tax Structure:

India had launched the present phase of economic reforms in 1991, aiming at attaining greater competitive efficiency and self-reliance in the face of newly emerging world economic order. The intervening period of more than six years, though not a long period of time, is enough to assess the impact of different policies adopted. The main aim of the new economic policy was to rein the unbridled fiscal deficit over the years. It was argued that lower fiscal deficit was a vital instrument to fight price rise and inflation. The buoyancy of revenue collection in this respect, particularly from the corporate sector, has shown the potential. It is supported by the fact that, in absolute term, the fiscal deficit declined from its highest peak of 7.4 percent of GDP in 1993-94 to 5 percent of GDP in 1996-97. Inflation as measured by Wholesale Price Index also dipped from 13.6 percent in 1991-92 to 5.8 percent in 1996-97, and it was hovering around less than 5 percent during 1997-98. The total tax collection as estimated by the C.M.I.E. increased by 23 percent, during the first half of 1995-96 against the corresponding period of 1994-95.

The Government of India is committed to develop corporate sector to make Indian companies global giants. In the year 1994-95 budget, following the recommendation of the Chelliah Committee, corporate tax rate was reduced from 45 percent to 40 percent. It was expected that the reduction would not affect the aggregate tax collection. Higher disposable funds with the companies would be employed to increase their efficiency, leading to higher profit earnings and, in turn, to higher revenue for national exchequer. This view percolated through the subsequent budgets. The measures taken were – (i) rationalisation and simplification of tax structure, (ii) lowering of interest rates to enable corporates to raise loan at lower rate of interest (12.5 percent), (iii) change in depreciation policy allowing corporate sector to make higher provision against profit, (iv) allowing corporate sector to enter into joint ventures or strategic alliances and to borrow funds from

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global capital market, (v) free them from lincence restrictions, (vi) gradual shift of items from restricted list to free import, (vii) withdrawl of restriction on capacity addition, and so on.

Objectives and Methodology:

With this backdrop, it may be interesting to know whether the corporate sector has enjoyed the advantage of policies during post liberalisation era, whether taxable profits have actually increased, and whether it has impacted the government's total tax collection.

The paper makes an indepth enquiry about these aspects.

The methodology adopted was simple. Financial data of private sector companies as published in the Economic Times of 24th November 1995 and 14th November 1997 were taken. The companies were selected at random, on the only condition that they have paid taxes during the first half of 1997-98 and during the previous years. To assess the mean variation in tax collection, the Analysis of Variance (ANOVA) technique was used. This was also used to highlight whether the tax provision of private corporates in average differed over the years. The Correlation Coefficient Matrix was used to depict the relationship among tax provision, depreciation policy, interest payment and profit before depreciation, interest and tax (PBDIT). Further, to assess the impact of variables like depreciation, interest and PBDIT on tax collection, Multiple Regression was fitted and Regression Coefficients were tested.

Tax Provisioning of Selected Companies – Its Nature:

To know the impact of rationalisation and simplification of tax structure, 100 selected private sector companies for 1994 and 1995 both, and 50 selected companies for the next two years ending on September 1996 and 1997, were taken. These companies were classified into six classes on the basis of the tax provision made during the year. The classes were: Rs. (in Lakh) 0-100, 101-500, 501-1000, 1001-2000, 2001-5000 and Rs. 5000 and above. Thus, there were four columns (years), six rows (classes), comprising 24 plots. The ANOVA results obtained are given in Table 1.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F</th>
<th>F₀.₀₅</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Classes</td>
<td>5</td>
<td>8.233159²⁸</td>
<td>1.6466319²⁸</td>
<td>7.160155</td>
<td>2.90 (5, 15 df)</td>
</tr>
<tr>
<td>Between years</td>
<td>3</td>
<td>47931900</td>
<td>15777300</td>
<td>0.686054</td>
<td>3.29 (3, 15 df)</td>
</tr>
<tr>
<td>Error</td>
<td>15</td>
<td>3.4495733²⁸</td>
<td>22997155</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table discerns that the ratio of variance \( F > F_{0.05} \) at (5, 15) df, for classes. It showed that there was a significant difference among different classes of private sector companies in tax provision. In other words, tax provision made by the companies in each category differed i.e. large
number of companies falling in a particular class. Further that the ratio of variance $F < F_{0.05}$ at (3, 15 df), for years. This indicated that the changes in rates of tax brought about in different years had no impact on tax provision of the companies. The total tax collection from the corporate sector did not increase owing to rationalisation of tax structure.

**Matrix of Correlation Coefficients :**

From the foregoing analysis, it was evident that there were other contributing factors besides tax reforms impacting tax provisions of the private sector companies. This needed further analysis. Correlation Coefficients ($r$) among the percentage changes in September 1997 against the same period of the previous year, in respect of PBDIT, interest payment, tax provision and depreciation of 29 companies were calculated. These companies were chosen only to maintain similarity among the data published in both the reports stated earlier. The Correlation Coefficient Matrix based on the above analysis is reproduced in Table 2.

**Table 2**

**Correlation Coefficient Matrix**

$(t_{0.05} = 1.70$, for 27 df$)$

<table>
<thead>
<tr>
<th></th>
<th>PBDIT</th>
<th>Depreciation</th>
<th>Interest</th>
<th>Tax Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBDIT</td>
<td>1</td>
<td>-0.036</td>
<td>0.297</td>
<td>0.6184</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.187)</td>
<td>(1.616)</td>
<td>(4.089)</td>
</tr>
<tr>
<td>Depreciation</td>
<td>-0.036</td>
<td>1</td>
<td>-0.002</td>
<td>-0.226</td>
</tr>
<tr>
<td></td>
<td>(0.187)</td>
<td></td>
<td>(0.0104)</td>
<td>(1.2055)</td>
</tr>
<tr>
<td>Interest</td>
<td>0.297</td>
<td>-0.002</td>
<td>1</td>
<td>0.0817</td>
</tr>
<tr>
<td></td>
<td>(1.616)</td>
<td></td>
<td>(0.0104)</td>
<td>(0.426)</td>
</tr>
<tr>
<td>Tax Provision</td>
<td>0.6184</td>
<td>-0.226</td>
<td>0.0817</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(4.089)</td>
<td></td>
<td>(1.2055)</td>
<td>(0.426)</td>
</tr>
</tbody>
</table>

(figures in parentheses indicate calculated value of ‘t’)

The table exhibits that there was high positive correlation between variation in PBDIT and tax provision, while a reverse relationship was found among the variation in depreciation and tax provision. The correlation between interest and tax provision was positive but of very low degree. From the sample, it was observed that as many as 26 companies had enjoyed the benefit of higher depreciation in 1997 against the previous year, leading to lower tax provision. On the other hand, owing to favourable variation in interest payment (less interest was paid in the current year than the previous year) disposable funds of private sector companies did not increase and did not lead as a result, to higher tax provision. The positive correlation coefficient implied that there was considerable decrease in tax provision over the years.
Impact of Variables on Tax Provision:

Restructuring of corporate tax structure was an integral part of the government's new economic policy. To judge how far higher disposable income increased efficiency of the companies in terms of earning higher profits which in turn might help enhance governments' total tax collection, the Multiple Regression was fitted. It was based on financial data of the same 29 companies for the period ending September 1997. Taking tax provision as dependent variable (Y) and interest paid (X_1), depreciation provision during the year (X_2) and PBDIT (X_3) as independent variables, Regression results were obtained. These are given in Table 3.

Table 3
Regression Results

\[
\begin{array}{cccc}
Y &=& -18.76413 & - 0.2319 \times X_1 & - 0.36197 \times X_2 & + 0.2284 \times X_3 \\
S(bi) &=& 0.07668 & 0.26023 & 0.03866 \\
t &=& 3.02^{**} & 1.39 & 5.91^{**} \\
t & 0.025(25 \text{ df}) &=& 2.06 & t 0.005 (25 \text{ df}) = 2.79 \\
R^2Y.X_1X_2X_3 &=& 0.7415 & F = 23.9078^{**} \\
F_{0.05} (3, 25 \text{ df}) &=& 2.99 \\
F_{0.01} (3, 25 \text{ df}) &=& 4.68 \\
\end{array}
\]

(*** Significant)

The summary of regression results exhibited that independent variables \((X_i, i = 1,2,3)\) explained about 74 percent of total variation in \(Y\), while 26 percent remained unexplained. Further the ratio of variation \(F > F_{0.05}\) indicated that \(X_1, X_2\) and \(X_3\) were important explanatory variables. In other words, the policies in respect of interest rates, depreciation as well as incentives for enhancing corporate productivity during the post liberalisation era had significant effect on tax provision.

While assessing the impact of each independent that variable of the sample companies, it was observed that, for interest payment coefficient \(b_1, t > t_{0.025}\). It indicated that the interest paid by corporate sector had significant effect on tax provisions, while the negative sign implied that the nature of impact was reverse. In other words, despite lowering interest rates the private sector companies failed to enjoy the benefit and belied thereby the expectation of higher disposable income to the company leading to higher tax provision. This was further confirmed by the test of Correlation Coefficient \((r = 0.0817, t < t_{0.05})\).

For depreciation provision coefficient \(b_2, t < t_{0.025}\). It indicated that \(b_2\) was not statistically significant. The negative sign implied that there was decrease in tax provision with the increase of depreciation. In other words, taking the advantage of higher depreciation provision under the respective rules, the corporate sector considerably lowered tax provision. This again confirmed the futility of the expectation of higher tax collection.
Finally, for PBDIT coefficient $b_3$, $t > t_{0.025}$. It highlighted that $b_3$ was statistically significant. It indicated that PBDIT had significant and positive effect on tax provision. In other words, total tax collection from corporate sector increased due to the increase in PBDIT.

**Epilogue:**

From the foregoing analysis, it is evident that reduction in interest rates and widening of depreciation provisions had no significant impact on increasing the tax provision. On the other hand, PBDIT had positive influence on total tax collection from private sector companies.

The analysis of overall performance of the sample companies (The Economic Times - 14 November 1997) highlighted that the aggregate tax provision declined by over 25 percent despite 4 percent rise in aggregate net profits. The share of pre-tax profits declined from 24 percent during six months ended September 1996 to only 18.5 percent in the corresponding period of 1997.

The reasons attributable may be various tax planning avenues provided, helping private sector companies to reduce their tax burden. In this connection, the ICICI Study based on a sample of 1,619 companies may be referred to (The Economic Times, 15th January 1998). The study revealed that the growth in sales was considerably lower at 9.9 percent during the first half of 1997-98 against 17.6 percent during the corresponding period of 1996-97. Yet the net earning increased to 9 percent against a mere 0.5 percent during the same period previous year. The reason for such a stupendous growth in profits were sharp drop in interest rates, absolute fall in corporate tax rates and fall in manufacturing expenses. However, tax provision deteriorated miserably from 15 percent to (-) 3.3 percent. Further, with the decrease in net sales, PBDIT declined from 20.3 percent to 10.7 percent, despite considerable decline in total expenses from 16.5 percent to 9.8 percent, during the period under consideration.

The corporate sector during the post reform era added to the existing capacities, and as a result the production level increased considerably. But owing to demand drawbacks, greater competition for Indian industries due to reduction in protection level, and onslaught of global deflationary cycle as results of devaluation of East Asian currencies, the inventories and receivables have gone up considerably. For example, inventories have gone up by 30 percent in automobiles industry which recorded 3 percent growth during April-June 1997, against that of the same period in previous year. This forced industries to cut production. The corporate sector of late finds little chance of extricating itself from the mess in which most of them have landed themselves. The Union Government came out with "VDIS 97" to compensate for the loss incurred in corporate tax collection. A fresh look at tax incentive schemes for corporate sector, demand stimulation through increase in public expenditure, strong anti-dumping mechanism, reduction in real interest rates, are necessary to further stimulate investment.
XXI Conference of
Indian Accounting Association,
Bangalore
Rapporteurs’ Reports

Seminar Session: ‘Financial Innovations-Accounting Implications.’

The session on ‘Financial Innovations Accounting Implications’ was held at the Senate Hall of the Bangalore University, Bangalore on 31st January 1998 from 2.30 pm. Dr. Y. Yalwaar, Ex Director, K.S.F.C., Bangalore was Chairman, Prof. Narayana Swamy, Chairperson PG Programme IIM, Bangalore was Key Note Speaker, and Prof. K.C. Vijaykumar, Chairman, Deptt. of Com. & Mgt., Calicut University, Calicut was Rapporteur.

At the outset, Miss Nirmala welcomed the guests. Chairman in his opening remarks mentioned that after liberalisation, a variety of new instruments have been issued by corporate bodies. The developments were more pronounced in the debt market. From simple instruments like Debentures, it has grown to Global Depository Receipts, with record market capitalisation. These changes throw a challenge for accounting profession. The profession has to adjust to these changes.

According to Dr Yalwaar, these developments had implications for all. Reporting of these changes in a standardised form was necessary. The entire accounting fraternity has to initiate action for formulating standards of reporting. The changes brought about by companies are to be used for greater empowerment and not for mere protection. This requires improvement in the standards of disclosure. The pricing of new financial instruments required attention. The accounting profession has to focus on effective management of these instruments. The conventional accounting statements are not enough to incorporate these changes. The implications of new financial instruments must be made known to the shareholders. In short, the change is an opportunity for accounting profession for improving their own professional competence and professional standards.

Dr. Narayana Swamy in his key-note address introduced new instruments like options, interest rate swaps etc. Referring to a U.K. Survey of 26 quoted companies, he mentioned that 77% of companies had a policy
of covering foreign exchange risk by way of interest rate swaps and 92% used forward foreign exchange transactions to hedge currency exposure. He concluded with the remarks that companies with foreign exchange exposure should have a documented policy, clearly stating the extent of hedging, within a time frame. The function of treasury manager has become complex with the responsibility of risk management. An appropriate control mechanism is, therefore, necessary. Accounting academics should explore research opportunities in reporting and disclosure systems.

The key-note address was followed by presentations of eight papers. Prof. Mallikarjunappa of Mangalore University in his paper on 'Innovative Financial Instruments: The Challenge of off-Balance Sheet Financing Scheme' explained the off-Balance Sheet financing arrangements through certain financial instruments often practised by some companies. He listed the asset securitisation, product financing arrangements, debt factoring, sale and lease back etc as some methods used by companies to smoothen the transitory difficulties or to make the debt-equity ratio favourable to present a rosy picture of the company. It is not fair to keep the shareholders in dark about these methods followed by companies, he argued.

Dr. B. Ramesh of Goa University in his paper 'The Emergence of Warrants in India: A Case Analysis of Warrants Package Issue of Lloyds Finance' explained the nature of a warrant as distinguished with option, gave reasons for their issue and factors influencing their value. He analysed the warrant package issued by Lloyds Finance in detail.

Prof. Sujit Sikidar and Prof. Ranjan Bharti of Gauhati University presented a paper on 'Capital Account Convertibility: Emergence of Financial Derivatives and Accounting for the Same'. They referred to the Tarapore Committee recommendations and noted that the committee had set certain targets to be achieved before implementing capital account convertibility. They also referred to the steps taken by the RBI towards market integration. They stressed the need for proper accounting procedure for new instruments.

Miss Falguni Shastri of Jasani Arts College, Rajkot in her paper on 'Innovative Financial Instruments: Accounting Implications' explained the nature, implications, and limitations of some new instruments such as Deep Discount Bonds, No Par Stock, Zero Coupon Bonds, Commodity Indexed Bonds, Debt Securitisation, Capital Index Bonds. Infrastructure Bonds etc. She concluded that globalisation process had paved the way for many such instruments.

Prof. B.G. Satyaprasad of A.K. College for Women, Bangalore presented a paper on 'Legal Aspects of Leasing and Hire Purchase – The
future of NBFCs.' He explained various regulatory and business environmental issues associated with leasing and hire purchase transactions and analysed the recent RBI guidelines. The paper offered some suggestions for improvement in the guidelines.

Dr. Madhurima Lall of Lucknow University in her paper ‘Accounting for Yield on Deep Discount Bonds from Tax Angle’ highlighted the confusion regarding tax treatment of difference between issue and redemption price of Deep Discount Bonds. She suggested some tax planning measures.

Miss Anjana Raju and Dr. S. Ramesh of Goa University presented a paper on ‘In search of Empirical Evidence on Close-end Mutual Funds and Discounts : An International Perspective’. After giving historical perspective of close-end mutual-funds in the U.S.A and their growth in Indian context the paper explained factors determining the discount prevailing in market vis-a-vis the net assets value of the funds.

Dr. R.L. Hyderabad of Karnataka University in his paper on ‘Asset Securitisation - some Accounting Issues’ described that innovative financial instruments were essential, but their accounting implications were not well considered. Accounting Standards setting bodies should promulgate a Standard for such new instruments.

The session generated good deal of discussion. A number of questions were asked by the participants and explanations were given by the persons concerned. Chairman in his concluding remarks emphasized upon the need for empirical studies in the area. He listed a number of items to be researched, which included money market instruments used for hedging against financial risk and efficiency of new instruments.

Miss Shalini proposed a vote of thanks.

Technical Session-I : ‘Accounting and Information Technology’

At the technical session on ‘Accounting and Information Technology’, held on 1st February 1998. Prof. J.N. Shukla, Professor of Commerce, Lucknow University was Chairman, Shri S.R. Gopalan, President, Wipro Finance Ltd. was Key-note speaker, Dr. M.S. Subhash, Director, KIMS, Karnataka University was Rapporteur.

In all 23 papers were received covering the areas such as Management Accounting, Information System, Tele-communication and Networking, Advancements in and Applications of Software, IT & Teaching, IT advancements, HW/SW Applications, how Telecom has changed, etc.

Shri. S.R. Gopalan, Key-note speaker, described the latest trends in information technology development and how India is as good as the U.S.A. in terms of IT and shifting from ‘Dr. No to Dr. Know, to Dr. Lead’ he gave
the picture of IT projects, how these concerned even us and confirmed that Indian IT projects were among the best in the world. He gave certain guidelines for accountants using IT. viz.

i  Select, implement and gain from system
ii  Select technology and use packaged SW
iii  Simplify internal systems
iv  80/20 rule and monitor

Miss. Beena S. Dave of Saurashtra University Rajkot in her paper on ‘Accounting and Information Technology’ presented two aspects out of its five aspects, viz. accountant should be aware of technology (I.T.) and analyse cost tools used to minimise cost and second, a better accounting perspective of IT giving way to re-engineering.

Dr. Jayakodi of Periyar EVR College, Tiruchi, presented a paper entitled ‘Role of International Accounting Standards in the Information System’. He mentioned that it has removed barriers in communication and its role in making the world a global village. International Accounting Standards helped in designing IT products better, he asserted.

Dr. Ratish K. Kakkad, Research Scholar from Rajkot in his paper ‘Information Technology - a Tool for Rural Development’ explained how due to huge volume of data about rural areas, there is a need for IT to help in rural development and how IT can help manage the data base.

Miss L.Kokilavani of Vysya College, Salem and Dr. M. Ramya Babu, of Kodaikanal, presented a paper on ‘Accounting and Information Technology’.

Prof. Smita Vyas of Rajkot in her paper on ‘Accounting Information Systems & IT - Strategic Considerations’, highlighted that info-system audit should be done to avoid various problems. She also expressed that a Disaster Recovery Plan can save business from IT failures.

Dr. S.J. Parmar of Dwarka and Shri A.S. Mehta from Wankaner presented a joint paper on ‘Accounting Information System’.

Dr. G. Rajaram from Paramakudi, Tamilnadu presented a paper entitled ‘Impact of Information Technology on Accounting Curriculum’ and called upon the teachers to change the way they teach students for making computer teaching more practical and avoid repetitions.

Dr. Nalini Dave of Saurashtra University, Rajkot in her paper on ‘Information Technology and Accounting’ described how accountants can prepare statements of accounts much faster way than clerical staff. At the same time, she stressed that IT alone cannot solve the problem. Accountants should be careful about other important related issues.
Dr. C.S. Rayudu, of S.K. University and Dr. S.B. Nageswara Rao of Annamalai University in their joint paper entitled ‘Emerging Accounting Applications of Information Technology’ discussed how IT can be used in different areas like: Accounting & Book-keeping, point-of-sale technology, electronic fund transfers etc.

Mrs. C. Thilakam of Komarpalyam in her paper on ‘Impact of Information Technology in Accounting Systems’ discussed its three phases and stressed on the importance of computerised accounting system as a part of MIS and called for accountants to maximise benefit of IT in accounting. She listed out certain special softwares and how new decision support systems could be built.

Dr. Madhurima Lall of Lucknow University in her paper on ‘Accounting and Information Technology in Indian Context’ emphasized how traditionally IT has been uni-functional and that the approach should be multi-functional now. She also acknowledged the headway made by some softwares in this direction.

Prof. Alok Kumar Chakrawal in his paper on ‘Information Technology Requirements of Total Accountant’ called the accounting and finance professionals to use IT, specially the Internet and on line processing, to cope with the challenges of competition.

Dr. G. Soral of M.L. Sukhadia University, Udaipur in his paper entitled ‘Impact of Advancing Information Technology: Issues before Accounting Educators’ presented how technology is going to mingle with accounting profession. He further identified major areas where IT has/had an impact on the educators.

Dr. K. Nirmala of Balwin Methodist College, Bangalore in her paper on ‘Information Technology in Accounting’ presented 10 hottest packages in the U.K. and their uses. She also presented some selected world-wide accounting packages and mentioned what Oracle Financing is doing in India.

Shri Raghuvir Singh Rajpurohit of Jodhpur in his paper ‘A Journey from Book Keeping to Computer Accounting’ explained in detail how it is important to understand computer technology and computer education.

Dr. Pratap Singh L. Chaçhan of Saurashtra University, Rajkot presented a paper on ‘Information Technology and Accounting’ and explained in detail the implications of information technology for accounting.

Dr. B. Kumar and Dr. B.K. Nagaraj presented a joint paper on ‘Multi-Criteria Capital Budgeting Decision Support System in Fuzzy Environment’. Authors presented how heuristic methods are required in some fuzzy environments and how in areas like Accounting and Finance, they can solve the problems.
Dr. T. Aranganathan and Ms. Manimakalai of Annamalai University, Tamil Nadu in their joint paper on 'Role of Information Technology in Accounting System', identified among other areas Networking, DSS & ES as important areas where accountants should focus.

Dr. A. Hosmani from Sandur, Bellary presented a paper on 'Role of Information Technology in Accounting'.

Prof. V.V. Raichura from Rajkot, presented a paper on 'Information Technology in Accounting'. He stressed that uniformity should be maintained, and staff should be trained.

Prof. M.S. Subhas and Dr. Bhagawati Prasad presented a joint paper on 'Extranet and EDI - First Step Towards Electronic Funds Transfer - Challenges before the Accounting Profession' and highlighted that accounting profession should explore computer communication with optionization techniques to improve efficiency in receivables management.

The paper presentation session ended with many questions aimed at understanding computer related frauds etc.

Dr. B.M.L. Nigam pointed out that if each of us bought and used computer, a lot more improvement can be seen.

Dr. K.R. Sharma enlightened the audience about issues like virus, data security and software piracy.

Chairman concluded the session thanked Shri. Gopalan, who presented the key-note address and the paper-writers and participants in discussion, and also answered various queries.

**Technical Session-II : ‘Accounting and Societal Concern’**

The technical session on ‘Accounting and Societal Concern’ was conducted by Prof. S.B. Singh, Lucknow University as Chairman. Sri. P.N. Harish, Vice-President, Lloyd's Finance Ltd., Bangalore was Key-note Speaker. Prof. Sujit Sikidar of Gauhati University, Guwahati was Rapporteur.

The Chairman welcomed the participants and others to the technical session and explained the broad framework and modalities of the technical session. He expressed that the society's expectations have gone tremendously high. Following the information conveyed through financial statements, strategic managers are putting enough emphasis on how best corporate entity can serve society's interest. A social growth matrix has been launched by big corporate houses in developed countries like the USA. In future, an eco-friendly societal value system shall be incorporated in corporate agenda. This role is much wider than stewardship role of accounting.

Shri. P.N. Harish, FCA in his keynote address expressed his views on
corporate reporting and its concern for society. He was of the view that concerns are so many, but if we can limit them, it would be easy for evaluating the corporate success rate in this regard. Unethical practices of a company do not usually get reflected in its annual report. Other issues touched were, measurement of social obligation parameters by accounting profession, social income reporting and environmental accounting.

Prof. V.K. Trivedi of Vallabh Vidyapeeth, Anand, emphasized on some dimensions of evaluation of higher education institutions with special reference to Gujarat. He emphasized on the application of cost and management accounting tools, financial control systems and budgeting in management of educational institutions.

Dr. Shanmugasundaram of Madras University, Salem emphasized that the practice of hiding information by corporate entities should go and they should disclose information on social activities, such as infrastructure development activities. Socio-economic expenditure incurred out of legal compulsion should be taken out of social reporting.

Miss G. Premkumari of Salem in her paper entitled ‘Social Reporting - an Overview’ mentioned that there is no specific legal format for the presentation of social information. Value Added Statement can serve as a supplementary information statement. She emphasized on regular publication of information on social welfare, energy conservation, human resources etc.

Miss M.O. Geeta of Salem focused on the significance of corporate social reporting.

Dr. V.K. Vasal of Delhi University, talked about EDP, eco-development programme, green accounting for long life of an entity, global environmental report, life supporting system, cost-environmental stewardship index for the companies, environmental reporting behaviour etc.

Prof. J.M. Mehta of Rajkot in his paper touched upon the Gandhian concept of partnership. He discussed the issues at 1965 conference on Social Reporting presided over by Lal Bahadur Shashtri, measurement of philanthropic activities, statutory and non-statutory requirements of social reporting, Manufacturing and other Companies (Audit) Report Order 1988 etc.

In the view of Dr. Harish S. Oza of Gujarat University, Ahmedabad, parameters should be identified for the measurement of social overheads and social obligations should be disclosed and reported. He quoted from Justice Rajendra Sachhar Committee Report and underlined the positive role the Indian Accounting Association (IAA) can take in the shape of a research project on this topic.

Dr. Rais Ahmed of Aligarh Muslim University, mentioned that several companies have started reporting social income and a social balance sheet
was prepared. The proforma for these statements are prescribed in other countries.

Dr. H.S. Bajpai of Gorakhpur identified the difficulties in measuring eco-social expenses. He cited the example of suspense account shown in the Annual Report for its ability to reconcile.


Dr. H.V. Shankaranarayana of Mangalore University, expressed his views on responsibility accounting and accounting standards in this regard. He referred to Peter Drucker's view of social responsibility and mentioned that social responsibility accounting was made mandatory in the USA and that Tisco's role in meeting social obligations had improved employee productivity. He suggested that social benefit cost statement should be made mandatory.

Mr. V.H. Pithadia of Saurashtra University, Rajkot presented his views on Value Added Model of Social Accounting Statement in order to depict the impact of business activities on society.

Prof. B.H. Desai of Gujrat University presented a paper on Information by Small Business Enterprises in an Industrial Estate in Gujrat (Naroda). In his paper Prof. Desai discussed the accounting system followed by small business enterprises and stressed the need of imparting training to teachers in accounting on this subject.

Prof. Chirag H. Jarlawala of Gujrat University in his presentation touched upon environment accounting, human resource accounting and their external and internal users.

Dr. B. Mohan of S.V. University, Tirupathi discussed measurement, reporting and auditing of social matters.

Dr. G.L. Dave of JNV University, Jodhpur, presented a research study of public and private sector companies in India on corporate social reporting and suggested development of some indicators for such a reporting.

Dr. Pushpa Bhatt of Bangalore University in her paper on ‘Accounting for Employee Retirement Benefits’ discussed tax planning, interest rate, actuarial valuation and investment aspects of pension funds.

Miss Charumati in her presentation called for a legal framework for environmental accounting. She also discussed accounting for installation of pollution control machinery.
Miss. Dipti Trivedi discussed Social Responsibility Accounting and in this context the environmental concerns of product, sale and net income contributions, and also the problem of social responsibility accounting.

Dr. G. Srinivasan of NIIT, Mumbai, presented a paper on Social Reporting on Research and Development (R&D) Expenditure.

Dr. C.K. Sonara presented a model of social responsibility programme or process design for the incorporation of social interest.

Dr. Bhartendu Purohit talked about democratic accounting.

Dr. James Mathew quoted a survey covering the Chartered Accountants about Exposure Drafts (ED) and concluded that very few sample firms responded to the Exposure Drafts issued by the Institute of Chartered Accountants of India.


Dr. R.V. Keshwala expressed his views on ‘Hindu undivided Family (HUF) and its Accounting Implications’.

After the presentation of papers, there was a question-answer session. Chairman summarised the proceedings of the session by drawing meaningful conclusions regarding social auditing, social accounting, corporate growth accompanied by eco-friendly commitment etc. Chairman offered a vote of thanks to all.

The organisers also offered a vote of thanks to the Chairman, the Keynote Speaker, the paper presenters, and also the rapporteur.

Call for Topics of Research in Accounting

A Project to prepare a Compendium of Topics of Research in Accounting was taken up by the Indian Accounting Association on the occasion of XX Annual Convention at Goa in February 1997 and the same was assigned to Dr. G. Soral of M.L. Sukhadia University, Udaipur. Readers are requested to send their suggestions of potential research topics for inclusion in the Compendium along with their name, designation and address. Selected topics for the Compendium shall be suitably acknowledged. It is proposed to submit the Compendium for publication in IJA. The suggestions should reach on or before 30th August, 1998 and be addressed to: Dr. G. Soral, E-10, University Quarters, Ashok Nagar, Udaipur-313001
Indian Accounting Association: Announcements

Young Researcher Award for 1998:

The Indian Accounting Association (IAA) invites research proposals on research work done during the last five years in the area of Accounting by persons of not more than 35 years of age on 31.12.1997 for consideration for YOUNG RESEARCHER AWARD FOR 1998. The last date for submission of proposal is 30-11-1998.

Best Published Annual Accounts for 1997-98:

The Indian Accounting Association (IAA) invites proposals for BEST PUBLISHED ANNUAL ACCOUNTS FOR 1997-98 from companies and non-profit organisations. The annual accounts should be for the year 1997-98. The last date for submission of proposal is 30.11.1998.

The proposal should be submitted to Prof. D. Prabhakar Rao, General Secretary, IAA, 2, Shanmukha Apartments, China Waltair, Visakhapatnam (A.P.) - 530 017

XXII Annual Conference of IAA

The XXII Annual Conference of IAA will be held under the auspices of Jaipur Branch of IAA and Department of Accountancy and Business Statistics, University of Rajasthan, Jaipur, during February 27-28 and March 1, 1999. The topics of Seminar and Technical Sessions are:

Seminar: Paradigm Shift in Accounting Research
Chairman: Prof. V. Krishna Kumar, Indian Institute of Management (K), Kozhikoda, REC Post, Calicut-673 601;

Technical Session-I Environmental Accounting and Auditing,
Chairman: Prof. Sujit Sikidar, Dept. of Commerce, Gauhati University, Guwahati (Assam)

Technical Session-II Accounting for Services
Chairman: Prof. Bhairav H. Desai, S.D. School of Commerce, Gujarat University, Ahmedabad-380 009

Papers are invited for presentation at the above sessions of the Conference on or before 30th November 1998. Three copies of full paper typed in double space, along with an abstract in not more than 200 words, should be submitted, to the respective Chairperson. Regarding details of accommodation etc., members are requested to contact Conference Secretary Dr. Sugan Chand Jain at 4-Ma-22, Jawahar Nagar, Jaipur-302 004, Phone: 0141-652107.

Any further clarifications in the above context may be addressed to Prof. D. Prabhakar Rao, General Secretary, Indian Accounting Association, Andhra University, Rd., 2, Shanmukha Apartments, Visakhapatnam (A.P.)-530 017; Phone: 0891-555538
IAA Branch News

Salem Branch

The Salem Branch of Indian Accounting Association was formally inaugurated on 17th April 1998 by Prof. D. Prabhakara Rao, General Secretary, Indian Accounting Association, at Periyar University, Salem. The Inaugural Function was attended by more than 130 delegates from various parts of the country. Dr. D. Jayakumar, Vice-Chancellor, Periyar University, Salem presided over the function.

After prayer and lighting kuthuvilakku, Dr. S. Shanmugasundaram, Professor and Head, Department of Commerce, Periyar University, Salem welcomed the gathering. He highlighted emergence of Periyar University and the activities of Indian Accounting Association.

In his Presidential Address, Dr. D. Jayakumar, Vice-Chancellor, exhorted the researchers to be positive in their approach in utilising the available opportunities and equipment in promoting research. He explained how the University proposed to expose its faculty and students to information explosion around the globe. He also explained the proposal of the University to launch a website with internet facility to enable the researchers of various faculties. The University's main thrust would be on job oriented courses.

Dr. Prabhakara Rao in his inaugural address stated that accounting community should change its mindset to face the challenge of bridging the gap between present and future. He emphasized that accounting should be software oriented. He also added that the Y2K problem may affect the whole system of accounting around the world, creating problems in printing invoices, preparation of financial statements and cashflows.

Dr. Rao further expressed that while Financial Accounting experience finely-tuned Standards and harmony in international perspective, the Cost and Management Accounting Systems may be credited with a number of new conceptual advancements which included Activity Based Costing, Strategic Costing, Life Cycle Costing and Computer-Integrated Accounting Systems. In addition, new concepts such as Environmental Accounting, Accounting for Price Level Changes, Human Resource Accounting, Social Accounting and Accounting for Investments in Intellectual Capital are expected to give a face-lift to the whole process of accounting under changing conditions.
The advent of computers and a variety of products of office automation and ‘enterprise resource planning’ have resulted in the accounting systems undergoing a revolutionary change. In the age of information, accounting systems were considered sophisticated infrastructural tools of electronic data inter-change. He urged the researchers and teachers to rise to the occasion and impart critical inputs to the students.

Prof. P.Rajendran, Controller of Examinations, Periyar University, Salem, Dr.S.Balakrishnan, Professor and Head, Department of Commerce, Annamalai University, Annamalai Nagar, and Dr. N. Thanulingom, Professor and Head, Department of Commerce, Madurai Kamaraj University, Madurai offered felicitations. Thiru N.Sampath Kumar, Financial Advisor, Periyar University, Salem and Prof. A.Sathyamoorthy, Syndicate Member were also present on the dais.

The Technical Session of the Conference organised on this occasion commenced at 11.30 A.M. with Dr.S.Balakrishnan, Professor and Head, Department of Commerce, Annamalai, University, Annamalainagar in chair. Dr. K.Aiyadurai, Professor of Commerce and Dean of Academic Affairs, Arul Anandar College, Karumathur, Madurai was the Rapporteur and Dr. R. Shanmugam, Reader in Commerce, Bharathiar University, Coimbatore played the role of Moderator for the session. In all 35 research papers were received for presentation on issues like Social Accounting, Financial Reporting, Human Resource Accounting, Information Technology and Accounting, Quality Assurance Accounting, Accounting for Investors' Protection, Inflation Accounting, Accounting for Multi-nationals etc. of which 29 papers were presented. Paper presentation was followed by a lively discussion.

The Valedictory Session of the Conference started with Shri Yacob Shah, Regional Manager, Indian Bank, Salem as President. Dr. N.Thanulingom, Professor and Head, Department of Commerce, Madurai Kamaraj University, Madurai delivered the valedictory address. During this session, Dr.K.K. Ananthapadmanabha Rao, Former Professor, Department of Commerce, Madurai Kamaraj University, Madurai was felicitated in appreciation and recognition of his yeomen service for Accounting and Commerce Education and Research by Dr. S.Shanmugasundaram, Dr. N. Thanulingom, Dr. M. Manickam, Prof. S. Thangavelu and Dr. D. Prabhakara Rao. The Rapporteurs' report was presented by Dr. K.Aiyadurai. Dr. N.Velusamy, Registrar, Periyar University, Salem, felicitated the Indian Accounting Association, Salem Branch and distributed certificates to the delegates. The day long function came to an end with vote of thanks by Ms B.Charumathi, Secretary, Indian Accounting Association, Salem Branch and National Anthem.
Udaipur Branch

The Executive Committee of the Branch for 1997-98 was elected as Dr. N.K. Pandya Chairman, Dr. G. Soral Sr. Vice-Chairman, Dr. S. Bhanawat Jr. Vice-Chairman, Dr. S.L. Menaria Secretary, Dr. Sharad S. Johri Joint Secretary, Sh. Tapan Kr. Bhadviya Treasurer, Sh. C.L. Salvi Executive Member, Dr. N.K. Dhing Executive Member and Dr. Shurveer S. Bhanawat Executive Member.

Professor K.R. Sharma, Dr. M.L. Dashora and Dr. R.L. Tamboli were nominated as Patrons of the Branch.

A One-day Seminar on 'Internationalisation of Accounting' was organised on 10th August 1997 under the joint auspices of Udaipur branch of CIRC of the Institute of Chartered Accountants of India and M.L. Sukhadia University. Professor K.R. Sharma was the Organising Secretary. The Seminar venue was HCM, RIPA (OTC), Udaipur. At the Inaugural Session, Sh. K.V.K. Sheshavataram, CMD, Hindustan Zinc Ltd. was the Chief Guest and Professor R.K. Rai, Vice-Chancellor, M.L. Sukhadia University chaired the session.

The first Technical Session devoted to the 'Scenario and the Developments', was chaired by Professor N.M. Khandelwal of MDS University, Ajmer and key-note speaker was Sh. N. Ramachandran, Director (Finance), Hindustan Zinc Ltd. In all, six papers were presented during the session. At the outset Professor K.R. Sharma in his presentation highlighted certain important issues pertaining to international accounting. Dr. G. Soral presented scenario of international accounting research based on his survey of certain journals. Dr. S.L. Menaria presented his views on accounting disclosures and audit of foreign exchange. A critical evaluation of the guidelines available for standardization of international auditing practices was presented by Dr. P.R. Somani. Dr. M.L. Dashora discussed the International Accounting Standards for takeovers and mergers of corporations and made certain recommendations. In his paper, Dr. R.L. Tamboli discussed the issue of Internationalisation of Accounting and narrated its pros and cons.

'The Opportunities and the Challenges' was the focus of Second Technical Session which was chaired by Sh. O.P. Chaplot, a senior Chartered Accountant and key-note address was delivered by Sh. N.K. Agrawal, Secretary, University Liaison Committee, ICAI. Sh. S.C. Jain set the ball rolling with his presentation on 'Challenges for Accounting Profession in International Perspective'. Sh Udai Lal Paliwal discussed the 'Challenges for Accounting Profession in the Context of Environmental Accounting and Auditing'. Dr. Anita Shukla elaborated the interface between the modern information technology and the accounting profession. The right-and-wrong about advertising by Chartered Accountants was examined
by Sh. Devendra Punjawat. Sh. Tapan Kr. Bhadviya and Dr. S. Bhanawat presented the emerging challenges for accounting profession with reference to disclosures in financial accounts. Dr. Kausik Bose and Sh. Dharmendra Mehta of Vikram University, Ujjain stressed and elaborated upon the need of retrofitting the EDP auditor in view of emerging security skill needs and requirements.

The Valedictory Session of the Seminar was chaired by Sh. N. Nityanand, Chairman, University Liaison Committee, ICAI. Professor N.M. Khandelwal was Chief Guest in the session. Around eighty participants from academy as well as profession attended the Seminar.

A round table conference on the ‘Downside of Globalisation’ was organised on 20th July 1997 at the CCMS Seminar Room. Professor Shyam S. Lodha from Southern Connecticut State University, USA delivered the key-note speech. Professor K.R. Sharma chaired the conference session.

A family picnic was organised at Shri Kardhar Bavji ki Dhuni. More than 40 members and families participated and enjoyed the picnic the whole day. The co-ordination of the event was done by Sh. B.L. Heda and Dr. P.R. Somani.

The ‘IAA Talent Search 1997-98’ an accounting knowledge competition was organised separately for school and college level students by the Branch on 22nd February 1998 at CCMS Campus. More than six hundred students participated in the competition. The best three performers at college level were Sh. Abhishek Anchalia, Sh. Tarun Kudal and Sh. Abhishek Nagori, all from CCMS. At school level, the best three performers were Sh. Akhil Kanthalia of Alok School (Hiran Magri), Miss Monika Agrawal of Guru Nanak Public School, and Sh. Deepak Nawal of Central Academy, Sardarpura.

At the prize distribution function, Sh. K.M. Bordia, Chairman, Tax Bar Charitable Society, Udaipur was the chief guest and Professor K.R. Sharma chaired the function. The organising committee of the competition had Dr. G. Soral as convener, Dr. S. Bhanawat as additional convener, Sh. Tapan Kr. Bhadviya as co-convener and Dr. Sharad S. Johri as member.

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**The Young Researcher Award**

On the recommendation of the Young Researcher Award Committee the Indian Accounting Association has given the YOUNG RESEARCHER AWARD for 1995 to Dr. V.K. Vasal, for 1996 to Dr. G.S. Batra and for 1997 to Dr. (Miss) Charumathi.

Congratulations
Indian Accounting Association
Income & Expenditure Account
From 1-4-97 to 31-3-98

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<th>Particulars</th>
<th>Amounts (Rs.)</th>
<th>Particulars</th>
<th>Amounts (Rs.)</th>
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<td>To Printing</td>
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<td>By Annual Subscription</td>
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<td>To Salary</td>
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<td>By Bank Interest</td>
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<td>To Audit Fee</td>
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<td>To Misc. Exp.</td>
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<tr>
<td>To Bank Charges</td>
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<tr>
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<td><strong>Total</strong></td>
<td><strong>52,935.30</strong></td>
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Balance Sheet as on 31.3.1998

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<th>Amounts (Rs.)</th>
<th>Particulars</th>
<th>Amounts (Rs.)</th>
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<td>Furniture</td>
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<td>Opening Balance</td>
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<td>As per last stock A/c</td>
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<tr>
<td>Income</td>
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<td>Cash at Bank</td>
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<td>Donations</td>
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<td>Fixed Deposit at Jaipur</td>
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<td></td>
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<td>Rajkot A/c</td>
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<td></td>
<td>Jaipur SB A/c</td>
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<td>Cash in hand</td>
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<td>Varanasi Branch</td>
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<td><strong>Total</strong></td>
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</tbody>
</table>

We have checked the above Income & Expenditure Account and Balance Sheet as on 31st March, 1998 of the Indian Accounting Association with the books of accounts and vouchers produced before us for our verification. We found the same are in agreement therewith.

Place : Jaipur
Dated : April 4, 1998

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(Dr. Sugan C. Jain)
Treasurer
Indian Accounting Association

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For Anil Shekhawat & Company
Chartered Accountants
(Anil Shekhawat)
Proprietor
International conference News

International Association for Accounting Education & Research (IAAER)
Second Biennial International Accounting Research Conference
&
Centre for International Education & Research in Accounting (CIERA)
Thirty Third International Accounting Conference
on
Global Advances in International Accounting Research
October 2-3, 1998

Hosted By: De Paul University, Chicago, Illinois &
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- Privatisation of Governmental Functions and Government Enterprises and their impact on Accounting.
- Other related International Business topics.

**Mail all Papers to:** Professor Ali Peyvandi or Professor Benjamin Tai
Asian-Pacific Conference on International Accounting Issues-The Sid Craig
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**Fourth International Conference of IAA Research Foundation**

Crystal Hall, Taj Bengal, Calcutta — January 9-10, 1999

**Call for Papers**

The **Indian Accounting Association Research Foundation** will hold its fourth International Accounting Conference in Calcutta on January 9-10, 1999, at Taj Bengal Hotel, Calcutta. The *theme* of the conference is *the Changing Dimensions of Accounting: Global and Regional Issues*. Conference papers are invited on the following *topics*:

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- Globalisation of Accounting Standards
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**Guidelines for paper submission:** (1) Each contributor is required to submit 2 (two) typed (double-spaced) copies of the full paper. (2) There should be a separate title page on each paper giving details of authors, affiliation, address, telephone and e-mail. (3) Papers must be received
within October 31, 1998. (4) Notification about the acceptance or otherwise of a paper will be made by November 30, 1998. (5) Papers submitted for presentation will be subject to blind review and the decision of the Technical Committee will be final. (6) Submission of a paper by fax or e-mail will not be acceptable.

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20% discount will be given for early registration by October 31, 1998. Accompanying person Rs. 500 per head for any category. Payments are required to be made by account payee cheque in favour of "IAA Research Foundation (Conf. A/c)"

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Mail your queries, registration of interest, paper etc to:

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