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EDITORIAL

According profession needs to have fresh orientation. Accounting education and research has to address global issues. It needs to focus more on quality aspects as discussed by Dr. Lalit Gupta. Dr. Bhayani has made an interesting study on assets turnover and profitability. The study indicates that utilization of corporate assets is the most influencing factor on profitability. Mr. H.C. Sardar talked about research shift regarding mandatory and corporate disclosures. Kruskal Wallis Test was used by Mr. R.C. Gowda and others in interfirm comparison. The study has shown that the performance is continuously improving in cement industry. Dr. Naidu and Grace have measured return and risk of shares on the selected sample and have drawn useful findings. Gitika Mayank and others have developed a corporate governance model. Intellectual capital was measured in select companies by Dr. Prashanta Athma. Mr. Ashwani Kumar assured financial impact of supply chain decisions. The issues like business intelligence, accounting standards convergence, ABC costing and correlates of NPAs are examined in detail in this issue.

Date: 30.6.2006

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ASSETS TURNOVER AND PROFITABILITY

*Sanjay J. Bhayani

ABSTRACT

To increase the shareholders value efficient assets management is required. Assets utilization and corporate profitability has a direct relationship. In present paper an attempt has made to study the impact of assets utilization on profitability of Indian industry. For the purpose of study 24 Indian industry has been selected which comprises 641 Indian firms.

There is a triangular relationship among the sales, profits and assets greatly affect the profitability of a business also. The relationship between the sales and profits is known as profit margin and the relationship between the sales and assets is known as assets turnover. Any change in assets turnover would affect the profitability of a business. Hence, a detailed analysis of assets turnover has been made for better study and tracing out factors responsible for changes in the profitability. Turnover ratios are concerned with how efficiently the assets of the firm are managed or utilized. These ratios indicate the rate at which different assets are turned over in the process of doing business. The greater the rate of turnover or conversion, the more efficient utilization assets, resulting in higher profitability. The turnover ratios reflect the relationship between level of the sales and the various assets and a proper balance between assets and sales shows better management of assets.

LITERATURE SURVEY

Over the past thirty to forty years a host of studies have been carried out, most in the United States, aimed at developing models for the prediction of farm business performance. As regards dependent variables the main focus appears to have been by university researchers working with banks to develop means of improved credit scoring or categorizing farms according to the likelihood of loan default (see Johnson and Hayes, 1973; Hardy and Weed, 1980; Novak and LaDue, 1999; and Barry and Ellinger, 1989, for example). Other studies have looked at bankruptcy (Beaver, 1968; Altman, 1968), with a few being concerned with financial

*Associate Professor, Department of Business Management, Saurashtra University, Rajkot - 360 005
stress' (Melichar, 1986), 'success' (Kaase et al., 2003), 'health' (Griffis, 1988) and financial instability (Franks, 1996). Santarossa (2003) derived an index based on movement in long-term debt. And in some ways linked to bankruptcy as the end of the downhill journey, Escalante and Turvey (2005) and Crabtree (1984) employed a measure of percentage change in net worth and Iben Dahl and Fleming (2003) used a similar, but more complex indicator. In this paper an effort has been make to empirical study of Indian corporate sector for assessing the impact of assets utilization on profitability.

OBJECTIVE OF THE STUDY

The present study is envisaged to assess the impact of assets utilization on profitability and to examine the combined effect of assets utilization on profitability.

DATA AND METHODOLOGY

The present study is based on 24 Indian industries comprising of 641 companies. The industries have been selected by using convenient sampling method. The data required for this study were collected from Capital market Capitalline database and CMIE Prowess database for the years 1997-98 to 2004-05. For the assessing the performances of the financial data collected form the above-mentioned source have been done as per the requirements of the study. For analyzing data simple mathematical tools like ratio, percentage and various statistical tools like, mean, standard deviation, Karl Pearson coefficient correlation, t test, F test, and multivariate regression analysis has been used in the study.

TABLE - 1
Distribution of 641 Firms by Industry Classification

<table>
<thead>
<tr>
<th>Industry</th>
<th>No. of Firms</th>
<th>As % of Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>8</td>
<td>1.25</td>
</tr>
<tr>
<td>Auto Car</td>
<td>8</td>
<td>1.25</td>
</tr>
<tr>
<td>Cast Steel</td>
<td>49</td>
<td>7.64</td>
</tr>
<tr>
<td>Cement</td>
<td>31</td>
<td>4.84</td>
</tr>
<tr>
<td>Ceramic</td>
<td>27</td>
<td>4.21</td>
</tr>
<tr>
<td>Chemical</td>
<td>20</td>
<td>3.12</td>
</tr>
<tr>
<td>Computer HW</td>
<td>12</td>
<td>1.87</td>
</tr>
<tr>
<td>Engineering Heavy</td>
<td>12</td>
<td>1.87</td>
</tr>
<tr>
<td>Forging Large</td>
<td>7</td>
<td>1.09</td>
</tr>
<tr>
<td>Medical Equipment</td>
<td>12</td>
<td>1.87</td>
</tr>
<tr>
<td>Misc. Large</td>
<td>19</td>
<td>2.96</td>
</tr>
<tr>
<td>Paper</td>
<td>27</td>
<td>4.21</td>
</tr>
<tr>
<td>Pharma &amp; Formulation</td>
<td>108</td>
<td>16.85</td>
</tr>
<tr>
<td>Total</td>
<td>641</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Industry                | No. of Firms | As % of Total Sample |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>93</td>
<td>14.51</td>
</tr>
<tr>
<td>Sugar</td>
<td>22</td>
<td>3.43</td>
</tr>
<tr>
<td>Tea</td>
<td>21</td>
<td>3.28</td>
</tr>
<tr>
<td>Textiles</td>
<td>16</td>
<td>2.50</td>
</tr>
<tr>
<td>Tyre</td>
<td>12</td>
<td>1.87</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>22</td>
<td>3.43</td>
</tr>
<tr>
<td>Food Product</td>
<td>49</td>
<td>7.64</td>
</tr>
<tr>
<td>IT</td>
<td>11</td>
<td>1.72</td>
</tr>
<tr>
<td>Leather Product</td>
<td>16</td>
<td>2.50</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>9</td>
<td>1.40</td>
</tr>
<tr>
<td>Textiles Products</td>
<td>30</td>
<td>4.68</td>
</tr>
<tr>
<td>Total</td>
<td>641</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Capital market Capitalline Database, CMIE Prowess Database
VARIABLES OF THE STUDY

Profitability: The specific profit measures used in this study were average return on capital employed (ROCE) over the periods of study.

Fixed Assets Turnover (FAT): The fixed assets turnover ratio measures the efficiency with which the firm is utilizing its investment in fixed assets. It also indicates the adequacy of sales in relation to the investment in fixed assets.

Inventory Turnover (IT): Inventory turnover indicates the efficiency of the firm's inventory management. It shows rapidity of turning inventories into sales. Generally, a high turnover is indicative of good inventory management.

Debtors Turnover (DT): Debtor turnover is an indicator of quickness in realization of sundry debtors. It shows the number of day's credit enjoyed by sundry debtors or credit time allowed and capital blocked in debtors. The higher turnover indicates that the debts are being collected more promptly. It is calculated by dividing the net sales by the debtors at the end of the year.

THE MODEL

The regression model used in this study is as under:

\[ ROCE = b_0 + b_1 \text{FAT} + b_2 \text{IT} + b_3 \text{DT} \]

Where, \( b_0, b_1, b_2, b_3 \) are the parameters of the ROCE line to be estimated.

FAT = Fixed Assets Turnover
IT = Inventory Turnover
DT = Debtors Turnover

Table - 2
Correlation Analysis between Profitability and Assets Utilizations of Indian Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>FAT</th>
<th>Inventory Turnover</th>
<th>Debtors Turnover</th>
<th>ROCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>0.665</td>
<td>6.156</td>
<td>11.798</td>
<td>17.46</td>
</tr>
<tr>
<td>Auto Cars</td>
<td>1.858</td>
<td>10.62</td>
<td>17.148</td>
<td>9.8</td>
</tr>
<tr>
<td>Cast Steel</td>
<td>0.858</td>
<td>4.167</td>
<td>0.871</td>
<td>0.69</td>
</tr>
<tr>
<td>Ceramic</td>
<td>0.843</td>
<td>4.418</td>
<td>6.212</td>
<td>10.24</td>
</tr>
<tr>
<td>Computer HW</td>
<td>6.31</td>
<td>11.687</td>
<td>4.558</td>
<td>22.136</td>
</tr>
<tr>
<td>Engg. Heavy</td>
<td>2.23</td>
<td>3.26</td>
<td>3.51</td>
<td>7.22</td>
</tr>
<tr>
<td>Forging</td>
<td>1.157</td>
<td>5.251</td>
<td>6.058</td>
<td>16.1</td>
</tr>
<tr>
<td>Medical Equipment</td>
<td>2.5</td>
<td>4.967</td>
<td>3.91</td>
<td>11.36</td>
</tr>
<tr>
<td>Misc. Large</td>
<td>1.25</td>
<td>12.527</td>
<td>4.327</td>
<td>14.375</td>
</tr>
<tr>
<td>Paper</td>
<td>0.845</td>
<td>5.878</td>
<td>7.928</td>
<td>9.023</td>
</tr>
<tr>
<td>Pharma</td>
<td>2.03</td>
<td>4.76</td>
<td>4.11</td>
<td>4.75</td>
</tr>
</tbody>
</table>

Contd.
**ASSETS TURNOVER AND PROFITABILITY-CORRELATION ANALYSIS**

The co-efficient of correlation between selected ratios relating to assets turnover and profitability are presented in Table-2. It is evident from the table correlation coefficient between ROCE and FA Turnover is +0.394. It indicates that there is a lower degree of positive association between the profitability and fixed assets turnover ratio of the Indian industry. The t value is found to be insignificant at 0.10, 0.05 and 0.01 level of significance. Secondly, the coefficient of correlation between ROCE and Inventory Turnover is found to be +0.504. It indicates a moderate degree of positive relation between variables. The value of r is significant at 0.05 levels, while the t value is also significant at 0.05 level of significance. Lastly, the coefficient of correlation between ROCE and Debtors Turnover is +0.062. It implies that there is a lack of correlation between variables. The t value is also insignificant. Thus the study of impact of assts turnover ratios on profitability viewed lower degree of positive association. The study of relationship between the profitability and assets turnover ratios of Indian Corporate conforms with accepted rule that larger turnover increases the profitability.
### Table - 3

Correlation Analysis between Profitability and Assets Utilizations of Indian Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Correlation Coefficient between FA and ROCE</th>
<th>t value of $r_1$</th>
<th>Correlation Coefficient between IT and ROCE</th>
<th>t value of $r_2$</th>
<th>Correlation Coefficient between DT and ROCE</th>
<th>t value of $r_3$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>-1.25</td>
<td>-27.02*</td>
<td>0.14</td>
<td>-17.98*</td>
<td>-0.34</td>
<td>-4.526*</td>
</tr>
<tr>
<td>Auto Cars</td>
<td>0.756</td>
<td>-3.177**</td>
<td>0.554</td>
<td>0.364</td>
<td>0.407</td>
<td>3.012**</td>
</tr>
<tr>
<td>Cast Steel</td>
<td>-0.368</td>
<td>0.227</td>
<td>-0.141</td>
<td>4.518*</td>
<td>-0.442</td>
<td>4.725*</td>
</tr>
<tr>
<td>Ceramic</td>
<td>0.666</td>
<td>-5.718*</td>
<td>0.564</td>
<td>-3.664**</td>
<td>0.458</td>
<td>-2.622**</td>
</tr>
<tr>
<td>Computer HW</td>
<td>0.285</td>
<td>-15.131*</td>
<td>0.341</td>
<td>-9.341*</td>
<td>0.321</td>
<td>-16.607*</td>
</tr>
<tr>
<td>Engg. Heavy</td>
<td>0.798</td>
<td>-2.176***</td>
<td>0.438</td>
<td>-1.725</td>
<td>0.368</td>
<td>-1.607</td>
</tr>
<tr>
<td>Forging</td>
<td>0.363</td>
<td>-6.031*</td>
<td>0.661</td>
<td>-4.572*</td>
<td>0.922</td>
<td>-4.838*</td>
</tr>
<tr>
<td>Medical Equipment</td>
<td>0.928</td>
<td>-9.644*</td>
<td>0.622</td>
<td>-5.426*</td>
<td>0.486</td>
<td>-6.244*</td>
</tr>
<tr>
<td>Misc. Large</td>
<td>-0.248</td>
<td>-24.139*</td>
<td>0.078</td>
<td>-0.807</td>
<td>0.077</td>
<td>-17.098*</td>
</tr>
<tr>
<td>Paper</td>
<td>-0.424</td>
<td>-5.128*</td>
<td>0.625</td>
<td>-2.126***</td>
<td>0.841</td>
<td>-0.826</td>
</tr>
<tr>
<td>Pharma</td>
<td>0.619</td>
<td>-1.491</td>
<td>0.67</td>
<td>0.004</td>
<td>0.565</td>
<td>-0.36</td>
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<tr>
<td>Steel</td>
<td>0.979</td>
<td>-2.053***</td>
<td>-0.801</td>
<td>-0.292</td>
<td>0.909</td>
<td>0.982</td>
</tr>
<tr>
<td>Sugar</td>
<td>0.125</td>
<td>-5.79*</td>
<td>-0.447</td>
<td>-4.959*</td>
<td>0.402</td>
<td>4.815*</td>
</tr>
<tr>
<td>Tea</td>
<td>0.896</td>
<td>-4.75*</td>
<td>0.263</td>
<td>-2.475**</td>
<td>-0.474</td>
<td>-0.616</td>
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<tr>
<td>Textile Comp.</td>
<td>-0.486</td>
<td>0.708</td>
<td>-0.596</td>
<td>5.155*</td>
<td>0.009</td>
<td>6.046*</td>
</tr>
<tr>
<td>Tyre</td>
<td>0.882</td>
<td>-10.169*</td>
<td>0.658</td>
<td>-4.834*</td>
<td>0.161</td>
<td>-5.313*</td>
</tr>
<tr>
<td>Cement</td>
<td>0.477</td>
<td>-1.536</td>
<td>0.854</td>
<td>7.825*</td>
<td>0.909</td>
<td>14.202*</td>
</tr>
<tr>
<td>Chemical</td>
<td>0.71</td>
<td>-6.145*</td>
<td>0.352</td>
<td>-4.422*</td>
<td>0.352</td>
<td>-3.378*</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>0.37</td>
<td>-0.981</td>
<td>0.344</td>
<td>1.507</td>
<td>0.503</td>
<td>1.68</td>
</tr>
<tr>
<td>Food Product</td>
<td>0.897</td>
<td>-3.214**</td>
<td>0.191</td>
<td>-0.464</td>
<td>0.747</td>
<td>1.031</td>
</tr>
<tr>
<td>IT</td>
<td>0.217</td>
<td>-10.573*</td>
<td>0.708</td>
<td>2.292***</td>
<td>-0.406</td>
<td>-7.826*</td>
</tr>
<tr>
<td>Leather Product</td>
<td>0.435</td>
<td>-2.179***</td>
<td>0.245</td>
<td>-1.245</td>
<td>0.22</td>
<td>-0.841</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>0.944</td>
<td>-2.867**</td>
<td>0.833</td>
<td>-0.719</td>
<td>0.966</td>
<td>-0.986</td>
</tr>
<tr>
<td>Textile Products</td>
<td>-0.082</td>
<td>0.13</td>
<td>-0.43</td>
<td>2.477**</td>
<td>-0.37</td>
<td>3.552**</td>
</tr>
</tbody>
</table>

* Significant at 1% level. ** Significant at 5% level. * Significant at 10% level.
Table value of t (n-2) i.e., 6 d.f. at 10%, 5% and 1% levels are 1.943, 2.447 and 3.707.
Source: Capital market Capitaline Database, CMIE Prowess Database
Table - 3 showed the correlation analysis between profitability and assets utilization of Indian Industry and t value of the ratio. It is evident from the Table - 3 that the 18 out of 24 Indian industries under study, FAT was positively associated with ROCE. But the positive association was statistically significant in 15 Industry. However in the remaining 6 Industry, the relationship between FAT and ROCE was negative and out of these, only 3 Industry the negative association was found to be statistically significant. So, results indicate positive and negative association between FAT and ROCE. While in IT out of 24 Industry 19 industries are associated positively with ROCE. Among 19 industries 14 industries has statistically significant. While 4 out of 5 negatively associated industry were statistically found to be significant. In DTR 19 industry has a positive association with ROCE and 12 were statistically significant. Out of 7 negatively associated industries 4 industry were found to be significant. So, this analysis indicates that all the three variables of the study were associated with ROCE positively and negatively, but positive association was higher among the industries under study.

IMPACT OF ASSETS TURNOVER RATIOS ON PROFITABILITY - MULTIPLE REGRESSION ANALYSIS

To study the influence of assets turnover ratios on profitability, a linear multiple regression models were used. Table - IV provides the detail information of regression coefficient, t value, r value r2 and F value of the independent variable and dependent variables of the study. In present study Fixed Assts Turnover (FAT), Inventory Turnover (IT), and Debtors Turnover (DT) have been taken as the explanatory variables and Return on Capital Employed (ROCE) has been used as the dependent variable.

Table - 4
Multiple Correlation Analysis and Multiple Regression Analysis of Selected Indian Industry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Partial Regression Coefficient</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R =0.638</td>
<td>FAT</td>
<td>2.185</td>
</tr>
<tr>
<td>R2 = 0.407</td>
<td>IT</td>
<td>0.119</td>
</tr>
<tr>
<td>F = 4.579*</td>
<td>DT</td>
<td>0.265</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>2.924</td>
</tr>
</tbody>
</table>

*Significant at 5% level
Table value of F with (k, n-k-1), i.e., (3,20) d.f.
at 5% level is 3.10.

*Significant at 5% level
Table value of t with (n-k-1), i.e., 20 d.f.
at 5% level is 2.086.

The result of regression analysis indicates the relationship between dependent variable ROCE, and all the independent variables taken together and impact of these variables on the
profitability of the Indian Corporate. The table value indicates that for one unit increase in FAT, IT and DT the ROCE is increased by 2.185 unit, 0.119 unit and 0.265 units respectively. FAT and IT regression coefficients were found to be statistically significant at 5% level of significant while DT was found statistically insignificant. The multiple correlation coefficient of ROCE on FAT, IT and DT is 0.638. It reveals that the profitability of Indian industry was highly influence by these variables. It is also evident from the value of R2 that the independent variable FAT, IT and DT contributed 0.407 percent of variations in the profitability of Indian industry. F value is significant at 5% level of significant.

CONCLUSION

The results of the study indicate that fixed assets Turnover and profitability has shown a positive relationship. So, it indicates that high fixed assets turnover higher profitability. While the result of correlation of inventory turnover shows a highly positive association between ITR and ROCE and it is also found statistically significant. The DT results correlation results indicates lack of association. The partial regression coefficient shown in the multiple regression equation of ROCE on FAT, IT and DT fitted in this study reveals that FAT, IT, and DT made positive as well as very significant contribution towards improvement of the corporate profitability. FAT and IT also statistically significant. The results of analysis of multiple determinations make it clear that 40.70% of total variation in the corporate profitability was accounted for by the joint variation in the efficiency of fixed assets management, inventory management and receivables management. The study indicates that utilization of corporate assets is the most influencing factor on profitability of Indian industry.

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ACCOUNTING EDUCATION, RESEARCH AND PROFESSION IN INDIA: CRITICAL REFLECTIONS AND AGENDA AHEAD

*Lalit Gupta

ABSTRACT

The paper puts forward some reflexive questions along with a critical framework helpful in developing an agenda and the directional role in an integrated manner. This is believed to be useful for regulating and fund providing agencies in the developing countries for the growth of accounting in view of its place in economic growth. The critical reflections and explorations relate to the trio of accounting in general and the cost and management accounting in particular focusing on its dynamism and strategic role. The paper attempts to identify some issues of research and what knowledge of the practice we need to acquire and in that light suggests an action drive to achieve the perceived alignment of the said trio of accounting.

The academic research in cost and management accounting in India also urgently requires a stock taking and monitoring but unfortunately that requirement still persists. Therefore, the author feels prompted to undertake this study to set a beginning. The study deals with the problem of quality research in terms of thematic value and sequential flow, research design, application of tools of analysis, logic of interpretations paving the path for further direction through a handling of introspective account in brief such as whether our studies genuinely flow from environment, deal with ground-level issues in the enhancement of our role competencies or enrich the discipline as a whole.

ACADEMIC RESEARCH

The picture of the academic research in accounting in general and cost and management accounting in particular in India is poorer than what it otherwise should have been. I assess it in my paper at three levels. Let us glance over these.

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Previous Surveys - A Review

A test of the continued contribution to scientific development of a discipline in a country is whether the stock of leading works produced over 5-10 years may be classified in terms of underlying theories, assumptions, models, and theory approaches, etc. Neither such classifications have been attempted by individuals or collectively by the associations nor are they easily feasible in our case which is an apparent evidence of the absence of the sequential thematic research efforts. Studies classifying the researches may be found in persistence since seventies in the foreign journals. Perhaps only two papers (with a national view) appeared in the IJA - one in June 1996 (Soral 1996) and another in June 1999 (Halder 1999) in a decade on the state of Ph.D. dissertations in accounting in India. Further, the studies are quite superficial, merely based on titles of dissertations wherein the titles have been broadly but vaguely classified or counted in terms of broad distinct areas. The initial efforts of these authors may be somewhat acceptable, even then the studies may be categorized as 'counting the selected titles type studies'. The survey report (Desai and Khandelwal, 1995) on Ph.Ds in Gujarat during 1976-94 is not free from data inconsistencies, submits broad categorizations with simple trend analysis. The study has its significance in that it traces reasons for poor quality (both qualitatively and quantitatively) of accounting research, and finally identifies many emerging areas of researches and also gives good suggestions for betterment.

Mere titles could not indicate the several qualitative aspects of the research environment unless inquired exhaustively into: how the problems are approached, prominent theories and assumptions relied on, qualities and patterns of hypotheses tested, and classification as per the variety of methodologies. Without the availability of these data how the researches could be well directed in a discipline. For all practical purposes, this makes the task difficult and calls for team research project by the seasoned persons. Many of our Ph.D. dissertations are planned and carried out not so rigorously hence one may find great difficulty in executing such exercises. About a decade ago I encouraged one of my friends to publish a note (Parwani 1994) on technical pitfalls commonly suffered by accounting researches in India. More often than not hypotheses are not technically sound. Admittedly the research supervisors and scholars have great difficulties but giving that light attitude or compromise may ultimately harm the profession on the whole. Most of the works remain unpublished or uncited anywhere and do not reach even the organizations or subjects studied therein. Our casual surveys indicated here even did not cover these simple aspects of criticism. The IAA or the UGC must take frequent and rigorous initiatives for sponsoring the group projects for the in-depth qualitative survey and preparing handbooks on accounting researches. As many variety as possible of classifications of dissertations should be made available to facilitate the agenda as also to aid the audit of quality in research. Another important view point is that our researches are largely confined either to reporting aspects or the simple analysis of financial statements, the researchers avoid looking into the underlying measurement aspects without which the judgment on the quality of accounting information hardly carries any utility. This is well indicated in my published thesis (introduction) (Gupta 1995) under the title, 'Accounting Policies - Theory and Practice'.
The Present Survey: Relevance and quality of Research in India

What comes before the national academic forum(s) at its annual conferences can be accepted as the representative presentation of what should be going on in the universities of the country. Hence I choose here the proceedings of the last two annual conferences (23rd and 24th) of the IAA as a case in point for the intended review of researches in India. A keen review of other sessions at these conferences and several previous conferences would also take us to the similar place of rating. A broad content-wise categorization of the papers is attempted in separate Tables. The first Table presents content-wise classification of Papers on ABCM at the 23rd IAA Conference. The second Table projects a content analysis of papers on EVA placed at the 24th Conference. There appears nine major categories with about half a dozen sub categories in the latter case. Despite being subjective, this should appeal to be quite objective categorization under the circumstances. Although the analysis is without reference to any established taxonomy, it may be claimed as fairly subjectively objective. This review has been presented without any mention of the titles or the names of their authors.

Table 1

| Content-wise classification of the Papers on ABCM at the 23rd IAA Conference |
|---|---|
| 1. Very brief notes on the meaning, nature etc. | 2 |
| 2. Brief notes on the basics like introduction, need and benefits of ABC | 3 |
| 3. Confined to the basic text material like history, concept and general process of the ABC (like major types of cost drivers, steps and issues) | 2 |
| 4. Basic terminology plus reproduction of the procedure laid down in the professional handbook. | 1 |
| 5. Very basic introduction with an example like we do for a simple text book | 1 |
| 6. Very basic notes with detailed hypothetical examples like textbooks. | 1 |
| 7. Somewhat elaborate notes with detailed examples like a class exercise or text materials | 3 |
| 8. Brief notes with actual case examples | 1 |
| 9. Some detailed notes with actual cases | 1 |
| Total No. of Papers/Abstract made available | 15 |
Table - 2
Papers on EVA: Emphasis or Theme of Major Contents

<table>
<thead>
<tr>
<th>Category/Sub-Category</th>
<th>No. of Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Not bearing on the theme, hardly to do with EVA</td>
<td>7</td>
</tr>
<tr>
<td>II. Concentrating on highlighting the need and significance of the concept</td>
<td>7</td>
</tr>
<tr>
<td>III. Titled towards significance in the broad context of governance or managerial aspects</td>
<td>5</td>
</tr>
<tr>
<td>IV. Covering state of reporting in India, wealth creation or capital erosion:</td>
<td>5</td>
</tr>
<tr>
<td>V. EVA and Corporate Performance, Actual or Possible Decisions and Revelations -</td>
<td>9</td>
</tr>
<tr>
<td>Descriptive or Factual -</td>
<td></td>
</tr>
<tr>
<td>a. Along with basic meaning and procedure: (5)</td>
<td></td>
</tr>
<tr>
<td>b. Without due reference to meaning and procedure (mainly descriptive) : (4)</td>
<td></td>
</tr>
<tr>
<td>VI. Collection of Comments about EVA</td>
<td>1</td>
</tr>
<tr>
<td>VII. Other Modern Tools of Management Context</td>
<td>1</td>
</tr>
<tr>
<td>VIII. Empirical Efforts on Predictability</td>
<td>2</td>
</tr>
<tr>
<td>IX. Conceptual and procedural intricacies, review of researches, research trends,</td>
<td>1</td>
</tr>
<tr>
<td>need for encouraging variety of applications in practice for business policies or</td>
<td></td>
</tr>
<tr>
<td>strategies, HRM and effective management control, providing inventory of</td>
<td></td>
</tr>
<tr>
<td>issues of research.</td>
<td></td>
</tr>
<tr>
<td><strong>Total No. of Papers Analyzed</strong></td>
<td><strong>38</strong></td>
</tr>
</tbody>
</table>

The Tables have actually been expanded (broken up) further. A cursory glance over the content analysis of the papers reviewed gives rise to about ten critical reflections. Of these, I mention here the only four, namely:

(a) Mostly the content is of elementary introductory nature from common sources.
(b) Despite ordinary introductory content, there appears heavy ornamental reference lists which bear very low relation with or reflection on the main body.
(c) Not a single Paper was supported by a corporate sponsored study as we find with such papers at the similar conferences abroad.
(d) Lack of sound critical conclusions in the contexts of precise theory or other parameters.

The body of the Papers in general is not arranged in an effective form. The minimum instances of real life situations (on ABCM) presented were also seriously questioned by the experts for how lightly and casually the case studies were prepared. The experts present there expressed their concern for not preparing quality papers, preferably based on empirical evidences. A scan of our different proceedings and publications (of course, including both the
academic and professional) would amply evince these observations which would go a long way in directing both the practice and research. The researches in general tend to lack in any common or even specific theme or their dimensions when a work follows logically the other. The studies generally give a feel for having been done without adequate background of the theory and philosophy of accounting discipline and its root theories.

Kind of Researches We Need

Any exercise on critical reflections may be called incomplete without touching upon this question. A critique to mirror the present state of research is valuable but it alone cannot bring something substantial unless being contributed positively. In view of the above framework, a research idea has been developed comprising of the Part II of this paper with some specific objectives in mind. When illustrated idea gets understood and magnified. The forgoing analysis may lead us well to conceptualize (say, a simple effort towards theory of accounting research in our context) what sort of specific accounting researches and critical enlightenment about the practices we need to secure for the benefit of academic accounting and profession. It is believed to fulfill the following aims:

(i) It may be an initiative towards creation of environment for quality researches.
(ii) Hopefully this will enhance the environment of group researches. The proposed plans may trigger off several research off-shoots to make it a useful series.
(iii) This is also likely to encourage the corporate world to take interest in accounting research and sponsor both small and exhaustive studies and co-operate in the empirical studies in particular which the researchers find a barrier at present.
(iv) The author suggests taking up a major research project on the proposed problem. Therefore, the author humbly invites comments to enrich the idea and research plan hence offers an open invitation of partnership.

OPERATIONAL RESEARCH ISSUES: DYNAMISM AND STRATEGIC ROLE

As expressed earlier, this initiative also provides an inventory of research plans which may trigger off several research off-shoots to render it a useful series of researches, the question of their operational handling has not been left unattended.

If a research problem and its objectives can be expanded and broken-up into operational research issues in the beginning that ensures for its feasibility and enhances the possibility of success. Many researches bog down with this hurdle as they proceed. An effort has been made for the convenience of prospective researchers to spell out the detailed research issues after the survey of literature, observations and other related variables. Following are such areas of research into practice of CMAs which may serve dual purpose. First, to answer what knowledge we need to acquire about practices and, secondly it will facilitate harmonizing the trio under reference.
Whether Indian CMAs favour 'technology driven' or 'market driven' approach of product development, strategic planning and gaining competitive advantage and for what reasons? What are their experiences about tools like 'transfer pricing', JIT, etc. in this regard?

What sort of analysis and action plans do they choose for improving upon the existing products?

Has the practice of ABC actually been successful in revealing non-value added activities and if the CMAs feel that they have contributed in enabling for enterprise to be more competitive through innovative systems like more effective allocation of overheads etc.

What are the environmental barriers in adopting the techniques like the ABC?

Has the Indian CMA assumed the role of a proactive member of the management team i.e. if there is any transformation in their perception and orientation? Has the ICWAI's Vision Draft exercise been able to say something on such anxieties about these trends in the profession?

What about the role of CMAs in Total Quality Management and creating the quality culture all through the organization?

The extent of taking advantages of techniques like ERP.

What is their status regarding 'possessing the complete process view of the enterprise' as is expected of CMAs?

How do the CMAs get at the gap between top management perception and those of the customers as regards improvement in products or services? How do they acquire contrary inputs and synthesize them? To say, what sort of Business Process Development is undertaken?

How everyone’s involvement in cost accounting itself is attempted to make it an organizational campaign?

To study the practice regarding assimilation of responsibility accounting with the development accounting.

How do the two forces of inside and outside customers of cost accounting influence in India in the opinion of CMAs?

Since cost is a vital factor and a number of accounting tools of cost reduction have come up in recent decades, so how far the CMAs are aware of this responsibility and adopt the tools in various Indian conditions.

How the critical factors spelling out strategies are identified, selected, and used in balancing different strategies should be a matter of great interest?

How do our CMAs examine the assumptions and estimate time lag underlying the incidence of cost and outcome of results and then choose the kind of monitoring as regards both the engineered costs and discretionary expenses?
The behavioral aspect: (a) whether the attitude and behaviour of CMAs is characterized by 'busy with designing the accounting system that supports the continuous innovation or is evolutionary, revolutionary and customer oriented'. Further to see whether the practices are market driven or technology-dominated, dynamic, team oriented and cost-benefit oriented, etc. (b) Whether the management accounting has come to be rendering any behavioral influence such as producing typical ways of allocating expenses to achieve group motivation?

Contribution of CMAs in developing balanced-score cards useful in the typical appraisal of managers?

The enquiries into CMA practices have to be connected with the tools of strategic decisions like EVA as pointed by the author (Gupta & Bhargava, 2001).

The research issues enumerated above may add to what knowledge the professional bodies in India and the developing countries need to acquire about the practice and training direction and funding decisions by the research agencies.

ACCOUNTING TRAINING: ISSUE DEMANDING ATTENTION

A few aspects as given below demand attention in both the academic and professional education or training in accounting, more emphatically in the latter. These ideas have been duly exemplified.

(i) Different theories in their cross-discipline context must be taught carefully both in conceptual as well as application terms.

(ii) The professional bodies must keep on undertaking the review of SEB environment and updating the critical vision on prevalent practices, role and attitude of practitioners.

(iii) Awareness has to be created during training that the theory and practice are not divergent.

(iv) There is earnest need to impart integrated vision and evaluate the same during advanced training at least. Case-studies may be developed demanding interlocked attention. Indian researchers have hardly contributed in noticing the historical implications of economies or other disciplines in the development of accounting and its research. Humayun Murshed (1994) observed, "The theoretical structure underlying management accounting research has a narrow view of environment...... researchers have taken the economic models granted."

(v) Adequate exposure should go to the theories of management accounting and decision-making at least to the M.Phil students who would form our next generation of researchers. Researchers in advanced countries have paid attention to these theories since seventies.

(vi) Accounting is claimed as an aid to management. Most of our advanced courses (Hons., P.G., Post P.G.) on accounting particularly in academics do not equip future researchers
or accountants with adequate knowledge of management. It is an irony. How can one claim to serve as an aid or study someone unless one understands it fully? The young researchers lack in evolving sound theoretical frameworks like indicated earlier for the want of this sound orientation in management.

(vii) We have noticed how researchers plunge directly into research without preparation and the discipline is, therefore, faced with a crisis of quality research. Therefore, the need of the hour is that:

(a) The research degrees must be course based as practiced abroad or at the institutes of excellence.

(b) Imparting of knowledge in research methodology has to be twined and blended with the accounting theory. The methodology has to be explained there in both the forms i.e. the common as well as subject specific. It can’t be taught or thought of absolutely independent in our times, rather should reflect the subject specific theory.

(viii) The UGC, ICSSR and research wings of apex professional bodies must come forward for creating decentralized (so as to accommodate differences in SEB environment) but co-ordinated centres of advanced studies in accounting. These centres should aim at serving as the research base for other university departments in terms of library, data bank and research consultation. The initial agenda before the centres for 5 to 10 years should include the following:

(a) Studies into accounting practices.

(b) Collecting the research output till date (at least the abstract) and critical study, classification etc. thereof.

(c) Development of literature in paradigms, frames of references, statements (taxonomies) of objectives of accounting research, research methodology in accounting, empirically tested ways of acquiring the knowledge of the art & monitoring its transmission to normal textbooks.

(d) Development of proper guiding material on research methodology in accounting duly blended with accounting theory, as also producing the integrated case studies as pointed out above.

The pace of research in the growth of a discipline rests on the fundamental research both in general and in view of the country specific conditions. This demands research talents with different aptitude, environment for research and infrastructure, etc. for carrying the above complex agenda.

(ix) The studies must be taken up from time to time for refined classification and grading of articles published in the journals of apex professional bodies and review process followed by the editors. This all becomes appealing in the light of facts examined in this paper.
DIFFICULTIES AND PROSPECTS

In the end, we may attempt to visualize the difficulties in materializing the idea, remedial efforts needed and likely prospects thereof. The research issues envisaged above embrace a large coverage of management accounting practices. The pilot surveys alone can shape better the precise research plans. A variety of information and analytical tools shall have to be resorted to and the success would depend on the participants' interests (the CMAs and corporations in particular) and how ably we overcome the behavioral, technical or methodological constraints. Small researches may be useful to add to the major pictures. It is, therefore, hoped that a big series of researches from these issues would trigger off. The synergy will gradually appear itself, let the process start. The current publications are far from enlightening on the research issues presented here. The bodies/journals may invite experts to expand issues further and provide methodological directions. The premier institutes may take up a project of providing a complete 'research guide' on the issues put forth. The major breakthroughs are possible through projects involving repeated interactions, scrutiny of varied data and long-drawn observations at corporate sites on the decision processes followed there in sequence. This demands generous support and co-operation which is a big barrier in accounting research in India. The propagation of a realization can change the atmosphere to win the favour for researchers that the corporations will bear the fruit of the end product. The findings will generate value-addition by minimizing risks and costs. The process will also render ultimately the flow of our researches sequential and thematic in nature. Gone are the days of individual researches.

Some of the recent moves of our key professional bodies are positive and welcome measures, namely the Perspective Plan of the ICWAI, and formation of Accounting Research Foundation by the ICAI. The provisions of 'knowledge building role', regular evaluation or updating of members, projection of capabilities, public cost awareness campaigns, framework of governance, formation of Academic Councils like universities and consolidation of different units, etc. may be cited as symbols of hopes. The various bodies/institutes have to work in tandem and unison as also in conjunction with the academia. The future will assess these bodies as to how far they succeed in resolving the hurdles in the right growth of the practice as well as creation of knowledge or their success in streamlining (mutually aligning) the trio of accounting education/training, practice and research. These bodies now have to share this responsibility with the universities in the interests of society and economy. The exploration for a joint forum or venture of certain bodies such as the ICWAI, ICAI, ICSI, ICFAI, AIMA and Tata Institute of Social Sciences etc. is much desirable.

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CHANGING FOCUS OF RESEARCH ON
MANDATORY AND VOLUNTARY DISCLOSURES
IN CORPORATE ANNUAL REPORTS

*H.C. Sardar

ABSTRACT

The shareholders have a legitimate right to get information about different activities of
the company, in the form of Annual Corporate Report. At the same time, it is a legal obligation of
the board of directors to furnish required accounts to the shareholders. Apart from existing
shareholders, many other stakeholders and prospective stakeholders in a company use corporate
financial reports. The annual report of a company being the most regular, standardized document
providing information about the financial health and other activities of the company, available in
the public domain, has been used as the main source of information. The information, provided by
the companies in their annual reports can be divided into two categories: (i) Mandatory items and
(ii) Voluntary Items. The present paper narrating briefly the research work carried out in the field
of disclosures.

It is a legally binding upon a company to disclose all information as per mandatory
requirements. Under such legal compulsions a company would not disclose the legally required
information under very specific circumstances. The focus of research cannot be much on
mandatory disclosures as there would be very few lapses (deliberate or through oversight)
related to such disclosures. Further, the mandatory requirements leave little leeway for any
improvements or additions to disclosures practices. This leaves very little scope for the research
related to mandatory disclosures. During the literature survey very few research works were
identified which analyse mandatory and voluntary disclosures. The investors for investment
decisions use this information. If a company discloses financial information (specially related
to earnings) in a manner which is easily understood by the investors, it's effect would be quite
deep on the security prices. Sutley (1995) investigated the differences in the informativeness of
annual reports and association of stock returns with accounting earnings. He investigated this
issue by analyzing the comments of the judges in relation to the decisions taken for the Financial

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Post Awards. He found that the winners' annual reports appeared to contain more useful information than the non-winners. He tried to correlate the differential information content of the annual report with the variability in stock returns. It was found that on an average the winners' returns displayed a larger variability during the week of the release of the annual report. The results were robust to the inclusion of other factors shown in prior research to affect the returns / earnings relation such as size, systematic risk, persistence and growth. One explanation offered for this behaviour was that the winners' had a finer prior information environment, which induced relatively more measurement errors in the proxy for the market's expectation of earning.

Zezhong Xiao (1999) undertook an analysis of corporate annual reports of the listed companies in China. The objective was to examine the level of compliance by listed companies keeping in mind the prevailing legal requirements with regard to accounting disclosures. He found that most of the legal requirements prevailing at that time represented efforts to build up a market-oriented economy. The most neglected area in these requirements was the users' information needs.

Naser and Nuseibeh (2003) made an extensive study of non-financial companies listed on Saudi Stock exchange between the years 1992 and 1999. A weighted index of disclosures on the basis of mean and median responses from seven users of annual reports was constructed. The outcome of the analysis indicated relatively high compliance with the mandatory requirements, in all industries covered by the study the creation of the organization of certified public accountants was not found to have any significant impact on mandatory disclosures.

Eikner (1995) in her doctoral work investigated incremental information content of prospective disclosures in management discussion and analysis. The objective of this work was to examine the potential of prospective information and disclosures from these parts of the annual reports to its users' for decision-making. Ordinary least square regression method was used to regress abnormal returns on an independent variable formed on the basis of a disclosure index. The responses were collected from Chartered Financial Analysts. Other influencing factors such as compounding effect of information and earnings were controlled by various methods. The results indicated that the association was found between abnormal security returns and disclosure index point to the usefulness of such disclosures.

Owusu-Ansah (1999) investigated the impact of corporate attributes on the extent of mandatory disclosures by listed companies in Zimbabwe. He worked on a sample of 49 listed companies. He computed a disclosure index of 214 mandatory items and thereafter used multivariate regression analysis to establish the relationship between disclosures and other attributes of the company. He found that the size of a company, the pattern of ownership, the age of the company, nature of affiliation with foreign multinationals and profitability had statistically significant positive effect on mandatory disclosures.

Tanner (1993) undertook an analysis of factors associated with voluntary disclosure of management's responsibilities for internal control. The analysis was based on earlier work
done by Gibbins, Richardson and Waterhouse. Opportunism and ritualism were two dimensions related to define in relation to the disclosure position of a company. The characteristics of companies providing information about internal control were compared with the characteristics of the companies, which did not provide this information using logic analysis.

M Subrahmany and M Venugopala (1995) had analysed data of 50 companies. According to them, in spite of the fact that the law permits periodical revaluation and accounting standards, none of the undertaking has attempted to do so. As a result, in many instances the book value of the assets did not reflect the fair recoverable value. Moreover, the depreciation policy, potential economic life of assets and reasons or related policy for written off of a particular assets, etc. are not adequately dealt in the financial statements. The transparency in Income Statement and Balance Sheet is thus found to be subjective.

Botosan, Christine Ann (1996) has examined the impact of voluntary disclosure on stock market liquidity and the cost of equity capital in her dissertation. She found little support for hypothesis 'enhanced voluntary disclosure is associated with greater market liquidity.' But some evidence suggested that greater voluntary disclosure is associated with a lower cost of capital. She has examined five categories of voluntary information; background information, summary of historical results, key non-financial statistics, projected information and management discussion and analysis.

A Company can choose the channels timings and items of voluntary disclosures. The various channels available for such disclosures to a company are annual reports, other forms (such as firm 10-K in the U.S.A), press releases and conferences, electronic data transfers and direct contact with analyst. Yi (1998) examined the conditions under which firms are more likely to disclose information through private channels rather than public channels. The analysis revealed that when private and public channels are both available to the company, proprietary costs make private disclosures more attractive to firms. It was also found that when firms choose the private channels they provided information to the maximum extent and to the largest possible number of analysts.

Zezhong Xiao (1999) found that listed companies in China provided mainly forecast of earnings and the report of supervisory board on voluntary basis in their annual reports. This might be due to the fact that as China was moving towards a more market-oriented economy, the Chinese companies were emulating the western practices. But on the whole, there was very little disclosure provided on voluntary basis by the Chinese companies.

Naser and Nuseibeh (2003) made an extensive study of non-financial companies listed on Saudi Stock exchange between the years 1992 and 1999. A weighted index of disclosures on the basis of mean and median responses from seven users of annual reports was constructed. It was found that the Saudi companies revealed more information on voluntary basis than what is required by the law. The voluntary information is disclosed irrespective of its relationship with mandatory disclosures. But the over all level of voluntary disclosure was found to be relatively low.
Porwal and Porwal (1999) suggested that the need of the hour is to incorporate information about pollution, community development, product and service contribution in financial statements to make them more useful and develop a standard formats for the purpose.

Mandatory and voluntary disclosures are main sub items of financial reporting which provides information to users. Venkatesh (2000) has made study on the significance of reporting, cost benefit analysis of voluntary disclosure, the necessity of regulation of corporate disclosure. In Indian context, there is a need to identify the perception of managers to decide on quality and extent of voluntary disclosure, the publication of voluntary disclosure, and effect thereof on the reputation of a company. He noticed a gap in voluntary disclosures between domestic reporting pattern and global practices. According to him, the size of a company plays vital role in disclosure and it is matter of surprise that voluntary disclosure is found to be result of competition. Bikki Jaggi (1990) undertook a critical evaluation of objectives of social information. He has mentioned that firms would be willing to publish social information in order to meet certain requirements (i) Positive image motive (ii) to meet information needs of consumer and society (iii) to meet mandatory disclosure requirements.

**DISCLOSURE PRACTICES FOR VOLUNTARY DISCLOSURES**

There is a general belief that disclosure practices would differ greatly amongst companies listed on stock exchanges of developed countries and companies listed on stock exchanges of developing countries. Susanto (1993) investigated the disclosure pattern of in the annual reports of some listed companies on the Jakarta stock exchange. An index similar to one developed by Cerf was used to measure disclosures in the annual reports. The result of the multiple regression analysis revealed that (i) the extent of voluntary corporate disclosure was greater for foreign based companies than their domestic counterparts listed on the Jakarta stock exchange; (ii) the companies which were listed before the new 1987 regulations disclosed more information on voluntary basis than the companies listed after 1987 and (iii) it was also found that the extent of voluntary disclosures of the sample companies was not associated with the percentage of the listed shares that could not be purchased by foreign investors.

Indian companies have a tough time to compete with international companies. After liberalization the sustainability of Indian companies was under threat. Hence, they started diversifying their businesses, which led to new issue like segmental reporting. According to Ghosh (1995), "The practice as well as legal requirement of reporting aggregate financial information by diversified companies in India is not an effective mode of communicating periodic accounting numbers to the users of accounts." In his article, he explained legal requirements in India and provisions of IAS 14 with reference to segmental reporting. He has explained reporting requirements of 14 selected member countries of International organisations of securities communications? (IOSCO). He had also pointed out limitations of segmental information like (i) Arbitrary allocation of joint costs (ii) Inter-changeable assets, (iii) Influence of transfer pricing. Despite many limitations, segmental information is essential for analyzing risk and return of the reporting entity in an effective manner.
EARNINGS INFORMATION

Anderson (1987) investigated the differences that exist in the information about earnings before and after the publication of the annual reports amongst different firms. It was hypothesized that the information content of a firm's annual earnings announcement is a decreasing function of the firm's capitalised market value, period of listing (age) and change of auditors during the year. A sample study of firms listed on New York Stock Exchange, using multiple regression analysis revealed that age of the company had significant effect on earnings information but neither change of auditors nor size of the firm exerted any significant influence on earnings information. During the analysis it was also found that other announcements made simultaneously with earnings announcements affected the information content significantly.

Information about earnings is perhaps most widely used by the stock markets. Livne (1997) investigated how traders utilized announcements about earnings. Generally there are two types of earnings information available in the stock markets. The first release primarily contains the earnings number. The second and later release is more comprehensive and detailed. It was found that differences in market behavior across the two types of earnings announcements emerged due to the timing of the release of the announcements. For example, in case of a release made at the close of the market, short-term investors’ trade less aggressively than for an announcement made when the exchange is open.

Leung (1998) investigated the relationship between earning informative ness and voluntary disclosure choices and the reaction of the market to these disclosures. The results of the study provided evidence in support of a link between firms' disclosure choices and the ability of the earnings to reflect firms' future prospects. He found that firms with high earnings informative ness were more likely to disclose earnings forecasts while firms with low earnings informative ness were more likely to disclose only operating information. One of the reasons attributed to this behavior was that managers are more inclined to disclose earnings forecast when they feel that investors would find earnings more useful. The study however could not find any relationship between earnings informative ness and price reactions. The quality of information was also not found to have any significant relevance.

Globalization has compelled the corporate world to redesign the structure of corporate disclosure. The Supply of historical information is an issue of legal bindings. Along with historical information, users should be provided forecast information also, Bikki Jaggi (1995) has examined the important issues:

(i) Should the firms of developing countries provide forecast information in financial statements (ii) The usefulness of financial information contained in financial statement for investment decision (iii) A review of the historical developments for public disclosure of management forecast information by the companies in the limited states. (iv) Role of 'Regulatory Agencies' and 'Professional Agencies' for disclosure of this information. (v) The rationale for public disclosure of forecast information.
VALUE ADDED REPORTING

Evraert and Riahi-Belkaoui (1998) made a thorough study of Value Added Reporting beginning with a description of its use in various countries. The advantages and limitations of Value Added Reporting were also investigated along with its informational content. The comparison of Value Added method with conventional information was made in relation to market valuation. They found that the Value Added method had quite a few advantages and recommended that it should be made mandatory in the U.S.A and also suggested that this area requires further researches.

ENVIRONMENTAL ACCOUNTING

Any production activity can lead to environmental degradation. Environmental accounting provides information about the environmental degradation, which takes place due to a firm's business activities and its responsibility for cleaning up the sites. As far back as 1996, the environmental protection agency in the U.S.A had identified 36000 waste sites and estimated that the total clean-up cost could run as high as $1 Trillion over the next fifty years. The potential liability of firm's environmental protection can be found out through environmental accounting. This would also have an impact on investors decisions' and therefore on security prices. Hutchison (1997) examined the information content of a specific environmental disclosure and potentially responsible party status in the context of publicly held corporations. The study found that investors do differentiate between small and large firms in relation to environmental information sources. The security market seeks the most credible and timely information source. However, no evidence was found that the market differentiates between industries designated as environmentally sensitive or non-sensitive.

In Spain environmental reporting is a mandatory item developed to increase the accountability of organisations regarding environmental issues. Larrinaga et al (2002) investigated the reporting behavior of Spanish companies on environmental issues. They found that in their samples the compliance level was very low with 80% of the companies not providing any environmental information. Further even the companies who gave some information on environmental issues neglected those aspects of the regulation that were not in their interest to report. The authors concluded that the Spanish standard on environmental disclosure was insufficient to enable new accountability relationships and to empower stakeholders.

Protection of Environment and conservation of energy are burning issues for the entire world. In this regard, corporate Sector has got certain duties to be performed. Sumana Ghosh (2001) had tried to investigate action taken for preservation and prevention for degradation of environment by companies and reporting of it in the annual corporate report. In her study, she found that most of the companies disclosed information on this issue in Directors' Report in addition to compliance with section 21(1) (c) of the Companies Act, 1956. It is suggested that companies should disclose voluntary information to the users and to do so the companies are to be motivated.
P. Marshall (2002) tried to examine whether regulations can be effective in reducing information asymmetry in disclosure of foreign exchange risk management. He collected information from annual reports of several companies and also collected direct responses to a questionnaire. Thereafter, a two-country comparison (between U.S.A. and U.K.) was made. It was found that theoretical models of voluntary disclosure help in explaining persistence of information asymmetry. Listed companies in both the countries were found to have implemented annual report disclosure requirements to fulfill the regulations relating to foreign currency risk management. On the basis of the two-country comparison, it was found that disclosure regulation drawn up at similar times and with similar driving forces can have different impact in two different regulatory environments. It was also found that in both the countries in spite of regulatory regimes a substantial element of information asymmetry remained. It was concluded that regulation of qualitative disclosures, while taking heed if the markets' requirements for information has not yet found the mechanism whereby transparency is complete.

The mining industry uses a lot of hedge instruments as a normal trading practice. This is more prevalent in mining of precious metals. Nabor (1998) investigated the usefulness of hedging disclosures on firms' stock returns. The results of the study indicated that hedging disclosures provide a lot of information to the investors. It was also found that disclosed gold hedges were associated with a reduction in post-disclosure sensitivity of firms' market values to changes in gold prices. Such disclosures were also found to have effect on firms' stock price behavior. Further, the impact of such disclosures was found to last for at least nine months after the annual report date. Thus, hedging disclosures can be taken as reliable indicators of firms' risk exposure.

Information technology industry has brought revolution in the field of knowledge. Hence, accounting for intangible assets is a critical issue before the accountants. Dhruubarajan Dandapat (2001) states that the wide gap between the book value and market value clearly reveals that the traditional accounting model fails to measure the real worth of an enterprise. His paper highlights (i) the significance of accounting disclosure of Intangibles, and (ii) the suggested framework for disclosing voluntarily the intangible assets in the corporate annual financial statements.

One of the reasons for voluntary disclosures by companies is that it reduces the cost of capital and monitoring cost. With this fact in view, Chyanlong (1998) investigated the factors affecting voluntary disclosures in the annual reports of high-technology companies. Managerial ownership, financial leverage, growth opportunity, proprietary costs and technology invasion were taken as the independent variables. The results indicated that firm size; growth opportunity and technology innovation had statistically significance positive effect on the level of information of voluntary disclosures. The agency theory was not supported by the data as managerial ownership and financial leverage did not display statistically significant influence on voluntary disclosures.
CONCLUSION

The worldwide harmonization in disclosure practices is difficult task. Because each company has its own political and social environment hence their requirements may be different. The item, which is mandatory in one country, may be voluntary in other country. But the studies, which are conducted, give the idea about voluntary disclosure patterns of the various countries. In this paper studies, which are conducted in India, Spain, USA, SAUDI ARABIA and China, are included.

The issues like use of private channels to give voluntary disclosure, significance of reporting, cost benefit analysis of voluntary disclosure, critical evaluation of social information are covered by the some authors. But the size of report, forecast of earnings, Age and voluntary disclosure are those issues, which are covered by the various authors in various countries as favourite issues.

The investigation on annual reports of the company has been long and broad. But due to continuously changing business environment it has not culminated into final conclusions. This firmly establishes a clear need for perpetuity of research in this area and more so in the context of a country like India and in the present world scenario. The political, social, economical changes have significant influence on corporate consequently corporate disclosure practices are bound to be changed hence corporate disclosure is ever developing and expanding concept. Therefore continuous research work on different components of corporate disclosure is inevitable.

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FINANCIAL IMPACT OF SUPPLY CHAIN DECISIONS

*Ashwani Kumar

ABSTRACT

The fundamental concept of supply chain management (SCM) encompasses the end-to-end business activities in an organization. Senior managers at leading companies view supply chains as critical drivers of shareholder value and competitive differentiation. Confirming that perspective, the research shows a strong connection between high performance supply chains and financial success. Thus the leading companies have started incorporating supply chains into their business strategies. The present paper highlights some of the alternative supply chain strategies and their linkage with profitability.

The supply chain performance affects the customer satisfaction, current profitability and future sales. More specifically, the supply chain process influences the flow of products from the supplier to the ultimate customer. The resources used in executing this process determine the cost of making the product available to the customer (Niraj et al., 2001). This landed cost will affect the buyer's decision to purchase the product. Further the level of costs will determine the profits of the company. The decision to structure the supply chain process is an optimization issue, where the management evaluates the various supply chain alternatives to optimize the corporate goal of profit maximization. Inventory management decisions have direct impact on the required capital of the company (Robert, 2005). The latest supply chain techniques such as just-in-time, ERP, efficient consumer response (ECR) and quick response (QR) focus on reducing the inventory level of a company, thereby reducing the capital required for inventory. But companies with high value products such as light commercial vehicles, heavy commercial vehicles and heavy industrial items are more concerned about reducing the finished goods inventory, because of higher value of finished products.

THE SALES-COST SAVING RELATION

While supply chain management stresses on process efficiency, where as the top management is interested in increased sales and higher profits. The conflicting goals can be
resolved if the cost savings are converted into increased sales. It can be exhibited with the following equation:

\[
\text{Profit} = \text{sales} - \text{Costs}
\]

Where

\[
\text{Cost} = \text{P % of sales}
\]

Then

\[
\text{Profit} = \text{sales} - (\text{P % of sales}) = \text{Sales} (1 - \text{P %})
\]

Where

\[
(1-\text{P %}) = \text{Profit Margin}
\]

\[
\text{Sales} = \text{Profit} + \text{Profit margin}
\]

The following table (Table 1) shows the equivalent sales for various supply chain cost savings using the data of a hypothetical LCV manufacturer.

**Table 1**

**Sales Equivalent of Supply Chain Cost Savings**

<table>
<thead>
<tr>
<th>Sales Equivalent for Cost Savings of</th>
<th>(000)</th>
<th>%</th>
<th>Rs 2,50,000</th>
<th>Rs 5,00,000</th>
<th>Rs 7,50,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>2,00,000</td>
<td>100.0%</td>
<td>31,25,000</td>
<td>62,50,000</td>
<td>93,75,000</td>
</tr>
<tr>
<td>Total cost</td>
<td>1,84,000</td>
<td>90.0%</td>
<td>28,75,000</td>
<td>57,50,000</td>
<td>86,25,000</td>
</tr>
<tr>
<td>Net profit</td>
<td>16,000</td>
<td>8.0%</td>
<td>2,50,000</td>
<td>5,00,000</td>
<td>7,50,000</td>
</tr>
</tbody>
</table>

Rs 2,50,000 cost saving ÷ .08 profit margin
Rs 5,00,000 cost saving ÷ .08 profit margin
Rs 7,50,000 cost saving ÷ .08 profit margin

Table 1 shows the equivalent sales for different supply chain cost savings. On the basis of a profit margin of 8 percent, a Rs 2,50,000 supply chain cost saving has the same effect as increasing sales by Rs 31,25,000, a percent increase in sales. Similarly, Rs 5,00,000 and Rs 7,50,000 cost savings have equivalent sales of Rs 62,50,000 and Rs 93,75,000 respectively. The lower the profit margin, the higher will be the sales equivalent for a given supply chain cost because it takes a greater sales volume to produce a given profit. For a Rs 1000 cost saving, the equivalent sales are Rs 1,00,000 with a profit margin but it is only Rs 5,000 with a 20 percent profit margin. Therefore supply chain cost savings have a greater sales impact for companies with low profit margins. The Table 2 shows the equivalent sales with varying profit margins.

**Table 2**

**equivalent sales with varying profit margins**

<table>
<thead>
<tr>
<th>Profit margins</th>
<th>20%</th>
<th>10%</th>
<th>5%</th>
<th>1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Rs 5,000</td>
<td>Rs 10,000</td>
<td>Rs 20,000</td>
<td>Rs 1,00,000</td>
</tr>
<tr>
<td>Total cost</td>
<td>4,000</td>
<td>9,000</td>
<td>19,000</td>
<td>99,000</td>
</tr>
<tr>
<td>Cost saving/profits</td>
<td>1,000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>

28
THE SUPPLY CHAIN FINANCIAL IMPACT

Return on assets (ROA) is also used as a benchmark to compare the efficiency of supply chain management of a company with that of another. Return on net worth and return on assets, both are dependent on the profitability level of the company. An efficient supply chain management assures the higher profitability of the company. On the other hand, less efficient supply chain with high supply chain costs will lower the profitability of the company. The following figure (Figure 1) shows the financial relationship between the supply chain management and return on assets (ROA) (Coyle, Bardi and Langley, 2003).

Figure 1

supply chain impact on Return on Assets

Supply chain Effectiveness

- Revenue
- Cost
+ Profits

Supply chain Efficiency

- Inventory
- Accounts Receivables
+ Cash
+ Fixed Assets
+ Returns on Assets
- Capital Employed

Asset Deployment and Utilization

The supply chain effectiveness affects the revenues/level of sales, and the efficiency affects the total costs of the company (Gianpaolo et al., 2005). It forms the first component of ROA. The level of inventory held in the supply chain determines the assets deployed. The account receivables and cash depend on the average collection period, which further depends on the order-processing time and the transit time. Finally, the warehousing decisions impact the fixed assets. Thus the capital employed is the second component of ROA.

ROA = Profit + Capital employed

Higher the profits, higher will be the ROA, alternatively, the lower the capital employed for a given level of profits, the higher the ROA.
Financial impact of 10 percent reductions in inventory, Transportation and warehousing costs in an LCV Firm (Figures are taken for the year 2004)

<table>
<thead>
<tr>
<th></th>
<th>LCV 2004</th>
<th>Avg. inventory reduced by 10%</th>
<th>Warehousing cost reduced by 10%</th>
<th>Transportation cost reduced by 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>2,50,000</td>
<td>2,50,000</td>
<td>2,50,000</td>
<td>2,50,000</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>1,50,000</td>
<td>1,50,000</td>
<td>1,50,000</td>
<td>1,50,000</td>
</tr>
<tr>
<td>Gross margin</td>
<td>1,00,000</td>
<td>1,00,000</td>
<td>1,00,000</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Inventory costs</td>
<td>10,000</td>
<td>9,000*</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Transportation</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
<td>13,500*</td>
</tr>
<tr>
<td>Warehousing</td>
<td>12,000</td>
<td>12,000</td>
<td>10,800</td>
<td>12,000</td>
</tr>
<tr>
<td>Other operating costs</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Total operating cost</td>
<td>67,000</td>
<td>66,000</td>
<td>65,800</td>
<td>65,500</td>
</tr>
<tr>
<td>EBIT</td>
<td>33,000</td>
<td>34,000</td>
<td>34,200</td>
<td>34,500</td>
</tr>
<tr>
<td>Interest</td>
<td>13,000</td>
<td>13,000</td>
<td>13,000</td>
<td>13,000</td>
</tr>
<tr>
<td>Taxes</td>
<td>6,000</td>
<td>6,000</td>
<td>6,000</td>
<td>6,000</td>
</tr>
<tr>
<td>EAIT</td>
<td>14,000</td>
<td>15,000</td>
<td>15,200</td>
<td>15,500</td>
</tr>
</tbody>
</table>

Asset Deployment

<p>| | | | | |</p>
<table>
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<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Fixed Assets</td>
<td>1,00,000</td>
<td>1,00,000</td>
<td>1,00,000</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>20,000</td>
<td>18,000</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Cash/bank</td>
<td>25,000</td>
<td>25,000</td>
<td>25,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Accounts Receivables</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
</tr>
<tr>
<td>Total assets</td>
<td>1,80,000</td>
<td>1,78,000</td>
<td>1,80,000</td>
<td>1,80,000</td>
</tr>
</tbody>
</table>

Ratio analysis*

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<tr>
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</thead>
<tbody>
<tr>
<td>Profit margin</td>
<td>5.6%</td>
<td>6.0%</td>
<td>6.08%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>7.78%</td>
<td>8.42%</td>
<td>8.4%</td>
<td>8.61%</td>
</tr>
<tr>
<td>Inventory Turnover</td>
<td>7.5%</td>
<td>8.33%</td>
<td>7.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Transportation as % of sales</td>
<td>6.0%</td>
<td>6.0%</td>
<td>6.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Warehousing as % of sales</td>
<td>4.8%</td>
<td>4.8%</td>
<td>4.32%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Inventory carrying cost as % of sales</td>
<td>4.0%</td>
<td>3.6%</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Comparison of supply chain alternatives

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</tr>
</thead>
<tbody>
<tr>
<td>Profit margin</td>
<td>EAIT/SALES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Assets</td>
<td>EAIT/TOTAL ASSETS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory Turnover</td>
<td>COST OF GOODS SOLD/INVENTORY COST</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation as % of sales</td>
<td>TRANSPORTATION COST/SALES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warehousing as % of sales</td>
<td>WAREHOUSING COSTC/SALES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory carrying cost as % of sales</td>
<td>INVENTORY COST/SALES</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Based on the financial data given in the Figure 2, we can analyze the different alternatives available to the firm to improve profitability. The basic supply chain alternatives available are
reduction in the areas of inventory, transportation, and warehousing (Logistics). A 10 percent reduction in the different alternatives has been analyzed, to determine the financial impact. The firm had a net income of Rs 14,000 on sales of Rs 2,50,000 with a profit margin of 5.6%. Total assets utilized were Rs 1,80,000, and the ROA was 7.78%. The inventory turnover was 7.5% and the transportation costs amounted to 6.0% of sales, warehousing 4.8% and inventory carrying costs 4.0% of sales.

The 10 percent reduction in inventory has increased the Net Income from Rs 14,000 to Rs 15,000, and profit margin increases from 5.6% to 6.0%. Return on Assets increases from 7.78% to 8.42%, and the Inventory turnover from 7.5% to 8.33%. Inventory carrying cost as a percentage of sales goes down from 4.0% to 3.6%. Transportation and warehousing costs as a percentage of sales do not change. The Figure 2 also shows the changes and the effects on various ratios due to 10% decrease in warehousing and transportation costs. In each case the comparisons are made. In both the cases the profits, profit margins and ROA increase. This analysis provides the data to answer the question related to that supply chain alternative, which provides the greatest advantage for increased profitability.

The greatest advantage in terms of profit margin and ROA lies when the transportation cost is decreased. This is due to the fact that transportation cost is a greater percentage of sales than the warehousing and inventory costs. However the benefit through reduction in inventory cost alternative is two-fold, reduction in the inventory carrying cost and a reduction in assets. The inventory turnover ratio has increased from 7.5% to 8.33%.

CONCLUSION

The financial goal of supply chain management is to increase the profitability of the company by examining and optimizing various alternative courses of action. In this context, the impact of cost reductions, inventory level changes and other supply chain actions on profitability is significant.

REFERENCES


ABC: AN APPROACH TO COST MANAGEMENT

Y.V. Reddy

ABSTRACT

Strategic cost management may be defined as the use of cost data to develop and identify superior strategies that will produce a sustainable competitive advantage. An attempt has been made in this paper to study the applicability of activity based costing for motherboards at D-Link Ltd. The study shows that ABC provides more accurate cost data to the management for pricing strategies, product mix and other decisions than conventional costing.

Strategic cost management may be defined as the use of cost data to develop and identify superior strategies that will produce a sustainable competitive advantage. Competitive advantage is creating better customer value for the same or lower cost than offered by competitors. Customer value is the difference between what customer receives and what the customer sacrifices. Increasing customer value to achieve a competitive advantage is tied closely to judicious strategy selection. These general strategies have been identified as cost leadership, product differentiation and focusing. The mix of strategies is selected with the objective of creating a sustainable competitive advantage.

An attempt has been made in this paper to study the application of Activity Based Costing for motherboards at D-Link Ltd, Verna, Goa.

OBJECTIVES THE STUDY
1. To study the application of ABC for motherboards at D-Link Ltd.
2. To compare conventional costing with that of ABC at D-Link LTD.

METHODOLOGY

The required data for the study has been collected from the authorized personnel from the respective departments in addition to studying the records and personal observation of the

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process of manufacturing motherboards. For the purpose of analysis one-month data has been used for five models of motherboards.

D-LINK LTD, VERNA, GOA

D-Link Ltd, Verna, Goa commenced its business in 1995 is a part of the multi-national D-Link Corporation group of Taiwan, which has a substantial stake in the Indian company. It has a substantial market share in India and ranks among the leaders in structured cabling, networking products, digital home products, motherboards, etc. D-Link has three state of the art ISO 9002 and ISO 14001 certified plants in Goa.

ACTIVITY ANALYSIS

The products taken here for calculations of activity based costing are motherboards with five models like 7VM400MRZ, 81845GVM-RZ, 81865GVMK, K8VM800M, GA-61WFE.

The various Activities and cost drivers for motherboards are listed below.

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Main Activities</th>
<th>Main cost drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing</td>
<td>Procurement cost</td>
<td>No of purchase orders placed</td>
</tr>
<tr>
<td>Production</td>
<td>Consumables</td>
<td>Quantity of consumables used</td>
</tr>
<tr>
<td></td>
<td>Machines</td>
<td>Machine hours</td>
</tr>
<tr>
<td></td>
<td>Power</td>
<td>Number of watts consumed</td>
</tr>
<tr>
<td></td>
<td>Space</td>
<td>Area of Space covered</td>
</tr>
<tr>
<td>Quality Control</td>
<td>Quality Control</td>
<td>No. of inspections</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Maintenance</td>
<td>Number of machine breakdowns</td>
</tr>
<tr>
<td>Accounting</td>
<td>Accounting</td>
<td>Number of accounting transactions</td>
</tr>
<tr>
<td>Material Management</td>
<td>Material acquiring cost</td>
<td>Volume of material receipts</td>
</tr>
<tr>
<td>Stores</td>
<td>Storing the Materials</td>
<td>Volume of GINs</td>
</tr>
<tr>
<td>Sales</td>
<td>Selling and Distribution overheads</td>
<td>Number of sales orders</td>
</tr>
</tbody>
</table>

The main functional area here is production, supported by Maintenance, Quality control, Purchasing, Materials, Stores and Accounts. All production inspection is done on all PCBs produced, while QA inspections are based on a sampling plan. The accepted PCBs are then released to the plated through holes/Touch Up (PTH/TU). Section on a chain conveyor where leaded components after forming and preparation are manually inserted in the PTHs of PCBs. The PCBs are then passed through the wave - soldering machine where the soldering takes place. After the soldering lead cutting, cleaning, touch - up and bracket assembly is done by the production personnel manually.
Indian Journal of Accounting

The whole process is followed by QA personnel inspecting the PCBs to ensure quality. The products are then tested to ensure their functional operation. If PCBs are found good, mass production of the entire job is begins. If PCBs are found bad, the entire sample process is repeated taking necessary measures to bring the system under control.

Here main activities taken are machines, which are used for manufacturing motherboards, consumables, power and space for the production area. For machines cost driver taken is number of machine hours. Here machine hours come unto 16 hours per day. Incase of consumables cost driver is quantity of consumables used from SMT to packing stage of the process. For Power cost driver taken is watts consumed and incase space cost driver space allotted for production area. H.

The Table 1 shows how an activity based cost system can generate unit cost information which is substantially different from, and more accurate than that produced by a traditional costing system. The table provides details of the costs, volumes and transaction cost drivers for a cost center and the appropriate service departments, for one month. Here products taken are motherboards of five models like 7VM400MRZ, 81845GVM-RZ, 81865GVMK, K8VM800M, GA-61WFE.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
</table>

Table Showing Details of Cost, Volumes, Cost Drivers for One Month

<table>
<thead>
<tr>
<th></th>
<th>7VM400MRZ</th>
<th>81845GVM-RZ</th>
<th>81865GVMK</th>
<th>K8VM800M</th>
<th>GA-61WFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production in Unit</td>
<td>26000</td>
<td>27500</td>
<td>22500</td>
<td>20950</td>
<td>27500</td>
</tr>
<tr>
<td>Machine Unit Cost</td>
<td>1447</td>
<td>1267</td>
<td>1918</td>
<td>2240</td>
<td>1323</td>
</tr>
<tr>
<td>Machine HR/Unit</td>
<td>.015</td>
<td>.015</td>
<td>.018</td>
<td>.019</td>
<td>.015</td>
</tr>
<tr>
<td>Labour Cost/Unit</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
</tr>
<tr>
<td>No. of Purchase Orders</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>No. of Material Requisitions</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>No. of GINS</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>No. of Accounting Transactions</td>
<td>19</td>
<td>264</td>
<td>16</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>No. of Inspections</td>
<td>23</td>
<td>30</td>
<td>15</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>No. of Machine Breakdown</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Quantity of Consumables Used</td>
<td>51.87</td>
<td>51.87</td>
<td>51.87</td>
<td>51.87</td>
<td>51.87</td>
</tr>
<tr>
<td>No. of Sales Orders</td>
<td>10</td>
<td>11</td>
<td>13</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

In case of Power and space cost, consumption depends on number of units produced.
Table 2
Table Showing Cost of Overheads

Total overheads of Rs. 6438871.5 divided into:

<table>
<thead>
<tr>
<th>Overheads</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine</td>
<td>116933.2</td>
</tr>
<tr>
<td>Power</td>
<td>224953.2</td>
</tr>
<tr>
<td>Space</td>
<td>75834</td>
</tr>
<tr>
<td>Maintenance Cost</td>
<td>202327</td>
</tr>
<tr>
<td>Procurement Cost</td>
<td>11519</td>
</tr>
<tr>
<td>Consumables</td>
<td>184274</td>
</tr>
<tr>
<td>Quality Control</td>
<td>185175</td>
</tr>
<tr>
<td>Stores</td>
<td>21113</td>
</tr>
<tr>
<td>Material Cost</td>
<td>20009</td>
</tr>
<tr>
<td>Accounts</td>
<td>52372</td>
</tr>
<tr>
<td>Selling and distribution overheads</td>
<td>5344362</td>
</tr>
</tbody>
</table>

TRADITIONAL OVERHEADS ABSORPTION SYSTEM

In traditional system overheads are absorbed using Machine Hours (MH). Machine hours for each model are calculated. If MH is used as the base for allocating overheads then the same amount of overhead will be charged to each unit of models. The calculations would be as follows:

Overhead absorption rate

\[ = \frac{6438871.5}{1939} \]

\[ = 3320.7 \text{ per hour} \]

Under this method the cost of a unit of 7VM400MRZ, 81845GVMRZ, 81865GVMK, K8VM800M, GA-61WFE are calculated and presented in the Table 3.

Table 3
Table Showing Cost/Unit, Profit/Unit of Product Under Traditional Costing

<table>
<thead>
<tr>
<th>Model No.</th>
<th>7VM400MRZ</th>
<th>81845GVM-RZ</th>
<th>81865GVMK</th>
<th>K8VM800M</th>
<th>GA-61WFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production in Units</td>
<td>26000</td>
<td>27500</td>
<td>22500</td>
<td>20950</td>
<td>27500</td>
</tr>
<tr>
<td>Direct Material</td>
<td>1447</td>
<td>1267</td>
<td>1918</td>
<td>2240</td>
<td>1323</td>
</tr>
<tr>
<td>Direct Labour</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
</tr>
<tr>
<td>Overheads</td>
<td>51.1</td>
<td>48.3</td>
<td>59.0</td>
<td>63.4</td>
<td>48.3</td>
</tr>
<tr>
<td>Total Cost/Unit</td>
<td>1738.2</td>
<td>1555.4</td>
<td>2217.2</td>
<td>2543.5</td>
<td>1611.4</td>
</tr>
<tr>
<td>Selling Price/Unit</td>
<td>1887.2</td>
<td>1823.2</td>
<td>2451.1</td>
<td>2713</td>
<td>1710.3</td>
</tr>
<tr>
<td>Profit/Unit</td>
<td>172.5</td>
<td>290.1</td>
<td>233.9</td>
<td>198.7</td>
<td>121.2</td>
</tr>
</tbody>
</table>
From the Table 3 we can conclude that cost /unit is highest in case of K8VM800M followed by 81865GVMK, 7VM400M - RZ, 81845GVM-RZ, AND GA-61WFE. And in case of profit it is highest for 81845GVM - RZ, followed by 81865GVMK, K8VM800M, 7VM400MRZd GA - 61WFE. Therefore we can conclude that motherboard with model number 81845GVM-RZ contributes to profit of Rs. 290.1 even though it cost/unit is Rs. 1555.4. To get a better idea of the resources consumed in the manufacture of individual units of these models, and a more accurate idea of the resources consumed the overheads will now be absorbed using an activity based costing system. Appropriate cost drivers will be selected and then these cost drivers will be sued to allocate the costs form the cost pools to the individual products.

**ACTIVITY BASED COSTING SYSTEM**

Here instead of using machine hours as the base for allocating overheads we divide the overhead into appropriate cost pools and for each cost pool select an appropriate cost driver. For this purpose the appropriate cost pools and cost drivers and cost driver rates are presented in the Table 4

**Table 4**

*Table Showing Overhead Cost Under Activity Based Costing*

<table>
<thead>
<tr>
<th>Overheads</th>
<th>Cost Driver</th>
<th>7VM400 MRZ</th>
<th>81845 GVM-RZ</th>
<th>81865 GVMK</th>
<th>K8VM 800M</th>
<th>GA-61 WFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Overhead</td>
<td></td>
<td>1.2</td>
<td>0.6</td>
<td>1.2</td>
<td>1.2</td>
<td>.6</td>
</tr>
<tr>
<td>Machinery</td>
<td>Machine Hours</td>
<td>8.65</td>
<td>8.18</td>
<td>10.00</td>
<td>10.74</td>
<td>8.18</td>
</tr>
<tr>
<td>Power</td>
<td>Watts Consumed</td>
<td>2.92</td>
<td>2.76</td>
<td>3.37</td>
<td>3.62</td>
<td>2.76</td>
</tr>
<tr>
<td>Space</td>
<td>Space Occupied</td>
<td>1.56</td>
<td>1.47</td>
<td>1.8</td>
<td>1.93</td>
<td>1.47</td>
</tr>
<tr>
<td>Maintenance</td>
<td>No. of Breakdowns</td>
<td>.06</td>
<td>.16</td>
<td>.06</td>
<td>.14</td>
<td>.05</td>
</tr>
<tr>
<td>Procurement Cost</td>
<td>No. of Purchase</td>
<td>17.83</td>
<td>17.83</td>
<td>17.83</td>
<td>17.83</td>
<td>17.83</td>
</tr>
<tr>
<td>Cost</td>
<td>Orders</td>
<td>.078</td>
<td>.440</td>
<td>.090</td>
<td>.193</td>
<td>.073</td>
</tr>
<tr>
<td>Consumables</td>
<td>Quantity Used</td>
<td>1.72</td>
<td>2.13</td>
<td>1.30</td>
<td>1.58</td>
<td>0.71</td>
</tr>
<tr>
<td>Material Acquiring Cost</td>
<td>No. of MRS</td>
<td>.203</td>
<td>.288</td>
<td>.117</td>
<td>.126</td>
<td>.096</td>
</tr>
<tr>
<td>Quality Control</td>
<td>No. of Inspection</td>
<td>1.12</td>
<td>1.55</td>
<td>.11</td>
<td>.12</td>
<td>.06</td>
</tr>
<tr>
<td>Stores</td>
<td>No. of GINs</td>
<td>37.74</td>
<td>36.46</td>
<td>57.02</td>
<td>54.26</td>
<td>34.21</td>
</tr>
<tr>
<td>Accounts</td>
<td>No. of Accounting</td>
<td>Total Overheads</td>
<td>72.08</td>
<td>71.87</td>
<td>92.91</td>
<td>91.74</td>
</tr>
<tr>
<td>Transaction</td>
<td>No. of Sales Orders</td>
<td>66.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reddy

Table 5
Table Showing Cost and Profit Under ABC

<table>
<thead>
<tr>
<th>Cost</th>
<th>7VM400MRZ</th>
<th>81845GVM-RZ</th>
<th>81865GVMK</th>
<th>K8VM800M</th>
<th>GA-61WFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production in Units</td>
<td>26000</td>
<td>27500</td>
<td>22500</td>
<td>20950</td>
<td>27500</td>
</tr>
<tr>
<td>Direct Material</td>
<td>1447</td>
<td>1267</td>
<td>1918</td>
<td>2240</td>
<td>1323</td>
</tr>
<tr>
<td>Direct Labour</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
<td>240.15</td>
</tr>
<tr>
<td>Overhead Cost</td>
<td>72.08</td>
<td>71.87</td>
<td>92.91</td>
<td>91.74</td>
<td>66.04</td>
</tr>
<tr>
<td>Total Cost/Unit</td>
<td>1759.2</td>
<td>1579.0</td>
<td>2251.1</td>
<td>2571.9</td>
<td>1629.2</td>
</tr>
<tr>
<td>Selling Price/Unit</td>
<td>1887.2</td>
<td>1823.2</td>
<td>2451.1</td>
<td>2713</td>
<td>1710.3</td>
</tr>
<tr>
<td>Profit/Unit</td>
<td>127.9</td>
<td>244.2</td>
<td>200</td>
<td>141.1</td>
<td>81.1</td>
</tr>
</tbody>
</table>

The Table 5 shows that overheads absorbed by 81865GVMK is highest followed by K8VM800M, 7VM400M-RZ, 81845GVM-RZ AND GA-61WFE

It can also be observed that cost/unit is highest in case of K8VM800M followed by 81865GVMK, 7VM400M-RZ, GA-61WFE and 81845GVM-RZ. Incase of profit it is highest in case of 81845GVM-RZ followed by others. Hence from this we can conclude that motherboard with model 81845GVM-RZ contributes to a highest profit of Rs. 244.2 even though it costs Rs. 1579.

Table 6
Table Showing Comparision of Cost Under Traditional and Activity Based Costing

<table>
<thead>
<tr>
<th>Costing</th>
<th>7VM400MRZ</th>
<th>81845GVM-RZ</th>
<th>81865GVMK</th>
<th>K8VM800M</th>
<th>GA-61WFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Costing</td>
<td>1738.2</td>
<td>1555.4</td>
<td>2217.2</td>
<td>2543.5</td>
<td>1611.4</td>
</tr>
<tr>
<td>Activity Based Costing</td>
<td>1759.2</td>
<td>1579.0</td>
<td>2251.1</td>
<td>2571.9</td>
<td>1629.2</td>
</tr>
<tr>
<td>Difference</td>
<td>21.0</td>
<td>23.6</td>
<td>33.9</td>
<td>28.3</td>
<td>17.7</td>
</tr>
</tbody>
</table>

A comparison of the traditional system with the activity based costing system in Table 6 indicates that the traditional system is under costing each unit of 7VM400MRZ by Rs. 21.0, 81845GVM-RZ by Rs. 23.6, 81865GVMK by Rs. 33.9, K8VM800M by Rs. 28.3, GA-61WFE by Rs. 17.7 which will result in overstatement of profit.

Table 7
Table Showing Comparision of Profit Under Both TC and ABC

<table>
<thead>
<tr>
<th>Profit/Unit</th>
<th>7VM400MRZ</th>
<th>81845GVM-RZ</th>
<th>81865GVMK</th>
<th>K8VM800M</th>
<th>GA-61WFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Costing</td>
<td>172.5</td>
<td>290.1</td>
<td>233.9</td>
<td>198.7</td>
<td>121.2</td>
</tr>
<tr>
<td>Activity Based Costing</td>
<td>127.9</td>
<td>244.2</td>
<td>200</td>
<td>141.1</td>
<td>81.1</td>
</tr>
</tbody>
</table>

37
Hence from the Table 7 we can conclude that under traditional costing profit/unit for each models are Rs.172.5, Rs.290.1, Rs.233.9, Rs.198.7, Rs.121.2, whereas under Activity based costing profit/unit of each models are Rs.127.9, Rs.244.2, Rs.200.0, Rs.141.0, Rs.81.1. Thereby we can conclude that under costing of products under traditional costing has resulted in overstatement of profits, which can be avoided under Activity Based Costing.

CONCLUSION

After studying the application of Activity Based Costing for motherboards and then comparing with Traditional Costing, we can conclude that to get accurate costing of product Activity Based Costing should be implemented. As traditional costs is no longer adequate and appropriate to estimate product cost as the nature of work has changed from labour intensive to technologically intensive. Overhead is no longer a small portion in product cost. A new method, activity-based costing can help companies estimate accurately the cost of product. Instead of allocating overhead cost to one cost driver like traditional cost, it allocates overhead according to activities that the product consumed.

ABC helps the management in decision making and also provides financial data in fundamentally different way to that provided by normal financial accounts by associating cost to the business activities thereby focusing management's attention on the behaviour of costs.

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ABC: Why it is tried and how it succeeds", Management Accounting, April, 1998.
Transfer Pricing with ABC, Management Accounting, May 1997.
CORPORATE GOVERNANCE MODEL IN INDIA

*Gitika Mayank  
**Nityesh Bhatt  
***Karunesh Saxena

ABSTRACT

Corporate Governance is a buzzword in the Indian corporate corridors these days. A number of financial scams and the disappearing of companies both in India and abroad have strengthened the need to develop trust among the different stakeholders of the company. The ripples of Cadbury committee report and Sarbanes Oxley(SOX) have instigated the Indian authorities to come up with various legislations and recommendations for companies to adopt the concept of corporate governance. Just legislations are not suffice. In this context rhetoric has to be converted into reality. The torchbearers of the Indian economy like Reliance, Tatas etc are themselves fraught with misdemeanors so the penetration of this dictum to the roots comprising of small entrepreneurs is a doubtable situation. To gain a firm ground in the economy a mindset change is required.

Liberalization and globalization have lead to the renaissance of the concept of corporate governance in India. Indian business organizations now face a highly competitive, volatile, complex and unpredictable business environment. Fierce local and international competition is coming up. New markets, new alliances, new customers are emerging every day, threatening the survival of the enterprises. In such a scenario, the key question which needs to be addressed is how the Indian corporate sector can manage the business efficiently in this new environment. It calls for immediate attention of the organizations to restructure, reshape and realign their corporate strategies, technology, people, and infrastructure as per domestic and global customer needs. Sustainable development of companies will pave way for their survival in the long run. In the present highly competitive and customer driven markets, long term survival can be achieved through trust, which can be acquired by companies through corporate governance because corporate governance is based on the dictum of accountability, transparency and equality.

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**Associate Professor (Marketing & MIS), Pacific Institute of Management, Udaipur.  
***Director, Pacific Institute of Management, Udaipur.
THE LOOPOLES IN CORPORATE GOVERNANCE PRACTICES IN INDIAN COMPANIES

According to Arun Maira, Chairman Boston Consulting Group (BCG) India "a decade ago it was enough to manage efficiently and produce results. Delighted shareholders, be it government institutions, FII, retail shareholders never questioned the means. Today it is not enough to manage efficiently and produce result. Values, and means by which things are done, are as important".

India has come a long way in the context of corporate governance but still it has a long way to go. Just making regulations is not sufficient its proper enforcement is required. Corporate governance is required not just in form but in substance also. There are a number of areas where in spite of so many regulations there is still flagrant violation of corporate governance norms.

I. The role of board of directors has been questioned

The loophole in corporate governance starts from the most important component of the company i.e. the board of directors. Boards of directors have been largely ineffective in India in monitoring the actions of management. They are routinely packed with friends and allies of the promoters and managers, in flagrant violation of the spirit of corporate law. Some of the cases are enumerated here.

- The best part is that management is never even asked to explain bad governance. Indian boardroom etiquette does not permit honorable board members to embarrass the chairman and/or managing director by asking difficult questions. In some companies, it is also bad manners to want the agenda or minutes (of previous meetings) to be circulated before the meeting. The board papers are placed in front of the board member, who is expected to leave them when he leaves the boardroom. (Dalal 2000)

- At the time of Ambani trifle the role of the board of directors of Reliance Industries has been questioned. It is said that the board is only good as the Chairman and the CEO allow it to be. Deep probing question were being raised about its role. Incriminating documents, which had never left Reliance's vault, were then being handed out freely. Even public documents were then pointing to the board's culpability. (Surendra 2005)

- In case of UTI US 64 scam when the company was going down the drain by paying more than the scheme's NAV the board of directors acted as dumb or did not know what to ask or it did but chose not to ask.

- The nominee directors from the Development Financial Institutions (DFIs), who could and should have played a particularly important role, have usually been incompetent or unwilling to step up to the act. Consequently, the boards of directors have largely functioned as rubber stamps of the management. (Dalal 2000)
II. The independent directors are not really independent

The independence of independent directors is often questioned. There is a big question mark about the working of independent directors of big corporate names like Tatas, Birlas, Reliance etc. A number of loopholes in this regard has been found.

- Nusli Wadia, the chairman of Bombay Dyeing is indicated as independent, non-executive director on the boards of Tata Steel, Tata Motors, Tata Chemicals but the business press is rife with the news about his closeness to Late J.R. Tata and the supportive role he played whenever the company faced crisis. On the other hand Ratan Tata sits on the board of Bombay Dyeing the Wadia Group's flagship company. (Satheesh 2005)

- The moment one becomes a director in a company, one can't be independent in others. Nusli Wadia's nomination on three different boards of same group of companies is therefore fraught with questions. Keshub Mahindra also sits in the board of Tata Steel and Tata Chemicals and so is Suresh Krishna who sits on the board of Tata Steel and Videsh Sanchar Nigam Ltd.

- Kumar Mangalam Birla, is an independent director in the board of Tata Steel and it has been found that he did not attend a single board meeting or annual general meeting in 2003-04. The irony is a committee on corporate governance was headed by Mr. Birla himself. (Satheesh 2005)

- At Reliance industries M.L. Bhakta has been classified as independent non-executive director whereas Bhakta has been a director of RIL since 1977 and he is a partner of firm Kanga & Company which functions as solicitors and advocates of the company. (Surendra 2005)

III. Most of the companies are known for incomplete disclosures

The Kumaramangalam Committee Report in 1999 talked about disclosures under 'Management Discussion and Analysis' (MD&A). Accepting these recommendations, the Securities and Exchange board of India (Sebi) made it mandatory for companies to give certain details in MD&A report as part of the annual report from 2000. A sample survey of the information provided by management in their annual report under the head 'Management Discussion And Analysis'(MD&A) suggest that out of 52 companies that form part of the Sensex and/or the S&P CNX Nifty indices only 12 are really making disclosures under MD&A in true spirit. Even highly respected companies with the stature of Dr Reddy's, ICICI Bank, HDFC and Infosys fell somewhat short of the corporate governance standard expected of them. (Vedupuriswar 2004)

A number of problems relating to disclosures have been found

- Many a time companies fail to disclose important information in their report. For example, the annual report of Grasim Industries did not discuss anything about its
plan to acquire L&T's cement business. The business media had been speculating about the move for nearly two years. Finally, within a month of releasing the annual report Grasim acquired a controlling stake in L&T cement business.

- Many companies discuss important issues vaguely, thereby misleading investors about their importance. For example, most software companies talk about the risk due to appreciating rupee and heavy dependence on US market but they don't quantify the possible impact.

- Many companies also tend to concentrate on positive piece of information, while concealing negative ones. For example HDFC's housing finance is linked to the interest rates in the prevailing economy. In its report it talks about its benefits in a falling interest rate regime. But the report does not discuss what impact rising interest rates could have on the business of the company.

IV. Misreporting by auditors

The role of the auditors has also come under scrutiny in many cases. In the case of Global Trust Bank the role of the auditor Arther Anderson was questioned. Arther Anderson is the same company which had done false reporting for Enron which became bankrupt and with it a major power project of the country which consumed enormous resources Dabhol Power Project went down the drain.

- There are even more cases. On July 2002, credit rating agency CRISIL released an analysis of 639 companies. Of these 139 had increased profit and 87 reduced profit through clever, though legal, accounting practices. Most stock buyers rarely have an idea about the true value of what they are buying.

- ICICI, is our most dynamic financial institution. Its top brass are staple speakers at corporate governance seminars, bit it finds nothing wrong in using a legal loophole to wriggle out of its fiduciary obligations as a debenture trustee when a company begins to turn sick. SEBI requires debenture trustees to 'fulfill' their obligations in an 'ethical manner as per the code of conduct,' but since these are not legally binding, ICICI has no problems. In fact, it has been dragged to court at least three times by another financial institution (Infrastructure Leasing and Financial Services -- IL&FS) for failing to fulfill its fiduciary duties as debenture trustees. Each of those encounters ended with IL&FS securing its money. Small investors who had no funds to initiate expensive and time consuming litigation end up having to write off their investments. (Dalal, 2000)

- It is said that the shareholders are the real owners of the company, but if we see the dispute between the Ambani Brothers which has been dragging since past eight months and the ownership issue has not yet been solved. Because of the maze of subsidiary companies the real ownership of these two brothers is difficult to arrive at, then to arrive at the ownership of shareholders is a very difficult task.
To quote Kanwar (2005) the same issues regarding number of independent directors, their role on the Company Board, certification by CEOs, CFO and other such issues are covered both in Clause 49 as well as the Companies Act. The duplication of law making powers for the same subject impinges on the functioning of the company and increases cost of compliance and that a single authority was desirable.

MODEL FOR SUCCESSFUL IMPLEMENTATION OF CORPORATE GOVERNANCE

It has now been empirically established that Corporate Governance is a necessity for companies. Companies are required to publish a report on corporate governance along with their annual report. In order to get listed on any of the prominent stock exchanges apart from the financial requirement, fulfillment of corporate governance stipulations are also mandatory. For the concept of corporate governance to be successful it has to be properly implemented in order to convert rhetoric into reality. For this a model has been suggested, which if adopted would lead to the presence of the concept of corporate governance not only in substance but in form also.

The first step towards corporate governance starts from Individual governance. If each one of us can follow individual governance we can have efficient corporate governance and good public governance. Apart from that successful implementation of corporate governance can take place only by the synchronized efforts by a number of parties.

The first party that has to play a significant role in successful implementation of corporate governance is the State. The state has to take up three pronged strategy, which are meant for its three wings.
1. **For the Legislative wing of the state**
   - There should be adequate law relating to the functioning of business enterprises, covering the entire spectrum from registration of companies, their structure, and settlement of disputes, laws relating to the capital market and punishment for bad practices like insider trading and so on.
   - The laws should be simple to facilitate implementation.
   - There should be prompt redressal of cases and grievances to build trust among the investors.

2. **For the Executive wing of the state**
   The state in association with Department of Company Affairs(DCA) and different industry associations like CII, FICCI, ASSOCHAM, ICAI etc frame policies and guidelines for the overall growth and development of the industries and the economy.

3. **For the Regulatory wing of the state**
   - With respect to corporate governance it is the role of the market regulator SEBI to educate and protect the investors.
   - The regulator should see that the recommendations of various committees are not just on paper but they are adhered to by the companies.
   - SEBI should appoint whistle-blowers who draw attention to wrong corporate practices. The efforts of the state would provide a conducive and facilitating environment for the companies to operate.

   Then the Companies have to adopt the following strategies for successful implementation of corporate governance.
   - The most important thing is purpose i.e. the organization should have a clear mission communicated from the top that helps it to determine what acceptable and unacceptable behavior is.
   - The employees of the company feel proud of themselves and of their organization. They know that when they feel this way, they can resist temptations to behave unethically.
   - The employees believe that holding on to their ethical values will lead them to success in the long term. They are committed to live by ethical principles and make sure their actions are consistent with their purpose.

   The suggestions for the five important constituents of the company as shown in the model are as follows.
a) The board of directors

- The structure of the Board should be such that there should be a reasonable balance between Promoter Directors, Professional whole time Directors and Independent part time Directors.
- The board should ensure that there is compliance with all the regulatory frameworks like Company Law, Commercial Laws, and Factory Law etc.

b) Management

- There should be maximization of shareholders value without any bias towards the interest of other stakeholders, namely, employees, creditors, customers, leaders and government.
- A well documented compliance effort which includes policies and procedures should be framed and specific accountability for compliance should be there i.e. there should be defined responsibilities assigned to specific individual within the firm.
- There should be proper implementation of Sarbanes Oxley Act. Sarbanes Oxley emphasizes the importance of stockholders value and reinforces management's role as stewards of stockholders interest. This act entrusts the board to question the management's decision, especially in the area of financial management.
- Decision systems, remuneration systems as well creditor and ownership structures need to be defined and adhered to. Indian companies will also need to internationally certify their process, quality and management initiatives to be able to compete globally.

c) The Auditors

- Audit committee should generate genuine report without being influenced by Board of Directors or the Chairman to generate overall confidence.
- There should be adequate disclosure of all financial and non-financial decisions to all stakeholders.
- Companies should adhere to international accounting practices such as US GAAP (Generally Accepted Accounting Principals).

Media has to constantly highlight the good and the bad corporate governance practices of various companies in the country. It has to keep the government and the companies on toes. This role of media will aid in increasing the awareness of the stakeholders of the company.

Industry associations like FICCI, CII, ASSOCHAM, ICAI etc should constantly study the corporate governance practices of companies and play a more proactive role.

The role of investors' forum is first and foremost education of investors. They should prompt the investors to play a more proactive role as stakeholders of the companies and should constantly make the companies accountable for their stake.

Whistle blowers should blow the whistle as and when they find something wrong so that immediate prevention can protect the interest of a number of stakeholders of the company.
CONCLUSION
A renewed commitment to the highest corporate governance practices is required, which requires a cultural shift in the way all market participants think about their duties. It is not enough to have rules and guidelines securely in-place and then ignore their practical application. It's a call that all of us in this country must embrace as our own collective mandate. It is a call that will continue to make our corporate sector and financial market an enduring beacon of what vigilance and integrity can cultivate.

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http:// personal website of R.Kannan.htm
INTER-FIRM COMPARISON: AN APPLICATION OF KRUSKAL-WALLIS TEST

*M. Ramachandra Gowda
**V.V.S. Sharma
***Saulath Farheen

ABSTRACT

This study is made to know the relationship between the identical firms in cement industry and their financial performance. For this study some select ratios of cement industry were taken and inter-firm comparison was made. The result shows that there is some visual variation between companies. Hence, it was felt necessary to know statistically is there any significant difference between the companies. To find out this an attempt was made to use one of the non-parametric tests, which is Kruskal-Wallis test. Kruskal-Wallis test is approximated by a chi-square test. The test results have showed that in general the performance of select companies varied in all ratios except debt equity ratio.

The analysis and interpretation of financial statements is essential bring out the mystery behind the figures in financial statement. Financial statements analysis is an attempt to determine the significance and meaning of the financial data so that forecast may be made of the future earnings, ability to pay interest, debt maturities, profitability and soundness of dividend policy. For the analysis of financial matters of a company, ratio analysis is taken as the most important and powerful tool. It is relevant to note that visual variation exists between companies in their results and the ratios calculated year wise. Inspite of visual differences, it is necessary to establish statistically whether any significant differences existed between companies over the years for all the ratios individually. To establish this fact the kruskal-Wallis test was made use of since this is a powerful non-parametric test where the population distribution is unknown.

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***M.Com (Financial Accounting), University Post Graduate College, Kakatiya University, Subedari, Warangal.
KRUSKAL-WALLIS TEST

This is a non-parametric test. In parametric tests, the null hypothesis deals with population parameters such as mean, standard deviation. The non parametric tests are used when the knowledge of the population distribution is not known.

The tests can be used to provide reasonably good results even for very small samples. Kruskal- wallis test can handle more than two samples simultaneously and decide whether or not these samples belong to the same populations and effectiveness, quality measurement, goodness of fit etc. are same or not. In the test all the elements of different samples are together and ranked with the lowest score receiving a rank value of 1. If there are ties in the rank, the average rank to such pairs is assigned by averaging their rank position.

The sampling distribution of K statistics can be approximated by a chi-square distribution, when all the sample sizes are atleast 5. The study meets this condition and so use chi-square distribution is taken. In a Kruskal-wallis test the number of degree of freedom is K-1, in this study is (4-1) 3, since the number of samples are 4.

The test statistic for Kruskal-wallis test which uses the chi-square test is

\[ H = \frac{12}{n(n+1)} \sum \frac{R_i^2}{n_i(n_i-1)} \]

\( H \) follows chi-square distribution with \( (K-1) \) degree of freedom.
\( N \) is total number of elements in \( K \) samples.
\( R_i \) is sum of the ranks of all items in sample.

OBJECTIVES

The study aims examining the financial performance of select companies in cement industry with view to make inter-firm comparison. Further, an examination of significant difference among the companies will be with the help of kruskal-wallis test.

DATA AND METHODOLOGY

The sample for the study is drawn from cement industry. The sample companies are Nagarjuna cement ltd, Shree cement, Kesoram industries ltd and Madras cements. The financial data for study is drawn from published corporate reports of the companies for a period of five years from 2000-2004. The study is confined to select ratios. Five types of ratios classified into four sub categories are taken for the study.

<table>
<thead>
<tr>
<th>Category</th>
<th>Ratios employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td>Current ratio</td>
</tr>
<tr>
<td>Current asset movement</td>
<td>Debtor turnover ratio, Inventory turnover ratio</td>
</tr>
<tr>
<td>Long term solvency</td>
<td>Debt-equity ratio</td>
</tr>
<tr>
<td>Fixed asset movement</td>
<td>Fixed asset turnover ratio</td>
</tr>
</tbody>
</table>

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RESULT AND DISCUSSIONS

Table 1
Kruskal-Wallis Test Results for Individual Ratios

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Chi-square Table values at 5%</th>
<th>H value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current ratio</td>
<td>7.81</td>
<td>12.24</td>
<td>Null hypothesis Rejected</td>
</tr>
<tr>
<td>Current asset movement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debtor turnover ratio</td>
<td>7.81</td>
<td>9.93</td>
<td>Null hypothesis Rejected</td>
</tr>
<tr>
<td>Inventory Turnover ratio</td>
<td>7.81</td>
<td>9.51</td>
<td>Null hypothesis Rejected</td>
</tr>
<tr>
<td>Long term Solvency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt-equity ratio</td>
<td>7.81</td>
<td>4.65</td>
<td>Null hypothesis Rejected</td>
</tr>
<tr>
<td>Fixed asset turnover ratio</td>
<td>7.81</td>
<td>13.05</td>
<td>Null hypothesis Rejected</td>
</tr>
</tbody>
</table>

Source: calculated values.

Table 2
Result of Kruskal-wallis test-liquidity ratio

<table>
<thead>
<tr>
<th>Companies</th>
<th>Rank</th>
<th>Average</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagarjuna</td>
<td>4</td>
<td>1.18</td>
<td>Current ratios varies from 1.02 to 3.80</td>
</tr>
<tr>
<td>Shree</td>
<td>1</td>
<td>3.07</td>
<td></td>
</tr>
<tr>
<td>Kesoram</td>
<td>2</td>
<td>2.49</td>
<td></td>
</tr>
<tr>
<td>Madras</td>
<td>3</td>
<td>1.89</td>
<td></td>
</tr>
</tbody>
</table>

Source: calculated values.

Table 3
Result of Kruskal- Wallis Test-Current Asset Movement

<table>
<thead>
<tr>
<th>Companies</th>
<th>Debtor turnover</th>
<th>Inventory turnover</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank Average</td>
<td>Rank Average Average</td>
<td></td>
</tr>
<tr>
<td>Nagarjuna</td>
<td>4 6.04</td>
<td>4 3.70</td>
<td>Debtor turnover</td>
</tr>
<tr>
<td>Shree</td>
<td>1 15.55</td>
<td>1 11.16</td>
<td>Ratio varies from 4.16 to 20.41</td>
</tr>
<tr>
<td>Kesoram</td>
<td>3 7.87</td>
<td>3 8.26</td>
<td>Inventory</td>
</tr>
<tr>
<td>Madras</td>
<td>2 13.39</td>
<td>2 10.49</td>
<td>Turn over ratio varies from 3.05 to 15.97</td>
</tr>
</tbody>
</table>

Source: Calculated values
Table 4

Result of Kruskal- Wallis Test- Solvency Measure

<table>
<thead>
<tr>
<th>Companies</th>
<th>Debt- equity ratio</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Average</td>
</tr>
<tr>
<td>Nagarjuna</td>
<td>1</td>
<td>3.67</td>
</tr>
<tr>
<td>Shree</td>
<td>4</td>
<td>1.00</td>
</tr>
<tr>
<td>Kesoram</td>
<td>3</td>
<td>1.57</td>
</tr>
<tr>
<td>Madras</td>
<td>2</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Source: Calculated values

Table 5

Result of Kruskal - Wallis Test - Fixed Asset Movement Measure

<table>
<thead>
<tr>
<th>Companies</th>
<th>Fixed Asset Turnover Ratio</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Average</td>
</tr>
<tr>
<td>Nagarjuna</td>
<td>3</td>
<td>0.81</td>
</tr>
<tr>
<td>Shree</td>
<td>1</td>
<td>4.23</td>
</tr>
<tr>
<td>Kesoram</td>
<td>2</td>
<td>2.13</td>
</tr>
<tr>
<td>Madras</td>
<td>4</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Source: Calculated values

When liquidity ratio was tested for the current ratio, the calculated value of H=12.24 is higher than the chi-square table value at 5% level of significance with 3 degree of freedom. It establishes that the null hypothesis was rejected. This indicated that there exists significant variation in current ratio amongst the four companies. The ranking was done and the results can be seen from table-2. Shree and Kesoram did well in current ratio. While Nagarjuna and Madras had a relatively good results.

In the case of efficiency ratios consisting of two ratios viz., Debtor turnover ratio and inventory turnover ratio. The calculated value of H is 9.93 and 9.51 respectively were higher than the chi-square value which is 7.81. So the null hypothesis is rejected. Keeping in view the rejection of null hypothesis, the ranking shown in table-3 shows that Shree and Madras have an efficient performance in both the ratios comparatively to the Nagarjuna and Kesoram.

Result regarding the debt-equity ratio showed the calculated value of H is 4.65, which is lower than the chi-square table value that is 7.81. So null hypothesis is accepted. In all the four companies the average debt-equity is 1 and more than 1, where the maximum average debt-equity is 3.67, which belongs to Nagarjuna cements limited and minimum average debt-equity is of Shree cements, which is 1.
With respect to Fixed asset turnover ratio the null hypothesis was rejected. The results of ranking showed that again Shree cements occupied the first position, the average fixed asset turnover ratio of this is 4.23 and the minimum average fixed asset turnover ratio is 0.67, which belongs to Madras Company.

CONCLUSION

This study has brought to light that four identical firms in cement industry have performed well financially. It is evident that all the firms have not performed equally well in all fronts, except in case of solvency ratio. All the four companies have efficient management in debt-equity ratio financially and statistically. The performance of cement industry is constantly increasing due to the efficiency of the managements.

REFERENCES


Annexure 1

<table>
<thead>
<tr>
<th>Companies</th>
<th>2004</th>
<th>2003</th>
<th>2002</th>
<th>2001</th>
<th>2000</th>
<th>Average</th>
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</thead>
<tbody>
<tr>
<td>Nagarjuna</td>
<td>1.04</td>
<td>1.02</td>
<td>1.19</td>
<td>1.31</td>
<td>1.32</td>
<td>1.18</td>
</tr>
<tr>
<td>Shree</td>
<td>3.30</td>
<td>3.01</td>
<td>2.75</td>
<td>2.66</td>
<td>3.17</td>
<td>3.07</td>
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<td>Kesoram</td>
<td>2.51</td>
<td>2.06</td>
<td>2.24</td>
<td>2.58</td>
<td>3.04</td>
<td>2.49</td>
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<tr>
<td>Madras</td>
<td>1.70</td>
<td>1.90</td>
<td>1.80</td>
<td>2.00</td>
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<td>1.85</td>
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Source: Annual financial reports.
### Inventory Turnover Ratio of Selected Cement Companies

<table>
<thead>
<tr>
<th>Companies</th>
<th>2004</th>
<th>2003</th>
<th>2002</th>
<th>2001</th>
<th>2000</th>
<th>Average</th>
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<tbody>
<tr>
<td>Nagarjuna</td>
<td>3.94</td>
<td>4.10</td>
<td>3.98</td>
<td>3.47</td>
<td>3.05</td>
<td>3.70</td>
</tr>
<tr>
<td>Shree</td>
<td>10.32</td>
<td>9.36</td>
<td>12.89</td>
<td>15.97</td>
<td>3.05</td>
<td>11.16</td>
</tr>
<tr>
<td>Kesoram</td>
<td>7.71</td>
<td>9.04</td>
<td>8.79</td>
<td>7.38</td>
<td>8.39</td>
<td>8.26</td>
</tr>
<tr>
<td>Madras</td>
<td>12.98</td>
<td>8.96</td>
<td>10.70</td>
<td>9.35</td>
<td>NA</td>
<td>10.49</td>
</tr>
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</table>

Source: Annual Financial Report

### Debtor Turnover of Selected Cement Companies

<table>
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<tr>
<th>Companies</th>
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<th>2002</th>
<th>2001</th>
<th>2000</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagarjuna</td>
<td>6.07</td>
<td>7.76</td>
<td>7.27</td>
<td>4.95</td>
<td>4.16</td>
<td>6.04</td>
</tr>
<tr>
<td>Shree</td>
<td>20.41</td>
<td>17.78</td>
<td>17.61</td>
<td>13.58</td>
<td>8.41</td>
<td>15.55</td>
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<tr>
<td>Kesoram</td>
<td>7.80</td>
<td>9.04</td>
<td>8.73</td>
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<tr>
<td>Madras</td>
<td>16.00</td>
<td>11.09</td>
<td>14.48</td>
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<td>13.39</td>
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</table>

Source: Annual financial reports

### Debt-Equity Ratio of Selected Cement Companies

<table>
<thead>
<tr>
<th>Companies</th>
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<th>2003</th>
<th>2002</th>
<th>2001</th>
<th>2000</th>
<th>Average</th>
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</thead>
<tbody>
<tr>
<td>Nagarjuna</td>
<td>NA</td>
<td>2.56</td>
<td>2.87</td>
<td>5.04</td>
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<td>3.67</td>
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<tr>
<td>Shree</td>
<td>0.74</td>
<td>0.92</td>
<td>1.03</td>
<td>1.07</td>
<td>1.28</td>
<td>1.00</td>
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<tr>
<td>Kesoram</td>
<td>1.63</td>
<td>1.61</td>
<td>1.72</td>
<td>1.67</td>
<td>1.24</td>
<td>1.57</td>
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<tr>
<td>Madras</td>
<td>2.1</td>
<td>2.7</td>
<td>2.8</td>
<td>1.8</td>
<td>NA</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Source: Annual financial reports

### Fixed Asset Turnover Ratio of Selected Cement Companies

<table>
<thead>
<tr>
<th>Companies</th>
<th>2004</th>
<th>2003</th>
<th>2002</th>
<th>2001</th>
<th>2000</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagarjuna</td>
<td>0.78</td>
<td>0.79</td>
<td>0.84</td>
<td>0.85</td>
<td>0.81</td>
<td>0.81</td>
</tr>
<tr>
<td>Shree</td>
<td>4.26</td>
<td>4.34</td>
<td>4.30</td>
<td>4.12</td>
<td>4.71</td>
<td>4.23</td>
</tr>
<tr>
<td>Kesoram</td>
<td>2.74</td>
<td>2.35</td>
<td>2.14</td>
<td>2.21</td>
<td>1.24</td>
<td>2.13</td>
</tr>
<tr>
<td>Madras</td>
<td>0.73</td>
<td>0.63</td>
<td>0.70</td>
<td>0.64</td>
<td>NA</td>
<td>0.67</td>
</tr>
</tbody>
</table>
SECURITY ANALYSIS AND PERFORMANCE EVALUATION

*B.V.R. Naidu
**G. Grace

ABSTRACT

Security analysis is build around the idea that investors are concerned with two principal properties inherent in securities: the return that can be expected from holding a security, and the risk that the return is achieved will be less than the return that was expected. The primary purpose of this paper is to focus upon return and risk and how they are measured and evaluating the performance of the scrips based on the risk and returns.

The two key components that have emerged from this theoretical effort are Beta, which is a statistical measure of risk, and the Capital Asset Pricing Model (CAPM), which links risk (beta) to the level of required return. The total risk of an investment consists of two components: diversifiable and non-diversifiable risk. Diversifiable, or unsystematic, risk represents the portion of an investment's risk that can be eliminated by holding enough stocks. This risk results from uncontrollable or even random events that tend to be unique to an industry and/or a company. Non-diversifiable, or systematic, risk is external to an industry and/or business.

Sharpe, Treynor, Jensen and others have developed models for portfolio performance measurement that consider both risk and return and allow a set of portfolios to be ranked and compared to a native market standard. These models develop one number that reflects both risk and return in order to measure the performance of each portfolio and are based on the CAPM.

$$\text{Treynor's measure} = \frac{\text{Excess return}}{\text{Beta coefficient}} = \frac{(\bar{R}_i - R_f)}{\beta_i}$$

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Indian Journal of Accounting

Sharpe's measure = \frac{\text{Excess return}}{\text{Standard Deviation}} = \frac{(\bar{R}_i - R_f)}{\sigma_i}

Jensen's measure = \text{Excess return} - \text{CAPM return}
= \bar{R}_i - [R_f + \beta_i (R_m - R_f)]

OBJECTIVE OF THE STUDY

The study is aimed to measure the return and risk of shares of sample companies of selected industries and to analyse the performance of the shares of sample companies basing on the return and risk relationship.

SELECTION OF SAMPLE

The analytical part of the study is related to security form of investment particularly in shares and estimating the risk and return of these shares and evaluating their performance. The selection of units is made from shares listed in specified categories in NSE and BSE. The present study is limited to the Software industry, Pharma industry and Banking industry in private sector. In each industry three units are selected for this study. The data relating to these units are collected from 2000-01 to 2004-05 i.e., 5 years. The sample units selected under Software Industry are (i) Infosys Technologies Limited, (ii) Wipro and (iii) Satyam Computers Limited. The units selected under pharma industry are (i) Sun Pharma, (ii) Ranbaxy and (iii) Dr. Reddy's Labs. The units selected under Banking Sector are (i) ICICI Bank, (ii) HDFC Bank and (iii) UTI Bank.

RESEARCH METHODOLOGY

The study is based on the secondary data collected from sample units of the selected industries listed on BSE and National Stock Exchange. The data is collected from the published annual reports and websites like moneypore.com and www.bseindia.com. The study period covered 2000-01 to 2004-05.

EXPECTED RETURNS AND RISK OF SECURITIES OF SELECTED INDUSTRIES

The Average Returns on a security is calculated using the following formula:

Average return = \frac{\text{Closing price} + \text{Dividends} - \text{Previous closing price}}{\text{Previous closing price}}

The expected return is calculated by dividing the total returns during the study period by the number of years.
Table 1
Expected Returns and Risk of Securities of Selected Companies
(Average Return in %)

<table>
<thead>
<tr>
<th>Years</th>
<th>Software</th>
<th>Pharmaceutical</th>
<th>Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satyam</td>
<td>Infosys</td>
<td>Wipro</td>
</tr>
<tr>
<td>2001-02</td>
<td>14.94</td>
<td>27.98</td>
<td>-6.55</td>
</tr>
<tr>
<td>2002-03</td>
<td>-32.77</td>
<td>-27.46</td>
<td>11.05</td>
</tr>
<tr>
<td>2003-04</td>
<td>68.13</td>
<td>24.83</td>
<td>35.04</td>
</tr>
<tr>
<td>2004-05</td>
<td>40.89</td>
<td>50.31</td>
<td>83.39</td>
</tr>
<tr>
<td>Expected Returns (Ri)</td>
<td>22.79</td>
<td>18.92</td>
<td>30.73</td>
</tr>
<tr>
<td>S.D. (σ_i)</td>
<td>37.19</td>
<td>33.8</td>
<td>28.52</td>
</tr>
<tr>
<td>bi</td>
<td>0.85</td>
<td>0.28</td>
<td>0.27</td>
</tr>
<tr>
<td>CAPM Returns</td>
<td>18.89</td>
<td>10.74</td>
<td>10.88</td>
</tr>
</tbody>
</table>

Source: Compiled from the Data of moneypore.com

From the Table - 1 it can be observed that the returns on the software scrips are stable when compared to the returns of Pharmaceutical and Banking scrips. Among the selected scrips, UTI Bank has the highest expected return of 148.4 per cent with the highest standard deviation of 210 per cent, while Reddy Labs has the least expected return of 11.1 per cent. Among the Software companies, Wipro has the highest expected return of 30.73 per cent with the least standard deviation of 28.5 per cent, while Infosys has the least expected return of 18.9 per cent. Among the Pharma scrips, Sun Pharma has the highest expected return of 50 per cent with a standard deviation of 59 per cent while Reddy's labs is earning least return of 11 per cent with a standard deviation of 39.79 per cent, whereas Ranbaxy earned a marginal return of 31.38 per cent with the least standard deviation of 24.5 per cent.

Analysing the Banking scrips, it is found that the fluctuations in the average returns is very high, hence a higher standard deviation when compared to the other scrips. The highest standard deviation of 210 per cent is observed for UTI Bank shares with highest expected return, while the least standard deviation of 27 per cent is observed in the shares of HDFC Bank with least expected return. Beta coefficient, which measures the sensitivity of returns of individual securities with the market return is highest at 1.59 in case of Sun Pharma shares, followed by ICICI Bank shares. These are aggressive shares. The shares of Reddy labs and UTI Bank are having a negative beta indicating that the returns are moving in the opposite direction when compared to the market returns. All the Software shares are defensive shares as the beta is less than one.
The analysis of the expected return basing on the CAPM model, it is found that all the Software shares have been out performing the market. The expected returns of these shares are higher than the CAPM returns. Wipro has the highest expected return over the CAPM return. The Pharma shares, are also out performing the market as the expected return are higher than the CAPM returns. Of the pharma shares, Sun Pharma CAPM return is high when compared to the other companies. All the banking shares are also earning higher return than the expected CAPM returns. It is observed that UTI shares are earning better return than the other two banking shares. It can be concluded that all the shares of the selected industries are out performing the market and can be chosen to be included in the portfolio.

Table-2

<table>
<thead>
<tr>
<th>Company</th>
<th>Treynor's Measure $(\bar{R}_i - R_f) / \beta_i$</th>
<th>Rank</th>
<th>Sharpe's Measure $(\bar{R}_i - R_f) / \sigma_i$</th>
<th>Rank</th>
<th>Jensen's Measure</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saytam</td>
<td>18.64</td>
<td>VII</td>
<td>0.43</td>
<td>VII</td>
<td>3.9</td>
<td>IX</td>
</tr>
<tr>
<td>Wipro</td>
<td>44.33</td>
<td>III</td>
<td>0.42</td>
<td>VII</td>
<td>8.22</td>
<td>VII</td>
</tr>
<tr>
<td>Infosys</td>
<td>84.93</td>
<td>II</td>
<td>0.70</td>
<td>IV</td>
<td>19.85</td>
<td>IV</td>
</tr>
<tr>
<td>Sun Pharma</td>
<td>27.69</td>
<td>V</td>
<td>0.73</td>
<td>III</td>
<td>21.29</td>
<td>II</td>
</tr>
<tr>
<td>Ranbaxy</td>
<td>97.72</td>
<td>I</td>
<td>0.99</td>
<td>I</td>
<td>20.92</td>
<td>III</td>
</tr>
<tr>
<td>Dr. Reddy's</td>
<td>-83.0</td>
<td>VIII</td>
<td>0.10</td>
<td>IX</td>
<td>6.26</td>
<td>VIII</td>
</tr>
<tr>
<td>ICICI Bank</td>
<td>22.42</td>
<td>VI</td>
<td>0.56</td>
<td>VI</td>
<td>11.63</td>
<td>VI</td>
</tr>
<tr>
<td>UTI Bank</td>
<td>-288.1</td>
<td>IX</td>
<td>0.67</td>
<td>V</td>
<td>150.12</td>
<td>I</td>
</tr>
<tr>
<td>HDFC Bank</td>
<td>32.54</td>
<td>IV</td>
<td>0.79</td>
<td>II</td>
<td>12.02</td>
<td>V</td>
</tr>
</tbody>
</table>

Source: Compiled from the Data of moneypore.com

Table-2 represents the performance evaluation of the selected scrips of the selected industries basing on three measures. Basing on the Treynor's measure, it is found that Ranbaxy is the best security with the highest return per unit of risk viz., 97.7%. Infosys and Wipro occupies the second and third place respectively while Dr. Reddy's Labs and UTI Bank are ranked 8th and 9th respectively. It is also found that, the banking shares are not performing well. The industry wise analysis of the scrips reveals that Infosys is the best among the software shares, while Ranbaxy is the best among the pharma shares and HDFC Bank is the best among the banking shares. Basing on the Sharpe's index, it is observed that Ranbaxy is performing best followed by HDFC Bank and Sun Pharma in the second and third positions respectively. The results of Sharpe's index are consistent with the results of Treynor's in case of the best scrip. The results also reveals that the software shares are not performing well when compared to the other scrips as Satyam and Wipro are occupying the seventh and eighth positions. Reddy's labs performance is the worst and it occupies the last place in the ranking.
The results of Jensen's measure are quite different from the other measures. Basing on the Jensen's measure, UTI Bank is ranked No.1 and Sun pharma occupies the second place while Ranbaxy occupies the third place. Among the Software shares, Ifosys is performing well; among the Pharma shares Sun Pharma is doing well and in the Banking shares UTI Bank is the best performer. It is also observed that, basing on Jensen's measure, the banking industry is doing better than the software industry and the pharma industry giving opposite results when compared to the Treynor's and sharpe's measures. The result of Treynor's measure and Sharpe's measure are nearly consistent indicating that the unsystematic risk of the selected companies is low. The results of Jensen's measure are not consistent with the other measure because of the limitations in that method. Therefore, it can be concluded that among the sample units Infosys and Wipro from the Software industry, Ranbaxy from the Pharma industry and HDFC Bank from the Banking industry are performing well.

CONCLUSION

The performance evaluation of the selected companies shows that all the sample units are out performing the market as represented by BSE Sensex. The company analysis reveals that of the selected companies in the Software industry, Infosys is fundamentally strong when compared to Wipro and Satyam computers. In the pharmaceuticals industry the comparison of the financial performance of the selected companies shows that Sun pharma is fundamentally strong. In the Banking industry, it is found that HDFC Bank is fundamentally strong when compared to UTI Bank and ICICI Bank. The fundamental analysis also reveals the same. In the Pharmaceutical industry, Ranbaxy is found to be performing better. However, Sun Pharma is also performing better basing on Jensen's measure which is found to be fundamentally strong. HDFC Bank is observed to be performing well among the banking shares which is also fundamentally strong. Hence, it can be concluded that the fundamentally strong companies are performing well in the market.

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BUSINESS INTELLIGENCE IN INDIAN BANKING SECTOR

*M.C. Sharma

ABSTRACT

In recent years, globally the banking industry has evolved dramatically, driven by changes in the business and economic environment, in legislation, in competitive pressures and in enabling technologies. With a wide variety of asset and liability products, insurance and investment products, banks need to anticipate and satisfy the changing needs of their customers. More than ever, banks need better understanding of key indicators and best practices for decision making in all areas of operations. In today's demanding marketplace, leading financial institutions have no way to differentiate themselves except by taking advantage of the information locked up in their enormous volumes of data from transactions, daily operations and demographics. The paper analyses this issue.

The Enterprise Data Warehouse and Business Analytics have helped banks to keep IT costs under control. While data volumes have grown enormously, the resources needed by the MIS department to maintain the systems have not increased. Today, using the Credit Risk Reporting and Analysis functionality of the Enterprise Data Warehouse, Bank's Retail Assets Business could make policy decisions related to Delinquency Management, NPA monitoring, Branch & Product performance and collection management. More than ever, banks need better understanding of key indicators and best practices for decision making in all areas including Customer acquisition and retention, identification of cross and up selling opportunities and Sales and service improvement.

For information systems, there has been a major change that has happened since liberalization. Where the pre-liberalization period has seen banking just serving as the financiers to government, the information systems were manual and very slow and virtually there was no information exchange between branches and their Head Offices. In post liberalization era since early nineties, banks have undertaken IT adoption as a major exercise and has worked towards restructuring the whole information systems. The emphasis has been on improvement in

*Associate Professor, Department of Accountancy & Business Statistics, University of Rajasthan, Jaipur.*
efficiency, productivity and profitability. Cost reduction, improved customer service and new differentiated financial services and products have been the main focus of banks. Banks need to turn from being product and process centric organizations to customer centric organizations.

In the post-liberalization era, a growing economy and entry of foreign competitors made Indian banks appreciate the value of timely and reliable data for decision support systems. The need as now was never compelling enough for the Indian Banking industry to utilize technology as a tool to respond to this increased global competition and to achieve their bottom line goals. Banks have the constant need to rapidly respond to market changes, cost-efficiently manage the operations and to become customer centric.

In India, Banking Industry per se has been an early and fastest IT adopter in the country. For consolidated reporting from an integrated data source, banks, both in public and private sector, are now making huge investments in Core Banking Solutions. Banks stand to gain substantially by integrating all their delivery channels. By collating information from different products and services they get a single, unified view of the customer, thus enabling them to offer higher levels of service and customized products. Yet, the invaluable information and knowledge hidden in this data would need to be extracted to enable banks to generate intelligence and improve their operational efficiencies and decision making.

In spite of all this heavy spending by banking sector, still a large number of rural and small cooperative banks are not fully computerized. This offers a great opportunity for TBA software vendors even now, who provide a very cost effective automation solution to banks and also integrate and consolidate the branch data at HO at a very reasonable cost. But with the advent of multi channel business processes like ATM, Online banking, Anywhere Banking etc. banks at one stage will have to move to Core Banking products to enable data consolidation for better MIS at HO and improved customer service.

NEED OF BI

The need for consolidated reporting has always been felt by all banks. In one large PSU bank at present, the quarterly MIS reports on asset account are just not enough to provide complete information. Besides, liability accounts are equally important to be analyzed. Latency of a quarter makes for only static reports that are largely inaction-able. BI is being sought as the enabling technology to reduce this latency to a week or a day, covering the whole gamut of asset and liability products, giving the complete picture for decision makers to take timely corrective actions.

Another area to be addressed by BI is ALM analysis that would provide deeper insights into deposit renewal patterns and historic trends of loan repayments to enable improved cash flow management and precise predictions on cash requirements. Profitability analysis of customers, products and channels is next feature leading to right pricing strategies. Banks could identify their top ten profitable or bottom ten loss making customers and accordingly decide on
their service levels. Unified view of the customer and segmentation based on demographic and psychographic factors enable designing effective marketing campaigns and to target the right customers, resulting in huge cost savings and enhanced ROI on marketing investments.

Risk mitigation models, credit risk scoring, fraud detection and anti-money laundering are another set of areas that could effectively be managed by BI technologies. The RBI has been pressing banks about the issues relating to Basel-II. The focus is on risk management and developing measures to mitigate the credit, operational and market risks. BI technologies provide the platform for development of such models and effectively deploying the technology to support these compliance needs of the banking industry.

BI AND ANALYTIC SYSTEMS

Since the days of computerization started, banks have been continuously improving on their business processes and trying to build efficiencies and staff productivity. Cost control has been major focus to reduce costs. From Total Branch Automation (TBA) solutions, banks moved to Core Banking Solutions (CBS) to enable online and anywhere banking. In the process consolidation of data on CBS branches could be made possible for MIS reporting. To improve MIS systems, banks started getting TBA data also consolidated at HO for relatively lower cost. That effectively made available a higher percentage of the bank branches' data for improved MIS reporting. Banks which have completed this exercise are now looking for getting more information from their data and are implementing BI applications.

But in the process of fast and piece meal approach towards IT implementation, data integration, data cleansing and parsing became the biggest challenge for the banks. Most of the large banks are facing this problem and in order to over come it, they are going in for Data Warehousing (DWH). Other smaller banks who can not afford the huge costs involved in DWH implementations may opt for reporting from centralized Operational Data Sources (ODS), which offers a much cheaper option for consolidated MIS and BI implementation through building Data marts from the ODS directly. There are BI vendors who offer complete suite for implementing enterprise wide BI right from the ODS or any other centralized databases.

Normally a separate infrastructure is setup by companies for BI applications because the existing setup of lease lines and server capacities are kept available for faster transaction processing. For smaller and mid sized banks, BI application could run during the lean hours but for bigger banks, a separate BI infrastructure including networking, lease lines, server hardware and softwares is recommended for faster data loading, processing and efficient reporting. Let us now discuss the various components of the BI system that would be required by any bank to implement Business Intelligence and Analytics solution across the bank.

Once the data is gathered and staged at the central site in an ODS from various isolated systems, it is loaded and mapped into the multi dimensional data structure of the OLAP processor of the BI application. Based on the users analytical requirements, a suitable multi dimensional
model is designed and built in the BI application to arrange and aggregate the loaded data such that it gets converted into multi dimensional formats and becomes ready for analyzing, querying and reporting.

HARDWARE SYSTEMS

BI applications work in a client server environment. The technology involved is based on Service Oriented Architecture (SOA) made possible by the latest development platforms like Dot Net framework by Microsoft. Depending on the size of data and number of users involved, suitable architecture is designed. A medium sized bank with 300 to 1000 branches would have to setup a separate server each for the Database, OLAP application and web based application components and reports. Data storage racks would be required separately depending on the size of historic data to be maintained. Number of users would decide the processing power of the web and database server which in the given case could be Xeon single processor. Other server configurations also depend on the processing speeds and performance desired.

For Networking infrastructure high speed internet connectivity lease line between various offices of the bank with the speed of 1 to 2 Mbps is required for reasonable performance. Thin or fat clients specifications are normal desktops on Pentium and windows operating systems like XP Professional or 2000 professional for users to access the reports.

SOFTWARE SYSTEMS

Operating systems for servers are either Microsoft Server 2003 or Windows NT. There are Unix based servers also provided by Sun Microsystems.

Database software suitable for the purpose are Microsoft SQL server 2005, Oracle and DB2 by IBM. Some complete packages for DWH solutions are offered by Teradata and Netezza including hardware and softwares.

ETL tools are required for extraction, transformation, cleansing, parsing and loading the data into the BI application databases. Informatica is a leading vendor for ETL tools. Microsoft provides built in ETL utility with its database named Data Integration Services.

The key component of any BI application is the OLAP engine. There are some pure play BI vendors who provide these OLAP tools. Few world leaders are Hyperion, Cognos, Business Objects, Micro Strategy and SAS. Some tier 2 BI vendors like TechAxes provide low cost OLAP tools as well. Then there are large number of BI companies like Outlooksoft, Pilot, Geac etc. who have built there solutions on Microsoft OLAP platform.

BI vendors like SAS and SPSS provide a powerful Data mining and Statistical tools for exploring historical data to identify trends and patterns, doing various statistical modeling like regression analysis, correlation or time series analysis etc. SAS is a leading vendor in this segment who has complete BI suite also to offer.
Reporting solutions are offered by Crystal Reports of Business Objects and Microsoft Reporting Services. Other BI vendors also have their reporting solutions that are tightly integrated with their BI applications.

Finally, all BI vendors have developed their own point solutions for various BI needs of banking sector like Financial Performance Reporting and Analysis, Analytical CRM, ALM analysis, Risk Scoring models, Anti Money Laundering and Fraud Detecting softwares. With little customization, these point solution could be deployed for any bank at a very fast pace.

CONCLUSION

With the first level of automation like core banking implementation, Indian banks now need to spend in BI technologies that would turn data into information leading to deeper insights into their performance. This calls for widespread adoption of business analytics, including business intelligence tools which are likely to be integrated with existing processes. While RBI, ICICI Bank, HDFC Bank, IDBI Bank, LIC and Standard Chartered Bank have already gone for BI implementation in 2003, many more like Punjab National Bank, Bank of Baroda are slated to follow suit this year.

Leading technology enablers have come up with state-of-the-art solutions to address most of the analytic challenges discussed here. Even though, these packaged products are fairly exhaustive in terms of functionality and scalability, these are yet to be seen as "one size fits all" type of solution across the banking industry. These products need to undergo a moderate to exhaustive amount of customization exercise to fit the requirements of individual banking organizations.

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MEASUREMENT OF INTELLECTUAL CAPITAL:
A STUDY OF SELECT COMPANIES

*Prashanta Athma
**K. Srinivas

ABSTRACT

Intellectual Capital of a firm is, its possession of knowledge, applied experience, organizational technology, customer relationships and professional skills that provides it with a competitive edge in the market. Traditional accounting measures do not describe where the changes in the organization need to occur. They only describe what happened in the past. For recognizing this, several forward thinking companies have started measuring Intellectual Capital. The present study is undertaken to measure the value of Intellectual Capital of INFOSYS, SATYAM COMPUTERS and Dr. REDDY'S LABORATORIES and to analyze the reasons for fluctuations in the value of Intellectual Capital of these companies. The study is based on Secondary data taken from INFOSYS, SATYAM COMPUTERS and Dr. REDDY'S LABORATORIES financial reports from 2002-03 to 2004-05. Market Capitalization Method/Market Value Added Approach is adopted for measuring Intellectual Capital.

Intellectual Capital = Market Value of a Company - Net worth

It may be concluded that the innovative Indian companies are spending a lot on product development and innovation, but still, Indian companies should have a better understanding of how intellectual capital is created and believe that "experience is the best teacher".

Intellectual Capital of a firm is, its possession of knowledge, applied experience, organizational technology, customer relationships and professional skills that provides it with a competitive edge in the market. It is the intellectual material - knowledge, information, intellectual property and experience that can be put to use to create wealth.

The particular focus is to measure the organization's Intellectual Capital, so that the contributions of intangibles to the business are measured in their own right. If the measurements
are feasible in practice, they will render the tangible as well as intangible assets of a company to be managed explicitly.

If we have a look at contemporary balance sheet, we would invariably find an entry under the sub heading of goodwill. Traditional accounting measures do not describe where the changes in the organization need to occur. They only describe what happened in the past. For recognizing this, several forward thinking companies have started measuring Intellectual Capital.

MEASUREMENT OF INTELLECTUAL CAPITAL

- validates the organization's ability to achieve its goals.
- helps the company to understand what competitive advantages it truly has for value extraction.
- provides the background information for re-engineering and downsizing programmes.
- assesses the value of enterprise in a standardized way.
- expands the organization memory.
- Intellectual Capital audit can provide an in-depth knowledge of intangible assets of an organization that will allow better comparison and learning.

Identification of key resources and individuals allows their proper utilization and avoids duplication of the effort in re-inventing those resources and skills. In this context, the present study is undertaken with the following objectives:

- To measure the value of Intellectual Capital of INFOSYS, SATYAM COMPUTERS and Dr. REDDY'S LABORATORIES.
- To analyze the reasons for fluctuation in the value of Intellectual Capital.

METHODOLOGY

- The study is based on Secondary data taken from three companies' financial reports from 2002-03 to 2004-05.
- INFOSYS, SATYAM COMPUTERS and Dr. REDDY'S LABORATORIES are selected to ascertain the value of Intellectual Capital as they are knowledge-based companies and they are among BSE 30 INDEX.
- Market Capitalization Method / Market Value Added Approach is adopted for measuring Intellectual Capital.

According to Morgan Stanley's World Index, the average value of the companies on the world's stock exchanges is two times of book value and this can be attributed to Intellectual Capital that companies possess.

For many service intensive and knowledge intensive companies, generally, the market value is more than the book value.
If we think as to what makes the difference, it is absolutely Intellectual Capital only. Intellectual Capital is nothing but the combined intangible assets that enables a company to function in a passionate way and simply we can call it as "packaged useful information". This information is completely knowledge-based information. We can identify it with employees and all human resources.

Of the various methods, "Market Value Added" (MVA) approach is the easiest method through which we can calculate the accurate Intellectual Capital. It is the part of market capitalization method and most eminent researchers accept this method.

\[
\text{Intellectual Capital} = \text{Market Value of a Company} - \text{Net worth}
\]

Market Value of a Company = No. of Shares \times \text{Market Price per Share}

Net worth = \text{Equity} + \text{Reserves}

### Table I

**Intellectual Capital of Select Companies**

(Rs. in Crores)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>31-3-2003</th>
<th>31-3-2004</th>
<th>% change over last year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infosys</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market value</td>
<td>26,847.33</td>
<td>32,909.00</td>
<td>22.58</td>
</tr>
<tr>
<td>Book value</td>
<td>2,860.65</td>
<td>3,253.00</td>
<td>13.12</td>
</tr>
<tr>
<td>Intellectual capital</td>
<td>23,986.68</td>
<td>29,656.00</td>
<td>23.64</td>
</tr>
<tr>
<td><strong>Satyam Computers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Value</td>
<td>25,651.95</td>
<td>40,802.38</td>
<td>59.06</td>
</tr>
<tr>
<td>Book Value</td>
<td>2,134.87</td>
<td>2,580.76</td>
<td>20.89</td>
</tr>
<tr>
<td>Intellectual Capital</td>
<td>23,517.08</td>
<td>38,221.62</td>
<td>62.52</td>
</tr>
<tr>
<td><strong>Dr. Reddy's Laboratories</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Value</td>
<td>69,821.00</td>
<td>87,124.00</td>
<td>24.78</td>
</tr>
<tr>
<td>Book Value</td>
<td>18,873.00</td>
<td>21,070.00</td>
<td>11.64</td>
</tr>
<tr>
<td>Intellectual Capital</td>
<td>50,948.00</td>
<td>66,054.00</td>
<td>29.65</td>
</tr>
</tbody>
</table>

The growth in intellectual capital of Infosys may be attributed to better technology in production reducing the total cost of production, increased demand for shares because of increasing goodwill leading to ultimate increase in market value, great customer loyalty and introduction of innovative products.
The growth in market value of Satyam is due to increase in share prices which may be due to innovative techniques adopted to utilize the maximum human resources and due to overall growth in customer loyalty and employee loyalty.

The growth in intellectual capital of Reddy Labs may be the result of introduction of innovative outputs which is the result of increased expenditure on R&D, retention of existing customers and attracting global customers by expanding its global activities to different continents.

Of the three companies, the percentage increase in intellectual capital is very high (62.52%) in case of Satyam Computers. However, in absolute terms, the intellectual capital of Dr. Reddy Labs is higher than the other two companies. Infosys stands in the third position, both, in absolute terms as well as in terms of percentage increase in intellectual capital.

WHEN IT COMES TO THE CURRENT SCENARIO, THE POSITION IS REVERSED.

Infosys's intellectual capital is much higher than the other two companies, both, in absolute terms and % increase over last year and because of this reason, Infosys stood at 5th position in BSE-30 INDEX in Market Capitalization. Satyam's intellectual capital in last year was 38,221 crores, but in current year, it has come down to 19,309 crores, a decline of 49.48% because of which reason Satyam stood at 20th place in BSE-30 INDEX. In case of Dr Reddy's Labs also, intellectual capital has come down, a 34.41% fall when compared to last year and it is nowhere in top 25. But, it is among 30 of BSE INDEX.

CONCLUSION

The innovative Indian companies are spending a lot on product development and innovation, but still, Indian companies should have a better understanding of how intellectual capital is created and believe that "experience is the best teacher".

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CONVERGENCE OF ACCOUNTING STANDARDS

*N.C. Tripathi
**Manish Shah

ABSTRACT

Accounting is the language of business. It serves as a means of communication of business information to various stakeholders. Accounting has been regarded as an art, as a process and as a service activity. It provides informations on which external and internal users may base their decisions. Accounting includes budgeting, strategic planning, cost analysis, auditing, income tax preparation, performance measurement, evaluation, control, preparing managerial reports for decision making etc. The paper makes an attempt to understand the issues related to convergence of accounting standards.

The use of the word 'Standard' in place of 'Principles' came into practice at the end of 1969, when British Accounting Standards Steering Committee was set up. Americans adopted the same term (standard) in 1973. In India this term has mainly become popular since the formation of 'Accounting Standards Board' (ASB) in April 1977 by the 'Institute of Chartered Accountants of India' (ICAI). The term accounting standard, refers to accounting guidelines to specific issues in financial accounting and reporting. Accounting standards are uniform rules for financial reporting. They are seen as a system of measurement and disclosure. They also draw the boundaries with in which acceptable conduct lies and in many other respects, which are similar in nature to laws. Accounting standards can thus be seen as a technical response to calls for better financial accounting and reporting; or as a reflection of a society's changing expectations of corporate behaviour and a vehicle in social and political monitoring and control of the enterprises.

Accounting standards are regarded as a major component in the accounting framework and reporting practices. These improve the credibility and reliability of financial statements. The main aim of accounting standards is to protect users of financial statements by providing them with informations in which they have confidence. Accounting standards are beneficial

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not only to the business enterprises but also to the accountants and auditors as well. These also facilitate in determining specific corporate accountability and regulation of the company and reforms in accounting theory and practice.⁴

ACCOUNTING ENVIRONMENT AND INTERNATIONAL ACCOUNTING STANDARDS (IAS)

Accounting environment has a great influence on accounting structure and process. "It covers the entire administration / management of information for socio-economic activities and conditions in both micro and macro economic sectors, covering internal and external information needs of interested groups. A clear analysis and assessment of this accounting environment is of prime importance". The accounting environment of developed, developing and under developed economies is quite different due to economic, social, legal, political and other environmental changes.

The nature of financial reporting to external users has caused much concern since 1960. For the sake of uniformity and comparability of financial reports, governments in many countries have prescribed legal format, for preparing financial statements. The International Accounting Standards Committee (IASC). International Federation of Accountants (IFAC) and European Union (EU) have made serious attempts towards harmonization of financial reporting. Accounting is a social science. Its principles are man made and concepts are rooted in the value system of the society in which they operate. Hence there is a lot of controversy regarding the measurement and reporting of economic and social events. 'A study in India on inflation accounting practices revealed that only 6 percent companies were reporting the inflationary effects in their financial statements"⁵. The Generally Accepted Accounting Principles (GAAP) are a guide to accounting professionals. These also change in response to change in the components of accounting environment. "The growth of international trade, particularly international money market, following world war II accelerated the internationalization of public accounting, consequently the development of an international structure for the accounting profession also began after world war II,"⁶.

CONVERGENCE OF ACCOUNTING STANDARDS

The arrival of international standards has heralded a way to achieve consistency and conformity of financial reporting across the world. Almost all the developed and developing countries have their accounting standards. Some of the countries have adopted the IASC standards as national standards while others have made them, a basis for developing their own standards. There are minor differences in standard setting machinery or enforcement of standards in various countries. At the international level International Accounting Standards Committee (IASC) has been created on June 29, 1973, to formulate and publish, in the public interest basic standards to be observed in the presentation of audited accounts and financial
statements and to promote their world wide acceptance and observance. Countries having their own accounting standards, give due consideration to International Accounting Standards issued by IASC and integrate them to the extent possible, in the light of applicable laws, customs, usages and business environment in the country. In India, 'Institute of Chartered Accountants of India' (ICAI) constituted 'Accounting Standards Board' in 1977. The main function of ASB is to formulate Accounting Standards (AS). The ICAI is one of the members of IASC and has agreed to support the objectives of IASC.

Accounting standards should aim at reducing diversity in accounting and reporting practices in different countries. But use of different accounting standards by various countries and time gap in issuing accounting standards for corresponding IAS, has caused failure in the achievement of the said objectives. In India this time gap has been minimum 3 years (As 9, AS 10, AS 20) to maximum 22 years (AS-22). In view of the globalization of the economy and internationalisation of business firms, adoption of uniform standards has become imperative "A debate has been taking place in accounting circles for long on whether small business have to meet the same rigorous requirements of the US GAAP as the larger ones. Now with professional bodies progressing towards global convergence of accounting standards, the debate is swinging in favour of compliance by all business entities, irrespective of their size".

WHY CONVERGENCE?

Convergence of accounting standards is gaining importance among accounting circles. There are pressures in favour of convergence of accounting standards. The main objective of convergence of accounting standards is to have an uniform set of accounting standards, which should be used by all the countries of the world. But the question is that: is it necessary? if yes, then why? Convergence of accounting standards has been advocated due to following reasons:

1. Globalization and growth of multinational companies;
2. Increasing foreign investment;
3. Growth of international markets;
4. Business process outsourcing;
5. Growth of International auditing firms;
6. Uniformity in reporting to interest groups (enhanced comparability of investment targets) i.e. tax authorities, investors, researchers.

Convergence of accounting standards is the need of the hour, for the purpose of maintaining the uniformity in accounting and reporting practices. After the convergence of accounting standards accounting professionals and practitioners would have an uniform set of accounting standards. Worldwide one practice would be there, financial reports would be comparable, giving same results and it would pave a path for the development of a global capital market.
6. OBSTACLES IN CONVERGENCE

Before the convergence of accounting standards, adoption of and compliance with international accounting standards has faced many obstacles. The concept of convergence is one step ahead than adoption of and compliance with IAS. This is also facing many obstacles. Some of these obstacles are:

1. Tax laws in all countries are not same, these are according to economics, social and political environment of the countries.
2. Disclosure laws / Laws regulating financial reporting to share holders and common public are different.
3. Existence of national standard is also an obstacle in the way of convergence. As soon as there are national standards, national position becomes entrenched, and it is difficult to exchange the position for one that is considered second rate. National standard, setters also give due importance to the feelings and environment the country.
4. Superiority complex is another problem in the way of convergence of AS. It is found greatly in the developed countries. These countries are of the view that their accounting standards are best in the world, so they are reluctant to change them. There are many issues, on which the conclusions are not same. The impairment of assets to be held and used including intangibles and goodwill is one of the most significant issues debated by IASB (IAS36) and FASB (FAS144) were same, but the conclusions they reached were quite different.
5. "Nationalism, egoism and pride also impede progress. The French would like to have new global system patterned after the French system."  
6. Convergence may not be securing world wide acceptance due to differences in economic, social and political environment, where accounting has to play a big role.
7. Diverse accounting practices is another difficulty which has caused wide divergence in worldwide accounting practices. These practices are justified in the context of national environment. Gaps between developed and developing countries is also an obstacle in the convergence "Instead of recognising the inadequacies of the UK and US system and attempting to make it more relevant and integrated, UK and US accountants are gradually imposing that outmoded system upon developing countries".  
8. Some countries may have doubts and fear that, will adopting international accounting standards always achieve the benefits?

"So while convergence remains an admirable intention, and one that some consider an "absolute necessity' of a global economy, it is not likely that the entire world will be singing from the same song sheet any time soon, not even for filings between the EU and the US worldwide convergence is a process that will take time and commitment and a willingness for standard setters to work together to remove differences. In the meantime, preparers, users and auditors need to be aware that when it comes to international accounting, "Convergence" doesn't always converge!"
CONCLUSION

Accounting, the language of business has served as a means of communication to various stake holders. Accounting standards are regarded as a major component in the accounting frame work and reporting practices. Accounting standards improve the credibility and reliability of financial statements. Most of the developed and developing countries have their accounting standards and International accounting standards are used as a basis for developing their own standards aim at reducing diversity in accounting and reporting practises in different countries. In view of the globalization of the economy and internationalization of business firms, adoption of uniform international accounting standards has become an imperative necessity. For this purpose convergence of accounting standards is in debate throughout the world. Convergence of accounting standards does not seem to be easily achieved as there are may obstacles in the way. Achievement of the objectives of convergence will take time and commitment and willingness for standard setters to work together to remove differences. The most positive achievement over the past few years is that the importance of convergence of accounting standards is felt by all the countries and they have started taking the issue seriously.

REFERENCES

CORRELATES OF NPAS AND PERFORMANCE OF BANKS

*T. Vannirajan

ABSTRACT

The problem of non performing assets is more in Public Sector Banks as compared to other banks. NPAs have a direct impact on a banks profitability, liquidity and equity. The present paper makes an attempt to evaluate the impact of NPAs on the performance of banks with the help of regression analysis. The data on NPAs and other relevant performance measures from 1992-2002 is used for the analysis. The impact study concludes that the effective management of NPAs is essential to speed up the growth of profitability of PSBs. For that, the Government is advised to use the PSBs as a vehicle of social welfare but not at the cost of PSBs.

The severity of the incidence of Non-Performing Assets (NPAs) in Indian PSBs, noted in the early 1990s, raised a severe hue and cry in various quarters. Infact, the problem of NPAs is started much earlier, which became evident from recapitalization of many PSBs since 1985-86. The problem of NPAs is more in PSBs as compared to private sector banks and foreign banks. The operating profit of PSBs in March 2001 was Rs.13,793 crores against Rs.5,628 crores in 1995. Like wise, the net profit rose from Rs.1116 crores to Rs.4,317 crores. The capital adequacy ratio also showed considerable improvement during the same period from 9.46 per cent to 11.18 per cent. But the gross NPA also rose from Rs.39253 crores in 1993 to Rs.54086 crores in 2003. The earning capacity and profitability of many banks and financial institutions has been adversely affected by the high level of NPAs. Thus reduction of NPAs is posing the biggest challenge to banks in the Indian economy. NPAs in banks affects the liquidity, profitability and equity of the commercial banks. Hence, the present study elucidate the magnitude of NPAs and their relationship with the performance of the banks namely profitability and productivity.

OBJECTIVES OF THE STUDY

The present study is conducted to examine the impact of independent variables on the profitability of PSBs and to analyse the impact of NPAs on productivity and profitability of PSBs.

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RESEARCH METHODOLOGY

The study is focused on all twenty seven PSBs including nineteen Nationalised banks, State Bank of India and its seven subsidiaries which account for maximum banking transactions in India. The data from 1992 to 2002 are used to study the impact of NPAs on performance of commercial banks. To evaluate the impact of NPAs on profitability and productivity, the simple regression analysis was used. At the same time, to analyse the impact of independent variables on banks' profit, the multiple regression analysis was administered. The Ordinary Least Square (OLS) method had been applied to find out the regression co-efficients of independent variables, its statistical significance, co-efficient of determination and the F-statistics.

RESULTS AND DISCUSSION

The dependent variables included are profit per employee and profit per branch whereas the independent variables included Gross NPAs of the PSBs. The fitted regression model is

\[ Y_1 = a + b_1 X_1 + e \ldots (1.1) \]

Whereas \( Y_1 \) = Profit per employee

\[ X_1 = \text{Gross NPAs} \]

\( b_1 = \text{Regression co-efficient} \)

\( a = \text{Intercept and} \)

\( e = \text{error term} \)

\[ Y_2 = a + b_2 X_1 + e \ldots (1.2) \]

Whereas \( Y_2 \) = Profit per branch

\[ X_1 = \text{Gross NPAs} \]

\( b_2 = \text{Regression co-efficients} \)

\( a = \text{Intercept and} \)

\( e = \text{error term} \)

The impact on profitability is measured under two different dimension namely profit with respect to employee and branch. The resulted regression co-efficients of the Gross NPAs are shown in Table 1.

Table 1
Impact of NPAs on Profitability

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Regression co-efficients</th>
<th>Profitability Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regression estimate</td>
<td>Profit per employee  -0.0086  Profit per branch -0.0013</td>
</tr>
<tr>
<td>2.</td>
<td>Standard error</td>
<td>Profit per employee  -0.0017  Profit per branch  0.0003</td>
</tr>
<tr>
<td>3.</td>
<td>T-statistics</td>
<td>Profit per employee  5.0588  Profit per branch  4.3333</td>
</tr>
<tr>
<td>4.</td>
<td>P value</td>
<td>Profit per employee  0.0006  Profit per branch  0.0017</td>
</tr>
<tr>
<td>5.</td>
<td>Constant</td>
<td>Profit per employee  -2.1302  Profit per branch -29.838</td>
</tr>
<tr>
<td>6.</td>
<td>R²</td>
<td>Profit per employee  0.7505  Profit per branch  0.7392</td>
</tr>
<tr>
<td>7.</td>
<td>F-statistics</td>
<td>Profit per employee  27.0666*  Profit per branch  25.51934*</td>
</tr>
</tbody>
</table>

*Significant at 5 per cent level.

As expected, non-performing assets and the profitability have negative relationship. Even though the magnitude of that relationship is low, the relationship is statistically significant.
The non-performing assets explain 75.05 per cent of variations in profit per employee and 73.92 per cent of variation in profit per branch. The regression co-efficients of gross NPA reveals that a unit increase in Gross NPA results in a decrease in profit per employee by 0.0086 unit whereas it results in a decrease in profit per employee by 0.0013 unit. The higher constant values indicate the loss per employee and loss per branch even when the effect of NPAs is nil. It indicates the impact of several other causes on the profitability of PSBs.

**IMPACT ON PRODUCTIVITY**

In order to analyse the impact of NPAs on the productivity of PSBs, the productivity indicators namely business per employee and branch are taken into account. The impact of NPAs on business per employee and branch are measured separately. The fitted model is

\[
Y_1 = a + b1 X1 + e \ldots (2.1) \\
Y_2 = a + b2 X1 + e \ldots (2.2)
\]

Whereas \(Y_1\) = Business per employee  
\(Y_2\) = Business per branch  
\(X_1\) = Gross NPAs  
a = Intercept and  
e = error term

The resulted regression co-efficients are presented in Table 2.

**Table 2**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Productivity measures</th>
<th>Business Per Employee</th>
<th>Business Per Branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regression co-efficient</td>
<td>-0.0147</td>
<td>-0.1515</td>
</tr>
<tr>
<td>2.</td>
<td>Standard error</td>
<td>0.1231</td>
<td>0.6105</td>
</tr>
<tr>
<td></td>
<td>T-statistics</td>
<td>-0.1194</td>
<td>-0.2482</td>
</tr>
<tr>
<td></td>
<td>P-Value</td>
<td>0.6064</td>
<td>0.4802</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>232.5544*</td>
<td>266.3321*</td>
</tr>
<tr>
<td></td>
<td>R2</td>
<td>0.1891</td>
<td>0.2549</td>
</tr>
<tr>
<td></td>
<td>F-statistics</td>
<td>1.7791</td>
<td>3.8251</td>
</tr>
</tbody>
</table>

*Significant at 5 per cent level.

Results revealed that non-performing assets have negative relationship with productivity in terms of business productivity indicators. The NPAs explains only 18.91 and 25.49 per cent of variations in business per employee and business per branch respectively. It reveals that the credit and deposit behaviour are not influenced by the NPAs of PSBs. The influence of NPAs is lesser and it is also statistically not significant. The only significant variable is constant. It indicates the influence of other variables except NPAs on the productivity of the banks.
NPAS AND PROFITABILITY

Since the NPAs is one of the factors that may adversely affect the profitability of banks, an additional attempt is made on the inclusion of few more independent variables. The independent variables included are Gross NPAs, spread, priority sector advances, credit deposits ratio and operating expenses since these five variables are covering five different dimensions in banking activities. Based on the above, the following regression equation was developed.

\[ Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e \]

Whereas

- \( Y \) = Net profit
- \( X_1 \) = Gross NPAs
- \( X_2 \) = Spread
- \( X_3 \) = Priority sector advances
- \( X_4 \) = Credit deposits ratio
- \( X_5 \) = Operating expenses
- \( b_1, \ldots, b_5 \) = Regression co-efficient
- \( a \) = Intercept and
- \( e \) = error term

The result of multiple regression analysis is shown in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Independent Variables</th>
<th>Regression Co-efficient</th>
<th>Standard Error</th>
<th>T-statistics</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gross NPAs</td>
<td>-0.1927</td>
<td>0.0498</td>
<td>-3.863</td>
<td>0.0006</td>
</tr>
<tr>
<td>2.</td>
<td>Spread</td>
<td>1.1943</td>
<td>0.2254</td>
<td>5.3002</td>
<td>0.0000</td>
</tr>
<tr>
<td>3.</td>
<td>Priority sector advances</td>
<td>-0.0986</td>
<td>0.02410</td>
<td>-4.0913</td>
<td>0.0417</td>
</tr>
<tr>
<td>4.</td>
<td>C:D ratio</td>
<td>0.3891</td>
<td>0.1171</td>
<td>3.3228</td>
<td>0.0048</td>
</tr>
<tr>
<td>5.</td>
<td>Operating expenses</td>
<td>-0.5116</td>
<td>0.2037</td>
<td>2.5115</td>
<td>0.0319</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-1641.71</td>
<td>8839</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 5 per cent level.

The five independent variables explain the change in net profit of PSBs to the extent of 88.39 per cent. All the five variables have a significant impact on the net profit of the PSBs. A unit increase in Gross NPAs result in a decrease in net profit of the PSBs by 0.1927 units whereas the increase in priority sector advances result in a decrease in net profit by 0.0986 units. The
magnitude of operating expenses is highly adverse on the net profit since its regression coefficient is -0.5116. At the same time, the increase in spread and C:D ratio result in an increase in net profit by 1.1943 and 0.3891 unit respectively. It reveals that the meaningful business (which gives more net interest margin) in banking will result in more net profit when the NPAs and operating expenses are within the control of the PSBs.

CONCLUSION

This paper exclusively analysed the impact of NPAs on the profitability of PSBs. The results showed that the negative impact of NPAs on the profit of the PSBs was statistically significant. At the same time, the negative impact of operating expenses and priority sector advances were also identified as significant. It shows the combined effect of these three elements on the profit of the PSBs. But the spread and C:D ratio showed a positive and significant impact on profit of PSBs. It also reveals that the behaviour of depositors and loaners are not affected by the NPAs of PSBs. All these impacts have an inference that the net profit of the PSBs can be easily lifted when the PSBs are effective in the management of NPAs and operating expenses. Government may use PSBs as a vehicle of social welfare but not at the cost of the PSBs. The twin objectives namely profitability and social welfare should be properly trade off by the banks in order to make the banking activities as more meaningful in India.

REFERENCES


A national seminar was organized on the theme entitled here above on January 28-29, 2006 at Jodhpur. The outcome of the efforts may be summarized in the following points for the benefit of all readers:

- There are research avenues in profit management and finance, auditing and taxation in general and in the SMEs, Dairy, Poultry, Fisheries sectors in particular.
- Financial Analysis in general and ratio analysis in particular be not perceived as obsolete (saying already enough) since it offers an ample scope for validation and application of properties and enriching the theory of financial analysis, requires use of a review of works abroad, can even help in handling other research problems also.
- Critical understanding of changing environment, growing inevitable dependence on information, need to go beyond technologies like interpersonal abilities and the impact of technology including the IT, globalization etc. giving rise to gap in theory and applications can help a great in exploring research prospects for example, tax-services, health-care, business process analyses and many more.
- Research may be explored in 'Psychological Accounting' which involves the cognitive process inherently present in mind in the course of decision for transactions.
- Exploring and examining the role of accounting in environmental management by firms in general and bringing the specific problems like carbon-trading in the ambit of accounting and regulations by the government.
- Scope for distinctive studies of the corporate governance for excellence and equitable treatment with all stakeholders including the society in the sectors like cooperatives, NGOs, Government service departments and so on.
- Scope for exploring the possible crucial role to be played by the National Balance Sheet in the estimate of National Income as an index of growth, with due consideration for depletion of natural resources.

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Examining the practices and exploring the applicability of variety of accounting techniques related to financial, cost and decision accounting in different segments of service sector/industry including government departments like PWD, health care, education and transport service in private as well as public sector, their comparison and so on.

Exploring for the micro application of accounting to the level of individual or family accounting so as to raise useful information like cost of living for planning, welfare and decisions.

Both accounting education and research need to employ IT and computer aids so as to acquire competitive advantage.

Researchers can help in evaluating and developing measurement, strategies and accounting tools for different types of risk. Even some concepts, practices may be examined. Some specific aspects of research interest in the sphere of asset-liability management, credit risk and market risk have been put forth in the papers.

Agriculture or Farm Accounting: (a) Evaluation of practices and develop sound procedures as regards deferred revenues/expenditure, treatment (classification, depreciation, valuation) of live-stock and fixed assets, valuation of land and ready crops, (b) Developing framework based on combined principles of financial and cost accounting with due consideration for notional costs and typical costs like the cost of monsoon failure.

Our ancient treasures of knowledge like the works of Kautilya on public policy and other guidance on management, accounting, budgeting, public and commercial accounts, responsibility accounting, performance measurement, financial information and control system etc. may also be tapped for research in accounting.

The scant but useful research experiences suggest that there is wide scope for research in Government Accounting in general and with reference to the municipalities and other local bodies in particular looking to their place in the development process, huge budgets and flow of funds from international agencies insisting on accountability.

There is a crisis of quality in research hence poses a dire need for a drive to curb the same. Some of the measures to form the drive suggested are: restricted and rigorously monitored registration of both the supervisors (Should the approval be one time for ever?) and Ph.D. scholars; full-time course and examination based Ph.D. programmes, provision for group research and joint supervisors instead of individual supervision; stringent implementation of the requirement of periodic presentations, defenses and publishable outcomes, rigorous evaluation and projection of the theses and examiners' report; delinking the expectation of producing more no. of Ph.D.s for elevation but reward for publishable or otherwise recognized research output, objective grading of researches by the evaluators, grading of examiners' reports, nation-wide streamlining of the task of evaluation, recognizing the supervisor's capacity as an examiner, adopting the examiners' report as a sharp tool for quality control, audit of evaluation and forensic accounting and thus as input for curriculum development and designs; and let there be provision for material consideration for the composite grade of the quality of research carried in a university in the accreditation or award of grade by the bodies like NAAC and others.
BOOK REVIEWS

Management Accounting: Text and Cases
Publisher: Prentice Hall of India Private Limited, New Delhi
Author: N. M. Singhvi and Ruzbeh J. Bodhanwala, 2006, Price: Rs. 350, Pages: 514

The book is primarily focused on the concepts and process of accounting including basics of bookkeeping. It also covers the basics of relevant accounting standards and analysis of financial statements. For effective covering the analysis of financial statements of companies have been discussed at large. Ratios are tool for representing a larger picture in brief but the management may misuse. Performing a meaningful analysis is an art, which can be learnt by dealing with a real life situation. With this belief in mind the Balance Sheet of Ingersoll Rand India Limited has been enclosed as an appendix. This book is divided into 17 chapters with 3 appendices. It covers Accounting, Fundamentals of Accounting, Trading and Profit & Loss Account, Constructing a Balance Sheet, Capital and Revenue Expenditure, Depreciation, Reserves and Provisions, Accounting Adjustments, Inventory Management, Final Accounts for Non Profit Earning Organization, Fund Flow Statements, Cash Flow Statement, Branch Accounts, Basics of understanding annual report of a public limited company. Tools of Balance Sheet analysis, Cost of capital, Capital Structure, Cost accounting and Methods of costing. The book is a comprehensive text on Management Accounting provides a learner friendly introduction to Accounting & Management Accounting. The book begins with the basics; explaining from scratch, the fundamental concepts, principles and conventions of accounting and moves on to topics of higher order. The book is not only useful for the postgraduate students of management, but also of immense interest and benefit to working executives for updating their knowledge of management accounting, thereby preparing them for decision making roles to be adopted.

S.C. Joshi, Department of Accounting, Government College, Ajmer

Cost Accounting - Theory and Practice
Publisher: Prentice Hall of India Private Limited, New Delhi

This book has been written to meet the changing requirements of the students of various courses of study. This book contains 20 chapters and 2 appendixes. Each chapter starts with learning objectives, contains illustrations, worked out examples as well as numerous exercises. Multiple choice questions have also been provided at the end of each chapter. This book lucidly discusses topics like Relevant Cost Analysis and Management Decisions (Chapter 15), Capital Expenditure Decisions (Chapter 18). Miscellaneous topics (Chapter 20) like Emerging Concepts and Techniques cover the concept of Target Costing, Life Cycle Costing, Strategic Cost Management etc. The language of this book is simple and straight. Terminology published by the Chartered Institute of Management Accountants (CIMA) U.K. has been extensively used in
this book. This book is an outstanding piece of scholarly work which will benefit not only cost accounting practitioners but also benefit the B.Com., BBA, MBA, M.Com., CA, ICWA, ICSI, CFA students as well as other examinations.

D. Mehta, Senior Lecturer, Pt. JNIBM, Vikram University, Ujjain

Cost Management (For CA Final Examination)
Publisher: Tata McGraw-Hill Publishing Company Limited, New Delhi
Author: Jawaharlal, First Reprint, 2004, Pages: 896

Primarily this book is based on new ICAI syllabus. This book has been written in response to a long standing need keeping in mind the requirements of the CA (Final) students for their cost management course. The text of this book provides discussion on cost management concepts, methods with solved and unsolved problems. This book contains 12 chapters and one appendix. Self Evaluation Exercises have also been provided at the end of chapters. The topics like "Performance Measurement in Multinational Companies" ICAI’s guidelines on Inventory Valuation, comparing ABC with Conventional Costing System, "Balanced Score Card" with up to date comprehensive coverage make this book really useful not only for CA (final) programme but other professional students pursuing ICWA, CS, CFA programmes also. This book contains 450 solved numerical examples, 250 unsolved numerical problems, 325 theory questions and 150 multiple choice questions. The book has been written in a simple, lucid and illustrative style. The book builds on author’s rich experience of the subject and in-depth understanding of concepts.

D. Mehta, Senior Lecturer, Pt. JNIBM, Vikram University, Ujjain

Cases in Finance and Control
Publisher: Publication Section, Saurashtra University, Rajkot (Gujarat)

In this book author has made an attempt to make Indian students understand various aspects of Control and Finance in the organization with respect to Complexities of modern times. This book includes 19 cases on Finance and 21 cases on control which emphasizes important key issues related to Finance and control. The book is useful to wide range of readers who want to know various angels of decision making in the area of finance and control with respect to cases based on Indian Companies.

Neha Parashar, Lecturer, Mahakal Institute of Management, Ujjain

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XXIX ALL INDIA ACCOUNTING CONFERENCE

XXIX All India Accounting Conference will be held at Delhi during December 22-23, 2006. The topics are as follows:

**International Seminar:** Accounting Education & Research in the Universities of India & Abroad with Special Reference to GATT and Accounting Education with Prof. S.C. Jain as Chairman

**Technical Session I:** Accounting for Service Sector with Prof. B. Ramesh as Chairman

**Technical Session II:** Cost Management in the Competitive Environment with Prof. D. Gupta

**Technical Session III:** Managing Risk and Return with Prof. M. Srinivas as Chairman

All papers will have blind review before accepting them for presentation at Conference. Hence members are requested not to write their names and identity on the text of the paper but to give details of the author on the title paper only. The soft copy and the hard copy should reach the Conference Secretary on or before November 10, 2006.

**Delegation fee:** Rs. 500 for Members of IAA, RDA, IAARF, Rs. 700 for non-members, Rs. 400 for accompanying persons, $100 for Foreign Delegates (However, non-Member Delegates from neighboring countries of India need to pay Rs. 1,500 only). Last date for Registration without late fee: **November 10, 2006.** Delegates will get Conference material with a kit.

Conference Secretary: **Prof. Shirin Rathore**, Dean of Colleges, University of Delhi, Delhi - 110007, Tel.: 011-27667066
Secretary: **Dr. J.L. Gupta**, ARSD College, New Delhi, Tel.: 011-27315555

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**Annual General Meeting Notice**

The annual meeting of the IAA General House is tentatively scheduled to be held at 12.30 p.m. at the Venue of 29th IAA Annual Conference, Delhi, on 23rd Dec., 2006, to transact the following agenda:

1. Consideration of the minutes of AGM meeting held at Bhubaneswar, 2. Consideration of the Accounts of the Association, 3. Topics for the next IAA Annual Conference, 4. Election as per the Constitution, 5. And any other item with the permission of the Chair.

All the members are requested to attend the meeting

- Dr. D. Prabhakara Rao
General Secretary, IAA

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**Executive Meeting Notice**

A meeting of the IAA Executive Committee is tentatively scheduled to be held at the Venue of 29th IAA Annual Conference, Delhi, on 22nd Dec., 2006, at 8.30 p.m., to transact the following agenda.

1. Consideration of the minutes of EC meeting held at Bhubaneswar, 2. Nomination EC members to constitute panel nominating the Jr. Vice President, 3. Consideration of the election of the members on vacancies as per rules, 4. Co-option of members to EC, 5. And any other item with the permission of the Chair. All the Executive Members are requested to attend the meeting.

- Dr. D. Prabhakara Rao
General Secretary, IAA
Inauguration of Jabalpur Chapter of IAA

In the age of liberalization, privatization and globalization, the importance of accounting education and research and role of accounting professionals has become very important, Jabalpur is an important center of commerce and management education and research. Hence, the promotion of Jabalpur chapter of Indian Accounting Association will benefit the students, teachers, researchers and professionals and business community. These views were expressed by Prof. M.B. Shukla, President of Indian Accounting Association, in the inaugural ceremony of Jabalpur chapter of Indian Accounting Association. On this occasion, chairperson of the ceremony Dr. Vinod Audhola appreciated the efforts of the promoters of IAA Jabalpur chapter. Dr. S.P. Gupta, Principal, G.S. College of Commerce & Economics, Jabalpur announced the first executive council of IAA, Jabalpur chapter. Office bearers of the first executive council IAA, Jabalpur are as follows: President - Prof. P.K. Joshi, Vice President - Dr. Mukesh Jain, Secretary - Dr. N.C. Tripathi, Joint Secretary - Dr. Anshuja Tiwari, Members - Dr. Sunil Pahawa, Dr. G.P. Chourasia, Dr. Ajay Upadhyaya, Dr. Praveena Muley, 5. Dr. Rajeev Singh.

Opening of Gwalior Branch

The Commerce faculty of Jiwaji University, Gwalior has started the "Gwalior Branch of Indian Accounting Association". The formal function was held on 2-3-2006 in Govt. P.G. College, Datia and Prof. Nageshwar Rao, Ujjain was the Chief guest. At this occasion we also received blessing from our president. Adhoc Executive Committee of the Gwalior Branch is as follows: President : Dr. M.R. Sahu, Vice Presidents : Dr. Anil Bajpai, Dr. P.K. Sirothia, Secretary : Prof. Umesh Holani, Joint Secretary : Dr. S.K. Shrivastava (Reporting); Dr. S.K. Singh (Media), Treasurer : Dr. K.K. Agrawal, Managing Editor : Dr. Yogesh Upadhyay, Joint Editor: Dr. R.C. Gupta, Programme Co-ordinator : Dr. Ajay Dubey, Members : Dr. B.L. Ahirwar, Dr. D.S. Rana, Dr. Sanjeev Gupta, Dr. S.S. Bhadouria, Dr. (Mrs.) Archana Agrawal

EIGHTH INTERNATIONAL ACCOUNTING CONFERENCE
Indian Accounting Association Research Foundation
Crystal Hall, Taj Bengal, Kolkata (India)
January 6-7, 2007 (Saturday & Sunday)

CALL FOR PAPERS

The theme of the Conference is: Changing Paradigm of Accounting and Finance. Papers are invited on the following topics: • Issues in global finance • Comparative international accounting • Corporate governance and accountability • Global convergence of accounting standards • Information systems and corporate auditing • Capital markets • Management of and accounting for knowledge capital • Corporate performance measurement and management • Other related international business topics.

Papers must be received within September 22, 2006.

Notification about the acceptance or otherwise of a paper will be made by November 15, 2006.

Queries, registration of interest, paper, etc. may be sent to:
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