EDITORIAL

The enhancement in quality of Cross Cultural Accounting researches can be accomplished by studying qualified dimensional based cultural measures with relevant historical, sociological and psychological literature. Efforts should be made to discuss and invoke the concept of acculturation in international accounting theory development. Several issues regarding bank management were discussed in this issue. They relate to prevention of bank frauds, cash management and NPASs with relevant empirical studies. Information system audit is a vigilance tool must be introduced in Banks. Risk management through derivates and mutual funds, are the emerging areas of concern for a finance manager. Balanced score card has become a better measure of corporate performance. Dr. Eresi and Vasantavally have undertook an empirical study of perceptions of individual investors vis-à-vis risk disclosure in IT companies. The issues like transfer pricing, diversities, leverage pattern, corporate web reporting practices and Mahajani system of accounting have been covered with relevant empirical studies. Prof. B.S. Bhatia and Dr. Dayal Bhatnagar talked about the emerging scenario beyond EVA. Dr. Parmar has tried to show that inventory parameters may also be used as a measure of efficiency.

31.7.2003

Professor Nageshwar Rao
Chief Editor
INDIAN ACCOUNTING ASSOCIATION

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SOME SUGGESTIONS FOR INTERNATIONAL ACCOUNTING RESEARCH

*Chris Patel

ACKNOWLEDGMENT

The author wishes to acknowledge the helpful comments of participants at the Emerging Issues in International Accounting Conference, Niagara Falls, August, 2001.

ABSTRACT

This paper contributes to comparative international accounting research by identifying a number of theoretical issues which have not been fully addressed in this strand of research. While previous research has provided some insight into cultural values of accountants and auditors across countries, those insights may be limited. Culture is a complex and multi-faceted concept, and a better understanding of it requires providing a clear linkage between the core dimensions of culture in the nations concerned and the dependent variable(s) under examination. It is suggested that studies need to discuss and invoke the concept of acculturation in international accounting theory development. Additionally, studies need to address some of the limitations of Hofstede's (1980) and Hofstede and Bond's (1988) simplistic five dimensional cultural model. That is, how to provide a more holistic and comprehensive insight into cultural values of accountants and auditors in various countries. It is hoped that the suggestions included in this paper may provide some useful guidance to comparative international accounting researchers.

Key words: Five dimensional cultural model, acculturation, core cultural values and theoretical limitations.

INTRODUCTION

International accounting research using culture as an independent variable is increasingly being recognized as an important topic largely because of the recent focus on
international harmonization of accounting and auditing standards. This is reflected in an increasing number of studies that have provided empirical evidence to show the influence of culture on various dependent variables including management control systems design (Harrison et al., 1994; Chow et al., 1994; 1999), external auditors’ independence (Agacer & Doupnik, 1991; Yamamura et al., 1996; Patel & Psaros, 2000; Patel et al., 2002), professional ethics (Cohen et al., 1995), and standard setting (Bloom & Naciri, 1989). However, a number of important theoretical issues have not been examined in this strand of research (Chanchani & MacGregor, 1999; Bailey, 1999).

This paper makes an original contribution by providing a discussion of two theoretical issues that have not been fully addressed in the accounting literature. First, the importance of discussing and invoking the concept of acculturation in international accounting theory development, and second, how to address some of the limitations of Hofstede’s (1980) and Hofstede and Bond’s (1988) simplistic five dimensional cultural model (see appendix for details) in comparative international accounting research. That is, how to provide a more holistic and comprehensive insight into cultural values of accountants and auditors in various countries. It is hoped that the suggestions included in this paper may provide some useful guidance to comparative international accounting researchers.

CULTURE AND ACCULTURATION

It is rather odd that international accounting researchers generally tend to explain various aspects of globalization, however, they to fail to discuss how the concept of acculturation may influence their theory development. Moreover, studies dealing with international harmonization of accounting and auditing standards do not specifically discuss how various acculturational factors are likely to influence this process. It is suggested that to gain insight into the changing and contextual nature of cultural values, there is a need to understand the various economic, political and socio-cultural influences, that is, acculturational influences (Berry et al., 1992). Because of its importance to international accounting research in general and the objectives of this paper in particular, a brief explanation of the concept of acculturation follows.

Especially important, at least as far as business is concerned, is likely to be the proliferation of international, transnational and supranational institutions and the numerous attempts to coordinate the global economy. These have all contributed to what Robertson (1992, p.8) terms the “compression of the world and intensification of consciousness of the world as a whole”. This trend is reflected in the increasing globalization of international financial markets, the growth of multinational manufacturing corporations and business service organizations and the activities of regional and international standard setting and regulatory organizations (Gray, 1989; Hill, 2000; Bartlett & Ghoshal, 2000). This movement towards globalization is mirrored in the accountancy profession, with mergers of many accounting
firms and the growth of the big-five firms. This leads to the concept of 'acculturation', a
concept perhaps best defined as:

... culture change that is initiated by the conjunction of two or more
autonomous cultural systems. Acculturative change may be the consequence
of direct cultural transmission; it may be derived from noncultural causes,
such as ecological or demographic modification induced by an impinging
culture... Its dynamics can be seen as the selective adaptation of value systems,
the processes of integration and differentiation, the generation of
developmental sequences, and the operation of role determinants and
personality factors (Social Science Research Council, 1954, p. 974, quoted in
Berry et al., 1986, p. 292).

Acculturation which leads to psychological transformation as a consequence of societal
transformation and is reflected in convergence of societal values can take place at any time in
one's life (Yang, 1988). The hypothesis of acculturation states that peoples of modernizing
societies are becoming more similar to each other in terms of their specific-functional
psychological characteristics (Yang, 1988). However, the degree of psychological convergence
will vary across societies, depending as it does on both the cultures of the countries concerned
and the economic, political and socio-cultural influences between them. It is therefore
recommended that a discussion of both cultural as well as acculturational influences is likely
to further enhance the quality of theory development in cross-cultural accounting studies.

HOLISTIC INSIGHTS INTO CULTURAL VALUES

While previous international accounting research has provided some insight into cultural
values of accountants and auditors across countries, those insights may be limited. Culture is
a complex and multi-faceted concept, and a better understanding of it requires providing a
clear linkage between the core dimensions of culture in the nations concerned and the
dependent variable(s) under examination. Consequently, future studies in this area need to
pay attention to developing a more comprehensive and holistic perspective on cultural
differences and similarities.

To provide a more holistic and comprehensive insight into cultural values of professional
accountants and auditors under examination, it is suggested that Hofstede's (1980) and
Hofstede and Bond's (1988) and other quantified approaches could be complemented by
relevant historical, sociological and psychological literature. For example, evidence suggests
that both Indian and Chinese professional accountants are high on cultural values of
collectivism and have large power distance compared to Australian accountants who are high
on individualism and have small power distance (see Patel et al., 2002 for details). However,
to provide useful insight into the cultural values of Indian and Chinese professional
accountants, it is important to invoke appropriate aspects of Confucianism and Hinduism as
these apply to work related behaviours. A brief explanation to illustrate this using aspects of Confucianism and Hinduism to gain a more holistic insight into Chinese and Indian professional accountants respectively follows.

Insight into Chinese cultural values may be gained by examining Confucianism. Derived from the teachings of Chung-ni-K'ung (551-479 BC), a Chinese politician, philosopher and social reformer (known in the West as Confucius), Confucian philosophy is said to occupy centre stage in Chinese social behaviour (Bond & Hwang, 1986, p. 214). Confucianism is, therefore, important in understanding the Chinese culture, including the overseas Chinese in countries such as Singapore, Taiwan, Hong Kong and Malaysia (Lu, 1983; Bond, 1991; Kao, 1993). The shared Confucian tradition among the overseas Chinese has been referred to as the “Chinese Commonwealth” (Kao, 1993, p. 24), and the “overseas Chinese global tribe” (Chang, 1995, p. 967).

The fundamental Confucian assumptions are that people exist in relationship to others (Bond & Hwang, 1986, p. 215), and that relationships are structured hierarchically, with people accepting a hierarchical order in which everybody has a rightful place needing no further justification. Confucius advocated “let the ruler be a ruler, the minister be a minister, the father be a father, and the son be a son” (Confucian Analects, in Lu, 1983, p. 101). Familial, social and political stability and harmony were the ultimate aims of Confucianism (Lu, 1983; King & Bond, 1985), and such stability and harmony were seen as assured through each individual honoring the requirements of their role relationships with others. Stover (1974, p. 246) notes that as structural harmony within a group is emphasized, every person has to concern him or herself with "right conduct in maintaining one's place in a hierarchical order". Chinese culture emphasizes the importance of "filial piety", which requires "subordination of personal desires to a hierarchy of deference that reaches up to the father, back to the ancestors, and up to heaven" (Cornberg, 1994, p. 138).

As important as Confucianism is in understanding Chinese culture, so too is Hinduism in understanding Indian cultural values. The teachings of Hinduism and Confucianism also have a number of common features, which produce some common cultural characteristics between Indian and Chinese society. These include social stratification, the concern for "harmony within hierarchy" (Sinha and Sinha, 1990; Kangayappan, 1992), and filial piety (Zimmerman and Unnithan, 1975, p. 4).

The traditional view of work in India is of a duty that should be performed either in the family or within the intra-caste framework. Indians prefer personalised relationships based on strict rules that govern superior and subordinate relationships (Sinha and Sinha, 1990, p. 709; Trompenaars, 1993, p. 42). The pattern of superior/subordinate relationships dictated by the caste system affects power relations in Indian organizations (Selvadurai, 1997, p. 44), with even large public companies in India being run "like personal fiefdoms" (Far Eastern Economic Review, 26 December 1996, p. 123). Superiors expect loyalty, compliance and total
Chris Patel

submission from their subordinates (Phegade, 1997, p. 78). Employees feel easier when working in superior/subordinate roles rather than with equals, with peer group relationships inducing anxiety until the peers are “ranked on some real or imaginary dimension” (Sinha and Sinha, 1990, p. 709). Once a hierarchical structuring of relationships is established, “juniors yield to seniors on every conceivable on-the-job or off-the-job occasion” (Sinha and Sinha, 1990, p. 709).

Subordinates who yield to power are bestowed with all kinds of undue favors, while those who do not are distanced and discriminated against (Sinha and Sinha, 1990, p. 708). This reward/punishment behavior modification technique has resulted in subordinates’ unquestioning loyalty to superiors (Kangayappan, 1992, p. 48). The relationship is characterized by “sneh” (affection) for the subordinate and “shradha” (deference) for the superior. Thus, an Indian organization consists of a network of “affection reciprocity” (Roland, 1984, p. 21), wherein the avoidance of conflict and maintenance of hierarchical equilibrium are the cardinal rules (Triandis, 1994, pp. 4-8). This has also been referred to as “cultural coexistence” (Schulberg, 1968, p. 17).

The importance of “affection reciprocity” and “cultural coexistence” in India is also reflected in the Hindu concept of a “collective ego”. The concept of a “collective ego” is different from the “empirical self”, as conceived by western thinkers (Shils, 1961, p. 119). One’s personal ego is not as important in India as is the maintenance of hierarchical order and harmonious interpersonal relationships in a relatively stable social order (Marriott, 1976, p. 111; Sinha and Sinha, 1990, p. 709).

Evidence suggests that the relevant cultural dimensions for comparing Western and Asian societies are Power Distance and Individualism (Patel et al., 2002; Patel, 2003). It should be noted that this discussion of the core Chinese and Indian cultural values complement rather than contradicts Hofstede’s cultural dimensions. This more holistic operationalization of core Indian and Chinese cultural values could then be invoked in theory development in international accounting research.

CONCLUSIONS AND RECOMMENDATIONS

While the five dimensional culture model is useful, it must be acknowledged that this quantified approach is only one measure of culture (Triandis, 1994, p.133). An almost exclusive reliance on the five dimensional model has resulted in a failure to examine other perspectives to understand the richness and complexity of cultural differences and similarities. For example, India and Malaysia are both low on measures of Individualism, however, a complete reliance on this similarity in theory development is likely to provide a narrow insight and may lead to discarding other important aspects of cultural differences between these societies. For example, the caste system is an important determinant in defining the ‘in-group’ and the ‘out-group’ in India (Sinha & Sinha, 1990), whereas, among the Chinese, Ren Qin (relationship orientation) is an important factor (Cheung, 1986, p.185). Therefore, simply relying on Hofstede’s measures
of low Individualism in India and in China in theory development may provide only a limited insight into the cultures of these societies.

To address some of the limitations of the simplistic five dimensional model in international accounting research, it is suggested that this approach be complemented by historical, sociological, psychological and other relevant literature (an example related to identifying the core cultural values of Chinese and Indians was used to illustrate this approach). This combination of the five dimensional cultural model and the supporting literature from other disciplines would also identify and provide an understanding of the core and the peripheral values in a given society. Theory development and hypotheses formulation can then proceed driven largely by the differences in core cultural values.

To further enrich understanding of cultural values in a nation, it may be useful to conduct interviews with selected subjects with an interest in culture, to obtain additional evidence on attributes of culture that are of importance to the accounting profession, and the particular dependent variables that are examined in the particular study. Conducting such interviews provides additional insight into core cultural norms and values that may impact on the dependent variables. Any relevant aspects of professional accounting subcultures in a country could also be identified by personal interviews.

Furthermore, it is suggested that to gain insight into the changing and contextual nature of cultural values, there is a need to discuss various economic, political and socio-cultural factors, that is, acculturational influences in countries selected for examination.

To conclude, enhancement in the quality of comparative international accounting research can be accomplished by providing greater insight into the depth, richness and complexity of cultural similarities and differences between and across nations. Several theoretical recommendations offered in this paper may be useful to future researchers.

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THE FIVE DIMENSIONAL CULTURAL MODEL

**Individualism versus Collectivism**: Individualism stands for a preference for a loosely knit social framework in society wherein individuals are supposed to take care of themselves and their immediate families only. Conversely, collectivism stands for a preference for a tightly knit social framework in which individuals can expect their relatives, clan, or other in-groups to look after them in exchange for unquestioning loyalty (Hofstede, 1984, p.83).

**Large versus Small Power Distance**: Power Distance is the extent to which the members of a society accept that power in institutions and organizations is distributed equally. People in large Power Distance societies accept a hierarchical order in which everybody has a place which needs no further justification. People in small Power Distance societies strive for power equalization and demand justification for power inequalities (Hofstede, 1984, p.84).

**Strong versus Weak Uncertainty Avoidance**: Uncertainty Avoidance is the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Strong Uncertainty Avoidance societies maintain rigid codes of belief and behavior and are intolerant towards deviant persons and ideas. Weak Uncertainty Avoidance societies maintain a more relaxed atmosphere in which practice counts more than principles and deviance is more easily tolerated (Hofstede, 1984, p.84).

**Masculinity versus Femininity**: Masculinity stands for a preference in society for achievement, heroism, assertiveness, and material success. Its opposite, Femininity, stands for a preference for relationships, modesty, caring for the weak, and the quality of life (Hofstede, 1984, p.84).

**Long-term versus Short-term Orientation**: The following "Long-term Orientation Values" are applicable to Chinese based countries (such as China, Hong Kong and Singapore), including Chinese settled in other countries (such as Malaysia), and India:
- Adaptation of traditions to a modern context.
- Respect for social and status obligations within limits.
- Thrift, being sparing with resources.
- Large savings, funds available for investment.
- Perseverance towards slow results.
- Willingness to subordinate oneself for a purpose.
- Concern with "face" (the importance of face is the consequence of living in a society that is very conscious of social contexts).
- Concern with respecting the demands of virtue (Hofstede, 1994, p. 173).

The opposite, "Short-term Orientation Values" are applicable to countries such as Australia, the USA, Great Britain, and include the following characteristics:
- Respect for traditions.
- Respect for social and status obligations regardless of cost.
- Social pressures to keep up with the Joneses even if it means overspending.
- Small savings, little money for investment.
- Quick results expected.
- Concern with self-respect.
- Concern with possessing the Truth (Hofstede, 1994, p. 173).
PERCEPTIONS OF INDIVIDUAL INVESTORS VIS-À-VIS RISK DISCLOSURES IN IT COMPANIES' IPOS - A STUDY

*By. Dr. K. Eresi
**Smt. C. Vasantavalli

ABSTRACT

This paper addresses the issue of perceptions of individual investors in relation to the risk disclosures made in offer documents by IT Companies. A study of risk disclosure practices, pattern and perceptions of investors was made, covering offer documents of 33 Bangalore based IT companies which went public between 1993 and 2000.

A prospective investor would like to know about the possible risks and the magnitude of their impact on a company’s future prospects. Questions like: (a) What is the company’s intention of going public? (b) What is the current economic environment (internal and external) in which the company is likely to operate? (c) What possible outcomes can emerge? (d) Is the proposed business model sustainable? Are, but, a few on which investors seek answers. The primary market has been comatose now for so long that many fear it may disappear forever from the retail investors’ consciousness. The fizzling out of the IT dream followed by the stock market scam have sent investors into a state of shock.

The following are the objectives of the paper:

- To understand the views of the individual investors on existing style and content of risk disclosures made in the offer documents of IT Companies.
- To identify the nature of gap, if any, from investors’ standpoint between actual risk disclosures and expected risk disclosures in the offer document.


* Professor, Dean and Chairman, Department of Commerce, Bangalore University, Bangalore
** Research Scholar and Selection Grade Lecturer, NMKRV College for Women, Jayanagar, Bangalore
DISCUSSIONS AND RESULTS

1. Attributes of information:
   The offer document is an invitation to the public to invest their money in the shares of a Company. Its contents should possess qualities of accuracy, adequacy, simplicity and transparency. It was thought appropriate to determine the weightage given by respondents to the five primary attributes of information and understand the order of significance attached to each.

   The same is depicted below:

   **Fig. 2**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Order of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Most significant</td>
</tr>
<tr>
<td>Source credibility and transparency</td>
<td>Fairly significant</td>
</tr>
<tr>
<td>Adequacy</td>
<td>Less significant</td>
</tr>
<tr>
<td>Simplicity</td>
<td>Least significant</td>
</tr>
</tbody>
</table>
2. Rating of common risk factors as stated in offer document of IT companies

The ten most commonly listed risk factors in offer documents of Bangalore's IT Companies between 1993 and 2000 were furnished and respondents were asked to rate each based on its significance to them. Their perceptions as regards risks in IT and value attached to each stated risk were revealed by their responses.

A study of the ratings of common risk factors (Appendix (Table I and II) reveals the following:

a. No key managing personnel identified as yet: This factor is most significant to 74 percent of investors in IT shares. A key input for success is key personnel with a proven track record. Confidence is built in the investors if the key management personnel are known names or at least identified.

b. Promoters lack software exposure: Another very significant risk factor for 73 percent investors is this factor. This could mean that a company is being promoted without an adequate study of the ingredients required to sustain it.

c. HR is critical to success: This asset however is likely to leave for better opportunities and so is a fairly important risk factor for at least 66 percent of investors, who are investing on the basis of the present strength of the company.

d. High valuations in IT industry: This factor occupies the fourth place in terms of its significance - The high valuations enjoyed at the time of floating the public issue were not likely to be sustained indefinitely. Almost 54 percent of the investors perceived this as a significant risk factor.

e. High competition: This factor is next in order of significance as 49 percent people believed that although there was competition, the Indian situation did not constitute a real risk. There was sufficient demand for the low cost, quality work of IT companies.

f. High obsolescence: Nearly half of the investors perceived this risk as next in importance to high competition.

g. No offices identified abroad as yet: A number of IT related units identify foreign markets for their product/ service / office. But if an office is planned but not yet set up, 41 percent of the investors perceive it as less significant.

h. Adverse Government of India policy may impact on the companies' future prospects: Respondents have weighed this in relation to other risk factors; with 22 respondents judging it to be eight in the order of significance to them. This implies that they perceived Government of India policy to be sufficiently encouraging to the IT industry in general and software in particular.

i. Increased sanctions may impact on a company's prospects: This too is of low significance - sanctions by developed nations are not perceived as a high threat to an individual's investment in equities.
Eresi & Vasantavalli

j. Foreign exchange fluctuations can hit the industry adversely: This is not perceived as a risk factor by the majority of respondents as the Indian rupee has been traditionally weak against the US dollar. Hence, instead of constituting a risk it has actually been an advantage for the industry.

3. On management perception of risk factors

The respondents' views on management perception of risk factors is shown in table 1.2 of appendix. From the above it is clear that 16% attach low significance to this factor. Although fairly significant to 57% of respondents, they feel that no fresh insight is thrown on the risk by the managements. This was amply brought out during interviews. They believe that it satisfies only a statutory need but not the information needs of investors.

4. Gap between expected and actual level of risk disclosures

A gap was definitely perceived by the respondents between their expectations and actual risk disclosures. 92% opine that a gap exists between expected disclosure and actual disclosures. They felt that the risks disclosed in the Initial Public Offer Document fall short of their expectations. The information is insufficient for their decision making. The risks disclosed are too brief for respondents to comprehend the genuine risks of the company and their level of importance.

5. Rating of gap as perceived by respondents

92% of respondents who felt that a gap exists were asked to rate the gap in the light of variables furnished to them. Their responses are arrayed in table 1.3 (refer appendix Table 1.3).

It may be recalled that accuracy and transparency were cited as most significant attributes of information. (Refer fig. 2) In both these areas, respondents perceived very a significant gap.

The perception is that companies are not transparent in their risk disclosures. Although risk factors are stated they are too brief and generalized and hence carry limited value to respondents.

The quality and accuracy of content need to be improved. The volume of data is also perceived as inadequate.

Thus, there are significant gaps between expected and actual levels of risk disclosures in the offer document of these companies.

6. Key factors that fuelled interest in IT shares

A number of factors were instrumental for the interest in IT shares. To understand which key factors motivated these respondents, they were asked to rate each factor. The responses are as follows:
a. **Globalisation:** This factor has had maximum impact on IT IPOs. 55 percent of the respondents perceived this factor as significantly impacting the public offers of these companies.

b. **Media Hype:** The share prices of several IT companies hit the headlines during the years of 1997, 98 and 99. This factor is rated as the next one in the order of impact on IT IPOs, with 52 percent of respondents rating it as the second.

c. **A supportive Government:** Hence, this factor is rated as the third in its impact on IT IPOs by 55 percent of investor - respondents.

d. **Bangalore as a location:** Around half the respondents felt that this occupied the fourth place of significance among the factors listed. This suggests that Bangalore as a location did not matter as much as the other three factors.

e. **Increasing sophisticated levels of investors:** This point carries the lowest weightage vis-a-vis impact on IT IPO. It can be concluded that respondents do not perceive it as making any impact on the public issues of these companies.

**CONCLUDING REMARKS**

Risk disclosures in the offer document of IT companies need to be improved so as to satisfy the information needs and decision making process of the investing public. A mere listing of risks is insufficient for the purpose.

The paper highlights the nature of gap between desired and actual risk disclosures made. Companies must ensure that this gap is narrowed down by increasing the quality and level of risk disclosures in the offer document. Only then will the twin objectives of transparency and building up of a reliable picture of the company's future, be achieved by the IPO document.

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<table>
<thead>
<tr>
<th>Rating scale</th>
<th>Promoters lack software exposure</th>
<th>No key managerial personnel identified as yet</th>
<th>No offices abroad identified as yet</th>
<th>Foreign exchange fluctuations can impact on company's profits</th>
<th>Increased sanctions by developed nations can impact on companies prospects</th>
<th>Adverse govt. policies can impact on companies profits</th>
<th>High IT obsolescence</th>
<th>HR is critical</th>
<th>High competition</th>
<th>High present valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most significant</td>
<td>41</td>
<td>43</td>
<td>17</td>
<td>6</td>
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<td>5</td>
<td>22</td>
<td>36</td>
<td>14</td>
<td>33</td>
</tr>
<tr>
<td>Fairly significant</td>
<td>32</td>
<td>31</td>
<td>24</td>
<td>11</td>
<td>16</td>
<td>17</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>21</td>
</tr>
<tr>
<td>Significant</td>
<td>19</td>
<td>18</td>
<td>28</td>
<td>30</td>
<td>26</td>
<td>30</td>
<td>27</td>
<td>24</td>
<td>31</td>
<td>17</td>
</tr>
<tr>
<td>Less significant</td>
<td>.07</td>
<td>.08</td>
<td>18</td>
<td>36</td>
<td>25</td>
<td>25</td>
<td>15</td>
<td>.7</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Least significant</td>
<td>.01</td>
<td>--</td>
<td>.13</td>
<td>17</td>
<td>31</td>
<td>23</td>
<td>11</td>
<td>3</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data
### Table 1.2
Views on management perception of risk factors.

<table>
<thead>
<tr>
<th>Rating Scale</th>
<th>Rating of Management Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most significant</td>
<td>22%</td>
</tr>
<tr>
<td>Fairly Significant</td>
<td>35%</td>
</tr>
<tr>
<td>Significant</td>
<td>27%</td>
</tr>
<tr>
<td>Less Significant</td>
<td>10%</td>
</tr>
<tr>
<td>Least Significant</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Primary Data

### Table 1.3

<table>
<thead>
<tr>
<th>Rating scale</th>
<th>Rating of the gap in risk disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Significant</td>
<td>Transparency (i)</td>
</tr>
<tr>
<td>Fairly Significant</td>
<td>Accuracy (ii)</td>
</tr>
<tr>
<td>Significant</td>
<td>Adequacy (iii)</td>
</tr>
<tr>
<td>Less Significant</td>
<td>Source credibility (iv)</td>
</tr>
<tr>
<td>Least Significant</td>
<td>Simplicity (v)</td>
</tr>
</tbody>
</table>

Source: Primary Data

* * *
DIVERSITIES IN THE LEVERAGE PATTERN OF PRIVATE CORPORATE SECTOR

*Dr. V. Gangadhar
**Dr. M. Yadagiri

ABSTRACT

Financial Leverage ratios are studied to judge the long-term financial position of the firm. These ratios indicate judicious mix of funds provided by owners and lenders. The Leverage ratios may be calculated from the balance sheet items to determine the proportion of debt in total financing. These ratios are also computed from P & L account items by determining the extent to which operating profits are sufficient to cover the fixed charges. In order to study the financial position of the firm, the leverage ratios are divided into three categories, i.e. (i) Capital structure ratios, (ii) coverage ratios and (iii) Leverage ratios.

The financial position of the firm can be studied and analysed in two perspectives; i.e., the short-term financial position and the long-term financial position. The short-term financial position is also known as liquidity of the firm can be studied with the help of liquidity ratios. On the other hand long-term creditors like debenture holders, financial institutions are more concerned with the firm's long-term financial position. In order to judge the long-term financial position of the firm "Financial Leverage or Capital Structure Ratios" are to be studied. The paper aims to analyse the capital structure pattern at aggregate level and industry wise with a view of bring out the diversities if any and to offer the reasons for such position.

The leverage ratios may be calculated from the balance sheet items to determine the proportion of debt in total financing. The leverage ratios can also be computed from the P & L account items by determining the extent to which operating profits are sufficient to cover the fixed charges. The leverage ratios can be broadly grouped into the following categories; 1. Capital Structure Ratios, 2. Coverage Ratios, 3. Leverage Ratios.

*Controller of Examination and Professor, Dept. of Commerce and Business Mgmt., Kakatiya Univ., Warangal
**Lecturer in Commerce, Lal Bahadur P.G. College, Warangal
Indian Journal of Accounting

1. CAPITAL STRUCTURE RATIOS

It is proposed to analyse the capital structure pattern of Private Corporate Sector represented by Large Public Limited Companies from 1995-96 to 1999-2000 with the help of the following capital structure ratios: (i) Debt-Equity Ratio, (ii) Total Debt to Networth Ratio, (iii) Networth to Capital Employed Ratio, (iv) Total Debt to Total Capital Employed Ratio or Total Debt Ratio. Table 1 presents the Capital Structure Ratios of the Large Public Limited Companies.

Table 1
Aggregate Capital Structure Ratios of the Large Public Limited Companies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt-Equity Ratio (Times)</td>
<td>57.3</td>
<td>60.0</td>
<td>66.8</td>
<td>72.8</td>
<td>69.7</td>
<td>65.3</td>
</tr>
<tr>
<td>Total Debt to net worth</td>
<td>132.9</td>
<td>140.5</td>
<td>143.2</td>
<td>147.0</td>
<td>141.9</td>
<td>141.1</td>
</tr>
<tr>
<td>Networth to Capital Employed Ratio</td>
<td>42.9</td>
<td>41.6</td>
<td>41.1</td>
<td>40.5</td>
<td>41.3</td>
<td>41.5</td>
</tr>
<tr>
<td>Total Debt Ratio</td>
<td>57.1</td>
<td>58.4</td>
<td>58.9</td>
<td>59.5</td>
<td>58.7</td>
<td>58.5</td>
</tr>
</tbody>
</table>


The following are the broad issues -
(I) It is evident from the data of the table that, the debt as a percentage of equity was at 66.7 in 1999-2000 as compared to 57.3 per cent in 1995-96. The use of debt has increased from 1995-96 onwards and reached highest at 72.8 per cent in 1998-99. Whereas, its average was at 65.3 per cent. This reflects that the Large Public Limited Companies have been following "high capital gearing or tradition on thin equity", because its debt proportion has crossed over more than half of the equity and ranged between 0.57 times to 0.73 times with an average of 0.65 times.
(II) The values of ratios have exhibited enhanced employment of debt funds in the capital structure and confirm that the use of "The financial leverage at high order or trading on thin equity". Further, the use of debt was shown increasing pattern year after year and reached highest at 147.0 per cent in 1998-99. The use of high proportion of debt when compare to equity in the capital structure of companies may be attributed to the following:
(i) Internal resource generation through profit retention and reserves may be declined due to higher rate of dividend payment and reduced after tax profits on account of increased tax burden.
Gangadhar & Yadagiri

(ii) Availability of low cost of debt funds at relatively reduced rates of interest in the process of liberalization and economic reforms.

(III) The average of networth was 41.5 per cent and the debt was 58.5 per cent. The networth to total net assets has declined from 42.9 per cent in 1995-96 to 41.3 per cent in 1999-2000, as against increased use of debt from 57.1 per cent to 58.7 per cent for the same period. These results are also confirming that the companies have been using around Rs. 58.5 of debt funds and Rs. 41.5 of equity funds to finance every Rs. 100 of total assets. This has been reflecting a tendency of high capital gearing on thin equity by the companies.

The data relevant to industry-wise capital structure ratios is presented in Table 2.

### Table 2

**Industry-wise Capital Structure Ratios of the Large Public Limited Companies**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Debt-Equity Ratio</td>
<td>Sugar</td>
<td>86.2</td>
<td>99.4</td>
<td>83.8</td>
<td>80.2</td>
<td>122.0</td>
<td>94.3</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>48.7</td>
<td>57.5</td>
<td>62.5</td>
<td>69.5</td>
<td>67.8</td>
<td>61.2</td>
</tr>
<tr>
<td></td>
<td>Chemicals</td>
<td>68.3</td>
<td>70.4</td>
<td>69.0</td>
<td>75.9</td>
<td>66.7</td>
<td>70.1</td>
</tr>
<tr>
<td></td>
<td>Cement</td>
<td>94.1</td>
<td>90.2</td>
<td>255.3</td>
<td>205.2</td>
<td>218.2</td>
<td>191.5</td>
</tr>
<tr>
<td></td>
<td>Infor. Tech.</td>
<td>NA</td>
<td>NA</td>
<td>24.0</td>
<td>18.9</td>
<td>6.4</td>
<td>16.4</td>
</tr>
<tr>
<td>2. Total Debt to Networth Ratio</td>
<td>Sugar</td>
<td>245.3</td>
<td>275.2</td>
<td>241.7</td>
<td>224.1</td>
<td>285.9</td>
<td>254.4</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>168.2</td>
<td>175.3</td>
<td>163.0</td>
<td>173.7</td>
<td>166.3</td>
<td>169.3</td>
</tr>
<tr>
<td></td>
<td>Chemicals</td>
<td>142.3</td>
<td>136.6</td>
<td>138.9</td>
<td>142.0</td>
<td>139.2</td>
<td>139.8</td>
</tr>
<tr>
<td></td>
<td>Cement</td>
<td>158.1</td>
<td>155.7</td>
<td>263.0</td>
<td>230.6</td>
<td>264.2</td>
<td>214.3</td>
</tr>
<tr>
<td></td>
<td>Infor. Tech.</td>
<td>NA</td>
<td>NA</td>
<td>24.0</td>
<td>18.9</td>
<td>6.4</td>
<td>16.4</td>
</tr>
<tr>
<td>3. Networth to Capital Employed Ratio</td>
<td>Sugar</td>
<td>29.0</td>
<td>26.7</td>
<td>29.3</td>
<td>30.9</td>
<td>25.9</td>
<td>28.4</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>37.0</td>
<td>36.3</td>
<td>38.0</td>
<td>36.5</td>
<td>37.6</td>
<td>37.1</td>
</tr>
<tr>
<td></td>
<td>Chemicals</td>
<td>41.3</td>
<td>42.3</td>
<td>41.9</td>
<td>41.3</td>
<td>41.8</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>Cement</td>
<td>38.7</td>
<td>39.1</td>
<td>27.5</td>
<td>30.3</td>
<td>27.5</td>
<td>32.6</td>
</tr>
<tr>
<td></td>
<td>Infor. Tech.</td>
<td>NA</td>
<td>NA</td>
<td>52.3</td>
<td>57.6</td>
<td>68.9</td>
<td>59.6</td>
</tr>
<tr>
<td>4. Total Debt to Capital Employed Ratio</td>
<td>Sugar</td>
<td>71.0</td>
<td>73.3</td>
<td>70.7</td>
<td>69.1</td>
<td>74.1</td>
<td>71.6</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>63.0</td>
<td>63.7</td>
<td>62.0</td>
<td>63.5</td>
<td>62.4</td>
<td>62.9</td>
</tr>
<tr>
<td></td>
<td>Chemicals</td>
<td>58.7</td>
<td>57.7</td>
<td>58.1</td>
<td>58.7</td>
<td>58.2</td>
<td>58.3</td>
</tr>
<tr>
<td></td>
<td>Cement</td>
<td>61.3</td>
<td>60.9</td>
<td>72.5</td>
<td>69.7</td>
<td>72.5</td>
<td>67.4</td>
</tr>
<tr>
<td></td>
<td>Infor. Tech.</td>
<td>NA</td>
<td>NA</td>
<td>47.7</td>
<td>42.4</td>
<td>31.1</td>
<td>40.4</td>
</tr>
</tbody>
</table>

(i) DEBT-EQUITY RATIO

The average debt as a percentage of equity was highest at 191.5 per cent in cement industry and was lowest at 16.4 per cent in information technology. It was at 94.3 per cent in sugar and 70.1 per cent in chemicals. The debt as a percentage of equity in the case of cement industry was at 94.1 per cent in 1995-96, and reached highest level at 255.8 per cent in 1997-98, and declined to 218.2 per cent in 1999-2000. The chemical industry has shown moderately higher proportion of debt usage than engineering industry. The information technology has been using significantly low debt and adopting trading on thick equity. Therefore, we conclude that cement is a capital intensive industry and using high capital gearing technique and its debt in the capital structure far exceeded the 2:1 norm, since 1997-98 onwards, and indicating a possibility of high financial risk. On the other hand sugar engineering and chemicals are using debt funds cautiously and adopting moderate capital gearing techniques. The noticeable feature is that the use of debt in information technology industry is very meager and it was only Rs. 16 for every Rs. 100 of equity.

(ii) TOTAL DEBT TO NETWORTH RATIO

The analysis of total debt to networth confirms that the use of debt is highest in sugar industry and lowest in information technology. The average of debt to networth during the period under review was highest at 254.4 per cent in sugar industry followed by 214.3 per cent in cement industry and it was lowest in information technology at 70 per cent. Contrary to debt equity ratio, the total debt to networth ratio has indicated the use of debt was highest in the sugar industry, whereas, it was significantly increased in cement industry in 1997-98 onwards. Engineering and chemicals industeis have used total debt at moderately higher.

(iii) NETWORTH OR TOTAL DEBT TO CAPITAL EMPLOYED RATIO

This ratio will indicate the proportion of networth or debt in the total net assets of companies. Newworth to total capital employed was lowest in sugar industry at 28.4 per cent followed by cement industry at 32.6 per cent, highest at 59.6 per cent in information technology. If the engineering and chemicals industries was at 37.1 per cent and 41.7 per cent respectively. An interesting feature is that the share of the networth in the total assets is around 1/3 in engineering and chemicals, it was about 25 per cent in sugar and cement industries and in information technology it was at 60 per cent. This indicates that for every Rs. 100 fixed assets investment, the share of the networth was at Rs. 28.4 in sugar, Rs. 32.6 in cement, Rs. 37.1 in engineering, Rs. 41.7 in chemicals and highest at Rs. 60 in information technology. This may be an account of use of high order of debt on one hand and low proportion of researves and paid up capital on the other hand.

The Table 3 presents coverage ratios of Large Public Limited Companies from 1995-96 to 1999-2000.
Table 3
Coverage Ratios of Large Public Limited Companies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Coverage Ratio</td>
<td>3.0</td>
<td>2.4</td>
<td>2.1</td>
<td>1.8</td>
<td>1.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Fixed Charges Coverage Ratio</td>
<td>1.8</td>
<td>1.2</td>
<td>1.4</td>
<td>0.9</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Cais Coverage Ratio</td>
<td>1.8</td>
<td>1.3</td>
<td>1.4</td>
<td>1.1</td>
<td>1.2</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Tax rate assumed at 50%

(i) **INTEREST COVERAGE RATIO**
It is clearly evident that the earnings of the companies are significantly higher than the interest charges. However, the interest coverage ratios have declined from 3.0 times in 1995-96 to 1.9 times 1999-2000. Whereas, its average was at 2.2 times. The declining trend in interest coverage ratio indicates that the companies EBIT has been increasing not at faster rate than the rate of increase in the interest, because, the EBIT has increased at 1.7 per cent in 1999-2000 when compared to 1995-1996. Whereas, the interest charged has increased by 61.8 per cent for the same period.

(ii) **FIXED CHARGES COVERAGE RATIO**
Its average was at 1.3 times and it has declined from 1.8 times in 1995-96 to 1.2 times in 1999-2000. The ratio has abnormally declined to 0.9 times in 1998-99. However, a ratio of more than 1.1 is satisfactory, because the gross profit is higher than the total fixed charges. The reasons for decline in the fixed charge coverage ratios are as follows:
(i) The EBDIT has increased by 22.3 per cent in 1999-2000, when compared to its base year 1995-96.
(ii) The interest and loan repayment have increased by 92 per cent over the same period, interest charges have increased by 61.8 per cent due to increased use of debt funds in the capital structure in the recent years by resorting to high capital gearing techniques. Whereas, the loan repayment has declined by 7.8 per cent.
Cash coverage ratio of 1:1 just meets total obligations of the companies, if it is more than one, it shows the satisfactory cash earning of the companies. This ratio has also exhibited similar pattern like interest coverage and fixed charges coverage ratios. It has declined from 1.8 times in 1995-96 to 1.2 times in 1999-2000, with an average of 1.4 times. We do not find such significant distinctive between fixed charges coverage ratios and cash earnings ratio. Because, both of them have shown similar tendencies during the period under review. The cash earnings ratio has declined significantly, but it is above 1:1 in the entire period of the study, and it indicates satisfactory cash earnings to meet the various fixed obligations of the companies.
Indian Journal of Accounting

The data relating to leverage pattern of Large Public Limited Companies is presented in Table 4.

Table 4
Leverage Ratios of Large Public Limited Companies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Leverage Ratio</td>
<td>1.2</td>
<td>1.3</td>
<td>1.4</td>
<td>1.5</td>
<td>1.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Financial Leverage Ratio</td>
<td>1.5</td>
<td>1.7</td>
<td>1.9</td>
<td>2.3</td>
<td>2.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Combined Leverage Ratio</td>
<td>1.8</td>
<td>2.2</td>
<td>2.7</td>
<td>3.5</td>
<td>3.3</td>
<td>2.7</td>
</tr>
</tbody>
</table>


(i) OPERATING LEVERAGE RATIO

The average operating leverage is at 1.4 times and it was highest at 1.5 times in the year 1999-2000. The operating leverage has increased from 1.2 times in 1995-96 to 1.5 times in 1999-2000. An interesting feature of the operating leverage is that it has been continuously increasing at relatively low rate and establishing around 1.5 times from 1995-99 onwards. This is on account of the fact that the fixed charges of the corporate sector (depreciation expenses) have increased at 112.1 per cent over a period of 5 years starting from 1995-96.

(ii) FINANCIAL LEVERAGE RATIO

The financial leverage of the companies is at 2.1 times in 1999-2000 as against 1.5 times in 1995-96 and its average was at 1.9 times. It was highest at 2.3 times in 1998-99. The financial leverage has increased gradually year after year similar to operating leverage and indicates that the companies have went on using higher financial leverage or trading on equity. This was also pointed out by examining the share of networth or total debt in the capital employed, where in networth accounted for 41.5 per cent and debt contributed for 58.5 per cent of capital employed. Therefore, it further confirms that the companies are operating at higher financial leverage otherwise known as high capital gearing or trading on thin equity. This is more prominent from 1997-98 onwards.

(iii) COMBINED LEVERAGE RATIO

The combined leverage is significantly higher than both operating and financial leverage in all the years of the study, its average was at 2.7 times, it was highest at 3.5 times in 1998-99 and lowest at 1.8 times in 1995-96. The combined leverage also shown an increasing pattern but its rate of increase in more than proportionate increase in operating and financial leverages.
MANAGING NPAs IN BANKS

*Dr. S.G. Sharma
*Dr. S.C. Bardia

ABSTRACT

The paper deals with the quantitative analysis of NPAs in the selected banks using statistical technique of testing of hypothesis to reach at objective conclusions. For this purpose Kruskal Wallis one way analysis of non-parametric variance test and students 't' test have been applied in this study. The paper also offers meaningful suggestions to improve the profitability and financial soundness of the banks.

The slow down in industrial sector has an adverse impact on quality of assets, therefore, the biggest challenge facing the banking sector, of late, is the availability of quality assets. The quality assets are required to repay the liabilities and for the existence and continuance of the business. In case banks are unable to generate income due to NPAs it will soon put the banks into liquidity crunch. The quantum of net non-performing assets of different classes of banks are given below as on 31.03.2001.

<table>
<thead>
<tr>
<th></th>
<th>NPA (Rs. in Crores)</th>
<th>% of advances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Sector Banks</td>
<td>3,699</td>
<td>5.4</td>
</tr>
<tr>
<td>Public Sector Banks</td>
<td>27,969</td>
<td>6.7</td>
</tr>
<tr>
<td>Scheduled Commercial Banks</td>
<td>32,468</td>
<td>6.2</td>
</tr>
<tr>
<td>Foreign Banks</td>
<td>800</td>
<td>1.9</td>
</tr>
</tbody>
</table>

This study has the following broad objectives:
~ To examine the efficiency and determination with which the banks have tried to bring down the quantum of their non-performing assets.

*Associate Professors, Dept of Accountancy & Business Statistics, University of Rajasthan Jaipur
To compare the performance of banks with regard to NPAs by applying suitable statistical tests and also by applying the technique of ratio analysis.

To offer some meaningful suggestions to improve the profitability and financial soundness of these banks.

METHODOLOGY

The financial data of the three banks selected for the study has been collected from the published annual reports for the period 1995-96 to 2000-01. In order to examine the NPA management of the banks a ratio of NPA as a percentage of Net Advances has been calculated. Some statistical tests such as Kruskal Wallis non-parametric test and student ' t ' test have also been applied to critically analyse NPA management of banks selected for this study besides using some simple statistical methods viz. mean (X), standard deviation (s) and co-efficient of variation (c.v.). Inter bank comparison has been made along with the group of 27 public sector banks. For the purpose of such comparison statistical hypotheses-null and alternative, have been set and thereafter appropriate statistical tests have been applied to know whether there is any significant difference between the banks or such differences have arisen only due to sampling only.

NON PERFORMING ASSETS

Following Table shows the net Non-performing assets as a percentage of net advances in selected banks.

<table>
<thead>
<tr>
<th>Year</th>
<th>Group of Banks*</th>
<th>S.B.I.@</th>
<th>I.D.B.I.@</th>
<th>B.O.R.@</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-96</td>
<td>8.9</td>
<td>6.7</td>
<td>9.4</td>
<td>6.3</td>
</tr>
<tr>
<td>1996-97</td>
<td>8.1</td>
<td>7.3</td>
<td>10.3</td>
<td>14.3</td>
</tr>
<tr>
<td>1997-98</td>
<td>7.3</td>
<td>6.1</td>
<td>10.1</td>
<td>17.8</td>
</tr>
<tr>
<td>1998-99</td>
<td>7.6</td>
<td>7.2</td>
<td>12.0</td>
<td>9.5</td>
</tr>
<tr>
<td>1999-00</td>
<td>7.0</td>
<td>6.4</td>
<td>13.4</td>
<td>9.8</td>
</tr>
<tr>
<td>2000-01</td>
<td>7.0</td>
<td>6.0</td>
<td>14.8</td>
<td>7.6</td>
</tr>
<tr>
<td>X</td>
<td>7.55</td>
<td>6.62</td>
<td>11.67</td>
<td>10.88</td>
</tr>
<tr>
<td>C.V.</td>
<td>10.42</td>
<td>8.30</td>
<td>18.14</td>
<td>39.92</td>
</tr>
<tr>
<td>S</td>
<td>0.786</td>
<td>0.549</td>
<td>2.12</td>
<td>4.34</td>
</tr>
</tbody>
</table>

Source : *Based on 27 public sector banks. @ Annual Reports of Respective Banks.
Sharma & Bardia

Table 1 reveals that the average non-performing assets were the lowest in case of SBI, followed by the group of public sector banks. The condition of IDBI was the worst. The variability in the ratio of NPA as a percentage of net advances was the highest in the Bank of Rajasthan followed by IDBI. The management of NPA was the best in case of SBI, as the average and the variability in the ratio was the least as compared to the other banks selected for the study.

In order to fulfil aforesaid objective, two hypotheses have been tested. The following table-2 shows the Kruskal Wallis Non-parametric Test of non-performing assets as a percentage of net advances of banks under study.

The sampling distribution of K statistic can be approximated by a chi-square distribution, when all the sample sizes are at least five. Since the selected data meets this condition, chi-square distribution can be used. In Kruskal Wallis test, the appropriate number of degrees of freedom is K-1, which is (4-1) or 3 since we are dealing with four samples.

Table - 2
Kruskal Wallis Non-parametric Test

<table>
<thead>
<tr>
<th>Year</th>
<th>Group of Banks</th>
<th>R₁</th>
<th>S.B.I.</th>
<th>R₂</th>
<th>I.D.B.I.</th>
<th>R₃</th>
<th>B.O.R.</th>
<th>R₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-96</td>
<td>8.9</td>
<td>14</td>
<td>6.7</td>
<td>5</td>
<td>9.4</td>
<td>15</td>
<td>6.3</td>
<td>3</td>
</tr>
<tr>
<td>1996-97</td>
<td>8.1</td>
<td>14</td>
<td>7.3</td>
<td>9.5</td>
<td>10.3</td>
<td>19</td>
<td>14.3</td>
<td>22</td>
</tr>
<tr>
<td>1997-98</td>
<td>7.3</td>
<td>9.5</td>
<td>6.1</td>
<td>2</td>
<td>10.1</td>
<td>18</td>
<td>17.8</td>
<td>24</td>
</tr>
<tr>
<td>1998-99</td>
<td>7.6</td>
<td>11.5</td>
<td>7.2</td>
<td>8</td>
<td>12.0</td>
<td>20</td>
<td>9.5</td>
<td>16</td>
</tr>
<tr>
<td>1999-00</td>
<td>7.0</td>
<td>6.5</td>
<td>6.4</td>
<td>4</td>
<td>13.4</td>
<td>21</td>
<td>9.8</td>
<td>17</td>
</tr>
<tr>
<td>2000-01</td>
<td>7.0</td>
<td>6.5</td>
<td>6.0</td>
<td>1</td>
<td>14.8</td>
<td>23</td>
<td>7.6</td>
<td>11.5</td>
</tr>
</tbody>
</table>

\[ \Sigma R₁ = 61 \quad \Sigma R₂ = 29.5 \quad \Sigma R₃ = 116 \quad \Sigma R₄ = 93.5 \]

Computing the K statistic:

\[ K = \frac{12}{n(n+1)} \sum_{j=1}^{n} \frac{R_j^2}{n_j} - 3 \frac{(n+1)}{n} \]

\[ \Rightarrow \frac{12}{24(24+1)} \left[ \frac{61^2}{6} + \frac{29.5^2}{6} + \frac{116^2}{6} + \frac{93.5^2}{6} \right] - 3 \frac{(24+1)}{6} \]

\[ \Rightarrow 17.40 \]
The hypotheses can be stated as below:

\[ H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 \]

Null hypothesis - There are no significant differences among the four populations and so they have the same mean.

Critical value of chi-square 
7.81473 at 3 degrees of freedom.

The acceptance region for the null hypothesis (that there are no differences among the populations) extends from zero to a chi-square value of 7.81473. Since the sample K value of 17.40 is beyond this acceptance region, therefore, we reject the null hypothesis and conclude that there is significant difference among the populations. The rejection also suggests that the banks be studied separately.

S.B.I. showed a fluctuating tendency in the ratio of NPAs to net advances. The quality of assets of SBI was better as compared to the group of public sector banks. Although the quality of assets has improved in both cases, but the average of 6.62 per cent in SBI was better than 7.55 in group of banks. Variability in the ratio during the period of study was less (C.V. = 8.30%) as compared to the variability in group of banks (C.V. = 10.42%).

### Table 3

**Students t test between Group of Banks and the selected Banks**

<table>
<thead>
<tr>
<th>H0 (Null Hypotheses)</th>
<th>( \mu_{\text{Group}} = \mu_{\text{SBI}} )</th>
<th>( \mu_{\text{Group}} = \mu_{\text{IDBI}} )</th>
<th>( \mu_{\text{Group}} = \mu_{\text{BOR}} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 (Alternative Hyp.)</td>
<td>( \mu_{\text{Group}} = \mu_{\text{SBI}} )</td>
<td>( \mu_{\text{Group}} = \mu_{\text{IDBI}} )</td>
<td>( \mu_{\text{Group}} = \mu_{\text{BOR}} )</td>
</tr>
<tr>
<td>Degrees of Freedom</td>
<td>( n_1 + n_2 = 10 )</td>
<td>( n_1 + n_2 = 10 )</td>
<td>( n_1 + n_2 = 10 )</td>
</tr>
<tr>
<td>Level of Significance</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Calculated value of 't'</td>
<td>2.16</td>
<td>4.08</td>
<td>1.69</td>
</tr>
<tr>
<td>Critical value of 't'</td>
<td>2.23</td>
<td>2.23</td>
<td>2.23</td>
</tr>
<tr>
<td>Result</td>
<td>Accepted</td>
<td>Rejected</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

At 5% level of significance \( H_0 \) of no significant difference between the mean value of public sector banks and SBI was accepted (Table 3).

At 5% level of significance, the hypothesis of no significant difference between the public sector banks and BOR was, however, accepted (Table-3). Bank of Rajasthan has, of late, improved the quality of its assets.

This is a dangerous signal for the development bank like IDBI. The high average of NPAs (11.67) during the period under study also suggests quick corrective action be initiated by IDBI. The variability of 18.14% is a sign of concern. It was found that at 5% level of
significance, the difference between NPAs of public sector banks and IDBI was significant. This further strengthens our analysis that either the IDBI should improve its quality of assets or be ready to face the liquidity crunch.

INTER BANK COMPARISON

The average NPAs of SBI were approximately half (6.62%) as compared to the average NPAs of IDBI (11.67%). SBI improved its quality of assets during the period under review. On the other hand, the improvement was noticed in the NPAs of SBI. Variability in the NPAs of SBI was less as compared to a very high variability in the NPAs of IDBI. Result of the 't' test shows (Table 5) significant difference between the quality of assets of SBI and IDBI. The management of IDBI must check this alarming situation before it goes out of hand.

Table - 4

<table>
<thead>
<tr>
<th>Students 't' test for Inter Bank Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H₀ (Null Hypotheses)</strong></td>
</tr>
<tr>
<td><strong>H₁ (Alternative Hyp.)</strong></td>
</tr>
<tr>
<td>Degrees of Freedom</td>
</tr>
<tr>
<td>Level of Significance</td>
</tr>
<tr>
<td>Calculated value of 't'</td>
</tr>
<tr>
<td>Critical value of 't'</td>
</tr>
<tr>
<td>Result</td>
</tr>
</tbody>
</table>

At 5% level of significance, the null hypothesis of no significant difference between the average quality of assets of SBI and BOR was accepted (Table 5). The management of BOR should further continue to improve its quality of assets.

The quality of assets of IDBI is becoming defective day and day, while the quality of assets of BOR is showing a fluctuating tendency. The condition of BOR was the worst in 1997-98, when its NPAs were as high as 17.79 per cent. But the commendable performance of the management of BOR checked the declining tendency and showed a radical change in their quality of assets. On the other hand, NPAs of IDBI increased continuously. However, the average performance of the banks was not significantly different (Table 5). In this particular case, the trend is important and not the average. BOR should continue to improve its quality of assets while IDBI should review the its credit risk management before sanctioning loans.
The problem of NPA exists but it is inappropriate to put the responsibility solely on the banking sector in as much as the overall credit recovery system and credit culture are still to be improved. The critical issue is indeed improving the overall efficiency of banking system. Banks have to be efficient and regulated irrespective of their being publicly or privately owned. The bank should not grant loans due to political pressure but the loans be granted after judging the credit worthiness of the customer. In order to fulfil this objective the banks should use the sophisticated methods of credit risk management.

FINDINGS AND SUGGESTIONS:

~ The reason for high amount of NPAs is owing to lending to dubious parties in agriculture and industry.

~ The management of NPA in banks requires a two pronged strategy viz. collection and settlement of existing non-performing advances and reduction of future NPAs by continuous improvement in asset quality.

~ Most of the banks are adhering to out of court settlements, therefore the banks under review should also adopt this policy for quick settlement of disputes.

~ The quantum of net non-performing assets for the year ending 31st March, 2001 were as high as Rs. 27,969 crores for public sector banks, Rs. 32,468 crores for scheduled commercial banks, Rs. 3,699 crores for private sector banks Rs. 800 crores for foreign banks being 6.7%, 6.2%, 5.4% and 1.9% of their net advances respectively.

~ The quality of assets of SBI was better as compared to the group of public sector banks. However, at 5% level of significance the null hypothesis no difference between the mean value of public sector banks and SBI was accepted. The quality of assets has improved during the period under study for the group as well as for SBI.

~ The consistent decline in the quality of advances of IDBI was observed. The condition became bad to worse during the period under review. Not only the average was high but the variability was also high. The average NPAs of IDBI were approximately double than the average of SBI. Therefore, the management of IDBI is advised to take immediate effective steps to cope up with this alarming situation. It is further suggested that the management should review its credit risk management policy in order to improve the quality of assets.

~ The management of BOR was not satisfactory when compared with SBI. However, at 5% level of significance the null hypothesis of no significant difference was accepted. The management of BoR should continue to improve its quality of assets.

~ The Government should further reduce the rates on its securities so that the banks can borrow at a cost effective rate.
Harihar (1999) discussed some myths regarding EVA. According to the author, Stern & Stewart were not the founders of EVA concept, rather it was first propounded by General motors in early 1920's. Further, EVA calculations are not simple and need a lot of adjustments in the financial books. The author is also of the view that EVA can not be used for comparison among companies of different industries. The next myth is that EVA figures can be manipulated to suit the needs of management. The last and most dangerous myth discussed is that the high EVA companies are cash rich. For looking at cash adequacy another measure called CVA (Cash value added) can be used. According to Kumar (2000), using EVA as the best financial indicator blindly may not be correct, since it is not without pitfalls. The pitfalls in EVA calculation and manipulation have been discussed. According to the author positive EVA figures do not ensure high financial performance. He suggests that EVA should be used for making comparisons between companies in the same industry group. He observes that computing COC at flat rates is meaningless. To make EVA relatively comparable EVA should be expressed in terms of EVA (in Rs.) per unit of capital employed.

OBJECTIVES AND METHODOLOGY
In the current paper, a new variable termed as EVAPRI (Economic Value Added Per Rupee of Investment) has been calculated by dividing the EVA figure by the invested capital of the previous year. Thus:

\[ \text{EVAPRI} = \frac{\text{EVA}_t}{\text{Invested Capital}} \text{}_{t-1} \]

The logic for calculating EVAPRI is in the belief that only when EVA is expressed in rupees generated per unit of capital, one will be able to compare the performance of the company over the years and also to make comparisons among companies in an industry.

*Professors of Eminence, Apeejay Institute of Management, Jalandhar
**Research Associate, Punjab University, Guru Kashi Centre, Talwandi Sabo, Distt. Bathinda
To check whether this belief holds true in the practical situation or not, EVA and EVAPRI are classified into various class intervals and it is seen that which between the two is more scattered. To know about the scatteredness, Standard Deviation has been used as the statistical tool. The variable which is relatively more consistent has been regarded as a better measure for comparisons over the years and for comparisons among the companies in an industry.

For the purpose of analysis the sample of 50 companies has been taken on convenience basis from the list of companies whose shares are actively traded on Bombay Stock Exchange (list A shares). The financial data of the sample companies have been collected from the 'Official Bombay Stock Exchange Directory'. The data available from this directory pertains to ten years and accordingly the time frame of the present study has been restricted to ten years, that is, from 1988-89 to 1997-98. Although the time frame adopted in the present study is of ten years, the financial variables viz., EVA, MVA, Kp, Lp, ROCE, EPS and NPV have been calculated for nine years due to the nature of calculations. EVA has been calculated on the basis of invested capital in the previous year. Thus, data for the period 1989-90 have been used as the starting point, restricting the calculated values of EVA only to nine years.

The calculation procedure for the various financial variables has been described in the ensuing paragraphs.

EVA has been calculated by applying the following formula:

\[ EVA^t = (r-c) \times \text{Invested Capital}^{(t-1)} \]

Where,

\[ R = \frac{(\text{Net Operating Profit After Tax (NOPAT)})}{\text{Invested Capital}^{(t-1)}} \times 100 \]

\[ c = \text{Weighted Average Cost of Capital (WACC)} \]

\[ \text{Invested Capital} = \text{Total Borrowings + Net Worth} \]

\[ t = \text{Time period} \]

\[ \text{NOPAT} = (\text{Interest} + \text{Operating profit}) \times (1-\text{Effective tax rate}) \]

In the present paper the various companies have been grouped into five industries viz. Chemical and Pharmaceutical Industry, Consumer Goods Industry, General Engineering Industry, Infrastructure Industry, Miscellaneous.

ANALYSIS FOR EVA AND EVAPRI

Since EVA is an absolute measure, it was considered proper to compute a relative measure of EVA so as to bring all companies in an industry to a comparable platform. Different companies in an industry are bound to have wide ranging EVA figures due to many factors such as the nature of their operations, intensity of labour and capital, nature of goods and services, seasonality, etc. Such differences would render the absolute values of EVA non-comparable in a cross-company analysis in an industry. In order to arrive at a relative
measure of the variable in question, the absolute values were divided by the invested capital of the previous year, which yielded the value of EVA per rupee of investment (EVAPRI). EVAPRI was computed yearwise* for all companies in various industries and the consolidated table was prepared for all the years, so that a better insight could be had into the industry wise behaviour of EVA. A similar tabulation exercise was also done for EVA** so that both approaches could be compared with each other.

The Table 1 presents the summary of EVA computation for all years. The table revealed a scattered picture regarding the values of EVA which are distributed amongst various class intervals. However, there is a tendency of EVA to stick to the lower class intervals, thereby confining themselves to up till Rs. 30 thousand crores. In case of General Engineering industry most values of EVA (26.3%) were confined to below Rs.10 thousand crores, followed by 22.2% in the interval between Rs.10-20 thousand crores. Similar scenario obtained for Chemical and Pharmaceutical industry with first two class intervals consuming 59.9% cases. Not much difference was observed in case of Infrastructure and Consumer Goods industries with 27.8% and 52.8% cases falling in the first two class intervals. The miscellaneous industry also moved on a more or less similar pattern with 46.1% cases restricted to the first three class intervals.

In spite of the values of EVA tending to cluster around the lower class intervals, the remaining cases can be seen as fairly well spread across other class intervals. The incidence of a particular cell going blank is very rare. Another prominent observation can be made, viz ; that the score of EVA distribution falls after the first three class intervals but rises abruptly for the last category of 'Above Rs. 100 thousand crores'. This happens almost uniformly for all industry groups. Before assigning any conclusive comments to this phenomenon, it was thought appropriate to have a look at how EVAPRI behaved. The industry wise EVAPRI consolidated for all years is presented in Table 2.

The entire scenario undergoes a considerable change, when the distribution for EVAPRI is examined. The scatter, which was fairly pronounced in case of EVA can be seen to have shrunk fairly in EVAPRI figures. Though the tendency to stick close to the lower class intervals is still evident, a more sharply defined and clear picture emerges for almost all industries, with the exception of miscellaneous industry. This may be because, as the nomenclature suggests, miscellaneous industry does not contain similar firms and therefore, the scatter is likely to be more. The story for all other industry classes is mostly summed up within the first three class intervals, with only a few residual cases managing to break the barrier. In case of General Engineering industry, 100% cases are confined within Rs. 30 of EVAPRI. 95.7% cases fall within this limit in case of Chemical and Pharmaceutical industry, with Infrastructure and Consumer goods industries following suit with 97.2% and 95.3% cases falling between 0 to 30 rupees.

The table 3 provides further testimony to the foregoing analysis. Even a cursory glance at the table reveals that the distribution of EVAPRI is much less dispersed for all industry
groups, thereby making it more reliable for interpretation. What follows from above is that EVA, when examined in terms of per rupee of investment, helps in reducing the company specific anomalies in an industry to a large extent and provides a more accurate interpretation and decision criteria, as compared to the absolute values of EVA. As per EVAPRI calculation, almost all industry groups show that during the time frame of the study, they have added value to the tune of Rs. 30 and less. A few companies have crossed this resistance level and can be truly said to be on their way to make an efficient use of capital. It was not considered out of place to identify the above mentioned companies and the industry(ies) to which they belonged so as to exactly lay hands on these selected few and to report them to the world.

The table 4 presents the frequency of instances in which EVAPRI exceeded Rs. 30. The table depicts that the miscellaneous industry bagged the first place in having the highest number of companies (15) in which EVAPRI exceeded Rs.30. The company which had the highest frequency in this regard also belongs to this industry (Colgate with frequency of 6). Reliance had the highest EVAPRI of Rs.68 (The Company belongs to Consumer Goods industry). The table given above does not include the data about General Engineering industry, as no company in this industry had EVAPRI above Rupees thirty.

CONCLUSION

Different industrial classifications are obviously unique in themselves and many factors differentiate one group of companies from the other like their nature of operations, intensity of labour and capital, seasonality, etc. These differences could seriously hinder the comparability of EVA figures over a cross-section of industries.

Therefore, it was considered proper to contemplate on a relative measure of EVA so that all companies in an industry could be viewed from a common platform, while comparing their respective EVAs. As such, the absolute EVA values were divided by the invested capital of the previous year and a measure called EVA per rupee of investment (EVAPRI) was computed yearwise for all industries.

On comparing industrywise composite frequencies for EVAPRI for all years, it was found that the scatter in the distribution for EVAPRI was much lesser than that of the EVA distribution and a much sharper picture emerged for almost all industries, except miscellaneous industry (for obvious reason of containing dissimilar firms).

For the purpose of confirming the above results, industry wise standard deviations for EVA and EVAPRI were also computed. As expected, the distribution for EVAPRI was found to be much less dispersed in all industry groups as compared to EVA.
### Table 1
Industrywise composite frequencies for EVA for all years

<table>
<thead>
<tr>
<th>EVA (Rs. in thousand crores)</th>
<th>Chemical &amp; Pharma</th>
<th>Consumer Goods</th>
<th>General Engineering</th>
<th>Infrastructure</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10</td>
<td>50 (30.9)</td>
<td>29 (26.9)</td>
<td>26 (26.3)</td>
<td>8 (11.1)</td>
<td>11 (17.5)</td>
</tr>
<tr>
<td>10 - 20</td>
<td>47 (29.0)</td>
<td>28 (25.9)</td>
<td>22 (22.2)</td>
<td>12 (16.8)</td>
<td>8 (12.7)</td>
</tr>
<tr>
<td>20 - 30</td>
<td>24 (14.8)</td>
<td>9 (8.3)</td>
<td>11 (11.1)</td>
<td>10 (13.9)</td>
<td>10 (15.9)</td>
</tr>
<tr>
<td>30 - 40</td>
<td>8 (4.9)</td>
<td>10 (9.3)</td>
<td>14 (14.1)</td>
<td>6 (8.3)</td>
<td>5 (7.9)</td>
</tr>
<tr>
<td>40 - 50</td>
<td>6 (3.7)</td>
<td>12 (11.1)</td>
<td>4 (4.1)</td>
<td>6 (8.3)</td>
<td>7 (11.1)</td>
</tr>
<tr>
<td>50 - 60</td>
<td>4 (2.5)</td>
<td></td>
<td>3 (3.0)</td>
<td>4 (5.5)</td>
<td>7 (11.1)</td>
</tr>
<tr>
<td>60 - 70</td>
<td>2 (1.2)</td>
<td>2 (1.9)</td>
<td>3 (3.0)</td>
<td>4 (5.5)</td>
<td>3 (4.7)</td>
</tr>
<tr>
<td>70 - 80</td>
<td>3 (1.9)</td>
<td>1 (0.9)</td>
<td></td>
<td>2 (2.8)</td>
<td>2 (3.2)</td>
</tr>
<tr>
<td>80 - 90</td>
<td></td>
<td>3 (2.8)</td>
<td></td>
<td>2 (2.8)</td>
<td></td>
</tr>
<tr>
<td>90 - 100</td>
<td>2 (1.2)</td>
<td>1 (0.9)</td>
<td>2 (2.1)</td>
<td></td>
<td>1 (1.6)</td>
</tr>
<tr>
<td>Above 100</td>
<td>16 (9.9)</td>
<td>13 (12.0)</td>
<td>14 (14.1)</td>
<td>18 (25.0)</td>
<td>9 (14.3)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>162 (100.0)</strong></td>
<td><strong>108 (100.0)</strong></td>
<td><strong>99 (100.0)</strong></td>
<td><strong>72 (100.0)</strong></td>
<td><strong>63 (100.0)</strong></td>
</tr>
</tbody>
</table>

### Table 2
Industrywise composite frequencies for EVAPRI for all years

<table>
<thead>
<tr>
<th>EVAPRI (in Rs.)</th>
<th>Chemical &amp; Pharma</th>
<th>Consumer Goods</th>
<th>General Engineering</th>
<th>Infrastructure</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10</td>
<td>72 (44.4)</td>
<td>57 (52.8)</td>
<td>63 (63.6)</td>
<td>54 (75.0)</td>
<td>13 (20.6)</td>
</tr>
<tr>
<td>10 - 20</td>
<td>68 (42.0)</td>
<td>39 (36.1)</td>
<td>30 (30.3)</td>
<td>14 (19.4)</td>
<td>12 (19.0)</td>
</tr>
<tr>
<td>20 - 30</td>
<td>15 (9.3)</td>
<td>8 (7.4)</td>
<td>6 (6.1)</td>
<td>2 (2.8)</td>
<td>9 (14.3)</td>
</tr>
<tr>
<td>30 - 40</td>
<td>6 (3.7)</td>
<td>3 (2.8)</td>
<td>-</td>
<td>2 (2.8)</td>
<td>9 (14.3)</td>
</tr>
<tr>
<td>40 - 50</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1 (1.6)</td>
</tr>
<tr>
<td>50 - 60</td>
<td>1 (0.6)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5 (7.9)</td>
</tr>
<tr>
<td>60 - 70</td>
<td>-</td>
<td>1 (0.9)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>70 - 80</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1 (1.6)</td>
</tr>
<tr>
<td>80 - 90</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>90 - 100</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Above 100</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3 (4.7)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>162 (100.0)</strong></td>
<td><strong>108 (100.0)</strong></td>
<td><strong>99 (100.0)</strong></td>
<td><strong>72 (100.0)</strong></td>
<td><strong>63 (100.0)</strong></td>
</tr>
</tbody>
</table>
Indian Journal of Accounting

Table 3
Industrywise Standard Deviations for EVA and EVAPRI

<table>
<thead>
<tr>
<th></th>
<th>Chemical &amp; Pharma</th>
<th>Consumer Goods</th>
<th>General Engineering</th>
<th>Infrastructure</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVA</td>
<td>30.70</td>
<td>32.98</td>
<td>33.00</td>
<td>36.85</td>
<td>32.74</td>
</tr>
<tr>
<td>EVAPRI</td>
<td>8.53</td>
<td>13.89</td>
<td>6.00</td>
<td>8.49</td>
<td>24.63</td>
</tr>
</tbody>
</table>

Table 4
Frequency of instances in which EVAPRI exceeded Rupees Thirty

<table>
<thead>
<tr>
<th>Chemical &amp; Pharma</th>
<th>Consumer Goods</th>
<th>Infrastructure</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company name</td>
<td>Freq.</td>
<td>Company name</td>
<td>Freq.</td>
</tr>
<tr>
<td>Reckitt &amp; Colman</td>
<td>2</td>
<td>Colgate</td>
<td>6</td>
</tr>
<tr>
<td>Parke Davis</td>
<td>1</td>
<td>Ponds</td>
<td>5</td>
</tr>
<tr>
<td>Hindustan Lever</td>
<td>2</td>
<td>Asian Hotels</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ITC</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Reliance had the highest EVAPRI of Rs. 68 in the year 1996.

* * *
CORPORATE WEB REPORTING PRACTICES IN INDIA
(A Case Study of Tata Group of Companies)

*Revti Raman
**Puja Ahuja

ABSTRACT

Since 1995, the rate of adoption of Internet has shown a great progress because of the volatility of technologies and adoption of technologies in all the fields of life. The present study, based on Tata group of companies, shows that corporate web reporting is not much developed in India. Rather it is just in infant stage. The need is to take initiative on the part of corporate sector to come in this area. Now a day, it is just an emerging issue. If the companies take necessary steps keeping in mind its benefits, then time will come when corporate web reporting will be as popular as corporate traditional reporting.

Accounting is an information system and financial statements constitute an important communication medium. Companies now supply information on Internet. It is called Corporate Web Reporting. Internet is mostly used for exchange of information. Companies are also supplying their information on Internet, which is easy as well as quick. But only a few companies are presenting information on Internet. Since 1995, the rate of adoption of Internet has shown a great progress. The main reason is volatility of technologies and adoption of technologies in all the fields of life.

The sample comprises of whole of Tata group of companies. There are 80 companies in seven sectors. Here, 68 companies form a part of the sample. From the web site of Tata group of companies, the list of 68 companies is available. The samples of Tata group of companies have been chosen because it is the largest group of private corporate sectors in India. Besides it is the largest producer of steel, coal etc. It is leading in so many consumer products like Tata Tea, Tata Sumo etc.

The objective of the present study is to study the web reporting practices of Indian corporate sector and to analyze the sector wise web reporting practices. The data about Tata group of companies have been collected from the respective web sites of the companies.

*Sr.Lecturer and Head, Post Graduate Deptt. of Commerce, Kamla Lohtia S.D. College, Ludhiana.
**Lecturer, Post Graduate Deptt. of Commerce, Kamla Lohtia S.D. College, Ludhiana.
Firstly, the web sites of Tata group were referred. Under it, the section of companies was selected. Here, the name of each company is mentioned under its respective sector. Then by approaching to each company, the web site of each company was known and after that, by connection to the websites of each respective company, the information presented by each company was collected.

RESULTS AND DISCUSSION

The following are the main results -
(i) The sample consists of 68 companies of Tata group. Out of these companies 20 companies do not have their web sites and no information regarding them is available. In other words, 71% of the sample companies have their web sites and remaining 21% do not have their web.

(ii) The number of companies providing financial information is 18 and that of providing theoretical information is 30. The Percentage/Ratio of companies providing financial information is 26% and of others providing theoretical information is 45%. The ratio of companies providing theoretical and financial information is 5:3. The analysis of data show that some companies are providing just theoretical information like notices of meetings, profile of company, about their products, processes, technologies etc. While other companies are providing financial information i.e. their financial records, annual returns, income earned, sales pattern etc. 62% companies [Out of those with available information] are providing just theoretical information and rest area is 37% which are presenting financial information.

(iii) Table 1 shows that out of 18, only 14 companies are presenting compulsory disclosures. But number of companies presenting voluntary disclosures is more because there are such companies, which are presenting human resources or social information or details about their exports etc. Though these companies are not financially measuring the social costs or benefits but are giving this information as notes like the name and type of facilities provided by them to society, the steps taken by them for the protection of environment etc. Similarly, some companies are giving information about the centers opened for development of their employees. In case of human resources, some companies like Tata Chemicals, Tata Tea, Tata Lumins, Voltas etc. are measuring this information. These are giving just notes about types & qualification of workers etc.

(iv) The analysis of disclosures presented by different companies is depicted in Table 2. Here, the number of companies presenting different disclosures is given along with the percentage out of those making financial disclosures. Table 2 shows that only 13 companies are presenting Balance Sheet and Profit and Loss account. Director's report and Cash flow statement is presented by just 3 companies. Auditor's report is being presented by just one company i.e. Titan Industries. Similarly in case of voluntary disclosure, 4 companies present
human resources information. Social information by 6 companies, quarterly results by 8 companies and just a single company Tata refractory is presenting information about exports.

(v) The sector wise analysis of compulsory and voluntary disclosures has been discussed in this section. This shows that 15% companies are in metals sector which have Balance Sheet, 5% are Energy Sector, 13% are in Consumers Products, 18% are in Engineering Sector, 22% are in Communication Sector, 5% in Chemicals and 22% in Service Sector. The companies presenting compulsory and voluntary disclosures are different in each sector. Highest percentage is shown by consumer sector.

<table>
<thead>
<tr>
<th></th>
<th>Available</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosures</td>
<td>48</td>
<td>20</td>
</tr>
<tr>
<td>Financial Disclosures</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Compulsory Disclosures</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Voluntary Disclosures</td>
<td>16</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2
Trends of Disclosure

<table>
<thead>
<tr>
<th>1. Compulsory Disclosures</th>
<th>Number of Companies</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Sheet</td>
<td>13</td>
<td>72</td>
</tr>
<tr>
<td>Profit and Loss account</td>
<td>13</td>
<td>72</td>
</tr>
<tr>
<td>Director's Report</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Auditor's Report</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Cash Flow Statement</td>
<td>3</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Voluntary Disclosure</th>
<th>Number of Companies</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources information</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Social Information</td>
<td>6</td>
<td>33</td>
</tr>
<tr>
<td>Information about Subsidiaries</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Information about Export</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Un-audited quarterly results</td>
<td>8</td>
<td>44</td>
</tr>
</tbody>
</table>
Table 3
Disclosure Practices in Different Sectors

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sector</th>
<th>Total number of company</th>
<th>Companies having web sites</th>
<th>Company presenting Compulsory Disclosure</th>
<th>Company Presenting Voluntary Disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Metals</td>
<td>10</td>
<td>7</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Energy</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>nil</td>
</tr>
<tr>
<td>3</td>
<td>Consumer Products</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Engineering Sector</td>
<td>13</td>
<td>8</td>
<td>nil</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Communication &amp; IT</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Chemicals</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Service</td>
<td>14</td>
<td>10</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4
Sector Wise of Disclosures in Percentage Form

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sector</th>
<th>% of Company for Compulsory Disclosure</th>
<th>% of Company for Voluntary Disclosure</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Metals</td>
<td>40%</td>
<td>30%</td>
<td>III</td>
</tr>
<tr>
<td>2</td>
<td>Energy</td>
<td>50%</td>
<td>nil</td>
<td>II</td>
</tr>
<tr>
<td>3</td>
<td>Consumer products</td>
<td>62%</td>
<td>62%</td>
<td>I</td>
</tr>
<tr>
<td>4</td>
<td>Engineering sector</td>
<td>nil</td>
<td>15%</td>
<td>VII</td>
</tr>
<tr>
<td>5</td>
<td>Communication &amp; IT</td>
<td>16%</td>
<td>25%</td>
<td>V</td>
</tr>
<tr>
<td>6</td>
<td>Chemicals</td>
<td>33%</td>
<td>33%</td>
<td>IV</td>
</tr>
<tr>
<td>7</td>
<td>Service</td>
<td>7%</td>
<td>14%</td>
<td>VI</td>
</tr>
</tbody>
</table>

FINDINGS AND SUGGESTIONS
The main findings of the study, which have been drawn from whole analysis, are summarized below:
1. Out of the 68 companies, only 48 companies could be accessed. The rest 20 companies do not have their websites. It means they are not resorted to web reporting at all.
2. Out of the sample companies 26% of the companies are presenting financial information i.e. disclosures from corporate reporting. This percentage is 37% if taken out of those having web sites.
3. Out of the sample, 18 companies are presenting compulsory disclosure.
4. Most of the 13 companies are giving just balance sheet and profit and loss account and other compulsory disclosures are ignoring.
5. In case of voluntary disclosures, only 4 companies are presenting human resource information and 6 companies are presenting social information. No company is giving price level information.

6. As regards inter sector comparison, the companies in consumer sector are at number one in the matter of compulsory disclosure in web reporting and the companies in services sector are at last number.

7. Engineering sector companies are not presenting any compulsory disclosure at all.

8. There is no strong relationship between a sector and its web reporting practices. But it can be assumed that companies engaged in production of those goods, which are directly consumed by consumers, are more stressing on Internet reporting.

9. As compared with foreign studies, the results of this study as compared Flym and Gowtharpe with study conducted in 1997, which was conducted on a sample of 100, 46 were presenting financial disclosures. The number here is 18, which is quite low. But as we know that India is not a trendsetter but a trend follower, these results may not present any conclusion in relation to foreign study.

The study of Indian corporate sector in the matter of their web reporting practices show that web reporting practices are not much followed in Indian corporate sector. Information technology, which has affected every field of life, is still not properly used by corporate sector. They corporate sector is using these techniques in general matters but not in case of financial disclosures. To develop their web reporting practices, following steps may be helpful:

- The users can be contacted through surveys etc. and their view about reporting practices should be kept in mind while presenting disclosures on Internet.
- Each company should use Internet as a supplement to traditional annual reports. At least compulsory disclosure like balance sheet and profit and loss each company on its web sites should present account etc.
- The information about human resources, social information, price level information etc. should present to the greatest possible extent.
- The format for presenting the information on the Internet should be clear and standardized so that users can easily compare these information with other companies. Govt. should lead in Internet reporting practices by using more and more web reporting in public sector undertakings.
- There is a need to convince the companies about the benefits of web reporting so that they themselves take steps to adopt web reporting. It can be served through more use of digital means in stock markets and in corporate sector dealings.
- The steps should be taken to solve the problem of hacking so that companies can use web reporting safely.
REFERENCES
WEBSITES: All Relevant Ones
INFORMATION SYSTEM AUDIT AS VIGILANCE TOOL IN BANKS

*Dr. K.M. Bhattacharya

ABSTRACT

Whereas computerization is expected to lead to improvements in customer service, housekeeping, decision-making productivity and profitability, uncontrolled use of computers may cause loss of important data. Inaccurate or untimely data may lead to incorrect decision making. Computer abuses/frauds caused by outsiders or employees may land the Bank into serious trouble and detection of computer frauds/abuses may be left to chance in the absence of any vigilant machinery. Protecting the assets of IT viz., hardware, software and data are of vital importance. Computer errors may prove to be costly in the long run and loss of confidential data may attract claims for compensation. Last but not the least, the absence of control may result into disruption in the carrying out the banking operations, therefore to prevent any such events the audit of IT system is necessary. Hence there is a need to subject all IT systems to audit/control.

One of the vital aspects of computerization is the Information Systems Audit, which envisages review of the existing practices in computer / networking environment and suggesting preventive measures required to curtail procedural violations and frauds and preventing major mishaps. The objective of IS Audit is ensuring that appropriate controls are implemented in IT as designed and envisaged by the senior management of the bank. IS Audit is expected to provide reasonable assurance to the management that appropriate controls are designed and implemented in Information Systems supported by Information Technology. Information Systems Audit is not a mandatory requirement for banks in India and is considered to be a subset of Internal Audit function. As in internal audit, the scope and objectives of IS audit are prescribed by the management of banks so as to address issues related to IS Risks, Risk Management, IS Security, Controls etc. IS audit. IS Audit by definition is the process of collecting and evaluating evidence to determine whether a computer system safeguards assets, maintains data integrity, achieves organizational goals effectively, and consumes IT resources efficiently/economically.

*Managing Director, The Bank of Rajasthan Ltd., Jaipur (Raj)
ROLE OF IS AUDITORS

It may be noted that the primary responsibility of assessing the risks and implementing adequate security and controls lies with the management of the bank. IS Auditors are however, expected to identify the key areas of weaknesses and advise the management about the same and also, whether the information systems risks arising out of implementing Information Technology have been adequately addressed. IS Auditors are expected to play a supporting role in smoothly and systematically implementing computerization process in a bank. Unlike a traditional auditor, the IS Auditor is perceived to act as a counselor in the process of computerization and especially in critical stages such as system design, system development and implementation. The thrust of an IS Auditor is towards better security, adequacy of internal control, review of manual controls vis-à-vis system imposed controls and a judicious mix of them. IS Audit is expected to provide reasonable assurance to the bank Management on IT Governance in the bank encompassing the key information criteria of Quality (effectiveness, efficiency, and economy), IS security (confidentiality, integrity, and availability) and fiduciary (compliance and reliability). While reviewing the system either during pre-implementation or during post implementation IS Auditor must keep in mind that he should not introduce any system of internal control afresh on his own. However he may add any suggestion to his report to enable consideration.

IS AUDIT - APPROACHES AND PROCESS

An IS auditor has to adopt two types of approaches for his audit purposes:

- **Audit around the computer**: This method follows a traditional approach in that it does not call for high technical skill and is mostly confined to verification of output results with the given input and in case of erroneous output the input is checked for consistency.

- **Audit through the computer**: This method requires a high degree of computer knowledge and skills and calls for a professional approach. In this approach the process logic of the computer is checked in toto with the input and output.

IS AUDIT PROCESS

Before proceeding to conduct IS Audit of a Computerized Branch / Office the IS Auditor should first finalize the scope of his audit in consultation with the management of the bank. The most important task in any IS Audit assignment is to define the scope, objective and the area of coverage (terms of reference) of the assignment and sometimes, IS Auditor could also be required to assist the management for the same. In such a situation the Auditor is required to carefully plan the scope of his audit so that any important aspect is not left untouched. After finalization of the scope of audit the auditor should make himself familiar with the following guidelines:
<table>
<thead>
<tr>
<th>Bank Specific</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Overview of computer operations and connected activities in the branch/office under audit.</td>
<td>a. Legal aspects relating to Banking Operations and Statutory obligations.</td>
</tr>
<tr>
<td>b. Management guidelines with regard to computerization.</td>
<td>b. Auditing &amp; Assurance standards issued by ICAI.</td>
</tr>
<tr>
<td>c. Systems and procedures specific to computerized Branches</td>
<td>c. IT guidelines issued by RBI</td>
</tr>
<tr>
<td>d. Bank's procedures and instructions with regard to various application package.</td>
<td>d. Specific industry standards for Banks.</td>
</tr>
<tr>
<td>e. Comparison between manual procedures vis-à-vis computerized procedures and change management</td>
<td>e. Technology standards as per technology deployed.</td>
</tr>
<tr>
<td>f. Duties and responsibilities of various computer personnel viz. System administrators, supervisory users operators.</td>
<td></td>
</tr>
<tr>
<td>g. Risk, Concern and Internal Controls specific to Computer Environment.</td>
<td></td>
</tr>
<tr>
<td>h. IS Audit Guidelines and checklist.</td>
<td></td>
</tr>
<tr>
<td>i. Scope and extent of IS Audit.</td>
<td></td>
</tr>
<tr>
<td>j. Reporting Format.</td>
<td></td>
</tr>
</tbody>
</table>

The Auditor should then perform/carry out specific tasks of the audit assignment by carefully examining the technical aspects, gathering evidential information/data including relevant documentation, application programme, operating procedures, security procedures etc. and should carry out objective evaluation of internal controls and compliance of prescribed system and procedures. For carrying out the job in a systematic manner the work can be divided into different phases comprising of different activities e.g., planning phase and scope summary preparation (listing out the information needed to carry out the audit work to be performed, making programme schedule for the audit, number and skill of staff needed in the audit team etc), preliminary review, compliance testing (testing of controls), substantive testing (testing of detailed transactions), reporting, wrap up (discussion with senior management and obtaining feed back), follow-up etc. While carrying out the audit the IS auditor should make proper assessment in respect of various activities, procedure stipulated, desired control to be exercised (wherever controls specific to any activity is not prescribed), Violation/Deviation/Irregularities/Lapses etc and should explain about the absence of controls to the system incharge / branch Manager for immediate corrective action.
Audit of Computerized systems is not a one-time job and the same should be conducted periodically at irregular intervals with a periodicity specifically determined for different types

REPORT WRITING AND SUBMISSION

- After collection of relevant details through Checklist, printouts and Audit Notes taken at the time of IS Audit the report has to be compiled in the specific format suggested. It should be addressed to the designated authority and copies of the reports should be submitted to the concerned branches / controlling authorities.
- With regard to sensitive observations in Operations the report should be submitted in confidence to the designated authority as a special report. Copies of such special report should not be marked to the branches.
- With regard to weak controls observed in the Application Software the observations should be listed out separately and sent to the designated authority in confidence.. Copies of such confidential observations should not be marked to the branches.
- The enhancement and modifications to the application software sought for by the branches should be analyzed thoroughly and added as suggestion to the report.
- The weak controls identified by the auditor should be categories as High Medium and low, so that high-risk area are addressed on a priority basis. This would help banks in moving towards Risk Based IS Audit

STAGES FOR IS AUDIT IN BANKS

IS Audit may be got conducted at different stages and for different purposes viz.,

Migration Audit

Migration audit is taken up at the time of switching over from either manual to computerized system or from change over from one platform to another under computerized set up. Procedures for migration audit includes verification of master data, transaction data, account balance etc. before and after migration to ensure completeness and accuracy of migration. This should cover system parameters and codes, which govern the functioning of the application.

Pre Implementation Audit

a. During development of software stage - participate in the system design process to recommend system quality in the areas of security, audit controls and operational continuity.
b. Review the system environment and the related manual procedures to ensure standard (uniformity of procedures) in the areas of design-documentation programming -testing

Post implementation audit
   The following reviews are conducted during Post Implementation Audit.
   a. Environment review
      Review of: installation, place, machines, air conditioning, warranty/AMC/Insurance, personnel preservation of documents training needs etc.
   b. Operations Review
      Computer operations, exercise, of manual controls authorizations, physical access controls, transaction inputs, retrieval of outputs etc., Operations review should include security audit of remote terminals of the systems as well. The efficacy of centrally controlled software access controls must be tested.
   c. System software/Application software Review
      This includes operating system review, application program review, Source code review, testing etc.
   c. Disaster recovery and contingency planning
      This is concerned with the computer security/frauds (preventive and post review), uninterrupted customer/business services, backup procedures followed, effectiveness of backup, restoration procedures, disaster recovery and fall back procedures in case of natural disasters like flood fire cyclone earth quake etc.

BEST PRACTICES FOR IS AUDIT IN BANKS
   The following are some of the best practices while guiding the IS Audit functions within the Bank.
   a. Every bank should have an IS Audit Policy.
   b. IS Audit should be a risk based exercise i.e. the area with higher risk should be subjected to IS Audit more frequently. Under the audit approach, depending upon the intensity of the use of Information Technology, audit is done either through the computers or around the computers. Once the approach is decided, the next step is to assess general IS controls and application controls. Using CAATS (Computer Assisted Audit Technique), the controls are assessed, evidence is collected, evaluated and reports are prepared using the information systems.
   c. The observations in the IS Audit report should be rectified in a time bound manner, say 3 to 6 months from the date of completion of the IS Audit.
   d. There needs to be a policy towards conducting the first audit of newly computerized branch within a specific time frame e.g. within 2 months of the implementation. It can
be called say "Take on audit" etc. Its coverage can be access controls, conversion control and contingency issues like backup etc. Preferably, the take on audit report could be closed within one month from the date of report.

e. The IS Audit report can rate the current status of the IT Security in the branch/ office under review. The risk at each site is to be assessed by the Inspection department so that corrective steps can be taken for rectification and risk management. This is possible only if the branches/offices under review are graded based on the lines of the Regular Inspection System.

f. The IS Audit gradation may be linked to the regular inspection gradation. If any IT related fraud is found then the gradation should be decided accordingly. Also, it can be integrated with the Regular Inspection for conducting the audit and awarding gradations.

g. IS audit may be done by an agency independent of the Technology Department of the bank or the Implementing agency within the Bank. e.g. IS Audit Section as a part of the Inspection department of the bank IS Audit should be done at predetermined intervals such as quarterly, half yearly etc.

h. Updating of security policy of the Bank should be a continuous process. It should always be up to date,

The concern of the banks in managing computerized systems is to ensure uninterrupted business, prevention of computer frauds and increased benefits through Computerization with manageable risks. IS Audit is an effective and specialized function which fulfill this requirements.

REFERENCE
Practical Approach to Information System Audit: Article by A. Rafeq in "THE CHARTERED ACCOUNTANT", May 2003 issue
IT in Banking: Key Note address by Prof. S Sadagopan in BECON 2002 held at Bangalore.
RISK MANAGEMENT THROUGH DERIVATIVES

*Dr. Dhanesh Kumar Khatri

ABSTRACT

Use of Derivative products like OPTION and FUTURES CONTRACTS can help in minimizing the risk arising from the fluctuations of currency rates as well as the risk from the abrupt fluctuations in the share prices. These derivative products can even be combined in such a way where it becomes win-win situation at a very little cost of paying the option premium. These strategies if used properly can become a boon for the executives not only in the financial services/markets sector but also in the general business activities like marketing and logistics. Derivate products like option and future contracts can help in minimizing risk. Various strategies may be used to deal with risk situations. The present paper makes an attempt to analyse a few such situations.

Financial Engineering plays an important role in risk management also. Options and Futures Contracts are one of the important tools to manage the risk arising from price fluctuations of currencies and the stocks.

A. OPTION CONTRACTS

Various strategies can be framed by using different option contracts, these may be as follows:

(a) Tunnel: A No Profit No Loss Strategy

A tunnel is a band between the call strike price and the put strike price. Under this strategy an exporter who is to receive certain payment in foreign currency on some future date. To cover the risk of exchange rate fluctuation he buys the put option and simultaneously sell a call option where by he not even safeguards against the exchange rate fluctuation but reduces the cost of option transaction i.e. net premium paid for the option contracts. He pays the premium on buying put option but receives the premium by selling the call option. By entering into such contracts he is at no profit no loss situation due to the exchange rate fluctuations.

*Associate Professors, Dept of Accountancy & Business Statistics, University of Rajasthan Jaipur
For example an exporter buys a put option paying a premium of Re.0.50 per dollar with a strike price of Rs. 50 per dollar and at the same time he sell call option with the same strike price and receives a premium of Re.0.50 per dollar. Thus his net payment on account of premium is zero as well as he has locked in the exchange rate of 1:50.

### Pay Off Matrix from Tunnel Strategy

<table>
<thead>
<tr>
<th>Exchange rate on expiration date $ : Rs.</th>
<th>Put option</th>
<th>Call option</th>
<th>Net realization per dollar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exercise it</td>
<td>Do not exercise it</td>
<td>Required to meet the obligation</td>
</tr>
<tr>
<td>1 : 52</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>1 : 48</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

(b) **Straddle : The win-win strategy**

A straddle is a combination of a put and a call option on the same underlying instrument. Under this a trader buys a call option as well as a put option at the same strike price with same strike date for both the contracts. If prices of the underlying instrument increase then call generates profits and the put becomes worthless, whereas if prices of the underlying instrument decrease, the put generates the returns and call becomes worthless. This strategy can even be adopted to speculate without having any holding of the underlying instrument.

![Graphic View of Returns from Straddle](image)
Khatri

Strangle: It is a combination of a put and a call option on the same underlying instrument. Under this a trader buys a call option as well as a put option at different strike prices but having the same strike date for both the contracts. It is also a win-win strategy with little difference from Straddle. This also results in win-win situation.

Similarly 'Mrs. Vitto' would have covered her risk while buying the put option for her portfolio whereby locking in the future price at a very little cost of the premium. By doing so she would have made a win-win situation i.e. had the prices fallen down below the strike price of put option she would have exercised the put option, on the contrary to it, had the prices gone up she would have sold the portfolio in the open market, as buyer of the option has no obligations but all the rights. All this she could have done at a cost of the premium, which she would have paid to the seller of the put option.

By using a combination of option contracts following strategies may be adopted to minimize the risk. Such combinations may be:

(c) Protective Put Strategy

This strategy involves a long position in a security and purchase of a put option on the security. By doing so the long position in the security benefits when market rises and when market falls it is the put option which benefits. Hence this strategy can also be referred as win-win strategy at a cost of the premium paid for buying the option contract.

![Graphic View of Returns from Protective Put Strategy](image)

(Value in Rs.)

![Net Returns](image)
(d) Covered Call Strategy

Under this strategy - a short position in a security is covered through the purchase of a call option on the same security. By doing so the trader does not leaves his short position naked instead it gets covered. This strategy is best suited for an investor who is a bear it helps in covering the risk arising from the increase in the share prices. When actually in the future market declines his short position benefits him and call remains worthless, while, if market increases he can exercise the call option and save from incurring heavy losses due to the contrary movement of the market. This all he gets only at a cost of the premium which he pays for the purchase of the call option.

B INDEX FUTURES

It is a contract between two investors/parties who agree to buy/sell a certain level of stock index, instead of buying/selling the securities. The contract is entered today with a value date in future, on which settlement of the transaction takes place. Settlement is done by giving/taking the money value equal to the 500 times the difference between the transacted index and the index as on the value date. In India this has been kept as 50/200 for different index transactions.

Such contract is binding on both the parties. This can also be used for risk management of the portfolio. This can be done as follows:-
Khatiri

COVERING LONG POSITION WITH INDEX FUTURES: A NO PROFIT NO LOSS STRATEGY

Under this an investor holds the securities and he sells the index. If market moves upward he will gain from increase in the prices of securities and loose something from the sale of index futures. On the other hand if market declines he looses from holding the securities and gains from the sale of index futures. Thus he is able to maintain his portfolio with no profit no loss.

PROTECTING SHORT POSITION WITH INDEX FUTURES

Under this an investor sell his portfolio for the want of money, but he is apprehensive too about the hypothetical loss which might arise if market moves up after he has sold the portfolio. Such apprehension can be overcome by buying the index futures after he has sold the portfolio. By doing so he is enjoying the benefit of having liquidity by selling the portfolio as well as he is free from the risk of losses which he might have incurred if market moves up after he has sold the shares. Now if market moves up he will gain from the purchase of Index futures. A short position can also be covered while buying a call option.

Thus it can be concluded that derivative products like options and futures can help in minimizing the risk in the currencies, stock and commodity markets. However a caution need be taken while using these products as these are double edged weapons; if not used properly can cause immense losses as incurred in the case of 'Barrings Bank' by 'Nick Lesson'.

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MEASURING CORPORATE PERFORMANCE: BALANCED SCORECARD APPLICATIONS

*Gourav Vallabh

ABSTRACT
The balanced scorecard is a new tool that complements traditional measures of business unit performance. The scorecard contains a diverse set of performance measures, including financial performance, customer relations, internal business processes, and learning and growth. Advocates of the balanced scorecard suggest that each unit in the organization should develop and use its own scorecard, choosing measures that capture the unit's business strategy. This paper starts with the brief explanation of the various project phases for introducing the Balanced Scorecard, the later part of this paper examines the judgmental effect of the balanced scorecard—specifically, how balanced scorecards that include some measures common to multiple units and other measures that are unique to a particular unit affect superiors' evaluation of that unit's performance. This paper shows that only the common measures affect the superiors' evaluation.

The Balanced Scorecard contains a diverse set of performance measures, spanning financial performance, customer relations, internal business processes, and the organizations learning and growth activities. This large set of measures is designed to capture the firm's business strategy and to include drivers of performance in all areas important to the firm. Use of the Balanced Scorecard (BSC) should improve managerial decision making by aligning performance measures with the goals and strategies of the firm and firm's business units. The BSC is relatively costly to develop so the net benefits gained in adopting the BSC depend on the extent to which it improves managers' decisions.

INTRODUCING THE BALANCED SCORECARD

1. PROJECT ORGANISATION

The responsibility of coordinating the introduction of the Balanced Scorecard lay within the 'Quality, Process and IT Management' department. This department was in charge

*National Institute of Bank Management, Pune
of assembling suitable business unit teams as well as initiating and managing workshops for developing the specific Balanced Scorecards.

The team assembled for the Business Unit (the 'BSC-team'), included the managers of all departments, a composition designed to ensure that the organisational divisions entrusted with implementing company strategy were represented by the BSC-team. The interdisciplinarity of the BSC-team enabled various interests to influence the development work and facilitated the creation of a broad basis for implementing the results generated.

2. **IDENTIFYING STRATEGIC GOALS**

The objective of the initiating workshop was to deduce strategic goals from the Business Unit's given strategy and to assign them to the Balanced Scorecard perspectives. As a first step, each BSC-team member had the task of working out those strategic goals which he viewed as relevant, thus including all team members in the process of goal identification, and ensuring that their points of view were taken into account. To help enable participants to assign their strategic goals to the perspectives, they were asked the questions listed in Figure 1 given below.

**Starting point: Clearly outlined strategy for the Business Unit**

<table>
<thead>
<tr>
<th><strong>Financial perspective</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• What do the investors expect, and what follows for the strategic goals of the financial perspective?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Customer perspective</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Which strategic goals are to be set with regard to meeting customer needs in order to attain the financial goals?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Process perspective</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Which strategic goals are to be set for our internal processes in order to fulfill the expectations of customers and investors?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Potential perspective</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Which strategic goals are to be pursued to develop key potentials in to provide an excellent basis for outstanding results in the other perspectives?</td>
</tr>
</tbody>
</table>

Figure 1 Main questions for identifying strategic goals

The questions concerning the perspectives illustrate that:
• The goals in the customer perspective should especially support the achievement of the financial goals;
The choice of strategic goals in the process perspective should be oriented according to the customer goals stated and to those of shareholders;

- The goals in the potential perspective should promote the achievement of the goals in the other three perspectives.

3. **MODELING CHAINS OF CAUSE AND EFFECT**

The workshop 'Networking of Strategic Goals' served to forge chains of cause-and-effect between the previously determined goals. The development of cause-and-effect chains took place in two phases. Each team member was given the task of identifying links between the strategic goals, and the results of this individual work were then condensed to create a common network. Thus all participants took part in the linking process, ensuring that the final network had the support of and was understood by everyone.

To begin with, the team members received a chart showing the identified goals, grouped according to the perspectives. The participants were asked to pursue a bottom-up approach: the links were to be first identified within the perspectives and then between them, starting from the potential perspective through the process and customer perspectives up to the financial perspective. This approach corresponds to the basic idea of the Balanced Scorecard concept that the goals of the various perspectives build on one another and finally affect the achievement of the financial goals. Only the most important links should be noted in order to prevent the creation of a confusing network of causal relations.

The second phase started with collecting and explaining all the proposed links. Proceeding from bottom to top, the moderator then put the links up for discussion, questioning whether they formed a direct and strong causal relationship, and confirming or eliminating links only once the BSC-team had reached a consensus. In order to facilitate further communication, the agreed links were numbered, and their assumed effects were noted.

4. **DEFINING MEASURES FOR QUANTIFYING ACHIEVEMENT OF GOALS**

In the next workshop, the identified strategic goals were linked to measures in order to allow for monitoring goal-achievements. First, a creative collection of measures took place with regard to the following requirements. Measures should:

- quantify the benefit of goal achievement and not the amount of effort required;
- have a motivating effect on the employees;
- cover the various aspects of a goal.

The measures proposed were then reduced to a maximum of two measures for each goal. For this the moderator introduced further requirements into the discussion - e.g. it should be possible to record the measures with a reasonable amount of effort, and it should be ensured that they are suitable for deriving actions. As a result of the selection process, some measures were recorded.
5. SETTING MILESTONES AND TARGETS FOR THE MEASURES

Since the analysis of a considerable amount of data was necessary for a sound estimation of the values, this was done by the BSC-team members without the support of the moderator and in preparation for the next Balanced Scorecard workshop. The desired targets were to represent high but realistic challenges for the Business Unit, and the chains of cause and effect - i.e. the fact that the achievement of some goals influence the achievement of others - had to be taken into account. Table 1 depicts the milestones and targets set for the measures with the accompanying goals grouped according to the Balanced Scorecard perspectives.

As can be seen in Table 1, the intervals between the values are not equidistant. This corresponds with the Balanced Scorecard idea that the goals of perspectives beneath the financial perspective form the prerequisite for achieving the monetary goals. It can be assumed that the financial values will develop more strongly towards the end of the strategic planning horizon.

Table 1
Examples of Milestones and Targets for the Business Unit

<table>
<thead>
<tr>
<th>Perspectives</th>
<th>Strategic Goals</th>
<th>Measures</th>
<th>Milestones</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>End of 1st year</td>
<td>End of 2nd year</td>
<td>End of 3rd year</td>
</tr>
<tr>
<td>Financial</td>
<td>Our net margin is constantly &gt; 15%</td>
<td>Net margin</td>
<td>13%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>perspective</td>
<td>Our ROCE is &gt;30%</td>
<td>ROCE</td>
<td>15%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Our turnover with end customer is ≥ 30%</td>
<td>Turnover with end customers</td>
<td>15%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Customer</td>
<td>We offer an innovative service concept</td>
<td>Number of realised process optimisations</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>perspective</td>
<td></td>
<td>Share of sold systems with additional service contracts</td>
<td>115%</td>
<td>330%</td>
<td>540%</td>
</tr>
<tr>
<td>Process</td>
<td>Our systems are easy to project and maintain</td>
<td>Number of inquiries necessary to carry out service tasks</td>
<td>&lt;300</td>
<td>&lt;100</td>
<td>&lt;50</td>
</tr>
<tr>
<td>perspective</td>
<td>We have a functioning product management</td>
<td>Number of new development projects initiated by the product manager</td>
<td>3</td>
<td>7</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Potential</td>
<td>Our employees are competent and motivated</td>
<td>Average number of jobs to which can be assigned</td>
<td>5</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>perspective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

55
6. DEVELOPING STRATEGIC PROGRAMS FOR ACHIEVING THE GOALS

In the Balanced Scorecard development workshop, strategic programs were determined in order to attain the targets. With a view to encourage creative participation in the process, the team members were first given the task of individually determining possible strategic programs. At least one program was to be set for each strategic goal of the customer, process, and potential perspectives. (The goals of the financial perspective were not taken into consideration, as they only depict the results of the initiatives on the other three levels).

Table 2
Examples of Strategic Programs

<table>
<thead>
<tr>
<th>Perspectives</th>
<th>Strategic Goals</th>
<th>Strategic Programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer perspective</td>
<td>We offer an innovative service concept.</td>
<td>Introduction of pro-active service in sales negotiations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hiring or training of employees competent to carry out the service tasks 'optimisation' and 'instruction'</td>
</tr>
<tr>
<td>Process perspective</td>
<td>Our systems are easy to project and maintain.</td>
<td>Determination of suggestions to improve the systems and products.</td>
</tr>
<tr>
<td></td>
<td>We have a functioning product management.</td>
<td>Making available enough time for product management tasks.</td>
</tr>
<tr>
<td>Potential perspective</td>
<td>Our employees are competent and motivated.</td>
<td>Encouragement of job rotation.</td>
</tr>
<tr>
<td></td>
<td>We pursue a proactive human resource management</td>
<td>Development of training programs.</td>
</tr>
</tbody>
</table>
TABLE 3
Common and Unique Performance Measures for both of the two divisions' Divisions' Balanced Scorecards

<table>
<thead>
<tr>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Measures:</strong></td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: B</td>
</tr>
<tr>
<td>U: B</td>
</tr>
<tr>
<td><strong>Customer-Related Measures:</strong></td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: B</td>
</tr>
<tr>
<td>U: B</td>
</tr>
<tr>
<td><strong>International Business Process Measures:</strong></td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: B</td>
</tr>
<tr>
<td>U: B</td>
</tr>
<tr>
<td><strong>Learning and Growth Measures:</strong></td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>C:</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: A</td>
</tr>
<tr>
<td>U: B</td>
</tr>
<tr>
<td>U: B</td>
</tr>
</tbody>
</table>

C indicates a common measure. U-A is a unique measure for division A, a teen-wear retail division. U-B is a unique measure for division B, a uniform division that sells through catalogs and sales calls.
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FRAUDS IN BANKS

*Dr. (Mrs.) Meera Vaswani

ABSTRACT

Rapidly changing market Scenario, moral values and social systems-along with drastic changes in the technology, has paved way for innovative financial instruments and products. This, in turn, has also resulted into increases in the probability of commitments of frauds. This paper makes an attempt to identify and analyse issues related to frauds in banks.

In the present scenario of economic and financial reforms, the emergence of new concept and innovative financial products/instruments has increased the probability of frauds. Therefore the adoption of change in technology would only be fruitful if the personnel are properly trained and equipped with the latest methods to tackle efficiently with various frauds. The frauds may be of the following -

1. FRAUDS BY INHOUSE PERSONNELS

Frauds can be committed by "DIRECTLY" involving oneself or "INDIRECTLY" by using pressure tactics. Persons occupying higher positions in their office may use their authority by pressurizing their subordinates and compelling them to do such thing, which may, in long run, cause financial loss to the institution. In this category, frauds can be committed

(a) By abuse of powers
(b) By misrepresentation of facts
(c) By connivance with outside agencies
(d) By making errors of omission and commissions
(e) By embezzlement of funds

*Associate Professor, Department of Accounting, Jai Narain Vyas University, Jodhpur
(f) By manipulating books of accounts
(g) By forging signatures

2. **FRAUDS BY OUTSIDE AGENCIES**
   In this category frauds can be committed by
   (a) Through loan accounts
   (b) Through deposit accounts
   (c) Through material alterations in cheques and drafts
   (d) Through bills of exchange.

3. **FRAUDS THROUGH COMPUTERS**
   Due to passage of time and development of information technology, use of computers has increased. Computerization, although it has brought advantages of efficiency, speed and economy with vast increase in the memory, it has also provided plenty of opportunities to the miscreants to commit financial crimes usually called as cyber crimes or e-crimes. Frauds through computers can be committed may be
   (a) By staff (as the staff has easy access to the computers)
   (b) By vendor (since vendor has the special knowledge about the system)
   (c) Through internet

   Various studies have revealed that frauds are committed mostly by disgruntled employees, whether current or former, due to the reason that, they have a good understanding of the system and the weaknesses of control sand hence are in a position to exploit the loopholes therein.

   The list of Public Sector Banks for the year 1990 and 2001-02 has been given here in Table 1 showing the bank-wise amount of fraud.

   According to a report prepared by the Department of Banking supervision of Reserve Bank of India, 2894 frauds involving Rs. 698.91 crores were detected during year 2000-01. Whereas nearly 2035 fraud cases, involving sum of Rs. 556.43 crores, were detected in 2001-02, of which 1409 cases pertained to public sector banks, amounting to Rs. 476.09 crores, whereas during year 1990, the amount involved was Rs. 102.84 crores.
### Table 1

**Amount of Frauds detected in Public Sector Banks**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Public Sector Banks</th>
<th>Year (Amount in Rs. Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1990</td>
</tr>
<tr>
<td>1</td>
<td>State Bank of India</td>
<td>9.91</td>
</tr>
<tr>
<td>2</td>
<td>State Bank of Bikaner and Jaipur</td>
<td>1.14</td>
</tr>
<tr>
<td>3</td>
<td>State Bank of Hyderabad</td>
<td>0.74</td>
</tr>
<tr>
<td>4</td>
<td>State Bank of Indore</td>
<td>3.36</td>
</tr>
<tr>
<td>5</td>
<td>State Bank of Mysore</td>
<td>0.31</td>
</tr>
<tr>
<td>6</td>
<td>State Bank of Patiala</td>
<td>0.36</td>
</tr>
<tr>
<td>7</td>
<td>State Bank of Saurashtra</td>
<td>0.22</td>
</tr>
<tr>
<td>8</td>
<td>Bank of RTravancore</td>
<td>0.34</td>
</tr>
<tr>
<td>9</td>
<td>SBI Overseas</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Allahabad Bank</td>
<td>0.25</td>
</tr>
<tr>
<td>11</td>
<td>Andhra Bank</td>
<td>7.99</td>
</tr>
<tr>
<td>12</td>
<td>Bank of Baroda</td>
<td>1.82</td>
</tr>
<tr>
<td>13</td>
<td>Bank of India</td>
<td>2.56</td>
</tr>
<tr>
<td>14</td>
<td>Bank of Maharashtra</td>
<td>19.79</td>
</tr>
<tr>
<td>15</td>
<td>Canara Bank</td>
<td>22.96</td>
</tr>
<tr>
<td>16</td>
<td>Central Bank of India</td>
<td>1.49</td>
</tr>
<tr>
<td>17</td>
<td>Corporation Bank</td>
<td>0.49</td>
</tr>
<tr>
<td>18</td>
<td>Dena Bank</td>
<td>0.24</td>
</tr>
<tr>
<td>19</td>
<td>Indian Bank</td>
<td>0.87</td>
</tr>
<tr>
<td>20</td>
<td>New Bank of India</td>
<td>7.75</td>
</tr>
<tr>
<td>21</td>
<td>Punjab National Bank</td>
<td>2.68</td>
</tr>
<tr>
<td>22</td>
<td>Oriental Bank of Commerce</td>
<td>0.26</td>
</tr>
<tr>
<td>23</td>
<td>Punjab and Sind Bank</td>
<td>0.34</td>
</tr>
<tr>
<td>24</td>
<td>Syndicate Bank</td>
<td>1.23</td>
</tr>
<tr>
<td>25</td>
<td>UCO Bank</td>
<td>1.32</td>
</tr>
<tr>
<td>26</td>
<td>Union Bank of India</td>
<td>3.44</td>
</tr>
<tr>
<td>27</td>
<td>United Bank of India</td>
<td>0.17</td>
</tr>
<tr>
<td>28</td>
<td>Vijaya Bank</td>
<td>10.70</td>
</tr>
<tr>
<td>29</td>
<td>India Overseas Bank</td>
<td>0.11</td>
</tr>
</tbody>
</table>

**Total**

102.84  476.09
Some suggestive typical frauds are narrated with their modus-operandi as under

1. TEMPORARILY PARTING WITH TITLE DEEDS

It happened in Mumbai. A party had a large cash credit limit with one of the banks against equitable mortgage of property by deposit of title deeds. The account did run satisfactorily for a couple of years and thereafter became stagnant. The bank recalled the advance. The borrower informed the bank that he was equally anxious in the matter and had already arranged to sell the mortgaged property, but the purchaser's solicitors would like to inspect the title deeds before the deal could be finalized. Coming under the temptation of adjustment of account and also under the pressure of recommendation of one of their employees, the bank parted with the title deeds against borrowers receipt. Inspite of numerous reminders the account was not adjusted nor was the title deed returned by the borrower.

Later it was transpired that the borrower raised another advance against those very documents from another bank. Thus the bank which had originally advanced the money had lost the security of the title deeds and had been cheated. On another hand the other bank, having made the advance without notice, in good faith and for consideration got a clear title in law, in preference to the first bank.

2. INSPECTION OF GOODS - CAPACITY OF GODOWN

The incident took place in Kanpur. The agent was placing too much reliance on the godown keeper and was not inspecting the godowns every month as required under bank rules.

The once-in-a-way inspections too were casual and superficial. The agent had been certifying that a particular godown contained 2000 bags of oil seeds. During a surprise visit, the inspector found that the number of the bags was only about 1000 and even if the godown had been filled in to its fullest capacity, it could not have contained more than 1200 bags. Thus due to the negligence and non-adherence to system, the bank was continuously being cheated.

Many more examples can be given e.g.

- Fraud in taking over an account from another bank without properly verifying the books vis-à-vis physical inspection of securities.
- By handing over the godown keys to borrowers.
- Keeping goods in uncountable order in the godown.
- By forging signatures on cheques
- By altering the amount in figures and words
- By wrongly declaring about capacity of the storing place.
- By erecting false platforms between the loose stocks.
- By dumping deteriorated and obsolete stocks between good stocks.
- By diversion of funds
Vaswani

- By interpolation of a fraudulent credit entry in an account and subsequent withdrawal.
- By withdrawing amount through forged signatures from in-operative accounts.

DANGER SIGNALS

Every financial crime converting into fraud has got its own history which is reflected when the fraud as actually detected. Some of these signals are given here below, which are just illustrative and not exhaustive, but can be taken as important yardsticks, to improve upon the system of banking, in order to prevent frauds.

1. Abnormal cash transaction or cash laundering.
2. Transacting through shroffs
3. Diversion of funds,
4. Sales not reflecting into the account
5. Operation in the account not commensurating with the size and type of business.
6. Account running out of order or beyond DP
7. Heavy returning of bills
8. Borrower reluctant in submitting necessary financial data on due dates,
9. Borrowers, insistence to pay cash instead through an account.

SUGGESTIONS

Normally, the routine work in banks is so designed that every transaction whether relating to deposit or loan is dealt with by at least two persons before it is complete. Similarly each transaction is recorded invariably at more than one place.

Besides above every bank has its own and well established internal audit system through which every branch is audited at least once in a year. Moreover Reserve Bank of India also keeps strict vigil upon selected workings of the banks and their branches.

All banks have their manuals of instructions and also the system of issuing circulars for the accounting systems and controls.

Moreover in electronic banking too, the banks have developed various control systems, regarding operations of computers, allotments of passwords, codes and their locking system. By following all these control measures meticulously in letter and spirit, bank managements can minimize the chances of fraud. Besides adhering to other measures, the system of procedures, as laid down by the organization, must be scrupulously followed and employees should be educated about their importance. A sense of belonging must be developed among them which in turn would be motivational factor for them which is an important element for organizational and personal growth.
PERFORMANCE EVALUATION THROUGH INVENTORY MANAGEMENT
(A Comparative Study of G.S. G.S.F.C. & G.N.F.C.)

*Dr. S.J. Parmar

ABSTRACT

The paper makes an attempt to evaluate the performance with respect to inventory management of two selected units GSFC and GNFC.

Inventories reflect the investment of a firm's funds. Hence, it is necessary to manage inventories efficiently in order to avoid unnecessary investment. A firm, which neglects the management of inventories, will have to face serious problems relating to long-term profitability and may fail to survive. With the help of better inventory management, a firm can reduce the levels of inventories to a considerable degree e.g., 10 to 20 percent without any adverse effect on production and sales. Thus, inventory is a vital factor in business operations. For the very survival of business, the firm should have requisite level of inventories. It should be neither excessive nor inadequate. Excessive inventories means accumulation of idle funds, increase in carrying cost, which may lead to lower profitability, whereas inadequate inventories results in interruptions of productions and sales operations. A proper balance between these two extreme situations should be maintained for efficient and effective operations of business with the help of skillful inventory management. The need for efficient inventory management in corporate sector has become greater in era of globe competition.

For the purpose of study Gujarat State Fertilizer Company Limited (GSFC) and Gujarat Narmada Valley Fertilizer Company Limited (GNFC), both public sector undertaking of Gujarat-State have been selected. At present, the share of GSFC and GNFC to total production of chemical fertilizer is 10.15% and 5.8% respectively at national level. In this paper, an attempt is made to make a comparative study of the selected units engaged in Fertilizer production in the state of Gujarat for the period from 1994-95 to 2000-2001.

*Associate Professor, Department of Commerce, Saurashtra University, Rajkot, (Gujarat)
RESULTS OF THE STUDY

A comparative picture of the size of inventories in both the companies have been represented in Table-1. The size of inventories was much higher in GSFC during the study period in comparison to GNFC. It was always twice in each year of study in GSFC as compared to GNFC. The quantum of inventories in GSFC showed a mixed trend while in GNFC it showed almost an increasing trend during the study period. In GSFC the inventories went-up from Rs.35.16 crore in 1994-95 to Rs.49.34 crore in 2000-01 indicating a positive growth-rate of 40.33% and in GNFC the inventories went-up from Rs.13.41 crore in 1994-95 to Rs. 24.31 crore in 2000-01 registering a hike of 81.28%. The average size of inventories of GSFC (Rs.47.35 crore) was about more than 2.5 times than that of GNFC (Rs.19.29 crore). The growth-rate in terms of the size of inventories in GNFC (81.28%) was more than two times than that of GSFC (40.33%). This suggests that GNFC has invested more funds in inventories in comparison to GSFC during the study period. The comparison based only on the size is not sufficient to assess the qualitative efficiency of inventory management. With a view to avoid this bottleneck, the following three ratios were calculated and studied during the course of the study.

(A) INVENTORY TURNOVER RATIO (ITR)

This ratio helps in determining the liquidity of a firm, in as much as it give the rate at which inventories were converted into sales and then into cash. This ratio is test of efficient inventory management. A high ratio indicates better performance and bricks sales of the company's product. Moreover, there will be lesser amount of capital blocked-up in the form of working capital and all related cost of maintaining inventory will be appreciable. A low ratio results in blocking of funds in inventory which may ultimately result in heavy losses due to inventory becoming obsolete or detonating in quality, thus, the indication of inventory over-stocking or over-valuation can be brought out by this ratio. In GSFC, this ratio ranged 3.48% to 4.47%, while in GNFC it ranged 5.23% to 6.41% during the study period. In GSFC, this ratio showed mixed trend during the study period, except a continuous declining trend during the first three years. However, this ratio was more consistent in case of GNFC. Moreover, this ratio was always higher in GNFC as compared to GSFC during the study period. In GSFC, this ratio decreased from 4.47% in 1994-95 to 4.33% in 2000-01 showing a negative growth rate of 3.13% and in GNFC, this ratio increased from 5.23% in 1994-95 to 5.85% in 2000-01 showing positive growth-rate of 11%. The average of this ratio during the study period was also higher in GNFC (5.71%) in comparison to that of GSFC (4.11%). It signifies that the performance in respect of inventory management in GNFC was impressive than that of GSFC during the study period.

To assess the association between inventories and sales of both the selected companies, regression equation of sales (Y) on inventory (X) was used and in order to test the significance,
statistically significant at 5% level, between these two variables Chi-Square Test was applied. In this analysis the following hypothesis were designed:

**NULL HYPOTHESIS** : There is no significant relation between sales and inventories.

**ALTERNATIVE HYPOTHESIS** : There is significant relation between sales and inventories.

Table-2 shows these measures. It may be observed that in GSFC the calculated value of Chi-Square (5.99) was lower than the table-value of Chi-Square (12.59) at 5% level of significance. Hence, null hypothesis was accepted while alternative hypothesis was rejected. This shows results were as per our expectations. For GNFC the calculated value of Chi-Square (20.64) was higher than the table value of Chi-Square (12.59) at 5% level of significance. Hence, the null hypothesis was rejected and alternative hypothesis was accepted. This reflects the results were not as per our expectations. Thus, the result of Chi-Square Test shows better performance from viewpoint of inventory management in case of GNFC in comparison to GSFC during the study period.

(B) **INVENTORY HOLDING RATIO (IHR)**

This ratio represents the length of time required for conversion of investments in inventories to cash of a firm. As a result, the firm will be able to forecast its working capital requirements. Lower ratio suggests better inventory management and vice-versa. This ratio calculated by dividing the number of days of a year (360) by inventory turnover ratio. Table-1 depicts that in GSFC this ratio varied from 81 days in 1994-95 to 83 days in 2000-01 registering a negative growth-rate of 2.5% and in GNFC it fluctuated between 69 days in 1994-95 to 62 days in 2000-01 showing a positive growth-rate of 8.7%. The average days of holding inventories was 89 days for GSFC while it was 63 days for GNFC during the study period. Moreover, it can be observed in each of the study period, the days of holding inventories in GNFC was much higher than that of GSFC. It indicated that the performance of inventory management as well as liquidity of inventories at GNFC was better as compared to GSFC.

(C) **INVENTORY TO TOTAL CURRENT ASSETS RATIO (ITCAR)**

This ratio shows the extent of inventories invested out of total current assets. In comparison to other current assets, an inventory is comparatively less liquid asset. A high ratio suggests less liquidity position of the firm and vice-versa. It can be observed from Table-1 in GSFC this ratio ranged between 35.91% in 1994-95 to 36.56% in 2000-01 showing 1.8% growth-rate, while in case of GNFC this ratio fluctuated between 26.3% in 1994-95 to 31.97% in 2000-01 showing 21.56% growth-rate. The average ratio of inventory to total current assets in GSFC (38.62%) was higher than that of in GNFC (33.23%) during the study period. It can also be observed this ratio was always higher in each year of the study period in GSFC as
compared to GNFC except the year 1999-2000 when it was 44.98%, the highest level in GNFC during the study period. It indicted that the level of investment in inventory out of total current assets was more consistent in GNFC. It also confirmed the efficiency of inventory management in GNFC.

CONCLUSION

From the analysis given above it may summarized that the overall performance regarding inventory management at GNFC was better in terms of efficient utilization of inventories whereas GSFC was not able to do so during the study period. GSFC maintained throughout the study period a larger amount of idle funds, through the investment in inventories in relation to total current assets as compared to GNFC. The test of goodness ($x^2$) also supported by rejecting null hypothesis in case of GNFC. The number of days for holding inventory also favored for GNFC showing comparatively lower day during the study period. Based on above-mentioned analysis of inventory management of the selected companies, it can be concluded that the overall performance of GNFC was encouraging while that of GSFC was not alarming.

Table - 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Size of inventory Rs. Crore</th>
<th>ITCAR %</th>
<th>ITR %</th>
<th>IHR (Days)</th>
<th>Size of inventory Rs. Crore</th>
<th>ITCAR %</th>
<th>ITR %</th>
<th>IHR (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-95</td>
<td>35.16</td>
<td>35.91</td>
<td>4.47</td>
<td>81</td>
<td>13.41</td>
<td>26.30</td>
<td>rs.23</td>
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<tr>
<td>1995-96</td>
<td>48.27</td>
<td>39.83</td>
<td>3.77</td>
<td>96</td>
<td>14.61</td>
<td>32.25</td>
<td>5.51</td>
<td>65</td>
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<tr>
<td>1996-97</td>
<td>54.43</td>
<td>46.10</td>
<td>3.48</td>
<td>104</td>
<td>19.08</td>
<td>33.22</td>
<td>6.41</td>
<td>56</td>
</tr>
<tr>
<td>1997-98</td>
<td>47.19</td>
<td>42.26</td>
<td>4.24</td>
<td>85</td>
<td>21.04</td>
<td>33.64</td>
<td>5.82</td>
<td>62</td>
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<tr>
<td>1998-99</td>
<td>43.36</td>
<td>33.83</td>
<td>4.62</td>
<td>78</td>
<td>19.92</td>
<td>30.25</td>
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<td>62</td>
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<td>1999-00</td>
<td>53.71</td>
<td>35.87</td>
<td>3.83</td>
<td>94</td>
<td>22.65</td>
<td>44.98</td>
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<tr>
<td>2000-01</td>
<td>49.34</td>
<td>36.56</td>
<td>4.33</td>
<td>83</td>
<td>24.31</td>
<td>31.97</td>
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<tr>
<td>Average</td>
<td>47.35</td>
<td>38.62</td>
<td>4.11</td>
<td>89</td>
<td>19.29</td>
<td>33.23</td>
<td>5.77</td>
<td>63</td>
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<td></td>
<td></td>
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<tr>
<td>Sales Actual</td>
<td>157.24</td>
<td>181.31</td>
<td>189.31</td>
<td>199.93</td>
<td>200.13</td>
<td>205.43</td>
<td>213.83</td>
<td></td>
</tr>
<tr>
<td>Sales Computed</td>
<td>170.72</td>
<td>192.74</td>
<td>205.21</td>
<td>192.25</td>
<td>185.40</td>
<td>203.92</td>
<td>196.10</td>
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<tr>
<td>Deviations</td>
<td>-13.48</td>
<td>-10.82</td>
<td>-15.90</td>
<td>7.68</td>
<td>14.73</td>
<td>1.51</td>
<td>17.73</td>
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</tbody>
</table>

Calculated Value of Chi-Square = 5.99

Table Value of Chi-Square at 5 % level (D.F. =6) = 12.59.

Regression Equation of Sales (Y) on Inventory (X) is: Y = 1.79X + 107.78.

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>GNFC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sales Actual</td>
<td>70.14</td>
<td>80.52</td>
<td>122.30</td>
<td>122.35</td>
<td>155.99</td>
<td>121.35</td>
<td>142.23</td>
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<tr>
<td>Sales Computed</td>
<td>78.60</td>
<td>86.31</td>
<td>115.05</td>
<td>152.91</td>
<td>120.46</td>
<td>138.01</td>
<td>148.68</td>
</tr>
<tr>
<td>Deviations</td>
<td>-8.46</td>
<td>-5.79</td>
<td>7.25</td>
<td>-30.56</td>
<td>35.53</td>
<td>16.66</td>
<td>-6.45</td>
</tr>
</tbody>
</table>

Calculated Value of Chi-Square -20.64

Table Value of Chi-Square at 5 % level (D.F. =6) = 12.59.

Regression Equation of Sales (Y) on Inventory (X) is: Y = 6.43X -7.63.
MAHAJANI SYSTEM OF ACCOUNTS

*Prof. Mahfoozur Rahman
**Miss Chazal Masarrat

ABSTRACT

The Desi System of accounts is of Indian origin. It is a mistake to call it Single Entry System of Book-Keeping. It is not only as complete a system as an English or Double Entry System of Book-Keeping but in certain respects simpler and more convenient.

The procedure of preparing accounts under this system is also similar to that of English System. Firstly, the transactions are recorded in the books of original entry and than posed to the ledger accounts (Khatas). Afterwards a Trial balance is drawn out and in the last final accounts is prepared. For the business transactions two books of accounts known as Rokar Bahi (Cash Book) and Khata (Ledger) are enough while large business concerns can use Nam Nakal Bahi, Hundli Bahi, Jankkar Bahi, Hisab Bahi, Patta etc.

THE ROKAR BAHI

It is like a Cash Book to record cash transactions. But small traders also use to record credit transactions in it. The page (Panna) of this Bahi is divided into two sides, left hand side or the receipt side (Jama Side) and right hand side or the payment side (Nam Side), having four folds each on the Jama side and on the Nam side.

It is balanced daily after recording all the transactions of the day. To balance it, each side is totaled separately and the unequal totals are entered in the Bahi. The balance is than placed on the Nam side "Shri Rokar Bahi Rahe". After entering the balance, in the above given way, the two sides are totaled equal at the point up to which it has been written. The balance is afterwards brought down to the Jama side.

The credit transactions are entered on both sides of the Rokar Bahi (Jama and Nam). Thus such transactions do not affect the cash balance.

*Senior Professor, Department of Commerce, A.M.U., Aligarh
**Research Scholar, Department of Commerce, A.M.U., Aligarh
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THE KHATA BAHI (LEDGER)

It is ledger book. The left hand side of the Khata Bahi is Jama side (Cr side) and right hand side is Nam side (Dr side). All the entries made in the Jama side of the Rokar Bahi are posted to the Jama side of the relevant accounts in the Khata Bahi and entries made in the Nam side of the Rokar Bahi to the Nam side of different accounts. The act of posting entries from Rokar or other Bahis to the Khata Bahi is known as Khariana.

When posting into the Rokar Bahi is completed for a particular period of Trial Balance, known as Ankar or Talpat is prepared.

BALANCING THE PERSONAL AND REAL ACCOUNTS (KHATA DIYORHA KARNA)

To balance an account, each side is totaled and the totals are placed separately on each side in the Peta columns. If the totals tally, a line is drawn. If however, the totals do not agree the balance is ascertained and placed on the side, which is short. If the Jama side exceeds Nam side the words "Baki Dene Rahe" are written against the balance. If the Nam side exceeds the Jama side, words "Baki Lene Rahe" are written. Then the lighter side is totaled again to make it equal to the heavier side.

BALANCING THE MAL KHATA AND PREPARING OF FINAL ACCOUNTS

In balancing the Mal Khata the stock in hand (Rehta) is placed on the Nam side of the Mal Khata. Then the Profit and Loss as Nefa Nuksan Khata or Vriddhi Khata. The nominal accounts representing gains and losses are also transferred to the Profit and Loss Account. The profit and loss thus ascertained, from the Profit and Loss Account, is transferred to the Proprietor's account or Punji Khata. When all the accounts are balanced, Pukka Chitha or Balance Sheet is prepared by recording all credit balances or liabilities on the Jama side and assets or debit balances on its Nam side. The books of accounts are changed at the end of each financial year and the balances standing in the old ledgers are transferred to the New Ledgers.

BAND

It is a sort of rough book in which transactions are entered as soon as they occur. Later on these transactions are transferred to the Kachchi Rokar Bahi. From this Kachchi Rokar Bahi, the Final or Pukki Rokar Bahi is prepared.

NAKAL BAHI

It is a Bahi used for recording credit transactions only. Nakal Bahi can serves the purpose of a small business and purchases and sales can be recorded in it. In a big business house two separate Nakal Bahi, i.e. Jama Nakal Bahi or Mal Kharid Bahi or Bijak Bahi are kept for recording goods bought on credit and the other called the Nam Nakal Bahi or Satti Bahi for recording goods sold on credit.
HUNDI BAHI
   It records the hundis received by a merchant from his debtors. This Bahi is simply a
   memorandum book and no entry from it is posted to the ledger.

MAL BAHI
   It is a sort of stock book and an account for each article in which the merchant deals is
   opened in it.

JANKKAR BAHI
   It is a memorandum book. When goods are given to a customer on approval they are
   recorded into it.

BILTI BAHI
   To record the details of railway receipts a separate Bahi is kept is known as Bilti Bahi.

SAUDA BAHI
   It is a Bahi in which full particulars about forward transactions are entered.

CHITTHI NAKAL BAHI
   It is a correspondence book in which all inward and outward correspondence is recorded
   for future reference.

HISAB BAHI
   This book is used when the representatives of the merchant goes to the debtors for the
   collection (Ugai) of the debts. If a debtor disputes the accuracy of the balance due from him,
   the representative (Gumashta) can check the account in the debtors book with the account in
   the Hisab Bahi and can set the discrepancy right.

TAGADA BAHI
   It is a book in which balances due from various local debtors are copied. It is used when the
   merchant or his agent goes round to various debtors for the realization (Ugai) of the amount due.

TAK PATTI
   This is used for recording the weight of bags of corn or other produce at the time of sale.

DASTAKHAT BAHI
   This is a small Bahi generally used by those wholesale merchants who sell goods through
   local agent to retailers.
CASH MANAGEMENT: A COMPARATIVE STUDY OF SBI AND CANBANK FACTORS

*Dr. Y.V. Reddy
**S.B. Patkar

ABSTRACT

The present study looks in to the size of cash and their components, liquidity status and comparative study of SBI factors and Can Bank Factors Ltd. with regards to cash management. The study is based on secondary data collected from the Annual reports of SBI Factors and CanBank Factors from 1991-92 to 2000-01. The liquidity status of SBI Factors and Canbank factors is determined by using various ratio's such as current ratio. It was found that the overall size of cash balance maintained by SBI Factors and CanBank Factors is very low as compared to sales or factored debts. It was also found that increase in sales does not require to increase the cash balance.

Maintaining cash balance very high and low will create certain impact on liquidity and profitability of the concern. Thus an attempt has been made to analyse the significance of cash balance and its impact on liquidity of the SBI Factors and CanBank factors.

OBJECTIVES OF THE STUDY

The objectives of the study are;

1) To understand the size of cash, its components and linkage with factored debts in SBI Factors and CanBank Factors
2) To study the liquidity status of SBI and CanBank Factors
3) To make a comparative analysis of SBI Factors and CanBank Factors on cash management

DATA AND METHODOLOGY

The SBI Factors and CanBank factors were the two factoring organisation considered for the proposed study. The study is based on purely secondary data collected from the annual...
Reddy & Patkar

Reports of SBI Factors and CanBank Factors ltd. from 1996-97 to 2000-01 The available data were properly analysed by using Ratio and Percentage method. Cash Balance include cash in hand, cash at bank and cheques in transit. Bank balance include the current account and deposit Account. To assess the liquidity of the firm, the ratio technique was used.

RESULTS AND DISCUSSION

It can be seen from the Table 1 that the cash balance of SBI Factors for the study period is steady. In the year 1997-98 it was decreased whereas sales or Factored Debts of SBI Factors has been increased from 438.14 crs. to 750 crs. It indicates that increase in Factored debts does not increases cash balance. The cash balance maintained is much lower compared to sales or factored debts. The cash balance of CanBank Factors is much higher for first three years of the study period whereas later period it decreased and specially in last year it is very low. In the year 1997-98 it was very high i.e 17 crs. It was found in the table that SBI Factors has maintained cash balance low and adequate compared to CanBank Factors. Increase in factored Debts or sales has not increased cash balance which indicates that firm is receiving cash which is used for purchase of debts. If there is proper synchronisation of cash receipt and cash disbursement then firm does not require high cash balance to be maintained.

The analysis of short term financial position or test of liquidity is presented in Table 2. Test of liquidity is essential to determine ability of the firm to pay the short current debts and effective utilisation of funds in business. It can be observed from the table that current ratio of SBI factors has been increased from 2.53 to 3.24 times. Thus it indicates that current ratio is satisfactory. Traditionally 2:1 current ratio is taken as satisfactory standard for the purpose of evaluating liquidity. Higher the current ratio, the larger the amount of rupees available per rupee of current liabilities, more the firms ability to meet current obligations and greater the safety of funds to short terms creditors. When the current ratio is high it is good from the creditors point of view but extremely high current ratio is not good from the management point of view. The current ratio of CanBank Factors showed very high indicating more funds has been employed in unproductive uses which do not fetch any return. It shows that compared to CanBank Factors, SBI Factors current Ratio is satisfactory. The ideal liquid ratio is 1:1 which implies that liquid Assets of the firm are just equal to the current liabilities. It was observed in the table that liquid ratio of SBI Factors is high i.e 2.42 in 1997-98 and increased to 3.2 times in 1999-00. Increase in liquid ratio shows that the financial position of the firm seems to be sound and good. The liquid ratio of CanBank Factors is 2.12, 9.14 and 8.38 in 96-97, 99-00 and 2000-01 which is considered as very high. A reasonable standard for the liquid ratio may vary from season to season and business to business. The liquid ratio in factoring company is high due to receivables in current account is high and current liability is low since it is a business where debts are purchased and pre-payment is made. The factor liability only to the balance amount which is very low.
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The ratio of cash balance to total current assets, sundry debtors, liquid assets, current liabilities and working capital are presented in table 3. It was observed that ratio of cash to current asset in SBI Factors showed very low. Thus it indicates that the significance of cash in current assets is very less. The ratio of cash to current assets of Canbank Factors shows mixed trend. In the first three years of the study it showed little higher where as later on it shows low. In Factoring business sundry debtors is the major component of current Assets representing nearly 85-90% thus, it is observed from the table that the size of cash balance in SBI Factors and Canbank factors is low as compare to the size of current assets, total assets and working capital.

CONCLUSION & SUGGESTION

The overall size of cash balance maintained by SBI Factors and CanBank Factors is very low compared to sales or factored debts. The sales or factored debts has been increased over the years in both organisation but correspondingly cash balance was not increased. Thus it indicates that increase in sales does not require to increase the cash balance. Cash in Hand and cash in current account are the major component of cash balances of SBI Factors and Canbank Factors. The liquidity of SBI Factors and Canbank Factors was measured by using current ratio and liquid ratio. It was observed that current ratio of SBI Factors showed satisfactory but CanBank Factors is little higher than SBI Factors.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Size of cash in factoring companies and value of factored debts</th>
<th>(Rs in Crs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SBI Factors Ltd.</strong></td>
<td></td>
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</tr>
<tr>
<td>Cash and Bank Balance</td>
<td>0.64</td>
<td>0.42</td>
</tr>
<tr>
<td>Factored Debts</td>
<td>438.14</td>
<td>460.58</td>
</tr>
<tr>
<td>Ratio of cash to factored debts (in %)</td>
<td>0.14</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>CanBank Factors Ltd.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and Bank Balance</td>
<td>3.09</td>
<td>16.99</td>
</tr>
<tr>
<td>Factored Debts</td>
<td>476</td>
<td>468</td>
</tr>
<tr>
<td>Ratio of cash to factored debts (in %)</td>
<td>0.64</td>
<td>3.63</td>
</tr>
</tbody>
</table>

Source: Annual Reports of SBI Factors and CanBank Factors Ltd. (various issues)
### Table 2
Liquidity Status of Factoring Companies

<table>
<thead>
<tr>
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<td>Current Ratio</td>
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<td>2.96</td>
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<td>2.7</td>
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<td>9.14</td>
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<td>2.52</td>
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<td>8.38</td>
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Source: Annual Reports of SBI Factors Ltd. & CanBank Factors Ltd. (various issues)

### Table 3
Statement of Liquidity Position of factoring companies
(in percentage)

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<thead>
<tr>
<th>SBI Factors Ltd.</th>
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<tr>
<td>Years</td>
<td>Cash to current Assets</td>
<td>Cash to total assets</td>
<td>Cash to sundry debtors</td>
<td>Cash to liquid assets</td>
<td>Cash to current liabilities</td>
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<tr>
<td>1996-97</td>
<td>0.68</td>
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<td>1.50</td>
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</table>

<table>
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<tbody>
<tr>
<td>Years</td>
<td>Cash to current Assets</td>
<td>Cash to total assets</td>
<td>Cash to sundry debtors</td>
<td>Cash to liquid assets</td>
<td>Cash to current liabilities</td>
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<tr>
<td>1996-97</td>
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<td>02.90</td>
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<td>1998-99</td>
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<td>1999-00</td>
<td>00.37</td>
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<td>2000-01</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>00.05</td>
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</tbody>
</table>

Source: Annual Reports of SBI Factors Ltd. & CanBankFactors Ltd. (various issues)
TRANSFER PRICING AND TAX PLANNING

*Nilesh V. Suchak

ABSTRACT

Finance Act, 2001 has inserted new sections 92 to 92F in the Indian Income Tax Act, 1961 laying down the methods of computation of income from international transactions having regard to the arm's length price, meaning of associated enterprise, keeping and maintaining the information and documents by persons entering into international transactions, etc. This paper discusses the difficulties in arriving at a unanimous and unambiguous arm's length price due to various options made available in the tax laws as also due to variety of international transactions.

The MNEs usually adjust their transactions in such a way that the maximum profit arises in a country having lowest tax liability and minimum profit in a country having higher tax liability. In order to curb this tendency on the part of MNEs, Indian Income Tax Act has introduced provisions in sections 92 to 92F and penal provisions have also been laid down for non compliance thereof. Though the right to make transfer pricing adjustments is recognized in Article 9 of UN/OECD Model conventions, OECD has also published guidelines as to how transfer pricing rules should be applied. The tax laws in India and elsewhere as also OECD guidelines prescribe the application of arm's length price to what is essentially a transaction-based approach.

TAXATION PROVISIONS IN INDIA

The Finance Act 2001 has substituted a new section 92 and inserted new sections 92A to 92F in the Income Tax Act, 1961 with effect from Assessment Year 2002-03 with a view to bring to tax net the income from an international transaction having regard to arm's length price. These provisions read together with rules 10A to 10E of the Income Tax Rules, 1962 and Circular No. 12/2001 dated 23-8-2001 relating thereto are referred to as transfer pricing regulations. These provisions are intended to facilitate determination of proper income arising out of international transactions where either or both the parties involved happen to be non-

*Senior Lecturer in Accountancy, R.J. Tibrewal Commerce College (Formerly, L.J. College of Commerce), Vastrapur, Ahmedabad-380015
resident(s). Section 92E of the Income Tax Act casts an obligation on assessee to furnish a report from a Chartered Accountant. The Fiscal Laws Committee of the Institute of Chartered Accountants of India has come out with a "Guidance Note on Report on International Transactions under Section 92E of the Income Tax Act, 1961 (Transfer Pricing)" to help members discharge their responsibility justifying the faith and confidence reposed by the Government on accounting profession.

According to section 92(1) of the Income Tax Act, any income arising from an international transaction shall be computed having regard to the arm's length price. Section 92C(1) lays down that the arm's length price in relation to an international transaction shall be determined by any of the following methods, being the most appropriate method, having regard to the nature of transaction or class of transaction or class of associated persons or functions performed by such persons or such other relevant factors as the Board may prescribe, namely: (a) comparable uncontrolled price method; (b) resale price method; (c) cost plus method; (d) profit split method; (e) transactional net margin method; (f) such other method as may be prescribed by the Board.

DIFFICULTIES IN ARRIVING AT ARM'S LENGTH PRICE

As seen earlier, section 92C(1) prescribes determination of the price by any of the above stated methods, being the most appropriate method. Further, Rule 10B and 10C of Income Tax Rules, 1962 prescribe the manner in which the arm's length price shall be determined by the most appropriate method out of various methods prescribe by Sec. 92C(1). However, there is no clear cut guideline as to which method is to be used when and in which order. Rule 10C lays down that the most appropriate method shall be the method which is best suited to the facts and circumstances of each particular international transaction, and which provides the most reliable measure of an arm's length price in relation to the international transaction. Though the same rule specifies the factors to be taken into account in selecting the most appropriate method, these factors are quite subjective at places enabling an enterprise to justify the method convenient to reduce the tax liability. For example, the rule lays down that the factors like nature and class of international transaction, class or classes of associated enterprises, the extent to which reliable and accurate adjustments can be made to the account for differences, if any, between the international transaction and the comparable uncontrolled transaction or between enterprises entering into such transactions, etc. Under such circumstances, one will have reasons to support one's basis of determining the price in the manner most beneficial to an enterprise and the taxing authority may have contrary view leading to a series of litigations on the issue of arriving at an arm's length price. Further, according to proviso to section 92C(2), where more than one price is determined by the most appropriate method, the arm's length price shall be taken to be the arithmetical mean of such prices, or, at the option of the assessee, a price which may vary from the arithmetical mean by
an amount not exceeding five per cent of such arithmetical mean. In addition to these options offered by the tax laws, the variety of international transactions taking place also poses difficulty in arriving at the transfer price by the most appropriate method. Thus, the issue of arriving at a unanimous, unambiguous and objective price is made more complicated by offering one more option. The methods laid down for arriving at arm's length price suffers from further limitation as regards the vagueness with which they are applied in determination of fair price. The rules do not clearly lay down the order in which each of the method can be used leaving sufficient room for adopting convenient method and also justifying the selection thereof. Another problem with determination of arm's length price is the general attitude of taxing authorities. In a loss situation in an international transaction, it is always looked at with suspicion by the taxing authority.

TRANSFER PRICE AND TAX PLANNING

The transfer price tax law in India provides for taxing the income out of an international transaction by resorting to arm's length price but restricts the benefit to the assessee in case where the application of arm's length price results in the income chargeable to tax in India. Section 92(3) of the Income Tax Act lays down that the provisions would not be applicable in a case where the application of arm's length price results in a downward revision in the income chargeable to tax in India. In spite of this, the transfer pricing mechanism is a very important tool for tax planning and many MNEs are using it to their utmost benefit even today. This is particularly possible where sale of goods or services or transfer thereof is unique to an MNE group and there is no price comparable to that of this unique product or service. In addition to this, many MNEs have been resorting to transfer of profit or loss to their counter parts in other countries by transfer of intangibles like goodwill, patents, licenses, etc. at valuations which attract the least overall tax liability as there is no comparable independent transaction of the like assets. Though the tax law provides for determination of a fair price, the MNEs are in a better position to justify their valuations in cases which are unique to them for want of any comparable price data. Global tax liability can be minimized even while complying with inter-company transfer pricing rules by developing strategies for obtaining advance pricing agreements. The income tax law also permits allowance for any expense or interest arising out of an international transaction. MNEs can resort to cost-sharing arrangements which result into maximum deduction of such expenses in a country where the tax liability is to be minimized. There are certain countries which do not have transfer pricing tax laws in place or they are quite lenient in favour of MNEs. It is true that the MNEs will tend to set up their manufacturing facilities in a country where there is the least tax rate. Thus, the transfer pricing is an important tool for tax planning by a well-rounded approach to a given situation thereby maximizing the ultimate return on investment.
MUTUAL FUNDS AND TAXATION

*Dr. Somesh Kumar Shukla
**Shobhit

ABSTRACT

The paper tries to analyse tax benefits issues with respect to mutual fund from the point of view of companies and investors.

Today there are around 34 Mutual funds with approximately 500 products classified under a dozen generic heads. The total investible funds of the industry grew from Rs 24 crore in 1964 to more than Rs 1,20,000 crore in 2002. Here an effort is being made to study the various tax aspects relating to mutual funds in India

TAX BENEFITS TO MUTUAL FUNDS

Mutual funds in India have a special feature as to income tax provisions. Under section 10(23D) of Income Tax Act 1961, a mutual fund has been conferred total tax exemption from income tax on all its income provided it is a recognised fund. Recognised fund implies that the fund should be registered under SEBI (Mutual funds) Regulations, 1993. Thus income accrued to asset management company by way of dividends or by way of capital gain is totally exempt. This is meant to provide a much higher yield to the mutual funds to enable them to distribute a higher return to the investors.

According to Union Budget 2002-03, Mutual Funds are also relieved of the tax liability as the incidence of tax is shifted on to the unit holders of UTI and other Mutual Funds and thus sub clause (ii) and (iii) of clause 33 of section(10) are omitted.

Income from investments are otherwise taxable but under income tax act, mutual funds are treated as pass through entities since they invest funds of public and earns income on their behalf. It implies that whether the income is in form of dividends, interest, underwriting commission or capital appreciation, the income of mutual fund in not taxable. The practise

*Reader, Department of Commerce, University of Lucknow
**Research Scholar, Department of Commerce, University of Lucknow
world over is similar but full immunity is granted to the fund, only if a specified amount is invested is equity shares to ensure that major income is post-tax income.

**TAX BENEFITS TO INVESTORS**

The income received by the investor of mutual funds is taxable in their hands as dividend unless these are capital redemption. One of the reasons for mutual funds schemes being quoted at discount to NAV was the differential in tax treatment to equity shares and mutual funds units, which made investments in mutual funds units less attractive than the equity. Before budget of 1994-95, units to claim benefit of capital gains u/s 48 were to be held for more than 36 months but this budget removed this anomaly and put the Mutual funds units at par with equity shares. As a result an investor, holding shares in a company directly or through mutual funds will now be eligible to the benefits of capital gains tax at concessional rate. Investors are likely to come flocking to Mutual funds to claim capital gains Tax. Similar concessions will be available to Foreign Financial Institution (FFIs) for their investment in mutual funds ie, low capital gain tax if units are held for more than 12 months instead of more than 36 months.

**PAYMENT AN ACCOUNT OF REPURCHASE OF UNITS BY MUTUAL FUND OR UNIT TRUST OF INDIA (194 F)**

The person responsible for paying to any person any amount on account of repurchase of units or termination of the scheme (referred to in section 80 CCB (2) of Income Tax Act as equity linked saving scheme shall, at the time of payment thereof, deduct income-tax thereon at the rate of 20% plus surcharge @ 2% of such tax. The rate of surcharge has been raised to 5% for the financial year 2002-03

These payments include

- Payment against investment made in units of any Mutual fund specified u/s 10 (23 D) of the Income Tax Act, 1961
- Payment against investment in units of U.T.I.

However, the aforesaid investments should have been made on or before 31-03-1992 in accordance with ELSS as notified by the central govt. Obligation to deduct tax at source arises only with reference to amount (investment) as referred to in sector 80 CCB(1) of Income Tax Act, 1961 and not with reference to the capital appreciation comprised in the payment.

Where any amount invested in respect of which deduction u/s 80 CCB is allowed is later returned to the assessee in whole or in part either by way of repurchase of units or on termination of the plan in any previous year, the income so returned shall be treated as the income of the assessee for that previous year and brought to tax. The difference between repurchase price of the units and amount invested there in shall be deemed as capital gains and charged to tax.
According to section 194K, person responsible for deduction of tax should deduct income tax thereon at a concessional rate of 10% It is further revived that u/s196A, tax shall be deducted at source for any income paid to a non resident not being a company, or to a foreign company in respect of units of UTI and Mutual Funds at the rate of 20%. The provisions relating to tax deduction at source under 194K and 196A are effected from 1st June 2002.

Further, the tax benefit of section 88 of the income tax Act, 1961 is available to investor as, individual and HUF’s are entitled to rebate from the amount of income tax on his total income which is chargeable for any assessment year if sums are paid or deposited by the assessee out of his income chargeable to tax in respect of subscription not exceeding Rs. 10,000/- in units of any mutual fund notified under clause (23D) of section 10 or Unit Trust of India and also on the contribution to any pension fund set up by any mutual fund or Unit Trust of India.

For assessment year 2003-04; u/s 80L individuals and HUF’s are eligible to a deduction from dividend income upto a maximum limit of Rs.12,000

TDS FROM INCOME DISTRIBUTION

Income distribution from Mutual Funds is not free from TDS provisions. A Mutual Fund has to deduct TDS where the income distribution exceeds Rs.2,500 in a financial year

CONCLUSION

It is known that tax rate for long term capital gains is lower than tax on dividends (which varies as per tax slab of investors). Some funds operating pure equity growth schemes have been declaring annual dividends, which should be distributed as capital appreciation, consequently put investors (presuming, they have exhausted dividend exemption limit under section 80 L) to great disadvantage. Further, it is also advisable that there should be exemption from tax on dividends as to avoid double taxation, steps should also be taken to make mutual fund an ideal investment vehicle as mutual funds promote growth, along with capital appreciation which in turn helps in the development of the economy.

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MEASURING CORPORATE PERFORMANCE: BALANCED SCORECARD APPLICATIONS

*Dr. P.K. Bandagar

ABSTRACT
There is a shift from performance measurement to performance management. The balanced scorecard is a management system which enables organization to clarify their vision and strategy and translate them into action. An attempt has been made in this paper to study the balanced scorecard application as a tool to measure the corporate performance.

The balanced scorecard enables organizations to clarify their vision and strategy and translate them into action. It is a tool which uses indicators to communicate a strategy and to measure the success of its implementation. This technique was devised by Robert Kaplan. This technique was used in Kennedy administration as well as in the Vietnam War. The four vital components of the Balanced Scorecard are financial operations, customer related schemes, internal business process and the learning and growth aptitude. The use of balanced scorecard unpacks the organizations financial targets and creates a dialog as to the strategy to achieve them. It also makes the strategy transparent by reducing the risks of delegation.

BUILDING SCORECARD
Balances scorecard can be build to suit one's needs. It requires to complete the following steps:
1) To identify clearly defined value drivers for the audit function i.e. stake holders which include Audit Committee, Board of Directors, Line Managers & Customers.
2) To specify actions required to support each of the value drivers.
3) To review actions and action steps with key stakeholders.
4) To implement a process for measuring performance.
5) To establish a system for reporting results to key stakeholders.

SIWS N.R. Swamy College, Wadala, Mumbai 400 031.
IMPLEMENTATION OF SCORECARD

The balanced scorecard is implemented in order to maximize empowerment. It it correctly implemented, it can be a tool for decentralization and it will empower line managers. To empower the organization, the balanced scorecard must remain the language of ongoing strategic discussion. It complements the financial indicators, supplements the lag indicators with non-financial lead indicators. Therefore, it is logical to drive the scorecard down to the level where profit and loss occurs. At this level the scorecard has the greatest impact. The scorecard helps the profit center manager to understand the business drivers. Cost centers cannot be treated as independent business in this way and in an empowered company are often judged in relation to the line profit centers, which they serve. The scorecard must be owned by the line managers and it must reduce the support activity, since the scorecard supplements a full set of financial indicators, care must be taken that the scorecard cannot become unwieldy and loosing its strategic impact. One of the essential innovations of the scorecard is inclusion of the learning and growth measure. They correspond to building the core competencies needed to compete into the future. It is one area where it is appropriate to dictate from center.

LIMITATIONS OF SCORECARD

The balanced scorecard points out the weakness of central planning. However, central planning is difficult to eradicate. Once, the scorecard becomes viewed as a central planning tool, it rapidly, becomes part of the corporate politics. The central office uses it to look over manager's shoulders while promising openness and disclosure. In their turn, the managers use the scorecard to cover themselves while claiming to follow strategy. For the scorecard to work, it must be a tool that sets manager's goals without interfering with how they will be achieved. The temptation to centralize must be resisted at all costs. The scorecard is best compiled against the business strategy and only once the strategy has been operationalized and articulated, it should be checked against the four quadrants. If the results are not balanced, any new indicators can be added carefully so as the original frameworks cannot be distorted. The scorecard focuses managers on the long term and this is the clue to the optimal incentive structure. This incentivizing the scorecard directly results into confusion. If balanced scorecard is not used properly, it may bring chaos in the organization.

REFERENCES
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ANALYSIS OF COST OF RAW MATERIALS IN ALUMINIUM COMPANIES IN INDIA

*Dr. M.S. Poonia

ABSTRACT

The paper makes an attempt to analyse cost of Raw Materials in selected Aluminium Companies in India. Further, it has identified reasons for such variations.

Raw materials play a vital role in the cost structure of aluminium production. The requirement of bauxite depends on the percentage of metal contained in the bauxite while the requirement of other raw materials used in the production of aluminium depend on the quality of bauxite used and the production process adopted by a concern. The cost of raw materials consumed was 24.04 percent of total cost of the aluminium industry during the years 1990-91 to 1999-2000. The percentage of raw materials to totals cost varied from 21.15 percent in 1999-2000 to 27.48 percent in 1996-97, constituting a range of 6.33. The steep rise in the percentage in 1996-97 was due to high import duty on selected raw materials like caustic soda etc. In other years the production varied in a small range and from 1997. 98 onwards it was towards decline.

The percentage of cost of raw materials consumed to total cost of Aluminium Companies in India during 1990-91 to 1999-2000 are shown in table 1 given on next page.

In HINDALCO, during the period 1990-91 to 1999-2000, the cost of raw materials consumed was 19.26 percent to the total cost which is higher as compare to Balco, Nalco and aluminium industry as a whole. It varied from 26.42 percent in 1999-2000 to 32.07 percent in 1991-92 constituting a range of 5.65. The high proportion in 1991-92 was on account on reduced availability of power due to shot down of one unit at Renusagar Power Plant. The proportion registered a declining trend from 1992-93 to 1995-96. It came down up to 27.34 percent in 1995-96 because of the progressive utilization of capacity. Accounting to the Director's Report, "The company improved capacity utilization and increased metal production following commissioning of the ongoing enhancement of power generation capacity."1

*Associate Professor, Department of Accountancy and Business Statistics, University of Rajasthan, Jaipur.
### Poonia

#### Table 1
Percentage of Cost of Raw Materials to Total Cost of Production in Aluminium Companies in India during 1990-91 to 1999-2000

<table>
<thead>
<tr>
<th>Year</th>
<th>HINDALCO</th>
<th>INDAL</th>
<th>BALCO</th>
<th>NALCO</th>
<th>ALUMINIUM INDUSTRY</th>
</tr>
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<tbody>
<tr>
<td>1990-91</td>
<td>31.81</td>
<td>23.33</td>
<td>22.57</td>
<td>13.67</td>
<td>22.34</td>
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<tr>
<td>1991-92</td>
<td>32.07(H)</td>
<td>22.41(L)</td>
<td>24.33(H)</td>
<td>16.50</td>
<td>23.56</td>
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<td>1992-93</td>
<td>31.34</td>
<td>28.53</td>
<td>22.22</td>
<td>18.18(H)</td>
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<td>1993-94</td>
<td>31.07</td>
<td>38.40</td>
<td>19.49</td>
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<td>25.71</td>
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<td>1994-95</td>
<td>29.26</td>
<td>38.08</td>
<td>18.09</td>
<td>13.34(L)</td>
<td>24.81</td>
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<td>1995-96</td>
<td>27.34</td>
<td>35.16</td>
<td>21.52</td>
<td>16.45</td>
<td>25.08</td>
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<td>1996-97</td>
<td>31.00</td>
<td>39.08(H)</td>
<td>22.22</td>
<td>18.08</td>
<td>27.48(H)</td>
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<tr>
<td>1997-98</td>
<td>28.57</td>
<td>30.64</td>
<td>18.73</td>
<td>15.49</td>
<td>23.34</td>
</tr>
<tr>
<td>1999-2000</td>
<td>26.42(L)</td>
<td>27.69</td>
<td>15.35(L)</td>
<td>14.64</td>
<td>21.15(L)</td>
</tr>
<tr>
<td>1990-2000</td>
<td>29.26</td>
<td>32.22</td>
<td>19.64</td>
<td>4.84</td>
<td>24.04</td>
</tr>
</tbody>
</table>

**Range:** 5.65 | 16.67 | 8.98 | 15.67 | 6.33

Source: Annual Reports and Accounts of Related Companies under study from 1990-91 to 1999-2000

**NOTE:** H = Highest, L = Lowest

In INDAL during 1990-91 to 1999-2000 the cost of raw materials consumed was 32.22 percent of the total cost, being the highest for the companies under study. The proportion of raw materials to total cost marked a fluctuating trend and varied from 22.41 percent in 1991-92 to 39.08 percent in 1996-97 constituting a widest range of 16.67 percent. The continuous increase in the proportion of raw materials from 1991-92 to 1993-94 was due to "high interest rates, increased power cost and production disruption due to social and political disturbance etc." Also, deteriorated quality of power supply and transport disruption adversely affected the production and thus leading to high cost of raw materials consumed.

The percentage cost of raw materials marginally decreased to 38.08 percent in 1994-95 and further to 35.16 percent in 1995-96. The reduction in proportion of raw materials was due to concerted efforts at waste reduction and improvements in product mix. However, the steep rise in proportion of raw materials to 39.08 percent in 1996-97 was due to loss of 31% of own smelter metal due to power cuts, a 30% increase in administered power tariffs and higher freight costs.
Indian Journal of Accounting

In BALCO during the years 1990-91 to 1999-2000, the cost of raw materials consumed was 19.64 percent of the total cost. It varied in the range of 8.98 from 15.35 percent in 1999-2000 to 24.33 percent in 1991-92. The highest percentage of 24.33 in 1991-92 was due to "the problems of power supply from Captive Thermal Power Plant coupled with power interruption and restrictions of power: supply from MPEB during the latter half of the year" which resulted in wastage of raw materials and thus increasing the cost of production. It decreased during 1992093 to 1994-95. According to the Chairman's Speech: "Inspite of the reduction m excise duty on caustic soda from 20% to 18%, import duty from 50% to 40% on selected raw materials and import duty on project reports from 25% to 20%" the percentage of raw materials to total cost increased from 21.52 percent in 1995-96 percent in 1995-96 to 22.22 percent in 1996-97.

In NALCO during the period of study from 1990-91 to 1999-2000 the cost of raw materials consumed was 15.67. It was lowest as compare to another companies and aluminium industry as a whole. The production varied in a range 4.84 from 13.34 percent in 1994-95 to 18.18 percent in 1992-93. The highest percentage of 18.18 in 1992-93 was due to strike to truck owners. Therefore, the company had to arrange for other means of transport for raw materials thus increasing its cost and proportion to total cost. However, the proportion decreased to 15.10 percent and 113.34 percent in 1993-94 and 1994-95 respectively. "The satisfactory results have been achieved despite difficult market conditions mainly due to improvements in overall efficiency, cost reduction measures, batter management and impact of the policy measures taken by the Government."

With a view to test the significance of variation of this proportion in various companies T' test has been applied here. The table no. # shows analysis of variance of proportion of raw materials in aluminium companies in India.

It will be seen from the table that the F ratio = 13.43. The table values of Fat 1% and 5% levels of significance for V1 = 3, V2 = 36, are 3.78 and 2.60 respectively. This shows that the differences in the percentage expenditure on raw materials in the four companies are significant.

Table 2
Analysis of Variance of Proportion of Raw Materials in Aluminium Companies in India

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square of Variance</th>
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<tbody>
<tr>
<td>Between Companies</td>
<td>172.43</td>
<td>3</td>
<td>57.47</td>
</tr>
<tr>
<td>within Companies</td>
<td>154.10</td>
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Taking the period under study as a whole, the cost of raw materials was an important element of cost. The range varied from 4.84 in NALCO to 16.67 in Indal with 5.65 in HINDALCO and 8.98 in BALCO. The range was the highest in INDAL followed by BALCO, HINDALCO and NALCO.

Some of the important reasons associated with the variations in the percentage of raw materials to total cost in the case of various aluminium companies and within the same company in the same company in different years are summarized below:
1. The distance between pithead and factory varies in the companies studied. In some cases a part was available locally and a part was to be transported. Thus has caused variation in transportation costs from company to company and also within the company from year to year which has resulted in variation in the raw materials proportion.
2. The proportion has also varied due to power failure and labour troubles on different occasions.
3. The methods of pricing of raw materials consumed have been different companies and in the same company in different years. The accounting treatment of various items to be included in different companies might be different, for which details are not available companies in published financial statements. For example, cost of moving materials could be added to materials cost in one case and wages of labour engaged in moving materials to labour cost (Salaries and wages) in another or materials from own mines could be costed at factory cost or pit-head cost or just at out of pocket non-labour costs.
4. Another cause of variation in the proportion of raw materials has been increase in prices of raw materials in different years. The effect of the increase in prices has been noticed in case of such companies more in which more of materials is consumed, while it is less in such companies as are using less raw materials due to different product mix, and as the product mix changes, the requirement of raw materials changes accordingly.
5. The policy of import substitution has also resulted in variation of this proportion from year to year and to some extent from company to company.
6. Materials losses during production and storage might be one of the reason but the figure of materials losses are not available in the published Annual Reports and Accounting of the companies.
7. The proportion of raw materials to total cost will show a decrease or increase because of greater increase or decrease in the cost of other factors such as salaries and wages, other factory expenses, etc.

During the period 1990-91 to 1999-2000 the percentage of raw materials to total cost registered an increasing trend in all the aluminium companies under study. There has been a steep rise in the prices of practically all the raw material - caustic soda, cryolite, aluminium fluoride, calcined petroleum coke, pitch, fuel oil etc. The short supply of some of the raw material also accounted for the steep rise in prices of certain essential raw materials. The
Indian Journal of Accounting

Substitution of import raw materials by indigenous supplies also resulted in high costs, even two to three times of the imported ones, and progressively items of import were being reduced. It is suggested that the prices of some of the important raw materials should be controlled. The supply of such raw materials should be ensured to the aluminium proportion by fixation of their quota.

REFERENCE

26th All India Accounting Conference
27-28 December, 2003
Organised by Department of Commerce and Business Management
M.G. Kashi Vidyapeeth, Varanasi

International Seminar : Accounting Education and Research
Technicacl Session I : Corporate Disclosure and Governance
Technical Session II : Value Added Tax.

Contributors are requested to send their paper latest by 10th November, 2003. Paper be sent directly to (MS-Word 2000 on 1.44 MB Floppy Disk is preferred) The Conference Secretary, Dr. M.B. Shukla, Dean, Faculty of Commerce and Management Studies and Director, Institute of Management Studies, M.G. Kashi Vidyapeeth, Varanasi - 221 002 (U.P.). Papers are subject to technical evaluation through blind review process.

For further details please contact
Dr. M.B. Shukla on : 0542-2223929 (O), 0542-2220653 (R)
RESEARCH PROJECT

CAPITAL MARKET ENVIRONMENT & INVESTMENT CLIMATE: AN INTEGRATED APPROACH

*Dr. R.L. Tamboli

The behaviour of the players, investors, planners, regulatory bodies affect the environment of capital market and simultaneously the prevailing psychology, attitude, and feelings of investors both individual and institutional develop the investment climate and ultimately both affects to each other and being affected by each other therefore the capital market environment and investment climate are integrated. In the present context of India Economy at micro level and World Economy at macro level, neither environment of capital market not investment climate is suitable to the investors regardless institutional or non-institutional i.e. individual in spite of continuous efforts has been doing by the SEBI since 1992-93. The study has aimed to achieve the objectives as given below:

i. The study of existing environment of capital market vis-à-vis. Investment climate in order to set Principle of Investors Beware,

ii. To understand and analyse concept of money market, capital market, financial market and stock market with changing behaviour of the players in the stock exchanges as a whole in view of the existing classical and modern theories of Financial Management and Portfolio Management,

iii. To analyse the efforts done by SEBI in order to smoothen the mechanism of Indian Capital Market (ICM).

The study concludes that the capital market is not a 'perfect market' and the investors are not rational in order to assess business-risk and financial risk. The mechanism of capital market under the prevailing environment and behaviour of the investors both institutional and non-institutional under the given investment climate are not satisfactory.

*Associate Professor (Accounting and Finance Area), Department of Accountancy and Statistics, CCMS, M.L. Sukhadia University, Udaipur
BOOK REVIEWS

ADVANCED ACCOUNTANCY (Volume II)
Authors - R.L. Gupta, M. Radhaswamy, SultanChand & Sons, New Delhi, 2003, Price Rs. 300.

Advanced Accountancy is regarded as a difficult subject but students/readers will find it different with this text book. Basically this book is designed as a textbook to meet the needs of the subject in B.Com., M.Com., C.A., C.S., ICWA & MBA programmes. The aim of authors for writing this book is to present advanced accountancy theory & practicals in an unorthodox manner. In this volume section IV, V, VI and VII (Total 4) have been discussed. These four sections cover twenty four chapters. Section VII covers newer dimensions of accounting like Human resource accounting, inflation accounting, value added statement, corporate social reporting, segment reporting and valuation of business. This volume contains a comprehensive collection of 519 illustrations. This book is written in simple and clear language.

In this volume, most of the chapters have objective questions with answers. Authors have provided 'learning objectives' at the beginning of each chapter for easy understanding of students. In the whole book, theory has been duly supported by illustrations. Further, unsolved problems encouraging readers to develop their own synthesis were also added. The unique feature of this book is inclusion of latest accounting standards. SEBI guidelines and the companies act. This book also contains explanation notes and alternative solutions at many places. The material contained in the text has been tested in regular B.Com., M.Com. and MBA programmes. This book is also expected to be very useful for the consultants, practicing accountants and researchers dealing with the world of accountancy.

Dr. S.C. Moonat
Professor, Commerce Deptt., Madhav College
Vikram University, Ujjain

BASICS OF COST ACCOUNTING

This book has been written to meet the requirements of professional education-II examination of the institute of chartered accountants of India for the paper "cost accounting & financial management." This book may also serve the purpose of a text book for B.Com., M.Com. MBA and other research oriented P.G. Diploma courses. Given the above backdrop, this book contains sixteen chapters - each chapter beginning with independent learning objectives. There is also an appendix A containing extracts from management accounting official terminology of chartered institute of management accountants (CIMA), London. In appendix B, solved problems from recent examination of CA Inter have been provided.

Selection of examples and practicals in each chapter/section and their placement in systematic order is meticulous, reasonable, logical and scientific that even an ordinary man can acquire real complete thorough basic knowledge of cost accounting in a very short period of time without any exertion on his part. The aim of the author for writing this text book is to present whole range of cost accounting techniques in one volume with precision & adequate
Book Reviews

details. The language of the book is very clear and has got logical "Two in One" structure covering both theory and problems in different blocks. Under the head 'material' (BlockA-2) there are five sections covering purchase procedures, material and production losses, stores routine, material control and inventory control and material cost while 'labour' part (BlockA-3) consists of three sections namely - classification, timekeeping and time booking methods of remuneration and incentives pay roll accounting & labour cost control. 'Overhead' part (BlockA-5) contains six sections - including section on research development cost. This book is also useful for the researchers, academicians and students of commerce and management specially for the costing concepts. It is also equally useful for the practicing professionals.

Dr. D. Mehta

Lecturer, Pt. Jawaharlal Nehru Institute of Business Management
Vikram University, Ujjain

REDISCOVERING THE BALANCE SHEET
(A Corporate Financial Reporting Theory Perspective)

Author : Arun Kumar Basu, Special Assistance Programme (UGC), Dept. of Commerce, University of Calcutta (Feb. 2003), Price Rs. 250, pages 240.

This book is based on the research, the author has conducted under the special assistance programme (UGC) of the Department of Commerce, University of Calcutta. The aim of this book is to rediscover the concept of balance sheet and find out changes in corporate financial reporting theory. Undoubtedly 'Balance Sheet' view has brought about significant changes in the way corporate financial reporting rules are formulated and information is generated.

This book is divided into eight chapters, contains 240 pages with an index as well. The introductory chapter describes the study background. Chapter two is mainly concerned with the matching principle and its shortcomings. Chapter three "The Balance Sheet Model of Accounting" presents a sketch of theoretical issues. Chapter Four of this book explains issues relating to the recognition and measurement of assets and liabilities. It also offers a detailed analysis of various measurement bases. Chapter Five offers specific examples/evidences to demonstrate how the "applications of the Balance Sheet Model of Accounting" are made. Chapter Six "Recognition & Measurement of Intangible Assets" describes & explores problems associated with such assets. Chapter Seven namely "Putting off Balance Sheet Assets and Liabilities on the Balance Sheet" deals with financial reporting problems. It also indicates potential danger of balance sheet financing. Lastly, Chapter Eight provides an assessment of how far the balance sheet model can be really effective in the existing financial reporting environment.

The language of the book is clear and structured in a logical way. The book can also serve as an excellent reference for practicing corporate financial consultants/accountants/managers, academicians & researchers in their day to day applications and broader understanding of Balance Sheet Model.

Dr. M.B. Shukla

Professor and Dean, Dept. of Commerce and Management
M.G. Kashi Vidyapeeth, Varanasi

* * *
Indian Journal of Accounting

IAA News

Report on One Day Seminar on
"Accounting in the New Millennium"

Organised by
Gujarat Branch of Indian Accounting Association

Gujarat Branch of Indian Accounting Association had organised a seminar on "Accounting in the New Millennium" jointly with Department of Commerce, Sardar Patel University, Vallabhbhai Vidyanagar at Vallabhbhai Vidyanagar on Monday, 10th March, 2003. The Seminar was presided over and inaugurated by Hon. Vice Chancellor of Sardar Patel University Dr. Pravin J. Pated. The Chief Guest of the Inaugural Function was Prof. K.C. Mehta, Former Vice Chancellor of M.S. University, Baroda. Prof. K.C. Mehta, through his address, discussed the latest developments in the area of Accounting, drew attention of participants to the opportunities for accountancy profession under the current scenario, discussed the latest episodes of creative accounting practices and indicated certain symptoms of creative accounting. Dr. Pravin Patel, in his presidential address, stressed on the urgent need to act by one and all to bring back the atmosphere of mutual trust out of the crises of confidence created due to sudden corporate collapses by misrepresentation of accounting numbers.

Mr. Milin Mehta, a practicing Chartered Accountant from Baroda, in the first technical session, expressed his views on tax issues arising out of the requirements laid down by mandatory accounting standards.

Mr. Akhilesh Vyas, Branch Manager of Stock Holding Corporation of India, spoke on the Capital Market Developments in the second technical session and expressed his views on the role of accounting profession in development of capital markets.

Mr. Mayur Swadiya addressed the participants on the latest developments relating the accounting standards.

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 26th IAA Annual Conference, Varanasi, on 28th Dec., 2003, to transact the following agenda:

~ Consideration of the minutes of AGM meeting held at Jodhpur.
~ Consideration of the Accounts of the Association.
~ Topics for the next IAA Annual Conference.
~ Election of Executive Members as per the Constitution.
~ And any other item with the permission of the Chair.

All the members are requested to attend the meeting.

(D. Prabhakar Rao)
General Secretary, IAA
email: dprabhakararao@eth.net, Ph: 0891-2755538; Cell: 094401 31863

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EXECUTIVE MEETING NOTICE

A meeting of the IAA Executive Committee is tentatively scheduled to be held at the Venue of 26th IAA Annual Conference, Varanasi on 27th Dec., 2003 at 8.30 p.m., to transact the following agenda.
1. Consideration of the minutes of EC meeting held at Jodhpur
2. Nomination of 3 members of EC 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.

(D. Prabhakar Rao)
General Secretary, IAA
email: dprabhakararao@eth.net, Ph: 0891-2755538; Cell: 094401 31863

SPECIAL GENERAL MEETING NOTICE

A special meeting of the IAA General House will be held at the Venue of 26th Annual Conference, Varanasi, on 28th Dec. 2003 at 11.30 a.m. to transact the following agenda-
   Consideration of constitutional amendments to increase the number of Executive Committee Members and any other item with the permission of the chair.
   All the members are requested to attend the meeting.

(D. Prabhakar Rao)
General Secretary, IAA

Proposals for IAA YOUNG RESEARCHER AWARD - 2003

Indian Accounting Association invites research proposals on research work done during the last five years in the area of Accounting by scholars/faculty members of not more than 35 years of age as on 31.12.2002 for the consideration of IAA young Researcher Award - 2003. The proposal may be submitted, on or before 15th October 2003, to Prof. D. Prabhakar Rao, General Secretary, IAA, Faculty of Commerce and Management Studies, Andhra University, Vishakhapatnam - 30003. Cell: 094401 31863; Ph: 0891-2755538, email: dprabhakararao@eth.net OR iaa-drao@sify.com

Proposals for IAA BEST PUBLISHED ACCOUNTS AWARD - 2003

Indian Accounting Association invites proposals from Companies/Corporations/Autonomous Bodies for the consideration if IAA Best Published Accounts Award - 2003. The proposals may be submitted, on or before 15th October 2003, to Prof. D. Prabhakar Rao, General Secretary, IAA, Faculty of Commerce and Management Studies, Andhra University, Vishakhapatnam - 30003. Cell: 094401 31863; Ph: 0891-2755538, email: dprabhakararao@eth.net OR iaa-drao@sify.com
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