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Editorial

Globalisation is slowly impacting every aspect of life. Accounting practice, that developed as per the requirement of different countries and remained so for a long period of time, have also come under its spell. With globalisation of world economies there is globalisation of accounting practice also. The intiative taken by the International Accounting Standards Committee has created environment for the adoption of standard accounting practices in all the countries of the world. In India, to begin with the movement was feeble and from 1977 to 1999 the Accounting Standards Board could finalise only 16 Accounting Standards. But over 2000 and 2001 it has picked up momentum and the ICAI are now trying to be in step with the global requirement.

With globalisation of accounting practice there is a need for globalisation of accounting education. This is time university bodies rise to the occasion and move swiftly, revise their syllabai, update text books, prepare teachers and establish a strong linkage between profession and academy.

Accounting research has been a neglected area so far. With developments in teaching and practice there is a need for giving new direction to accounting research. People at commanding height in academy should take this responsibility seriously. Research issues should be seriously identified and pursued. Research should emphasise more on policy issues, rather than merely dilating on well known theoretical concepts. The requirement of changes in accounting practice under Indian conditions should be examined, to establish the relevance and need of the efforts made in this area.

The issues in accounting education and research should be seriously debated at the seminar session of the Indian Accounting Association and the national body should formulate certain guidelines in this respect. These should receive serious attention of the academy and the profession.

The present issue is mainly devoted to certain case studies and some important aspects of accounting education and accounting research. Dr. Arup K. Chattopadhyay and Dr. Arindam Gupta have undertaken a study to determine linkage between market capitalisation and economic value added. Debasish Sur, Joydeep Biswas and Prasenjit Ganguly have examined the liquidity management in Indian private sector enterprises. Ms. Sumana Ghosh have surveyed the environmental disclosures in corporate annual reports in India. Dr. B.S. Rajpurohit and Laxman Ram Paliwal have probed into the aspects of cost, revenue and profitability of agriculture farms in rural set up. Praveen Jain and Sonia Agarwal have peeped into the financial structure of Hotel Companies. Dr. A.K. Chakrawal has attempted to show the relationship between business ethics under different market conditions.

Dr. Kanchan Kumar Purohit and Dr. Milan Kumar Bhattacharjee have presented a comprehensive review of research in accounting in Bangladesh since 1971.

Bhaskarjyoti Bora and Dr. G.Y. Shitole have discussed the issues and problems in accounting education.

The June 2001 issue of the Journal is last to be published under the present editorial board. We take this opportunity to convey our thanks to the general body and the executive of the IAA for reposing their confidence in the board. We are grateful to the paper writers and reviewers for helping the editorial board in carrying out its responsibility.

15th June 2001 **Editors**

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Linkage Between Market Capitalization and Economic Value Added - A Study with Reference to Hindustan Lever Limited

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Introduction

Market capitalization, earnings capitalization, present value of estimated future free cash flows. return on investment (ROI), earning-per-share (EPS) etc. are some of the wellknown traditional busines strength indicators. Among these measures, initially ROI was considered as the most effective yardstick of business strength. A company having a ROI higher than its cost of capital was traditionaly considered as a well managed one. Later on, market capitalization (MC) became a popular measure of business strength. MC, a product of earning-per-share (EPS) and price-earning multiple (P/E), is still popular among many companies as an indicator of business strength. But, recently economic value added (EVA) has emerged as a modern replacement of the traditional strength measures not only in the United States but also in other parts of the world. It created a wave of enthusiasm among the corporate giants, like Coca-cola, AT&T, Briggs & Stratton etc. and also in the acadamic circle. Some studies have been conducted in other countries as well as in India to determine the importance of EVA over other contemporary measures in explaining the company's market value added (MVA) - the premium the market is willing to place on the company's value in recognition of its earnings potential, operationally measured as difference between current market value and book value of the amount of capital that shareholders, lenders and other capital providers supply. Some such studies are Stewart (1991)[1], Lehn and Makhija (1996)[2], O'byrne (1996)[3], Banerjee and Jain (1999)[4], Banerjee (1999)[5], (2000)[6], etc. However, as claimed by many experts, it is not the EVA but the MVA that can be a more reliable measure of management's longterm sucess in adding value[7].

'Market Capitalization - A Traditional Strength Indicator

There are several ways to explain how MC reflects a company's strength. As we know, EPS is the residual income accruing to shareholders, which is obtained by dividing profit after tax by number of equity shares and P/E is the multiple, which the market is willing to pay for those earnings. MC, a product of these two actually depends on the perceived and

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anticipated quality of earnings[8]. Actually this calculation of MC will reflect the result on per-share basis. But total market capitalization, being a more popular expression of the measure, is product of the previously calculated MC with the number of equity shares and thus can be expressed as product of total earnings (available for distribution among the equity shareholders) and P/E. To get a higher MC mathematically, we have to get either higher earnings with constant P/E (though as a result of higher earnings in association with a more than proportionate rise in share price, P/E is also bound to rise upwards in a realistic manner). or earnings and P/E both higher (this is actually possible in reality) or constant earnings with higher P/E (due to rise in share prices for some other reason than the rise in earnings). Thus for the first and second causes, to get higher MC, a high profit level indicates strength in both revenues and costs. Behind high revenues, there are often capabilities in product-range, mix, quality, premium price and volumes. Similarly low costs indicate, at an even deeper level, skills in cost control and cost reduction in all the major elements of cost-marerial, labour and overheads. High volume of sales would imply a high marklet share. Premium price could arise from superior quality, differentiation and segmentation. Cost advantages may emerge from competitive technology, supply chain management, conversion efficiency and logistics management. For the second and third causes, to get a higher MC, high P/E associated with industry leadership, commitment to R&D, vision, strategies, institution building and overall quality of management are required. High market capitalization also makes a company competitive in acquisitions through a favourable share exchange ratio[9]. However, some critics say that market capitalization is a misleading indicator of success in comparison to market value added (MVA), which is the difference between market value and book value of capital mentioned earlier. MC is a measure of size rather than success, as it fails to consider the money investors put up. For example, if a company's MC increases by Rs. 100 crore over five years, while at the same time the company bloughed back Rs. 200 crore in retained earnings, it actually destroyed Rs. 100 crore of shareholder wealth, in terms of valuation by the market. So the most point of critics is that MC does not give due consideration to capital providers' contribution. Inspite of this sort of criticism, the importance of MC can not be ignored, since if the general rule of Economics is accepted, a market with large number of buyers and sellers is the appropriate place where the value of anything is correctly determined. However, MC is actually determined by the market price of equity shares. Here, other sources of capital have been intentionally ignored, since the very basic concept of Finance considers equity shares' value as the value of the firm.

'EVA' - A Newcomer among the Techniques to Understand and Evaluate Business Strength

EVA is a company's net operating profit after tax and cost of capital. It is just a way of measuring a concern's real profitability, which is backbone of a concern's business strength. EVA requires a company to be more careful about resource mobilization, resource allocation and investment decisions[10]. It can be seen as a composite measure of productivity of all factors of production.

EVA = Net operating Profit after Taxes (NOPAT) - Cost of Capital Employed (COCE),

Where COCE = Weighted Average Cost of Capital (WACC) x Capital Employed or Total Net Assets (Net Block + Trading Investment + Net Current Assets).

NOPAT = Net Operating Profit after taxes + Interest after taxes.

In determining WACC, cost of debt is taken as after-tax cost and cost of equity is measured on the basis of Capital Asset Pricing Model (CAPM)[11]. Thus, EVA represents the value added to the shareholders wealth by generating operating profits in excess of the cost of capital employed in the business. It is based on residual income after charging the cost of capital provided by lenders and shareholders.

EVA can be increased if operating profits can be made to grow without employing more capital (this is a sign of greater efficiency), additional capital is invested in projects that generate returns more than the cost of obtaining the new capital (this is a sign of positive growth), capital is liquidated from activties that do not cover the cost of capital (this is discontinuance of non-growth activity lines), additional capital can be raised at a lower cost from the market to employ the same in activities with the same growth level (this is a sign of low COCE), etc.

It is important to note that in most of the articles in Indian newspapers and magazines, the EVA figures calculated for Indian companies are actually residual income and not EVA[12]. The same is true for a few Indian companies like Infosys, HLL, BPL etc., which show EVA result in their Annual Reports. Residual income is the difference between profit and the cost of capital. It differs from EVA in the fact that profit and capital employed are book figures i.e., the same as appearing in the financial statements[13]. Adjustments to profit and capital employed figures as reported in Profit & Loss Account and Balance Sheet, which need to be made while arriving at EVA are not made here.

A point is some times made that EVA is not the ultimate measure of corporate success and that the most reliable measure of management's long-term success in adding value is well-known as MVA. But studies have shown that no financial measure correlates better with MVA growth than EVA does. Moreover, MVA can not be calculated for privately held firms and non-profit companies because they do not have traded shares. And, even for most large public companies, MVA can be a useful performance measure only at the very top of the organization but not at the subsidiary level[14].

Present Study

In the above background the present study attempted to determine the linkage between market capitalisation and economic value added.

Objective

The objective of the study was to find out the relationship, if any, between MC and EVA, keeping in mind that the external masure of performance (as reflected in MC) is unbiased and generally should be a function of internal performance (as partially reflected in EVA).

The Company

Hindustan Lever Ltd. (HLL) is one of the big companies in India. It's products include personal wash, fabric wash, household care, oral care, skin care, hair care, deodorants, perfumery, colour cosmetics. baby and feminine hygiene care, tea, coffee, cooking fats and oils, dairy products, frozen desserts and ice creams, tomato, fruit and vegetable products, staples - rice, salt, etc., noodles, marine products, speciality chemicals, bulk chemicals, fertilizers, animal feeds, seeds, plant growth nutrients, processed tri-glycerides, agri-commodities, leather, footwear, carpets and plantations. The face value of its equity share capital was Rs. 22,006 lakh (at the end of 1999), which was equivalent to US $ 490 lakh and the market value of the shares was Rs. 49,513 crore, which was equivalent to US $ 1100 crore. It is a subsidiary of multinational, Unilever Plc. It has as many as eighteen subsidiary companies. The company is a leading one among the Indian consumable goods industry.

Period of Study

The study covered a period of nine years from the year ended, 1991 to the year ended, 1999.

Information obtained

The figures of market capitalization and economic value added were collected for the year ended, 1991 to the year ended, 1999 (for nine years) from the Annual Reports of HLL. Table I represents the figures of market capitalization and economic value added as shown in the Company's Annual Reports.

Regarding calculation of EVA the Annual Report of the company for 1999 stated that cost of debt is taken at the effective rate of interest applicable to an "AAA" rated company like HLL with an appropriate mix of short, medium and long-term debt, net of taxes[15]. Risk-free rate of return was taken as equivalent to yield on long-term Government bonds.

Calculation procedure

To examine whether the EVA is something new and different from the traditional measure MC, first the degree of association between these two measures was statistically tested through correlation coefficients, taking into account their magnitudes (i.e. by Pearsonian product moment correlation coefficient, r), rankings of their magnitudes (i.e. by Spearman's rank correlation coefficient, rR) as well as the nature of their associated changes (i.e. by Kendall's correlation coefficient, γ). However, all these correlations are not expected to exhibit true association between the two variables in case both of them are influenced by a third factor and in that case the correlation will be 'non-sense correlation.'

To examine the presence of a third factor the Run test was applied on both the series, the series of EVA and MC, separately. The Run test is applied to detect the randomness of a series. If Run test is statistically significant, it implies that the series is non-random and contains a systematic part. The systematic part in the series of EVA and also in the series of MC, if so detected, most likely comes from their respective trend effects, specially for a

high growth concern, like HLL. Therefore, to capture the true relation in this situation, the trend components (the influence of third factor, time) was eliminated from both the series, EVA and MC, before applying the correlation test.

There are different measures for determining the trend. However, the trend component should be eliminated by using the best fitted trend equation. For the choice of best fitted trend equation to begin with three alternative forms, viz, linear ($Yt = a+bt+ut$), log-linear ($lnYt = a+bt+ut$) and log-quadratic ($ln\ Yt = a+bt+ct^2+ut$) trend equations were considered. A particular form was then chosen among others on the basis of two statistical criteria viz., Adjusted R^2 (Adjusted Coeficient of Determination for goodness of fit) and D-W statistic (Durbin-Watson statistic for detection of auto-correlation and also for correct model specifications).

Using the best fitted trend equation, the residuals, which are not only random (to be tested by the Runs test) but also free from the influence of the third factor, were calculated. Lastly, correlation coefficients between the residuals of EVA and the residuals of MC were calculated and tested statistically. These correlations are supposed to reflect the true association between EVA and MC. As in the study the observations were relatively small in size, so, apart from the consideration of usual correlation test (by Students' 't' distribution) Fisher's Z-transformation were used. Decisions have been taken on the basis of both these test statistics.

Findings

From the measured correlation coefficients between EVA and MC on the basis their original series the following results were obtained :

$r = 0.9929^*$, $rR = 1.0^*$ and $\gamma = 1.0^*$

These results showed that all the correlation coefficients were satistically significant at 1% level. For the diagnostic checking of the influence of the third factor non-parametric Run test was applied and the results were as follows :

Runs on EVA = 2^{**} and Runs on MC $=2^{**}$
(-2.1285) (-2.1285)

(**Note** : The terms within parentheses imply the values of test statistic)

From the Run test it is evident that both the series, the EVA and the MC, were statistically non-random, implying thereby the presence of systematic components in both the series.

To eliminate the influence of trend factor from the series of EVA and MC, the trend equations were estimated. The results are given in the Table II. Examining the results of Table II, it may be concluded that exponential i.e., Log-linear trend was the best fitted trend both for EVA and MC series. However, it may be pointed out in this connection that EVA and MC in Hindustan Lever Ltd. grew at the annual rate of 37.6% and 33.5% respectively, which implied that HLL was a fast growing company.

After the choice of log-linear trend for both EVA and MC, the residuals were calculated. These are random in nature, as evident from the following results :

Runs on the resuduals of EVA = 4 and
(-0.6827)
Runs on the residuals of MC = 6
(0.0402)

(**Note** : Both these Runs are statistically not significant.)

Using the residuals (in original scale, not in logarithmic scale) of EVA and MC, the correlation coefficients were again calculated. These exhibit the intrinsic relationship between EVA and MC. The estimated values of the correlation were a given below :

$r = 0.8516^{*}$, $rR = 0.6000^{***}$ and $\gamma = 0.4444^{***}$

(**Note** : *** Significant at 10% level)

From the estimated values it may be seen that all the correlations were statistically significant even after adjustment. From the above it may be inferred that both the new and the traditional measures of business strength have significant correlation with each other.

End Notes

In fine, it can be said that, at least for HLL, EVA has not proved itself a better measure of business strength. No contradictory results have been arrived at from the degree of association and the trends of EVA and MC. However, no conclusions for the companies in general could be drawn from the case study. Again the study does not say anything about the EVA based incentive schemes and other proposals. Moreover, for private sector companies (where trading of shares is absent) as well as for subsidiary companies under group (where individual performance is not impartially reflected in their share prices), better measurement of EVA is not possible.

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10. Banerjee, Ashok (1996), 'Economic Value Added (EVA) : a Better Performance Measure', *Management Accountant,* December, p. 886.

11. As per CAPM, cost of equity (Kc) = Risk-free Rate of Return (Rf) + Market-determined Systematic Risk measure, which is obtained by dividing the covariance between Market Rate of Return and the Company's Rate of Return by the variance of Market Rate of Return(B) x {Market Rate of Return (Rm) - Risk-free Rate of Return (Rf)}
12. EVA is a patent of Stern, Stewart & Co. Refer to site www.sternstewart.com.
13. Kumar, A. (1999), 'Economic Value Added : What it is and How does it Help in Internal Management', *Management Accountant*, July, p. 491.
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15. As per Credit Rating Information Services of India Ltd. (CRISIL) AAA rating indicates highest safety of the instrument.

Table - 1 - Market Capitalization and EVA Trend - HLL

Year ending December, 31	1991	1992	1993	1994	1995	1996	1997	1998	1999
Market Capitalization (Rs. Crore)	2352	5110	8049	8604	9100	16073	27555	36525	49513
EVA (Rs. Crore)	26	41	60	107	126	272	365	548	694

Source : Annual Reports of H.L.L.

Table - 11 - Estimated Trend Equations and the Related Test Criteria

Trend	EVA			MC		
Equation	Adj. R^2	DW	Estimated Trend	Adj. R^2	DW	Estimated Trend
Linear	0.6057* (13.289)	1.351	Yt = 216.618* + 72.359*t (51.25) (19.85)	0.6356* (14.951)	1.294	Yt = 15890.450* + 49966.737*t (3316.57) (1284.50)
Log-linear	0.7180* (21.365)	2.001^{K}	lnYt = 4.825* + 0.376*t (0.210) (.081)	0.8204* (37.550)	2.472	lnYt = 9.262* + 0.335*t (0.141) (0.055)
Log-quadratic	0.6721** (9.200)	2.013^{K}	lnYt = 4.787* + 0.377*t (0.343) (0.088) + 0.006t^2 (0.038)	0.7960* (16.604)	2.573	lnYt = 9.193* + 0.337*t (0.228) (0.058) + 0.0102t^2 (0.025)

Note : * Significant at 1% level, ** Significant at 5% level,

^{K} non-autocorrelated disturbance term.
Figures within parentheses in Adj. R^2 column denote values of F statistic and the column of Estimated Trend imply S.E.

Liquidity Management in Indian Private Sector Enterprises : A Case Study of Indian Primary Aluminium Producing Industry

Debasish Sur *
Joydeep Biswas **
Prasenjit Ganguly ***

The term 'Liquidity' means the ability of an organisation to realise value in money-the most liquid among all assets (Van Horne, 1996, p. 359). It implies conversion of assets into cash during the normal course of business and to have regular uninterrupted flow of cash to meet outside current liabilities as and when due and payable and also ensure availability of money for day-to-day business operations (Kumar, 1991, p.180). The concept of liquidity in case of companies has two dimensions viz., the quantitative and the qualitative. The quantitative aspect includes the quantum, structure and utilisation of liquid assets. The qualitative aspect emphasises upon the ability of a firm to meet all present and potential demand on cash in a manner that minimises cost and maximises the value of business. The liquidity is a vital factor in business operations. For the very survival of business, the firm should have requisite degree of liquidity. It should be neither excessive nor inadequate. Excessive liquidity means accumulation of idle funds, which may lead to lower profitability, increased speculation and unjustified expansion, extension of liberal credit terms, liberal dividend policy etc., whereas inadequate liquidity results in interruptions of business operations. A proper balance between these two extreme situations therefore should be maintained for efficient operation of business through skillful liquidity management. The need for efficient liquidity management in corporate sector has become greater in recent years (Sur, 2000, p. 1).

In this paper, an attempt has been made to make an in-depth study of the selected private sector aluminium companies in India in respect of liquidity management, for the period from 1989-90 to 1996-97.

Indian Aluminium Industry

Aluminium is an important non-ferrous metal. Its production process involves conversion of bauxite (aluminium ore) into alumina and later converting this to aluminium ingots. Bauxite

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is found in abundance in India in Orissa, Andhra Pradesh, Madhya Pradesh, Gujarat, Maharashtra and Bihar states. Total recoverable reserves of bauxite are estimated to be 2525 million tonnes, of which 89% is of metallurgical grade. At the current rate of production, these deposits would last for nearly 280 years (CMIE, 1996, p.241). The production of aluminium was first started in India by Aluminium Production Co. of India, now known as Indian Aluminium Co, Ltd. in the year 1938. At present five companies are engaged in the production of primary aluminium in the country. They are National Aluminium Co. Ltd. (NALCO), Bharat Aluminium Co. Ltd. (BALCO), Hindalco Industries Ltd. (HINDALCO), Indian Aluminium Co. Ltd. (INDAL) and Madras Aluminium Co. Ltd. (MALCO). NALCO and BALCO are public sector enterprises and the other companies are in private sector. The industry has an investment of Rs. 7186.34 crore with annual production at 429095 tonnes, annual sales revenue at more than Rs. 3600 crore and annual export earnings at Rs. 644.53 crore (CMIE, 1996, p. 243).

Companies Under Study

Out of five major companies in the industry two companies, viz., Hindalco and Indal have been covered under the present study.

HINDALCO : Company was set up by Birlas in collaboration with the Kaiser Organisation of the U.S.A. in 1958. It is engaged in the production of alumina, aluminium and aluminium fabricated items. During the year 1996-97, the company produced 166,272 tonnes of primary metal, 30100 tonnes of rolled & extrusion products and 42704 tonnes of conductor redraw rods.

INDAL : The Company was incorporated in 1938 as 'Aluminium Production Company of India Ltd.' Its name was changed to Indian Aluminium Company Ltd. in 1944. The foreign holding in the company is 51.74% of its total equity shareholding. The company is engaged in the manufacture of aluminium and its semi-fabricated products. During the year 1996-97, the company produced 37370 tonnes of extruded products, 3307 tonnes of properzi rods, 5959 tonnes of foils and 14773 tonnes of carbon paste.

Objectives of the Study

This study had the following objectives :

1. To compare the size of Working Capital of the companies for the period of study and measure the efficiency of liquidity management using ratio analysis.
2. To assess the association between liquidity and profitability of the companies with Spearman's rank correlation coefficient and test its significance.
3. To study the joint influence of performance indicators of liquidity management upon profitability of the companies with Multiple Correlation Coefficient.

Methodology of the Study :

The data of HINDALCO and INDAL for the period 1989-90 to 1996-97 used in this study have been taken from the Stock Exchange Official Directory of the Mumbai Stock Exchange, Vol. 12, No. XXXII/15 (1/3), dated 13th April, 1998.

For analysing the date management accounting technique, ratio analysis and statistical techniques like measures of central tendency, measures of dispersion, Spearman's rank correlation, multiple correlation have been used. The 't' test has been applied to test the significance of rank correlation coefficients.

Findings of Study

Important findings of the study were as under :

1. A comparative picture of the size of working capital (WC) of both the companies has been depicted in table I. It may be observed that the size ot WC in HINDALCO was much higher during all the years under study in comparison to INDAL. The quantum of WC in HINDALCO and INDAL both showed an upward rising trend during the period of study. In HINDALCO the WC increased from Rs. 1297.97 crore in 1989-90 to Rs. 1244.25 crore in 1996-97, registering a growth of 528.5% and in INDAL the WC increased from Rs 118.89 crore in 1989-90 to Rs. 217.23 crore in 1996-97, showing a hike of 82.7%. The Average size of WC of HINDALCO (Rs. 688.58 crore) was about more than four times that of INDAL (Rs. 173.30 crore).

The comparison based only on the size of WC was not sufficient to assess the qualitative efficacy of the liquidity management. In order to overcome this limitation the following six ratios were computed:

I Working Capital Ratio (WCR) : It is a yardstick for measuring the short-term debt paying ability of a concern. A good WCR means a good umbrella for short-term creditors against rainy day (Jain, 1988, p. 114). The rule of thumb for WCR is 2:1. Table I shows that the WCR in HINDALCO ranged from 3.47 in 1992-93 to 7.18 in 1994-95. Applying the conventional standard, the position of HINDALCO with mean WCR of 4.89 was abnormally liquid, indicating inefficient tie up of funds. In INDAL the WCR fluctuated between 1.51 in 1993-94 and 2.08 in 1989-90. The position of INDAL with average WCR of 1.75 was quite good, as it was not very far from the conventional standard. However, as compared to the average of this ratio (2.32) in Indian aluminium and aluminium products manufacturing companies, the WCR of HINDALCO was high and that of INDAL was slightly low, during all the years under study (CMIE,2000, p.208). It implied that the short-term debt paying ability of both the companies was satisfactory.

II Acid Test Ratio (ATR) : It is a widely used device for judging short-term debt repaying ability of a concern. It is a stricter test of liquidity than the WCR, as it did not consider inventory, which may be slow moving. The conventional standard is 1:1 for the ATR. It is observed from Table I that excepting for in the years 1993-94 and 1994-95 the ATR of INDAL was slightly greater than the traditional norm in rest of the years under study, whereas that of HINDALCO was far above the conventional standard throughout the study period. Judged by comparison with average ATR of Indian aluminium and aluminium products manufacturing companies (1.04), the liquid assets of both the companies were adequate to meet short term debt, as the average value of this ratio during the period under study was 3.97 for HINDALCO and 1.04 for INDAL

(CMIE. 2000, p. 210). However, the everage ATR of INDAL was nearer to industry average, while that of HINDALCO was far from it. It indicated that HINDALCO carried idle funds, reflecting inefficiency in liquidity management. The performance regarding liquidity management of INDAL was impressive.

III Current Assets to Total Assets Ratio (CTTR) : It indicated the extent of total funds invested as WC. Table I shows that on the everage about 1/2 of the total assets of HINDALCO (49%) and more than 1/2 of the total assets of INDAL (56%) were current assets. It revealed that INDAL had given greater emphasis on WC investment, as compared to HINDALCO. The Coefficient of Variation of the ratio (CTTR) in INDAL was lower than that of HINDALCO, during the study period. It indicated that the level of investement in WC out of total funds was more consistent in INDAL. It also confirmed the efficiency of liquidity management in INDAL.

IV Wording Capital to Sales Ratio (WCSR) : It tested the efficiency with which the short term funds were used. A high ratio was a sign of possible inefficiency in the use of short term financial resources by the company. A lower ratio implied by and large a more efficient use of funds. Table I depicts that in HINDALCO this ratio varied from 0.33 in 1989-90 to 1.02 in 1994-95 and in INDAL it fluctuated between 0.16 in 1993-94 and 0.28 in 1991-92. On the average, HINDALCO and INDAL maintained WCSR at 0.64 and 0.22 respectively. The Coefficient of Variation of WCSR for HINDALCO and INDAL were 0.44 and 0.13 respectively. In all the years under study, the WCSR of INDAL was much lower and that of HINDALCO was higher as compared to the average of this ratio (0.33) in Indian aluminium and aluminium products manufacturing industry (CMIE, 2000, p. 212). It signified that INDAL had been performing well in terms of efficient utilisation of its short term funds, while HINDALCO failed to do so.

V Inventory Turnover Ratio (ITR) : It helped in determining the liquidity of a firm, in as much as it gave the rate at which inventories were converted into sales and then into cash (Gupta, 1990, p. 133). The ITR of both the companies was higher in all the years under study, as compared to the average ITR of Indian aluminium and aluminium products manufacturing companies (2.35) (CMIE, 2000, pp. 224-226). In HINDALCO this ratio was generally higher as compared to INDAL, but on the whole it showed a declining trend during the study period. However, this ratio was more consistent in case of INDAL. It signified that although the performance in respect of inventory management in both the companies was encouraging, the performance of INDAL in this respect was more impressive than that of HINDALCO during the study period.

VI Debtors Turnover Ratio (DTR) : It tested the speed with which debtors were converted into cash. This speed depends upon the quality of debtors to a great extent. The liquidity position of a firm is directly influenced by this speed. Table I shows that the DTR of HINDALCO was much higher and that of INDAL was lower during almost all the years under study than the average DTR of Indian aluminium and aluminium products manufacturing companies (7.65) during the period of study (CMIE, 2000, p.220). In HINDALCO, this ratio ranged from 6.14 in 1996-97 to 24.05 in 1994-95 and on the average, it was 14.72, whereas in INDAL, this ratio varied from 5.16 in 1991-92 to 9.34 in 1989-90 and the average

was 6.22 during the study period. It indicated that the performance of debtors management as well as the liquidity of debtors at HINDALCO was better as compared to INDAL. However, INDAL showed greater consistency in realisation of debt, as the Coefficient of Variation of DTR for INDAL (0.23) was lower than that of HINDALCO (0.47).

2. The correlation between liquidity and profitability in the companies was computed by Spearman's rank correlation coefficient. In this regard, return on investment (ROI) and current assets to total assets ratio (CTTR) were used as profitability and liquidity indicators respectively. In order to test the significance of these coefficients 't' test was applied. Table II exhibits the measures. It may be observed that for HINDALCO the Rank Correlation Coefficient was at high level at 0.9341 and was statistically significant at 0.01 level. For INDAL also the Coefficient was at high level at 0.755 and was statistically significant at 0.05 level. It indicated that the profitability of both the companies was not adversely affected in any way by their liquidity. Moreover, the short term funds were managed by companies ensuring higher profitability without disturbing the liquidity.

3. To assess the joint influence of selected ratios relating to liquidity management on profitability of the companies multiple correlation technique was used. In this analysis it was assumed that ROI = f (WCR, ATR, CTTR, WCSR, ITR, DTR) and that the relationship between the dependent and the independent variables was linear. Table III shows these measures. It may be observed that in HINDALCO the Multiple Correlation Coefficient between the dependent variable ROI and the independent variables taken together at 0.9595 was of high level. Like wise in INDAL also the Coefficient at 0.9933 was at high level. It signified that the profitability of both the companies was influenced by WCR, ATR, CTTR, WCSR, ITR and DTR. This influence was greater in INDAL as compared to HINDALCO. This analysis also disclosed that the Coefficients of Multiple Determination in HINDALCO and INDAL were 0.92066 and 0.98673 respectively. It indicated that in case of HINDALCO the independent variables contributed 92.066% of the variation in profitability, while 98.673% of the total variation in profitability in case of INDAL was explained by these six independent variables.

Conclusion

From the analysis given above it may be summarised that the overall performance regarding liquidity management at INDAL was better in terms of efficient utilisation of short term funds, whereas HINDALCO was unable to do so. HINDALCO maintained throughout the study period a larger amount of idle funds, though the investment in current assets in relation to total assets was lower. INDAL showed greater consistency both in conversion of inventory into sales and in realisation of receivables. A very high degree of positive correlation between liquidity and profitability in case of both the companies was a notable feature, reflecting the favourable effect of liquidity on profitability. The influence of the six indicators of liquidity used in this study as independent variables on profitability was greater in INDAL as compared to HINDALCO. This was due to better coordination among different aspects of liquidity management at INDAL during the period under study. On the basis of the above analysis of liquidity management of the two companies it may be concluded that the overall performance of INDAL was encouraging, while that of HINDALCO was also not alarming.

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Table - I
Size of Working Capital and Ratios Relating to Liquidity Management at Hindalco and Indal

	HINDALCO							INDAL						
Year	Size of WC (Rs. Crore)	WCR	ATR	CTTR	WCSR	ITR	DTR	Size of WC (Rs. Crore)	WCR	ATR	CTTR	WCSR	ITR	DTR
1989-90	197.97	3.49	2.45	0.55	0.33	5.75	23.53	118.89	2.08	1.25	0.71	0.22	4.55	9.34
1990-91	288.77	3.88	2.92	0.62	0.43	5.50	15.13	140.05	1.74	1.01	0.73	0.25	3.27	7.31
1991-92	372.05	3.71	2.89	0.68	0.43	5.91	8.62	147.40	1.72	1.00	0.63	0.28	3.73	5.16
1992-93	376.79	3.47	2.52	0.29	0.39	4.98	12.98	180.26	1.79	1.11	0.58	0.24	4.15	5.60
1993-94	657.44	6.31	5.16	0.38	0.71	4.68	18.88	131.86	1.51	0.88	0.44	0.16	4.16	6.10
1994-95	1148.35	7.18	6.29	0.49	1.02	4.32	24.05	194.04	1.58	0.89	0.51	0.19	3.54	5.44
1995-96	1223.04	5.70	5.00	0.46	0.86	4.40	8.46	256.70	1.89	1.14	0.48	0.22	4.10	5.18
1996-97	1244.25	5.39	4.52	0.42	0.95	3.26	6.14	217.23	1.69	1.03	0.44	0.19	4.50	5.59
Average	688.58	4.89	3.97	0.49	0.64	4.85	14.72	173.30	1.75	1.04	0.56	0.22	4.00	6.22

Note - WC = Working Capital; WCR = Working Capital Ratio; ATR = Acid Test Ratio; CTTR = Current Assets to Total Assets Ratio; WCSR = Working Capital to Sales Ratio; ITR - Inventory Turnover Ratio; DTR = Debtors Turnover Ratio.

Source - Computed from the Stock Exchange Official Directory, The Mumbai Stock Exchange, Vol. 12, No. XXXII/15 (1/3), dated 13th April, 1998.

Table - II

Rank Correlation between Liquidity and Profitability at Hindalco and Indal

	HINDALCO[1]				INDAL[2]			
Year	CTTR	Liquidity (Rank)	ROI (%)	Profitability (Rank)	CTTR	Liquidity (Rank)	ROI (%)	Profitability (Rank)
1989-90	0.55	3	18.61	1.5	0.71	2	30.00	1
1990-91	0.62	2	17.40	3	0.73	1	22.78	2
1991-92	0.68	1	18.61	1.5	0.63	3	15.66	5
1992-93	0.29	8	9.75	8	0.58	4	14.18	6
1993-94	0.38	7	10.59	7	0.44	7.5	13.26	7
1994-95	0.49	4	12.95	5	0.51	6	15.77	4
1995-96	0.46	5	14.96	4	0.48	5	16.66	3
1996-97	0.42	6	12.80	6	0.44	7.5	10.28	8

Note 1 - Rank Correlation Coefficient between liquidity and profitability at Hindalco (rH) = 0.9341 and t value of rH = 6.41; significant at 0.01 level.

Note 2 - Rank Correlation Coefficient between liquidity and profitability at Indal (rI) = 0.755 and t value of rI = 2.82; significant at 0.05 level.

Source - Computed from the Stock Exchange Official Directory, The Mumbai Stock Exchange, Vol. 12, No. XXXII/15 (2/3), dated 13th April, 1998.

Table - III

Multiple Correlation Coefficient at Hindalco and Indal

HINDALCO	INDAL
$R_1 = 0.9595$	$R_2 = 0.9933$
$R_1^2 = 0.92066$	$R_2^2 = 0.99008$

Note - Multiple Correlation Coefficient (R) is determined for ROI on WCR, ATR, CTTR, WCSR, ITR and DTR :

Source - Computed from the Stock Exchange Official Directory, The Mumbai Stock Exchange, Vol. 12, No. XXXII/15 (1/3), dated 13th April, 1998.

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Environmental Disclosures in Corporate Annual Reports in India : A Case Study

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Introduction

Human civilisation and development have always been creating an unusual pressure on nature and its sustenance. There has been over utilisation of natural resources on one hand and extensive pollution on the other. Management of environment for ensuring sustainable development and providing the future generation a pollution free environment have been the matters of great concern all over the world. India too can not ignore this fact. In this regard, responsibility of the corporate citizens can hardly be exaggerated.

The mode of thinking of the corporate sector has changed significantly over time. New concepts and practices are being tested. Apart from business interest the concept of social responsibility or social concern is now given weightage by the corporate world.

A growing awareness of environmental and ecological degradation caused by industry and increase in the number, size and strength of environmental pressure groups, who are ready to use laws, i.e. regulations, to control and check environmental damage by firms have stimulated environmental disclosures in corporate world. Now environmentally conscious companies are making attempts to disclose not only their concern for environment but also the measures taken by them for protection and prevention of degradation of environment, in their annual reports.

Environmental reporting simply implies what a firm discloses by way of its concern for environment, any measures it has taken in this regard and the impact of such measures. In order words, environmental reporting by corporate enterprises broadly embraces the disclosure of the following :

a) Policy statement regarding environment.
b) Action taken for preservation and for prevention of degradation of environment.
c) Financial impact of (b) and its reporting.

Although there may be various methods of disseminating corporate information, such as newspapers and television advertisements, websites, publication of annual reports etc., disclosure of information through annual reports is a more popular method.

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The present study primarily focuses on disclosure of environmental information in corporate annual reports in India. In other words, it looks into the disclosure requirements and disclosure practices from the stand point of annual reports i.e. the Directors' Report, the Profit & Loss Account and the Balance Sheet (including provision for contingent liability).

Disclosure Requirement for Annual Reports

In India, regulations regarding disclosure of information in annual reports on accounts are minimal. Section 217(1)(e) of the Companies Act, 1956, as amended by the Companies(Amendment) Act of 1988, states that the Directors' Report shall include particulars such as the "conservation of energy, technology absorption, foreign exchange earnings and outgo" in the prescribed manner. The Government of India accordingly prescribed the rule as follows :

"Every Company shall, in the report of its Board of Directors disclose particulars with respect to the following matters, namely

A. Conservation of Energy

a) Energy conservation measures taken.

b) Additional investment and proposals, if any, being implemented for reduction of consumption of energy.

c) Impact of the measures of (a) and (b) above for reduction of energy consumption and consequent impact on the cost of production of goods.

d) Total energy consumption and energy consumption per unit of production as per Form A in respect of industries specified in the schedule thereto...."

The Government also specified twenty one industry groups which should furnish information in Form A. Thus to comply with the provisions of section 217(1)(e) a company, falling within the twenty one industry group, has to disclose information in Form A, as part of Directors' Report, with respect mainly to conservation of energy. However, there is no provision for disclosure, in annual reports, of value of assets acquired for prevention of pollution, if any, and depreciation there of, contingent liabilities arising out of the action of the Pollution Control Board or those of the government or any judicial forum.

Previous research studies on corporate reporting practices have shown that companies generally disclose voluntarily certain information in their annual reports, which is much more than the minimum legal requirement (Dasgupta, 1977; Chakraborty, 1994; Banerjee, 1999). Whether this trend is also maintained by the sample companies with respect to disclosure of environmental information was another point of interest.

Reporting Practices in India : The Case Study

The present study is based on the review of 18 companies in India out of 100 selected initially. In this process first the annual reports for the year ended 31 March, 2000

(i.e. 1999-2000) of 100 companies were collected. Out of these, eighteen (18) companies, which were listed on BSE (SENSEX) were selected as sample for the study. They represented major industries in India (Appendix I). These companies were also listed on NSE (SGPCNX NIFTY).

The sample companies were then put into six industry groups, on the basis of the classification given in the Companies (Disclosure of Particulars in the Reports of Board of Directors) Rules, 1988 (Annexure A). The companies and the industry groups arranged according to the order specified in the above Rules have been shown in table 1.

Table 1

Industry wise Classification of Sample Companies

Sl.No.	Industry Group (IG)	No.	Percentage
1.	Textile	1	5.5
2.	Aluminium	1	5.5
3.	Steel	1	5.6
4.	Cement	2	11.1
5.	Pharmaceuticals	1	5.6
6.	Others	12	66.7
	Total	18	100.00

Table 2

Disclosure of Environmental Information in Annual Reports

Total No. of Companies Surveyed		**Companies that disclosed**		**Companies that did not disclose**	
No.	%	No.	%	No.	%
18	100	16	88.9	2	11.1

Table 2 gives an idea of the percentage of sample companies making disclosure of environmental information in their annual reports. The particulars of two companies that belonged to the "Others" industry group and that did not disclose environmental information are given in table 3

Table 3

Companies that did not disclose any Environmental Information

Sl.	Name of the Company	IG	No. of Co's in I.G.	% of Total in IG
1.	State Bank of India	Others		
2.	ICICI	Others	12	16.7

As mentioned earlier, environmental reporting can be done in many ways, such as through newspapers and television, advertisement, website, publication of annual reports, etc. Out of these methods, disclosure through annual reports is by far the most popular method. It is also the requirement of the Companies Act, 1956. Disclosure through annual reports can take many forms. It may be qualitative or quantitative or of both the types.

By qualitative type is meant narrative type of disclosure as well as in pictorial form. By quantitative disclosure is meant disclosure through Form A as required u/s 217 (1) (e) of the Companies Act, 1956 as amended by the Companies (Amendment) Act, 1988. The graphical presentation of information also related to the quantitative form. Table 4 gives an idea about the quantitative and qualitative types of disclosures made by the sample companies.

Table 4

Forms of Disclosure of Environmental Information in Annual Reports

Industry	Total No. of Units	Qualitative only Number	%	Quantitative only Number	%	Qualitative & quantitative both Number	%
Textile	1	-	-	-	-	1	-
Aluminium	1	-	-	1	-	-	-
Steel	1	-	-	1	-	-	-
Cement	2	-	-	-	-	2	-
Pharmaceuticals	1	-	-	1	-	-	-
Others	10	8	-	-	-	2	-
Total	16	8	50	2	12.5	6	37.5

Although the Companies (Disclusure of Particulars in the Report of Board of Directors) Rules, 1988 specify Form A for disclosure of environmental information in the Directors' Report, there is no bar for making narrative (or qualitative) disclosure in the Directors' report itself, in addition to information disclosed in Form A. Customarily, some companies made such disclosures, in addition to Form A, in the Directors' Report. Accordingly, this aspect was also looked into and the position is depicted in table 5.

Table 5

Companies making Qualitative Disclosure of Environmental Information in Directors' Report in addition to Compliance with Section 217 (1) (e) i.e. Form A

Sl. No.	Name of Company	IG	No. of Companies in I.G.	% of Total
1.	Indal	Aluminium	1	6.3
2.	ACC	Cement	2	12.5
3.	Gujrat Ambuja Cement Ltd.	Cement		
4.	Grasim Industries	Textile	1	6.25
5.	BSES Ltd.	Others		
6.	Hindustan Lever Ltd.	Others	10	12.5

There are certain strategic environmental management issues which need to be addressed properly and managed effectively by every company. Some of the key environmental management issues are :

1. What measures are taken to control pollution? Is appropriate action taken to control emission to air, discharge to water, contamination of land, noise, heat, etc.?
2. Are appropriate measures taken to conserve energy?
3. Are wastes recycled in order to use them as raw materials or to sell them as by-products?
4. Does the firm spend adequate resources for environmental protection research?

In relation to disclosure of environmental information in the annual reports, the key question is : how does the firm disclose information with respect to each of the above issues? Table 6 gives an idea as to the sample companies concern with key environmental management issues and action taken by them, if any.

Table - 6

Environmental Disclosure by Sample Companies (in %)

Sl. No.	IG	No. of Companies in IG	Pollution Control	Environment Protection Research	Energy Conservation	Recycling of Wastes
1.	Textile	1	6.3	-	6.3	6.3
2.	Aluminium	1	6.3	-	6.3	6.3
3.	Steel	1	-	-	6.3	-
4.	Cement	2	-	-	12.5	-
5.	Pharmaceuticals	1	-	-	6.3	-
6.	Others	10	6.3	-	62.5	6.3
	Total	16				

A Further analysis of the narrative disclosures made by the sample companies brought out the following issues on which these companies focused their attention.

1. Environmental Audit
2. Environmental Management System (ISO 14001)
3. Adaptation of Vermi Culture
4. 'Zero Accident' as the acceptable standard of performance
5. Energy Audit
6. Safety Management System
7. Safety Audit
8. Implementation of OHSAS 18001 (Occupational, Health and Safety Assesment Service)
9. Afforestation
10. Rain Water Harvesting.

Findings

Broad findings that emerged from the analysis given above were as under :

1. Out of 18 sample companies, 16 disclosed environmental information and remaining 2 did not show concern for environment (Table - 2)
2. Qualitative and quantitative both the forms of disclosure were adopted by the sample companies. Out of the 16 companies that disclosed environmental information, 8 resorted to only qualitative type disclosure, whereas 2 made only quantitative type of disclosure and 6 resorted to both qualitative as well as quantitative forms of disclosure (Table 5). Among the above the sample industry that fall with in the category of specified twenty one industry groups all furnished information in Form A as required u/s 217 (1) (e) as part of Directors' Report that deals with conservation of energy (Table 4).
3. All the sample companies made environmental disclosures in respect of conservation of energy.

One company in the Textile group, one in the Aluminium group and one belonging to the Others category also dealt with the problem of pollution control and indicated about recycling of waste products.

Other environmental issues such as environmental hazards, production research, protection of surroundings, raw materials conservation and minimisation of wastage of water and other resources were hardly touched upon by the sample companies. (Table 6)

Conclusion

It was observed in the study that all the companies were complying with the requirement of regulatory disclosure. In addition, some environmental information also appeared in the Directors' Report in a number of cases. By and large, the findings of the present study are in line with

those carried out earlier (Dasgupta, 1977; Chakraborty, 1994; Banerjee,1999). However, the position can be improved further. With this end in view, the following suggestions are made.

a) Disclosure through regulatory measures

The Government of India is considering enactment of a new piece of companies legislation (the Companies Bill, 1997 has been under consideration of the Government of India). A new section requiring corporate enterprises to disclose the following information may be added to it:

i) A declaration by management of its commitment to environment and adoption of an appropriate policy.

ii) Environmental measures taken by the company during the financial year and their financial impact.

b) Voluntary disclosure

Law generally prescribes minimum disclosure. Therefore, the companies should be encouraged to disclose voluntarily much more information than the minimum legal requirement. Providing additional information on environment in the Directors' Report to the users of information will have several benefits, such as :

- Efficiency (waste minimisation and better resources management);
- Competitive advantage - (being better placed to meet changing requirements and to meet exacting specifications);
- Credibility (demonstrating commitment to stakeholders);
- Risk management (anticipating and coping with unplanned events);
- Reduced liabilities - (controlling present and future contingent liabilities);

It is, therefore, expected that corporate citizens will place greater emphasis on environmental management and disclosure of environmental information in annual reports in their own interest as well as in larger public interest.

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Appendix I

1. The Associated Cement Companies Ltd.
2. Bharat Heavy Electricals Ltd.
3. BSES Ltd.
4. Colgate Palmolive (India) Ltd.
5. Dr. Reddy's Laboratory
6. Gujarat Ambuja Cements Ltd.
7. Grasim Industries
8. Hindustan Lever Ltd.
9. Hindustan Petroleum Corporation Ltd.
10. Indian Aluminium Company Ltd.
11. ITC Ltd.
12. ICICI
13. Mahindra & Mahindra Ltd.
14. Reliance Industries Ltd.
15. Reliance Petroleum Ltd.
16. State Bank of India
17. Tata Steel
18. Tata Engineering

Profitability Analysis of Agriculture Farms A Case Study of Phalodi Tehsil in Rajasthan

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*Laxman Ram Paliwal***

Introduction

India is an agriculture-oriented country with 70% of its people depending upon agriculture. It is basis of their livelihood. In Rajasthan also agriculture is the main source of national income and revenue for the government, basis of livelihood and employment for people, main source of raw-materials for industry, supply of food and support for activities such as transport, trade and communication.

Due to hot climate, insufficient irrigation facility, lack of rainfall, diversity in structure of soil etc. crops like Jowar, Bajara, Maize, Gram, Pulses and Oilseeds are grown during the monsoon season and Wheat, Rice, Cotton etc. are grown in irrigated areas of the State.

Agriculture is not being managed as a commercial activity by people in the rural areas of the State, due to a variety of historical, social and economic reasons. It remains a means of subsistence, a way of life. Profitability analysis of agriculture as an activity in the rural set up of the State was therefore, attempted to understand the reality of agriculture and rural life in the changing economic scenario in the country. Measurement of costs and revenues is seldom an easy task. For example, measurement of the cost of educating users in new systems and techniques is substantial, yet it is difficult to measure the same. Similarly, the costs associated with the dysfunctional effects of a new control system to be installed cannot be quantified easily. Like wise it is extremely difficult to quantify the benefits. However, inspite of these difficulties in such an analysis, as a starting point for understanding the process of decision making in agriculture concerning appropriation of resources to this activity, this was considered a useful exercise.

Methodology

The Study was done selecting fifteen farms each in Phalodi Panchayat Samiti and Bap Panchayat Samiti of Phalodi Tehsil by Random Sampling Method.

Primary data about agriculture investment, returns, various expenses, receipts and personal consumption of agricultural crop etc., were collected from sample respondents, with the help of a questionnaire containing 60 questions. The farms covered were classified into two broad categories viz. irrigated farms and non-irrigated farms.

The information collected through survey was analysed separately for irrigated farms and non-irrigated farms. The farms served by some method of irrigation, such as canal, well etc. were taken as irrigated farms and the rest as non-irrigated farms.

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The data were analysed to determine the total farm costs, the total farm revenue, and the net surplus/deficit. The information so analysed is given in table 1 for irrigated farms and table 2 for non-irrigated farms.

Important Findings

Important findings in respect of farm costs, farm revenue and net surplus/deficit were as under :

Farm Costs

The farm costs were taken to mean costs incurred by farmers on seed, manure, fertiliser, pesticides, labour, sowing, cutting and marketing, operations and land revenue, interest on loan, mandi tax, loss on live stock etc. Notional costs such as non-wage labour etc. were also included to determine the total farm costs.

(i) Irrigated Farms - The average cost per irrigated farm was Rs. 3,52,532, with maximum at Rs. 3,78,504 and minimum at Rs. 3,26,560. The average cost per bigha was Rs. 2,021, with maximum at Rs. 2,293 and minimum at Rs. 1,749. Main reasons of higher costs were, as the quality of seeds was poor the seed consumption per bigha was high; due to irregular supply of electricity the expenses incurred on generation of power added to the cost; natural calamities created conditions requiring sowing more than once; poor management of fertilisers, pesticides and insecticides resulted in increased cost of these items; and due to the lack of knowledge of showing commercial crops the fixed costs were high.

(ii) Non-Irrigated Farms - The average per farm cost for non-irrigated farms was Rs. 39,947, with maximum at Rs. 46,452 and minimum at Rs. 33,443. The average cost per bigha was Rs. 661, with maximum at Rs. 736 and minimum at Rs. 586. Main reasons for higher costs were large direct expenses; due to poor quality of seeds, higher seeds consumption per bigha; natural calamities requiring sowing more than once; poor management of fertilisers, pesticides and insecticides and increased costs of these items. The knowledge of techniques and methods of scientific agriculture and cost control was lacking among the farmers.

Thus the cost per farm as well as per bigha of land was higher in case of irrigated farms as compared to non-irrigated farms.

Farm Revenue

Farm revenue included income from sale of crop, milk, vegetables and other receipts. Notional income such as use of farm product for domestic consumption etc. was included in this to determine total farm revenue.

(i) Irrigated Farms - The average per farm revenue for irrigated farms was Rs. 4,72,257 with maximum at Rs. 5,21,393 and minimum at Rs. 4,23,120. The average per bigha revenue was Rs. 2,684 with maximum at Rs. 3,087 and minimum at Rs. 2,281. Main reasons of low farm revenue were: as storage was a fundamental problem the farmers sold their crop in local market; lower price realisation, use of a part of the output by the farmers for domestic consumption etc. There was no fixed income as agriculture was a seasonal occupation. The farmers lacked the knowledge about commercial crops.

(ii) Non-Irrigated Farms- The average per farm revenue for non-irrigated farms was Rs. 49,290 with maximum at Rs. 58,952 and minimum at Rs. 39,628. The average per bigha revenue was Rs. 830 with maximum at Rs. 1,005 and minimum at Rs. 655. Main reasons of low revenue were, a major portion of the production was used for domestic consumption,

so sale could not be effected and as agriculture was a seasonal occupation during slack months there was no agricultural income.

Thus the farmers owning non-irrigated farms earned much less revenue than the farmers working on irrigated farmers. The revenue of non-irrigated farms was only 37% of the irrigated farms.

Net Surplus / Deficiency

Net surplus/deficiency was determined as the difference of total farm revenue and total farm costs including notional income and notional costs.

(i) Irrigated Farms- The average per farm net surplus for irrigated farms was Rs. 1,19,724, with maximum at Rs. 1,42,889 and minimum at Rs. 96,560. The average per bigha surplus was Rs. 663 with maximum at Rs. 945 and minimum at Rs. 380. Main reasons of low net gain from irrigated farms were : farmers lacked the knowledge of cost control methods; they were also not aware of methods for increasing farm income; agriculture was a way of life and farmer got satisfaction from the job; they were not interested in earning more; there was lack of literacy and the farmers could not even maintain records of receipts and expenditure.

(ii) Non-Irrigated Farms - The average per farm net surplus for non-irrigated farms was Rs. 9,343, with maximum at Rs. 15,460 and minimum at Rs. 3,225. The average per bigha surplus was Rs. 169, with maximum at Rs. 294 and minimum at Rs. 45. Main reasons for low return from non-irrigated farms were : Some farms had higher costs than income. This resulted in loss. Total production was used for domestic consumption, resulting in no sale, no income and no net return. Agriculture was a seasonal occupation, and during slack months there was no agricultural activity and income.

Thus the farmers having non-irrigated farms earned much less surplus as compared to farmers having irrigated farms. The net return on non-irrigated farms was just 7.8% of irrigated farms.

Problems of Agricultural

The survey revealed the following problems of agriculture farms :

1. Most farmers being uneducated were unable to organise farming systematically. Lack of knowledge of scientific farming was another obstacle. Farmers lacked management skill and capacity to take proper decisions at proper time. Farmers did not adopt appropriate technics for farming and continued the use of traditional methods of farming.

2. Farmers did not keep proper accounts of their investment, inputs and output. They lacked the knowledge of good quality seeds, pesticides, fertilisers and as such and were not able to get better produce. Farmers lacked the knowledge of commercial crops and were not able to get higher returns.

3. Farmers found it difficult to raise enough finances to arrange fertilisers, seeds, pesticides, hire tractor etc. They borrowed money from money-lenders at high rate of interest. They mortgaged their crop even before it was ready, in order to get a loan from the money lender. This increased investment and costs on agricultural activities.

4. Frequent power cuts and irregular electricity supply led to difficulties in irrigation and consequent destruction of crop. Crops were sometimes destroyed by natural causes like heat, famine, frostbite etc. Farmers of non-irrigational farms mostly depended on monsoon rain

and when the rain was delayed, crops were destroyed. There was no crop insurance cover to save the farmers from loss due to natural calamities.

5. Most markets were out of reach for the farmers and it was difficult for them to take their crops there for sale. Despite all the promises for speedy land reforms the implementation was very slow. Communication played a vital role in agriculture. Scientific and technological developments in the field of agriculture were not well supported by communciation facilities.

Suggestions

For the solution of the problems mentioned above the following suggestions are made :

1. The government should organise education and training for farmers in latest techniques of agriculture, so that they are able to make optimum use of their resources.
2. To ensure the availibility of seeds, fertilisers and pesticides etc. institutions like the NSC and the RAJFED should take interest. The farmers should be enlighted about cash crops where by they can earn more with less investment. Information should be provided about methods of control and reduction of cost. To improve agricultural finance loans should be provided through co-operative institutions. Arrangement for sale of produce by cooperative societies be done. There should be coordination between institutions providing agricultural finance. The capital of cooperative credit societies should be increased. Crop loan system may be introduced with simplification of loan procedure etc. The rural electrification should be strengthened and regular supply of electricity to farmers on priority basis should be ensured. Dry farming should be developed in areas of scanty rainfall. Existing communication through telephones, radio, print media, T.V. etc. should be strengthened to provide necessary information to the farmers in time.
3. Efforts should be made for providing safe and proper storage for crop, so that the farmers are able to retain the crop till they get good price. Farmers should form cooperative societies to avoid exploitation. Co-operatives should be setup in rural areas. The procedure of loans by financial institutions should be simplified. The farm productivity can be increased through education, providing finance, development of irrigation facilities, provision for medical facilities, technical knowledge etc. Crop insurance scheme should be introduced to encourage farmers to cover loss to their crop.

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Table - 1

Revenue, Costs and Net Surplus/Deficiency of Irrigated Farms

S.No. Farm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Mean	S.D.	s.e.	S.E.	U.L.	L.L
(a) Actual Revenue	437000	496500	538300	435500	289800	545100	436000	377700	528000	540800	390500	397000	314000	363500	365500	430347	83867	21654	46444	476791	383902
(b) Actual Cost	277850	249600	337750	242850	222000	282150	181850	245525	260350	229653	255050	278075	211650	221820	217960	247609	37368	9648	20694	268303	226915
(c) Net Income (a) - (b)	159150	246900	200550	192650	67800	262950	254150	132175	267650	311147	135450	118925	102350	141680	147540	182738	71606	18488	39654	222392	143084
% of Net Income Actual Revenue	36	50	37	44	23	48	58	35	51	58	35	30	33	39	40	41	10	3	6	47	36
% of Net Income to Actual Cost	57	99	59	79	31	93	140	54	103	135	53	43	48	64	68	75	33	8	18	93	57
(d) Notional Income	28640	75896	24344	31504	17184	57280	52984	20048	28640	57280	20048	35800	68736	57280	52984	41910	19277	4977	10675	52585	31235
(e) Total Farm Revenue (a + d)	465640	572396	562644	467004	306984	602380	488984	397748	556640	598080	410548	432800	382736	420780	418484	472257	88729	22910	49137	521393	423120
% of Notional Income to Total Farm Revenue	6	13	4	7	6	10	11	5	5	10	5	8	18	14	13	9	4	1	2	11	7
% Notional Income to Actual Revenue	7	15	5	7	6	11	12	5	5	11	5	9	22	16	14	10	5	1	3	13	7
(f) Notional Cost	82500	166500	85000	101400	21700	137300	73400	69000	92300	139700	67400	92100	147100	139400	129100	105593	34217	8835	18949	124542	86645
(g) Total Farm Cost (b + f)	360350	416100	422750	344250	283700	419450	255250	714525	352650	369353	322450	370125	358750	351220	347060	352532	46899	12109	25972	378504	326560
% of Notional Cost to Total Farm Cost	23	40	20	29	22	33	29	22	26	38	21	25	41	40	37	30	8	2	4	34	25
% of Notional Cost to Actual Cost	30	67	25	42	28	49	40	28	35	61	26	33	70	66	59	44	16	4	9	53	35
(h) Net Surplus (e - g)	105290	156296	139894	122754	23284	182930	233734	83223	203990	228727	88098	62675	23986	69560	71424	119724	69096	17841	38264	157989	81460
% ofNet Surplus to Total Farm Revenue	23	27	25	26	8	30	48	21	37	38	21	14	6	17	17	24	11	3	6	30	18
% of Net Surplus to Total Farm Cost	29	38	33	36	8	44	92	26	58	62	27	17	7	20	21	34	22	6	12	47	22

Source - Information Collected from Sample Respondents

Table - 2

Revenue, Costs and Net Surplus/Deficiency of Non-Irrigated Farms

S.No. Farm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Mean	S.D.	s.e.	S.E.	U.L.	L.L.
(a) Actual Revenue	46600	24000	17750	9500	55000	27500	59500	34800	33200	34800	26200	37950	42200	62400	36700	36540	14927	3854	8266	44806	28274
(b) Actual Cost	27480	16730	15060	4590	13780	20320	30320	21200	21380	19450	10810	11250	20180	23820	18940	18354	6620	1709	3666	22020	14688
(c) Net Income (a-b)	19120	7270	2690	4910	41220	7180	29180	13600	11820	15350	15390	26700	22020	38580	17760	18186	11618	3000	6434	24620	11752
% of Net Income to Actual Revenue	41	30	15	52	75	26	49	39	36	44	59	70	52	62	48	47	16	4	9	56	38
% of Net Income to Actual Cost	70	43	18	107	299	35	96	64	55	79	142	237	109	162	94	107	77	20	42	150	65
(d) Notional Income	14875	8500	10625	8500	14875	12750	17000	12750	14875	10625	8500	14875	10625	17000	14875	12750	3005	776	1664	14414	11086
(e) Total Farm Revenue (a + d)	61475	32500	28375	18000	69875	40250	76500	47550	48075	45425	34700	52825	52825	79400	51575	49290	17448	4505	9662	58952	39628
% of Actual Revenue to Total Farm Revenue	76	74	63	53	79	68	78	73	69	77	76	72	80	79	71	72	7	2	4	76	68
% of Notional Income on Total Farm Revenue	24	26	37	47	21	32	22	27	31	23	24	28	20	21	29	28	7	2	4	32	24
(f) Notional Cost	26200	16900	15300	11750	23100	30800	29500	21150	24700	14300	14900	24850	19200	31100	20150	21593	6245	1612	3458	25051	18135
(g) Total Farm Cost (b + f)	53680	33630	30360	16340	36880	51120	59820	42350	46080	33750	25710	36100	39380	54920	39090	39947	11746	3033	6504	46452	33443
% of Actual Cost to Total Farm Cost	51	50	50	28	37	40	51	50	46	58	42	31	51	43	48	45	8	2	5	50	41
% of Notional Cost to Total Farm Cost	49	50	50	72	63	60	49	50	54	42	58	69	49	57	52	55	8	2	5	59	50
(h) Net Surplus (e-g)	7795	-1130	-1985	1660	32995	-10870	16680	5200	1995	11675	8990	16725	13445	24480	12485	9343	11046	2852	6117	15460	3225

Source : Information Collected from Sample Respondents

A Peep into Debt Equity Ratio - A Case Study of Hotel Industry in India

*Praveen Jain**
*Sonia Agarwal**

The debt to equity ratio related all recorded creditors' claims on assets to owners' recorded claims, in order to measure a company's obligations to creditors in relation to funds provided by owners. It is also known as external-internal equity ratio. The creditors include all debts, whether long-term or short-term, while the claims of owners consist of equity shares, preference shares, retained earnings and reserves representing earmarked surplus like reserve for contingencies, reserve for plant expansion etc.

A study was undertaken to peep into the debt equity ratios in the hotel industry of India taking the period from 1994-95 to 1998-99. Five hotel companies were covered in the study. These were, the East India Hotels Ltd, the Indian Hotels Company Ltd., UP Hotels Ltd. Asian Hotels Ltd. and Bharat Hotels Ltd. The debt equity ratios are shown in Table 1. The study brought out some interesting results.

The East India Hotels Ltd : It may be observed from the table that the debt equity ratio of the Hotel remained below the norm during all the five years. Even the average of the ratio for five years was 0.34 only. The ratio, which was 0.39 in 1994-95, decreased to 0.24 in 1997-98, as the shareholders' funds continuously increased, while the debt remained almost the same. The ratio increased in 1998-99 because of an increase in total debt. As the ratio was less than1 it can be concluded that the company followed conservative policy in financing. The creditors of the company had a large cushion for their claims as the owners' funds were more than the debt.

The Indian Hotels Company Ltd : It is evident from the table, that the debt equity ratio of the hotel company registered a decreasing trend. The ratio was 1.43 in 1994-95, as the company followed debt financing policy and the debt was higher than equity. But during following years, the equity continuoulsy increased, while the debt almost remained constent. This was the main reason for the decrease in the ratio to 0.38 in 1998-99. It did not show significant increase in subsequent years, as though the long-term debt increased, the increase was not much. This showed that the long-term solvency of the hotel company had gone up.

U.P. Hotels Limited : The debt equity ratio of the hotel company was not only low but it also remained continuously at low level, the lowest being 0.24 in 1994-95 and the highest being 0.36 in 1998-99. This reflected a conscious policy of the Company to finance a major portion of the investment requirement out of equity and rely less on debt.

Asian Hotels Limited : On the basis of the average debt to equity ratio, the Asian Hotels Limited had the lowest debt equity ratio. The debt was just 0.23 of equity of the company. It denoted that 75 percent of the capital was financed by owners and remaining 25 percent through debt. This position can be regarded as good from the view point of creditors, but not good from the owners' point of view.

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Bharat Hotels Limited : The debt to equity ratio of Bharat Hotels Limited showed a decreasing trend during the period of study. During the first two years i.e. 1994-95 and 1995-96, the company followed debt financing policy and the ratio was above the ideal norm. But due to increase in profits and its ploughing back the profits the equity increased continuously, whereas the debt did not increase in the same proportion. Because of this reason, the debt to equity ratio decreased to 0.42 in 1998-99. On the average, the ratio remained at 0.94. It can be concluded that the Company followed a conservative financing policy, which was good from the creditors' point of view but not good in the long-run for the Company.

Conclusion

An inter-company comparison of the debt equity ratios of five hotel companies showed that none of the hotels under study had the debt to equity ratio of 1 : 1, and above except for two hotels. Even among these hotels also one had higher ratio for one year and the other one for two years. This provided cushion for the creditors, as the companies had sufficient net worth for their claims. However, to increase profitability, the management of these hotels should consider raising funds in the form of debt, at least upto the norm of debt equity ratio. Debt is generally considered a better source for meeting the short term requirement of funds, as the cost of funds is lower as compared to equity due to no tax deduction on interest. It was however, satisfying to note that the Coefficient of Variation, which was high at 84.23 percent in 1994-95 declined to 32.31 percent in 1998-99. Likewise the Standard Deviation also decreased from 0.77 in 1994-95 to 0.11 in 1998-99. Thus the inter-company variations in capital structures were gradually decreasing.

Table 1
Debt Equity Ratios in Indian Hotel Companies From 1994-95 to 1998-99

Hotels	1994-95	1995-96	1996-97	1997-98	1998-99	Average
1. The East India Hotels Ltd.	0.39	0.34	0.30	0.24	0.44	0.34
2. The Indian Hotels Co. Ltd.	1.43	0.55	0.52	0.43	0.38	0.66
3. U.P. Hotels Ltd.	0.24	0.27	0.34	0.34	0.36	0.31
4. Asian Hotels Ltd.	0.32	0.28	0.20	0.20	0.13	0.23
5. Bharat Hotels Ltd.	2.18	1.21	0.46	0.42	0.42	0.94
Average	0.91	0.53	0.36	0.33	0.35	
Standard Deviation	0.77	0.35	0.11	0.09	0.11	
Coefficient of Variation	84..23%	66.92%	31.32%	28.44%	32.31%	

Source : Annual Reports of Companies in Hotel Industry of India from 1994-95 to 1998-99.

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Business Ethics under Different Market Conditions

*Dr. A.K. Chakrawal**

Introduction

Ethics is the philosophical examination of such concepts as good and bad, right and wrong, virtue and vice etc. Such a consideration in business is known as business ethics. People with different perception look at ethical values differently, while the transactions are underway, though finaly there may be consensus between the buyer and the seller. Many times the values approved by society are not acceptable to business people. The ethics practiced by business at times is not in accordance with the society's expectations.

In this complex situation, a question arises as to the point at which the parties in business are under equilibrium under different market conditions. Location of such a point of equilibrium may assist the market players in achieving their objectives in different ways.

The level of ethics in business has been examined in the present paper using two basic variables viz., market condition and consumer satisfaction. These two variables generally move in reverse direction of each other under different market conditions. The point at which these two cross each other indicates the equilibrium. The equilibrium of market is established in long-term span. This relationship under different market conditions, from oligopoly to monopoly is presented in Chart 1.

The market conditions, perfect competition, monopolistic competion, oligopoly, duopoly and monopoly are shown as A, B, C, D and E respectively in the chart. Series 1 represents the level of ethics and Series 2 the consumer satisfaction under different market conditions.

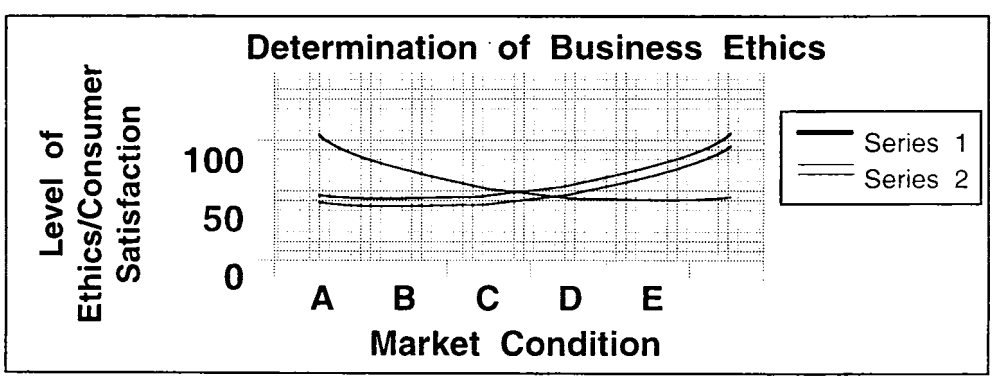

Chart - 1

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Perfect Competition

"Perfect competition prevails when the demand for the output of each producer is perfectly elastic. This entails first, that the number of sellers is large. So that the output of any one seller is a negligibly small proportion of the total output of the commodity, and second, that buyers are all alike in respect of their choice between rival sellers, so that the market is perfect"[1]

In principle, no market can achieve perfection. But if certain norms and conditions of perfect market are ignored and only prominent features are considered it can be said that there are certain products which are having perfection in their market to a certain extent. Market for products like food grains : commodities of primary need etc. are likely examples. Food grains and commodities for basic requirements are the goods, which are dealt in by a number of operators and demanded by mass. In case of a product, which has perfection of high level, usually dealers avoid to indulge in malpractice and they try to maintain maximum level of ethical values in business. In such a market the consumers' feeling is somewhat different. Consumer satisfaction arises due significant elements i.e. : satisfaction from the feeling of elite-class, and satisfaction through consumer surplus.

As the market moves towards pefection the consumer looses his elite feeling. Such a feeling is minimum under monopolistic competition and perfect competition. On the contrary the degree of ethical values in the market is at its maximum level.

Level of Ethics in Business under Perfect Competition

Under perfect competition the level of ethics in business tends to be higher compared to other market conditions, whereas the level of consumer satisfaction is lower because of the absence of elite feeling. Equilibrium occurs where the consumer satisfaction's line crosses business ethics line. This presentation is made in Chart 2

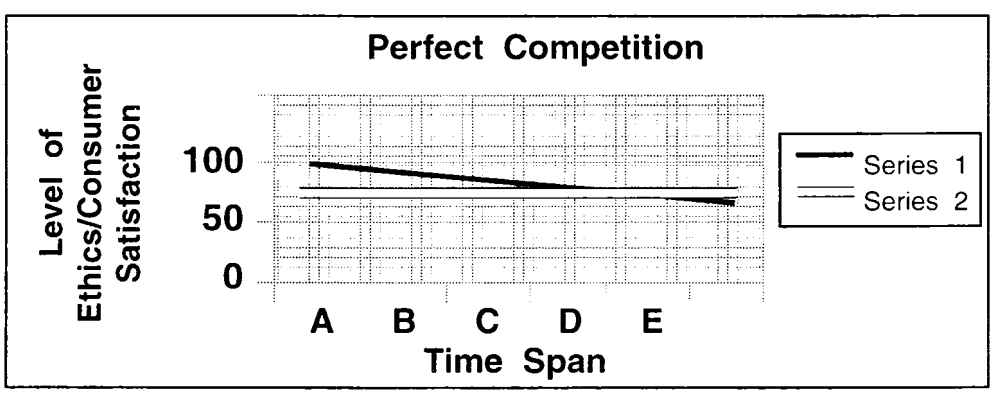

Chart - 2

Monopolistic Competition

"Monopolistic Competition is that form of market in which there are number of small firms and they sell almost similar goods to other firms but the products are not homogenous or exactly identical, there are a little differentiation in the products."[2]

Under monopolistic competition both buyers and sellers exist in large number but the suppliers (manufacturers), are able to maintain their distinct identity by distinguishing their products from numerous existing brands in one way or the other. Due to such a distinction in the products consumers are usually loyal to some brand. Distinction in the products may be because of size, color, weight, fragrance, price, taste etc. One important point must be noted here that these products are similar to each other to a large extent.

Products like Bath Soaps # Nirma Rose, Lux, Breeze, Ganga, Hamam, Rexona, Santoor, Cinthol etc. Hair Shampoos # Organic, Lux, Nyle, Ayur, Pentene, Clinic, Hallo, Sunsilk, Chick etc. Shaving Blades # Topaz, Wilkinson, Gillete, 7'O Clock, Vidyut, 365 Emerson etc. are examples of such a market.

Each of these products is meant for bath and shaving and therefore, they are similar but every brand has a distinct identity because of a special quality of the product. Though the producers are able to grab a proportion of consumers of the product because of their special quality, they can not manipulate consumers because of their loyalty. If a particular producer indulges in malpractice, consumers may shift their loyalty to some other brand. Thus, the level of ethical practice under monopolistic competition is of higher degree, but at a lower level as compared to perfect competition.

Level of Ethics in Business under Monopolistic Competition

The level of ethics is business under monopolistic competition is similar to perfect competition. The graphical presentation is made in Chart 3

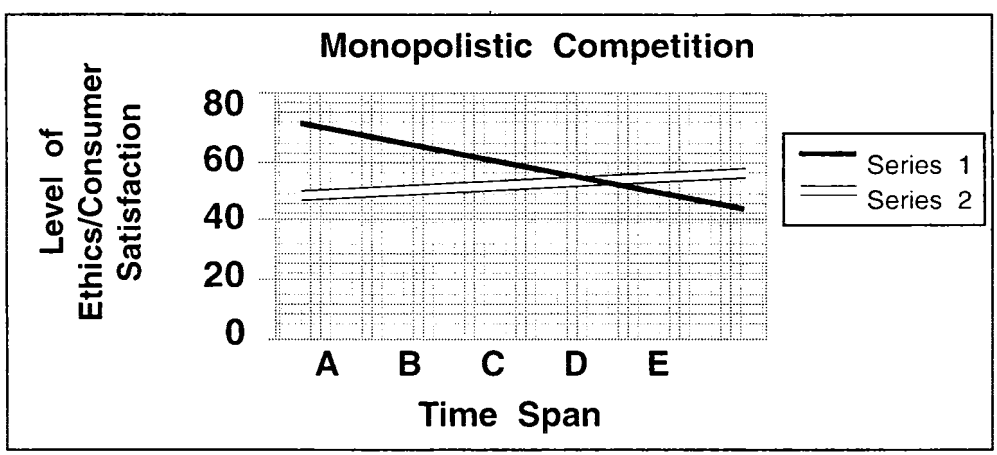

Chart - 3

Oligopoly

"Oligopoly means competition among few sellers; that is, it occurs where there are only a few sellers. It differs both from monopoly, where there is only one seller, and from perfect and monopolistic competition, where there are many."

"Indeed, it can be said that oligopoly exists whenever the number of sellers is so few that the action of one will have obvious and significant repercussions on others. The firms of an oligopolistic industry are all in the same boat. If one rocks the boat, then others will be affected and in all probability will know the identity of the responsible firm and can retaliate."[3]

Oligopoly is the state of market, which is situated between, monopolistic competition and duopoly; in such a market, suppliers are few in number to the corresponding customers. In oligopoly, manufacturers are in a position to determine the price as per their wish to a certain extent. If healthy competition exists in the market, consumers may be benefited. But usually manufacturers/dealers create a cartel to exploit the market to the maximum possible extent. Hence, the exploitation of consumers in this market depends upon the level of association among the manufacturers.

Products like Heavy Vehicles # Telco, Ashok Leyland, DCM, etc; Teas - Leaf # Duncons, Brook Bond, Lipton etc; Two-Wheelers # Bajaj, Honda, TVS, Kinetic, etc. are likely examples of oligopoly in India.

Oligopoly stands just in between perfect and imperfect market and therefore, it may be taken as semi perfect/imperfect market. Consumers may enjoy better satisfaction as compared to perfect market because of elite feeling. On the contrary producers may exploit the market more as compared to the perfect one, because of their hold on supply.

Level of Ethics in Business under Oligopoly

The law of determination of equilibrium is always the same. Under oligopoly, the market operators are few in number and the number of consumers is large. Therefore, consumers are vulnerable to exploitation to a greater degree by market operators. But on the contrary the elite feeling gives them better satisfaction as compared to perfect market and monopolistic competition. The equilibrium condition is shown in Chart 4

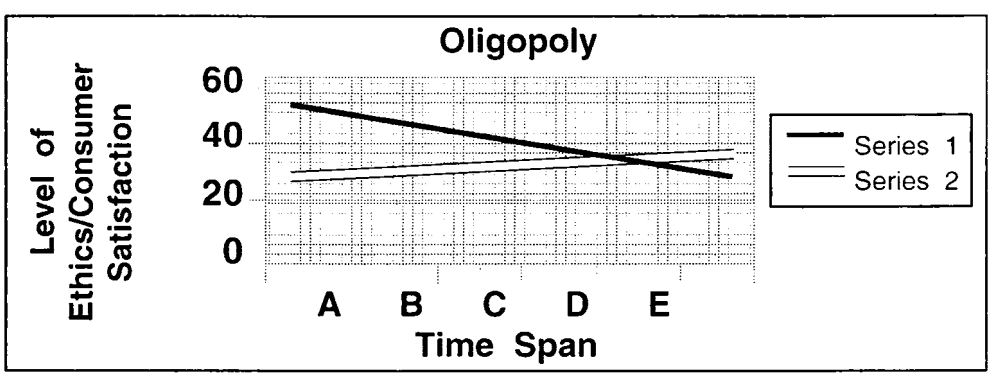

Chart - 4

Duopoly

Duopoly is that state of market in which there are two operators dealing in almost the same product. Under duopoly buyers are large in number to the corresponding number of dealers. This market lies between oligopoly and monopoly. Pure duopoly is a rare phenomenon and therefore, the 'duos' who handle the market are in a better position to exploit the comsumers as per their wish. Duopoly is usually found either in rarely demanded products or in government restricted areas. Products like, Elevators # Kumar, Otis, Soft Drinks # Coca-Cola, Pepsi etc. are some examples. Sometimes duopoly occurs due to the functioning of market forces. Soft

drink market in the country, which was earlier in oligopoly stage, is now featuring in duopoly market, because of takeovers by big bulls in the industry. In duopoly ethical values in business are not given proper consideration and therefore ethical practices are at low level in such a market. The consumers in such a market belong to a very special group and therefore, they have a distinct identity.

Level of Ethics in Business under Duopoly

In Duopoly only two operators are in the market and therefore, they have better chances to exploit the consumers. But the consumers have a feeling of elite. In duopoly the level of business ethics is at very low level. The determinination of level of ethics is shown in Chart 5

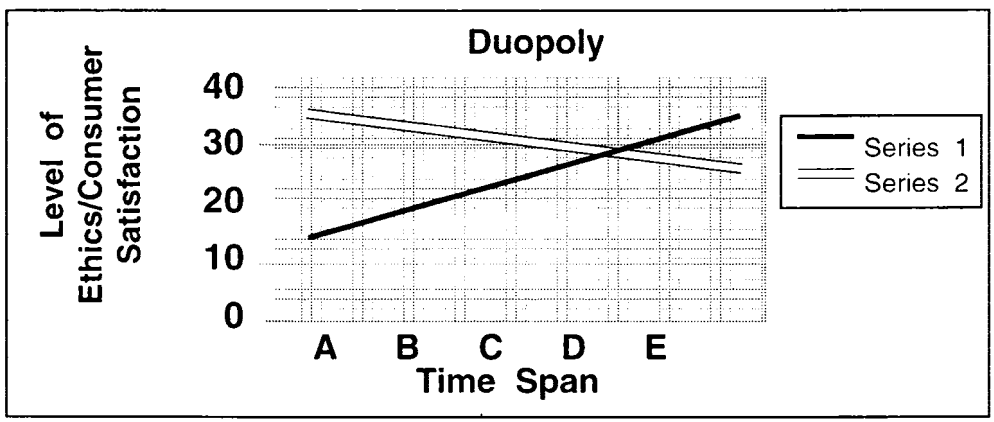

Chart - 5

Monopoly

Monopoly is extreme condition of market and is a rare phenomenon. Products like Ralways # Indian Railways, Insurance # LIC/GIC (Both for different groups), Health Care # Apollo Hospitals, are some examples of monopoly. Under monopoly the seller can decide either the price or the quantity of the product. Usually dealer prefers to decide the price. The dealer in monopoly discriminate among customers and charges the price as per the paying capacity of the customers. Hence the exploitation of the customer takes place at the maximum level. On the contrary consumer satisfaction is also at the highest level under this market condition. This high volume of consumer satisfaction is because of rare availability of the product and elite feeling of the consumers. Therefore, if the dealer is not practicing ethics in business or the degree of ethics in business is low nobody bothers about it. Hence the businessmen practice minimum level of ethics under this market condition.

Level of Ethics in Business under Monopoly

Under monopoly, businessmen put their own conditions and deal on their own terms. So to think of high business ethics in this market is just a matter of imagination. Consumers enjoy maximum degree of elite feeling as the supplier is only one. The equilibrium is shown in Chart 6

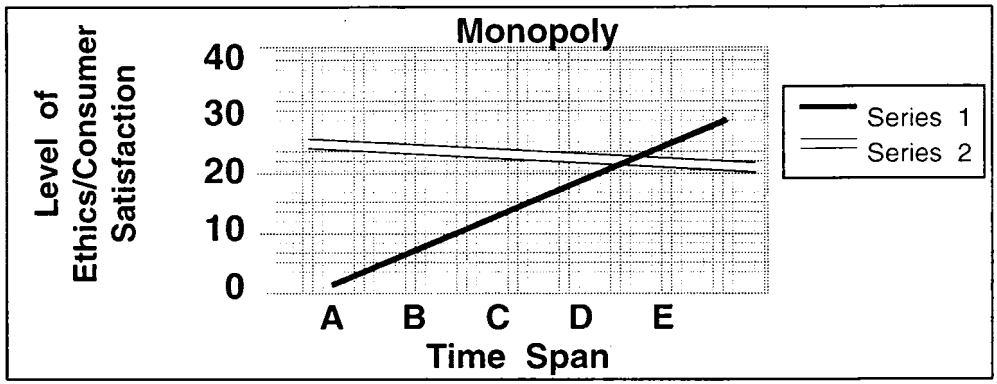

Chart - 6

Level of Ethics in Business

From the analysis given above it may be observed that the level of ethics in business goes up gradually as the market moves towards perfection. Experience shows that under monopoly businessmen are least sensitive about values. However, minimum level of values are maintained under all market conditions. Under monopoly also the businessmen follow certain basic ethical values. If the operators in monopoly do not follow fundamental ethical values they cannot survive, irrespective of the special kind of products and services. Under perfect competition an operator will be out of the market the moment he goes below the present level of ethical values in the market. Under perfect competition buyers and sellers are unlimited in number and therefore, a single operator malpractice will be destructive for himself, as ample number of good players exist in the market. A graphical view of the movement in the level of ethical values under different market conditions given in Chart 7 makes this point clear.

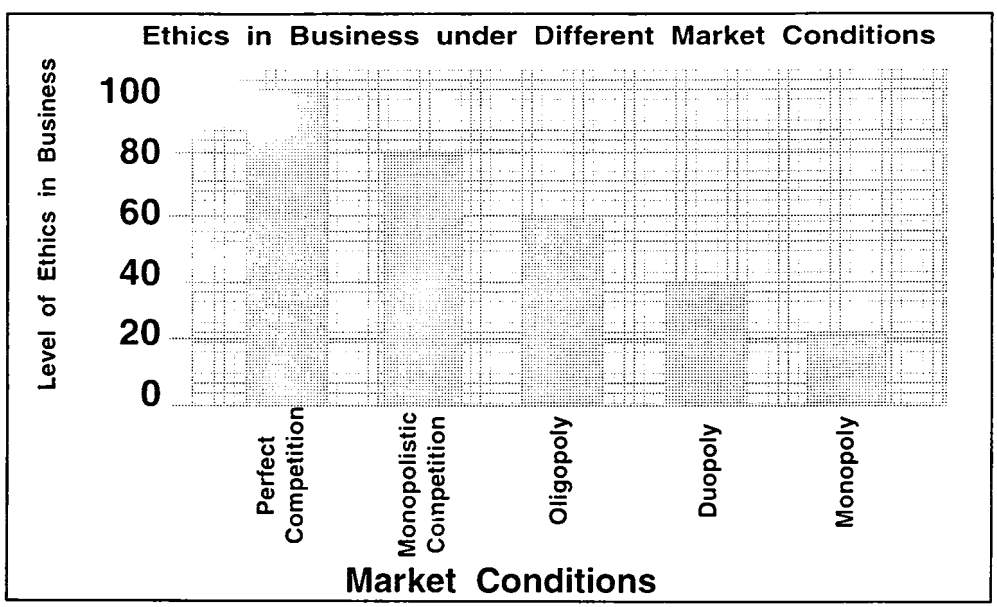

Chart - 7

Consumer Satisfaction

Consumer satisfaction is a key factor that decides the level of ethical values in the market. For this purpose two different aspects of consumer satisfaction considered were satisfaction because of necessity of the product and satisfaction through elite feeling.

The elite feeling matters much in the determination of ethical values under different market conditions. Consumer satisfaction (derived from elite feeling) tends to decrease gradually as the market achieves perfection, as due to increase in the number of suppliers the product is easily available to the rest of the society. A graphical view of the consumer satisfaction under different market conditions is given in Chart 8.

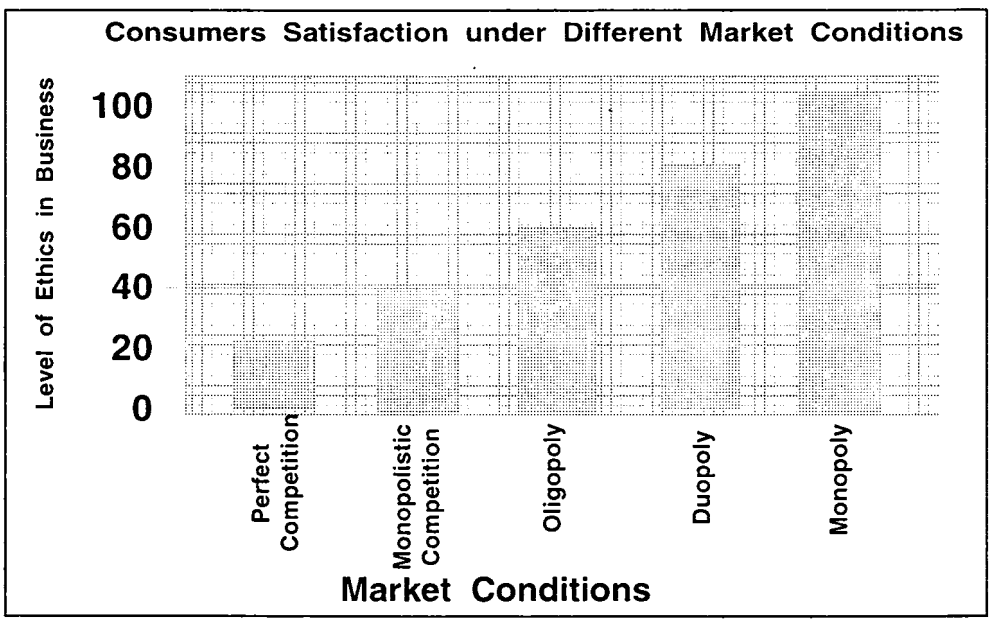

Chart - 8

Conclusion

A common consumer does not think much about ethical values practiced by business. It is scholars who make a consumer think about this aspect and make him aware. However, the consumers expect certain behaviour from the dealers under specific market conditions. An attempt has been made to project the relationship between market condition, consumer satisfaction and business ethics in the present study. The study however, needs further testing and modifications.

Author is conscious of certain obvious limitations. The study is not based on empirical observations but on personal observations. Some of the observations are based on certain laws of Economics. Limitations of these laws may affect the conclusion drawn.

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1. Mrs. Joan Robinson, *The Economics of Imperfect Competition* p.18
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3. Quoted by : K.P. Jain in *Principles of Economics*, p. 21-22

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Accounting Research in Bangladesh : Past & Present

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Introduction

Research as a branch of knowledge signifies a purposive endeavor for a systematic investigation that widens the existing body of knowledge and deepens the understanding in the field. Accounting research in this sense signifies an attempt to understand, predict or control the problem or some aspect of accounting environment and shows how real world works with respect to accounting theory and practice.[1]

Accounting is a utilitarian subject. It serves the interest of various groups of people related with an economic entity. These groups of people range from government to small investors. It is not normally possible to satisfy the need of all these groups of people with different interests by a single type of accounting system. So, different methods and branches of accounting have been developed over the time. Out of these the most important areas are Financial Accounting, Cost Accounting, Tax Accounting, Auditing, Management Accounting etc. These are practised in different organizations of Bangladesh to different extent. It is required to ascertain the suitability and sufficiency of these areas of accounting used by various organizations of Bangladesh. To achieve this goal, an investigation on various researches conducted on different aspects of accounting in Bangladesh was imperative.

In Bangladesh, various institutions rendered facilities for accounting education and research. Most research works are conducted for the purpose of a degree like M.Phil. and Ph.D. But there are some non-degree research works also. These are sponsored and conducted by specialized professional institutions like the Institute of Chartered Accountants of Bangladesh (ICAB), the Institute of Cost and Management Accountants of Bangladesh (ICMAB) and the Institute of Bangladesh Studies (IBS) etc. Research works conducted for a degree are supervised by the faculty of the respective departments, while the non-degree research works are conducted independently by selected researchers. There is no common overseeing body to identify the areas of accounting research and coordinate the research activity in this area. As a result there remains a possibility of overlapping in some areas of accounting research and some

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areas of accounting research remain untouched. Lack of coordination among the institutions engaged in accounting research has resulted in the non-existence of any bibliography of accounting research works completed so far in Bangladesh. Absence of such a bibliography created problems for the planners, prospective researchers, academicians etc.

To overcome this gap, an investigation of the research works completed so far in the field of accounting was deemed to be a crying need of the day. "Accoumting Research in Bangladesh : Past and Present" is an attempt in this direction.

Objectives of the study

Research before the emergence of Bangladesh in this part of erstwhile Pakistan was very meagre. It got momentum after the independence of Bangladesh. The present study was therefore, undertaken mainly to identify the pattern and the trend of researches in accounting in Bangladesh. To achieve this main objective the following sub-objectives were identified :

a) To classify the studies done as degree and non-degree research works and to identify the sponsoring institutions of these studies;

b) To describe the research works conducted on various issues on accounting from 1971 to date and to highlight the guiding points for future;

c) To evaluate the nature of research works conducted so far on accounting and to place them in brief at one place;

d) To find out the areas of study over ploughed or unploughed, to guide the prospective researchers or the sponsors to select or sponsor the right area or areas of investigation in accounting; and finally

e) To bring to limelight, the hindrances in the way of accounting research in Bangladesh.

Scope and Methodology:

In Bangladesh, the Accounting Departments of different Universities, Professional Institutes, Research Cells/Bureaus of different Universities played a poineering role for the promotion of accounting research. The M.Phil. and Ph.D. research works on accounting completed under the supervision of teachers of Accounting Departments of Commerce Faculties of Dhaka, Chittagong and Rajshahi Universities form part of this study. There are some research Cells/Bureaus in different Universities that sponsor worthy research works on accounting and other allied subjects. They are Bureau of Business Research of Dhaka University, Institute of Bangladesh Studies (IBS) of Rajshahi University and Chittagong University Research Cell. Related research works on accounting completed at these Centers/Bureaus were also brought under the jurisdiction of the study. In Bangladesh, the professional institutions like ICAB and ICMAB also conducted valuable research on accounting. They were also considered for the present purpose.

At University level, teachers of different Universities of Bangladesh completed Ph.D. degree from different foreign Universities on accounting issues. Research topics related to accounting issues of Bangladesh or comparative studies on accounting aspects between Bangladesh and abroad were also included in this study.

From 1986 to 1989, University Grants Commission (UGC), Bangladesh and UNDP jointly sponsored some research works on different topics of business under Business Management Education and Training (BMET) Project. These research works were published. From the published reports, related research works on accounting were gleaned for the present study.

To collect data from the selected respondents, visits were undertaken to different Faculties of the Universities, ICAB and ICMA offices. Data were collected through a questionnaire designed in line with the objectives of the study. Data were collected directly from the respondents where they were available. In the absence of the respondents, secondary sources were used to collect necessary data. Most of the research works conducted in Bangladesh, were available in the thesis and dissertation sections of libraries of the Universities and Institutions. Relevant data were also collected from these sources. Bureau of Business Research, Faculty of Business Studies, Dhaka University publish the research works completed by researchers. This secondary source was also used for collecting necessary data. The research works of BMET project were published in three volumes after necessary editorial work by Professor Muzaffer Ahmed of IBA, Dhaka University and Professor Gary McLean of the University of Minnesota, USA. This publication titled, "Bangladesh Business Research Reports- Vol. II" on Accounting, Finance and Bank Management was consulted for this purpose.

The volume of data so collected was analyzed in line with the stated objective of the study. Different published articles relevant to this topic were also consulted for writing this article.

Limitation of the Study

The main objective of the study was to make bibliography of accounting research in Bangladesh and to analyze the trend and pattern of accounting research in Bangladesh since 1971. So all the sources relevant to this work were investigated. In spite of hectic effort to include all the completed works in the present study, we failed to collect data from some respondents. However, they are negligible in number. Inclusion of these date could improve further the quality of the present work. This study however, excluded the research articles on accounting published in different Journals in Bangladesh.

Findings and Analysis

The data collected were arranged in order of the requirement of the objective of the study. First of all, the research works on accounting were arranged by classifying them into degree and non-degree research works. Table 1 shows the nature of accounting research by distinguishing them between degree and non-degree works and the number of research works sponsored by different institutions :

Table -1

Table Showing the Nature of Research Works on Accounting in Bangladesh

Nature of Research Works		Institutions that Sponsored the Research Works						
		DU	CU	RU	UGC	ICAB	ICMAB	Total
Degree	Ph.D.	-	8	1	5	-	-	14
	M.Phil.	-	1	1	1	-	-	3
Non-degree		3	4		23	3	3	36
Total		3	13	2	29	3	3	53

The table shows that the highest number of Ph.D. research works were sponsored by the University of Chittagong and non-degree research works were sponsored by the UGC. The role of other research institutions in promoting accounting research does not appear encouraging. It may be mentioned here that almost all the Ph.D. research works sponsored by the UGC were supervised by the Professors of the Department of Accounting, University of Dhaka. In Bangladesh, so far only some Professors of Accounting have been rendering their valuable supervisory services for Ph.D. works. They are Professors Md. Habibulla, S.N. Ghosh and Syed Masud Hussein of Dhaka University; Professors Md. Ali Imdad Khan, Md. Abdul Hye and Monjur Morshed Mahmud of Chittagong University; Professors Moqbul Hossain and A.C. Saha of Rajashahi University.

In addition to the above research works, someworks on accounting were completed in different Universities of India and other Foreign Universities. These works were either sponsored by the ICCR, India or by other Foreign Governments or they were self financed by the researchers. Table 2 shows the research works on accounting completed in Foreign Universities.

Table - 2

Table Showing the Accounting Research Works on Bangladeshi Issues Completed in Foreign Universities

Sr.	Name of University	Title of Research Work	Nature of work	Name of Researcher
1.	Calcutta University, India	Corporate Financial Reporting in Bangladesh in the Context of that in India and other Countries.	Ph.D.	Dipak Kanti Dutta.
2.	Calcutta University, India	The Practice and Policy of Depreciation in Bangladesh.	Ph.D.	Binoy Krishna Sharma
3.	Moscow State University, USSR	Organization and Methods of Analysis of Cost of Production in Industrial Enterprises of USSR and the Possibilities of their Application in the Industrial Enterprises of Bangladesh.		Saroj Kumar Saha

4.	Kalyani University, India	An Inquiry into the Price Mechanism Pattern of the Products of Pharmaceutical Firms of Bangladesh.	Ph.D.	Milan Kumar Bhattacharjee.
5.	University of Manchester, U.K.	Management Control in Public Sector Enterprises : A Case Study of Budgeting in the Jute Industry of Bangladesh.	Ph.D.	A. K. M. Zehirul Hoque
6.	University of Delhi, India	Capital Expenditure Control of Public Sector Industrial Enterprises in Bangladesh with Special Reference to Sugar Industries.	Ph.D.	Md. Shah Alam.
7.	Kalyani University, India	Management of Working Capital in Cotton Textile Industries of Bangladesh.	Ph.D.	A.T.M.Tofazzel Hossain
8.	University of Delhi, India	Working Capital Management of Paper Mills in Bangladesh.	Ph.D.	Rafiqul Islam.
9.	M.S. University of Baroda, India	Working Capital Management of the Jute Mills in Dhaka Zone.	Ph.D.	A.C. Saha.
10.	Banaras Hindu University, India	Depreciation Cost in Bangladesh Jute Industry - A Study. (with reference to price level changes.	Ph.D.	Syed Masud Hossain.

The table shows that most of the Ph.D. research works on accounting were completed in different Universities of India and a few of them were done in British and Russian Universities. The research topics covered a wide area ranging from Financial Accounting to Management Accounting.

After describing the research works on accounting for Ph.D. degree conducted in Foreign Universities, it is relevant to present all research works, completed both at home and abroad, on the basis of specific area. A detailed description of accounting research works in Bangladesh on Financial Accounting is shown in Table 3.

Table - 3

Table Showing the Research Works on Financial Accounting in Bangladesh

Sr. No.	Name of Researcher	Topic of Research	Nature of Research	Brief Findings
1.	Dipak Kanti Dutta	Corporate Financial Reporting in Bangladesh in the Context of that in India and Other Countries.	Ph.D.	The existing legal provisions for corporate financial disclosure were inadequate, incomplete and ambiguous. Some companies still followed better accounting practices and replaced the true and correct view of financial position by the true and fair view of modern practices.

2.	Syed Masud Hossain	Depreciation Cost in Bangladesh Jute Industry - A Case Study (with reference to price level changes)	Ph.D.	Certain changes in the traditional depreciation system are suggested. Implementation of Current Cost Accounting was advocated.
3.	Binoy Krishna Sharma	The Practice and Policy of Depreciation in Bangladesh	Ph.D.	Tax saving acts as an incentive to charge depreciation in Bangladesh.
4.	Mahbub Ahmed	Evaluation of Financial Statements as a Communication Device in Bangladesh.	Non-degree	Financial reports are not effective communication device in Bangladesh.
5.	Michael Parry and Ferodus Khan	A Survey of Published Accounts in Bangladesh	Non-degree	The picture in relation to published accounts in Bangladesh is encouraging. A system of producing and auditing accounts does exist and is functioning. But the information disclosed suffers from technical inadequacy, lack of credibility and is under-utilized.
6.	A.K.M. Shabub Alam	Corporate Financial Reporting in SAFA Countries.	Non-degree	SAFA countries that are the subject matter of this research study share a common legal and accounting heritage. But there are distinct differences in corporate reporting in these countries. All have a pattern in which corporate laws impose certain mandatory requirements, in addition to which certain disclosures are made voluntary by the reporting companies. Out of the voluntary disclosures, the Statement of Changes in Financial Position, Significant Accounting Policies, Statement of Foreign Currency Transactions, Segmental Reporting, Activity Reports, Innovation Reports (in the Directors Report) are made mandatory in some SAFA countries and professionally recommendatory or voluntary in certain other countries.

7.	Md. Kazi Saidul Islam	An Evaluation of Financial Reporting of the Commercial Banks in Bangladesh.	M.Phil.	The quality and adequacy of present reporting system gives testimony that annual reports of banks are prepared complying with legal requirements. The present format of accounts does not provide adequate data to calculate important ratios and information for evaluating performance. The formats are advised to be modified.
8.	Kanchan Kumar Purohit	Treatment of Depreciation in Transport Companies	Non-Degree	The existing depreciation policy in public transport companies is not appropriate, as it fails to generate fund for their replacement. The depreciation fund method should be used to ensure replacement of vehicles.
9.	Harnur Rashid	Hospital Accounting	Non-Degree	Not Available
10.	A.B. Nag	Accounting Standards and their Compliance in Corporate Reports in Bangladesh	Non-degree	There has been significant qualitative improvement in the preparation and presentation of Financial Statements since Companies Act 1994 came into force. But these statements are not prepared in full conformity with the Accounting Standards (AS) adopted in Bangladesh. The reason for partial use of accounting standards is that their use is recommendatory and not obligatory.

An evaluation of the information given in table 3 shows that most of the research works in Financial Accounting are on corporate reporting. Some works on depreciation accounting were also completed. One research work related to the specialized accounting i.e. Hospital Accounting and another research work was on the use of accounting standards in corporate reporting. These reports highlight that there has been a gradual development in the reporting practices of Corporations/Companies in Bangladesh. However, they are not up to the mark till now. Research in other areas of Financial Accounting like inflation accounting, accounting for non trading concerns and utilities etc. is yet to be undertaken.

The second important area of accounting is Cost Accounting. Its use and development is directly related to the status of industrialization in the country. It plays a vital role in cost planning and cost control in the manufacturing industries of a country. In Bangladesh, the nationalized industrial units were a hot topic for investigation, to ascertain whether and to what extent these units were running efficiently. The research works completed on Cost Accounting since 1971 are lised to disclose their nature and area of coverage in Table 4.

Table - 4
Research Works on Cost Accounting in Bangladesh

Sr. No.	Name of Researcher	Topic of Research	Nature of Research	Brief Findings
1.	Saroj Kumar Saha	Organization and Methods of Analysis of Cost of Production in Industrial Enterprises of USSR and the Possibilities of their Application in the Industrial Enterprises of Bangladesh	Ph.D.	Methods of cost analysis and organization system of USSR can not be applied to the industrial enterprises of Bangladesh, without making necessary changes in production policy, government regulations and labor laws.
2.	A.N.M. Abdul Muktadir	Inventory Planning and Control in the Jute Industries of Bangladesh	Ph.D.	The study shows that the percentage of inventory in working capital and total investment was 63.75% and 41.53% respectively. The inventory turn-over ratio on the average at 2.4 times was much lower than the normal turn-over ratio of 7-9 times. The failure to use Turn-Over Ratio, ABC Analysis, Budgetary Control and Audit were responsible for the unsatisfactory inventory control in these enterprises.
3.	Shaikh Abu Bakar	Inventory Management in the Jute Mills under Khulna Zone in Bangladesh.	Ph.D.	The quantity of finished goods and other inventories held by mills under study was excessive in comparison with Indian Jute Mills, but it was lower than the standards of BJMC. The causes responsible for excess level of finished goods were non-availability of shipping space and competition from synthetic substitutes. Other inventories were not controlled by using scientific inventory management system.
4.	A.B.M. Khalid	Profitability in the Trade of Specific Consumer Goods in Selected Urban Markets of Chittagong.	Non-degree.	Consumer goods are traded freely in Bangladesh without any major control by the Government. Traders dealing in various consumer goods enjoy considerable flexibility in operating their business and establishments in Bangladesh. Consumers as a class in the society still remain as unprotected as ever.

5.	Milan Kumar Bhattacharjee	An Inquiry in to the Price Mechanism Pattern of the Products of the Pharmaceutical Firms of Bangladesh.	Ph.D.	The sample units follow the mark-up pricing system.
6.	M. Humayun Kabir	An inquiry in to the Productivity of the Sugar Mills in Bangladesh.	Ph.D.	Productivity status of the sugar mills was unsatisfactory with declining trend. Inter-firm and inter-period variations were found remarkable. Immediate remedial actions are required to be undertaken to make them competitive.
7.	Helal Nizami	Productivity of Nationalized Commercial Banks in Bangladesh.	M.Phil	Productivity of NCBs is not satisfactory and the position is declining over the period. Mounting bad debts, political influence, low autonomy and lack of motivation are important unfavorable factors affecting productivity.
8.	Md. Abdul Mannan	Efficiency of Cost Control and Cost Reduction Measures in the Fertilizer Industry of Bangladesh.	Ph.D.	Production cost of fertilizer varies from one industry to another. Budget and standard costing systems are used for cost control and cost reduction. Cost audit system is not in use in the sample units. Cost control and cost reduction as a precautionary measure would definitely give some impetus in increasing productivity and profitability.
9.	Harunur Rashid	Cost and Return of Poultry Firms in Chittagong	Non-degree	On the average, 20% profit is earned by the sample units. But the margin often declines as the cost of feed increases.
10.	M. Abul Kalam Mazumdar	Cost Accounting in use in Bangladesh.	Non-degree	Use of cost accounting was found only in 30% of the sample enterprises. Less effective use of cost accounting was observed in local organizations. Multinationals and joint-ventures make better use of cost accounting. Lack of organizational set-up and resource limitations are major constraints to the use of cost accounting.

11.	A.B.M. Khalid	Integrated Accounting System in Bangladesh Jute Mills.	Non-Degree	A gap existed in the costing system of the sample enterprises before the introduction of Integrated Accounting System (IAS). The old system failed to provide cost accounting data to management in time. The IAS being costing based has filled the gap in this respect.
12.	Saroj Kumar Saha	A Study on the Structure of Cost of Production and its Analysis in Textile Mills.	Non-degree.	Raw materials constitute 70% of the total cost of production. So maximum emphasis should be put on this element of cost for cost control. Introduction of efficient costing system was advocated for achieving the objective of cost control.
13.	Md. Loqman	Cost Structure of a Selected Nationalized Industry in Bangladesh.	Non-degree	It was observed that high cost of production increased the cost of sales, volume of sales and profit margin of sample enterprises. So adequate control measures should be undertaken to reduce the main elements of cost, namely material and labor.
14.	Md. Moinu-din Khan	Feasibility of Installing Standard Costing in Jute Mills.	Non-degree	It is very difficult as well as not feasible at this stage to introduce the standard costing system in the mills under BJMC.
15.	Syed Mohammed Ather	Profitability of Public Industrial Enterprises in Bangladesh.	Ph.D.	Profitability of sample enterprises at shadow prices was higher than the prevalent bank rates of interest. So the performance was not poor during study period. The inefficient use of working capital and fixed capital both seemed to contribute greatly to slow decreasing trend of public profitability at constant shadow prices.
16.	Md. Shah Alam	Cost and Profitability of a Public Sector Paper Mill.	Non-degree	The report suggests that monthly variance of material used, labor costs and overheads expenditure should be prepared to control cost and improve profitability.

17.	Md. Mehsin-ul-Islam	Cost Control Mechanisms : A Case Study of Laift Bawany Jute Mill.	Non-degree	The sample unit used only budget as a control device under integrated accounting system. Budgets were conventionally prepared and operated without having any analysis of the variances for corrective measures.
18.	Dhiman Kumar Chowdhury	Cost Control Techniques in a Multinational Enterprise.	Non-deegree	The study explored the cost control techniques applied to various elements of cost and found that they were very effective

The facts and observations given in table 4 revealed the wide range of research conducted in Bangladesh on Cost Accounting. Cost planning, costing techniques, costing methods, productivity measurement, cost based pricing and cost control techniques were the important areas covered. But majority of the works were designed to measure the productivity and profitability of sample units and the effectiveness of cost control techniques used in sample industries of Banglsdesh. Most of the research works conducted pertained to public sector enterprises. The present situation of liberalization demands comparative studies between public and private enterprises to find out the impact of privatization on costing techniques, cost structures, cost control and performance. Like wise with the computerization of recording system, the role of cost accounting in a computer-intergrated manufacturing environment is a burning area of research.

Another area of research in accounting in Bangladesh is Management Accounting. The research works on Management Accounting in Bangladesh are presented in Table 5.

Table - 5
Research Works on Management Accounting in Bangladesh

Sr.	Name of Researcher	Topic of Research	Nature of Research	Brief Findings
1.	Monjur Morshed Mahmud	Accountability of Public Industrial Enterprises in Bangladesh	Ph.D.	Budgets, accounting reports, performance reports, audit and ACR are the instruments of internal accountability. Audit of C&AG, Parliamentary Accounts Committee, Public Enterprises Committee, Estimates Committee are the instruments of external accountability. But these are not effectively used. Thus accountability process suffered a lot.
2.	Shanti Ranjan Das	Performance of Public Sector Banks in Bangladesh	Ph.D.	Lack of clear-cut objectives adversely affected the performance of the banks. Rate of interest on deposits and loans revealed a sea-saw trend. The study suggested the use of total performance evaluation system instead of a single criterion of performance evaluation.

3.	S.A. Sakoor	Performance Evaluation	Ph.D.	The performance of NCBs and PCBs was measured with reference to selected ratios. It emphasized upon the need for giving greater attention to utilization of working funds in profitable ventures, efforts to minimize the volume of outstanding advances and introducing rational control on operating expenses.
4.	Md. Abdul Hye	Acceptance and Use of Budget by the Managers of the Composite Jute Mills in Bangladesh.	Ph.D.	Acceptance and use of budget by Managers of composite jute mills were found to be at low level. Managers attitude towards the budget characteristics of flexibility, attainability, timeliness and follow-up influenced the acceptance and use of budgets. Managers who perceived their budget as flexible, accepted and used them more than those who viewed them as inflexible.
5.	Harunur Rashid	Generation of Accounting Data and their Use in Managerial Planning and Control of Enterprises Under Bangladesh Chemical Industries Corporation	Ph.D.	Accounting data are generated by using Integrated Accounting System with little modification. This includes installation of computer system in some enterprises and adoption of Systems for Autonomous Bodies Reporting and Evaluation (SABRE) introduced by the Monitoring Cell of the Ministry of Finance, Government of Bangladesh. Both accounting and non-accounting data are used for managerial decision making. But the influence of accounting data was more than the non -accounting data in different variables, except for the production requirement and production control decisions.
6.	Nilima Rani Paul	Acceptance and Use of Budget by Managers of Private Sector Industrial Enterprises in Bangladesh.	Ph.D.	Acceptance and use of budgets by managers of private sector enterprises were found to be at a high level. Managers' attitudes towards the budget characteristics of flexibility, attainability, timeliness and follow-up influenced their acceptance and use.

7.	Md. Shah Alam	Capital Expenditure Control of Public Sector Industrial Enterprises in Bangladesh with Special Reference to Sugar Industries.	Ph.D.	Few of the projects were implemented within the given time and budget. There were cost and time overruns in most of the development projects in the sugar industry.
8.	A.K.M. Zahirul Hoque	Management Control in Public Sector Enterprises: A Case Study of Budgeting in the Jute Industry of Bangladesh.	Ph.D	Head office and Ministry were prominent in organizational planning and control. The accounting system in the mills was mainly a response to external legitimacy. Although budgeting was perceived to be a part of formal control structure, it was not a dominant mode of control. The mill manager used a variety of social/informal control systems to cope with the complexities and uncertainties existing around the mill.
9.	Sima Razzaque	Profitability Analysis of Sugar Industries in Bangladesh.	M.Phil.	Rajshahi Sugar Mills Ltd. is the second largest sugar producing unit under BSFIC. In terms of location, production capacity and other factors, such as employment generation, contribution to national exchequer, utilization of less fertile land it made remarkable contribution to the economy. Financial and operational performance of the mills was rather disappointing. It suffered losses in seven years out of ten years of study.
10.	A.A. Arif	Performance Budgeting in the NCBs - A Study of Agrani Bank, Chittagong.	Non-degree.	For successful implementation of PBS, both organizational and environmental changes are imperative. The reasons for failure of PBS in sample unit were : lack of conceptual clarity, inadequate staff participation, absence of feedback information and absence of incentives based on performance.

11.	A.C. Saha	Performance Evaluation of Jute Industries in Bangladesh.	Non-degree	Performance of jute industries during post liberalization period is alarming from the view point of accounting profit, while from the social point of view, the contribution of the industry in the form of value added to the economy was highly appreciable. Denationalization also failed to bring remarkable change in the profitability of jute industry, as they competed in the same market. Product diversification and introduction of cost control and cost audit may save the industry from complete ruination.
12.	Syed Masud Hossain	Financial Evaluation and Analysis of Selected Public Sector Enterprises in Bangladesh.	Non-degree	No enterprise covered by the study was in good condition in BSEC. They could not even earn minimum required rate of return. But this could not be assigned to poor performance on the part of management. The socio-economic-political environment in which the enterprises operated was not ideal. Due to inflationary effect, the real loss was more than double the figure shown in income statement.
13.	Md. Moniru-zzaman	A Financial Appraisal of Stores Management in Sugar Mills.	Non-degree	The study concluded that stores management was not efficient and it resulted in loss of income in blocked capital and liquidity problem due to blockage of capital.
14.	Md. Jahirul Hoque	Evaluation of Capital Investment Decisions in Some Public Sector Manufacturing Enter-prises in Bangladesh.	Non-degree	The study revealed that organization for capital investment decisions had been unsatisfactory and thus ineffective.
15.	Harunur Rashid	Evaluation of Grameen Bank Projects in Chittagong.	Non-degree.	These projects were very successful. The recovery rate of these projects was very high. Close supervision of the projects by the bank employees was the main reason for such a success. It made positive contribution in terms of employment generation, income, production and consumption.

16.	A.T.M. Tofazzel Hossain.	Management of Working Capital in Cotton Textile Industry of Bangladesh.	Ph.D.	Overall inefficiency in working capital management of the sample units in the industry was observed.
17.	Uttam Ali Mia	Fund Management in Fertilizer Manufacturing Industries in SAFA Countries.	Non-Degree.	Proper fund management system was in use in the fertilizer industries of SAFA Countries.
18.	Rafiqul Islam	Working Capital Management of Paper Mills in Bangladesh.	Non-Degree	The performance in respect of working capital management in paper mills in Bangladesh was not satisfactory.
19.	A.C. Saha	Working Capital Management of Jute Mills in Dhaka Zone.	Ph.D.	Absence of planning and control of WC affected the ROI and impaired the growth and development of Jute mills. Sophisticated models for WCM should be applied.
20.	Md. Moniruzzaman	Working Capital Management in Jute Industries of Bangladesh.	Non-degree	Working capital management was found highly unsatisfactory. Suggestions for bringing down the high levels of inventory, better receivables management and management of cash etc., have been made.
21.	Md. Ali Mia	Quantitative Techniques Applied to Managerial Decision Making in Jute Industry of Bangladesh.	Non-degree	Quantitative techniques, as they are used in decision making process in the developed countries, are not practised in the BJMC. Only a few techniques were in use in the sample enterprises.

It may be observed from the presentation made above that the management accounting research works ranged from evaluation of capital investment proposals to control. They also included overall performance measurement. A good number of research works completed covered working capital management. Here some overlapping was also observed.

The other areas of accounting research were, Auditing and Tax Accounting. These research works are presented in Table 6 and Table 7 respectively.

Table - 6

Research Works on Auditing in Bangladesh

Sr. No.	Name of Researcher	Topic of Research	Nature of Research	Brief Findings
1.	Jagadish Chandra Shukla Das and A.S.M. Abdulla	Sampling in Auditing - A Study of its Uses and Practices in Bangladesh.	Non-degree.	Statistical sampling is a proved method of improving audit practice. But unless the audit firm was prepared to commit an adequate amount of time and resources to learning the basic concepts and integrating the methods into procedures, the firms are not suggested to use it.
2.	Kanchan Kumar Purohit	Audit Practices in Selected Non-profit Organizations.	Non-degree	In Bangladesh, private high schools are audited by specific audit rules. But these rules have been yet not implemented fully. Other non-profit organizations were audited by general audit rules. But they need special set of audit rules to meet their audit requirement.

It is seen from the above table that research works on Auditing were few. This area of research, audit of accounts in Bangladesh, has not yet been adequately explored. The same situation was also observed in case of research works on Income Tax. As given in Table 7 there has been only one research work so far on income tax in Bangladesh.

Table - 7

Research Work on Income Tax in Bangladesh

Sr.	Name of Researcher	Topic of Research	Nature of Research	Brief Findings
1.	Monjur Morshed Mahmud	Effect of Corporate Taxation on Company Financial Policy.	Non-degree	The findings revealed that lesser importance was given to tax provisions in decision making compared to other factors relevant to viability and operations of the enterprise.

In addition to the above specific areas of accounting research, there were some other research works, which were multi-disciplinary in nature and on the borderline of accounting and finance. Table 8 lists such research works :

Table - 8

Research Works on the Borderline of Accounting and Finance in Bangladesh

Sr. No.	Name of Researcher	Topic of Research	Nature of Research	Brief Findings
1.	Md. Jahirul Hoque	Financial Control in Public Sector Industries in Bangladesh.	Ph.D.	This thesis covered financial functions namely capital expenditure, working capital and profit planning and control. It was revealed that certain basic features in project planning and evaluation were absent. Communication through financial reporting was also poor. Financial analysis of the sample enterprises showed poor performance.
2.	Rafiqual Islam	Financial Analysis of Fertilizer Industries in Bangladesh.	Non-degree.	The profitability of fertilizer industry was not satisfactory and there was overstocking of inventory
3.	M.M. Mahmud	Financial Accountability System of Chittagong Municipal Corporation.	Non-degree.	Financial control over the CMC was indirectly exercised by the government through LGRD and Co-operatives. Among the control techniques budget approval, grants allocation, levy of taxes and fees and audit were important. But the system was weak, as it was not consciously designed and the performance was not properly evaluated. It was interesting to note that audit reports were not evaluated regularly and timely.
4.	A.T.M. Tofazzel Hossain	Financing and Accounting System - A Case Study of Chittagong University	Non-degree.	The sample unit was overwhelmingly dependent on the Government for finance. Internal revenue was insignificant (10% App.). Adequate disclosure of financial and operating results was not done. Introduction of fund accounting system to simplify the existing cash basis accounting and independent audit by professional accountants were recommended.

The works described above covered financial accountability and financial control of different categories of organizations through ratio analysis and other accounting tools.

During the course of study, some other research works on accounting also came to notice. Though the works did not fall exactly under any particular branch of accounting they were related to accounting. These research works are listed in Table - 9.

Table - 9
General Research Works on Accounting in Bangladesh

Sr. No.	Name of Researcher	Topic of Research	Nature of Research	Brief Findings
1.	A.B. Nag M.J. Parry	Study of Accountancy Training in Bangladesh.	Non-degree.	In Bangladesh, Accounting training is offered by educational institutions, professional institutions and the specialized Audit and Accounts Training Academy. For lack of coordination, there was overlapping in the curricula of accounting in the academic institutions. In Bangladesh, upto under graduate level Accountancy training was given in Bengali. But there was dearth of standard text books and other material of study in Bengali. At post graduation level text books written by foreign writers in English were referred to for study. The students as such faced problems in following their courses. Moreover, there was a common objection regarding accountancy training in Bangladesh that the existing system of training can not fully cater to the needs of industrial sector. So a closer link should be maintained between the business community and the educational institutions to improve the standard of accountancy training in Bangladesh.
2.	Md. Ashraf Ali Khan	Impact of Public Control on Professional Accounting in Bangladesh.	Ph.D.	Statutory requirements as to the contents of annual reports were strictly complied with but non-statutory requirements were not complied with. Several lapses in disclosure were observed but not mentioned in audit reports. Even the disclosure requirement of SEC of 1987 was not complied with exactly.

3.	Md. Loqman	Management Use of Accounting Information in Financial Decisions and Control of Nationalized Industries in Bangladesh.	Ph.D.	Use of accounting information in capital expenditure decisions and control was found inadequate in nationalized industries. The use of AIS in various aspects of profit related decisions and control was also found to be scanty. The MIS and financial reporting system were found to be inappropriate and ineffective.
4.	A.B.M Khalid	Accounting Problems in Nationalized Sector Corporations.	Non-degree.	In the public sector manufacturing enterprises, IAS were followed. The existing system suffered from accurate cost estimation, analysis and their control. So the production cost of such enterprises was beyond the expected level and their products lost competitiveness in the market as a result.
5.	K.K. Purohit & Ataur Rehman Belal	Job-satisfaction of Professional Accountants in Bangladesh.	Non-degree	The professional accountants of Bangladesh were moderately satisfied with their job. The results showed that there was positive correction between age and job-satisfaction
6.	Harnur Rashid	Source and Use of Financial Data in Public Sector Industrial Enterprises.	Non-degree.	The study concluded that improvement in the design for recording, processing and communicating data would result in better financial management.
7.	D.K. Dutta	Use and Practice of Indigenous Accounting in Small Business.	Non-degree.	The study analysed the indigenous system of accounting and compared it, wherever meaningful, with the double-entry system. The study concluded that unless the volume of business was large, the indigenous system met the need of the owners satisfactorily.

It is seen from the above table that the research works given above covered a wide range of areas from general accounting education and training, job-satisfaction of professional accountants to the use of accounting data in industry in Bangladesh. Among the above the 'Study of Accountancy Training in Bangladesh' was completed in 1985. During the last fifteen years, there has been tremendous change in the business environment all over the world. There has been remarkable changes in the field of technology also. All these demanded a drastic change in the requirement of financial information by the business world. An assessment of present status of accounting education in Bangladesh is therefore, urgently required. Interestingly, there has been no research initiative to conceptualize or determine what sort of accounting

curricula would be necessary and also to discern accurately what the country's accounting need would be, nor any attempt, as such, has been made to evaluate the accounting education programs or training programs currently in vogue in the country.

After subject wise analysis of the accounting research works in Bangladesh, an analysis of the nature of sample covered under the present study is given in Table 10 :

Table - 10

Nature of Accounting Research in Bangladesh Covered in the Study

Nature of Research Work		Organizations Covered by the Study			
		Public Sector	Private Sector	Comparative	Total
Degree	Ph.D.	20	-	2	22
	M.Phil	3	-	-	3
Non-degree		33	4	3	40
Total		56	4	5	65

It may be observed from the above table that most of the research works were on public sector corporations, namely Bangladesh Jute Mills Corporation (BJMC), Bangladesh Textile Mills Corporation (BTMC), Bangladesh Chemical Industries Corporation (BCIC), Bangladesh Steel and Engineering Corporation (BSEC) etc. There were few studies covering the private sector organizations. There were some studies which were comparative in nature. The comparison was made either between public and private organizations in Bangladesh or between Bangladesh and a foreign country.

The above analysis also brought out that there was a marked preference of researchers for undertaking research in the areas of Financial Accounting, Cost Accounting and Management Accounting. The reasons behind such a tendency may be attributed to easy availability of annual published reports, as compared to general reluctance of the respondents to provide primary data on accounting.

In addition to the exploration of the nature and trend of accounting researches in Bangladesh, one of our objectives was to highlight the hindrances to the way of accounting research in Bangladesh. The problems faced by the researchers in accounting research were :

(i) Inadequate research infrastructure, non-availability of proper literature, dearth of information and data bases; and

(ii) Non-availability of funds and lack of interest among the research supervisors reducing the number of accounting research further.

Suggestions

To remove the stated problems of accounting research and to promote quality accounting research the following suggestion are putforth :

1. A state level accounting education and research co-ordination committee should be set up jointly by all the Universities and users of accounting information and research output, in addition to academicians. The UGC, Bangladesh, can take an effective step to implement this plan.

2. A close liaison with business world and professional world should be established to initiate need based, effective and quality accounting research.
3. Researches in the field of taxation, auditing, information technology should be given priority attention. In veiw of technological developments in information systems promotion of research in behavioral aspects of accounting is urgently needed.
4. An incentive scheme should be introduced to encourage learned professors and qualified professionals to undertake supervisory responsibility for Accounting research.

Conclusion

The study revealed that the number of M.Phil. and Ph.D. level researches are still insignificant in Bangladesh. But an increasing trend in Accounting research in observed. The college level teachers are also now undertaking research work for degree purpose. This tendency was almost absent among them some years back. The role played by the UGC for promoting accounting research work in Bangladesh is worth mentioning. It is observed that the number of non-degree research works is much higher than the research works for degree purpose. To maintain the quality of accounting research, uniformity in the requirement of course work, presentation and evaluation procedure of dissertations/theses should be introduced in all the universities. Non-degree research works sponsored by various institutions, as mentioned earlier, should also be evaluated by the experts before final submission of the reports. Implementation of the above suggestions will definitely increase the number and improve the quality of research works in accounting in Bangladesh.

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Accounting Education in India : Some Thoughts

- Bhaskarjyoti Bora*

Accounting is one of those ever changing subjects that derives its meaning from the true sense of practice and application. The dimensions of accounting have been changing continuously in response to the changing socio-economic need. The boundaries of accounting education have been widened, so as to cope with the ever-growing challenge of the environment to produce better quality accounting information. Earlier, Accounting courses tended to be rested upon uncritical acceptance of the assumptions reflected in accounting procedure. But now, the analytical approach has become the basic theme of accounting, as in case of other streams of education.

Accounting is essentially a measurement and communication methodology and information system operating within a given environment. Accounting assumes higher significance with the economic development of a country. In recent years, large scale production, cut-throat competition, widening of markets and changes in economy and technology have brought remarkable changes in the field of accounting. Developments in the field of Science, Mathematics and Technology have changed the very concept of accounting. It has now become a versatile system of serving a large number of goals of mordern business and industry.

Accounting and Changing Economic Scenario

India is now emerging as a third wave economy. Typically, an economy passes through three waves. In the first wave, the accent is on agriculture, with agricultural production contributing a bulk towards G.D.P. In the second wave, as a country starts getting industrialised,the focus shifts to manufacturing. And once the service sector catches up with manufacturing in terms of contribution towards Gross Domestic Product (G.D.P.), a nation steps into the third wave. This is what is actually happening in India - the surge of the service sector. That is a great news to accounting and accountant for he sits right at the epicenter of the service sector.

If India is to emerge as a major economic power its industrialisation and infrastructure building will have to take stronger roots. This calls for greater resource mobilisation and its effective utilisation. With geographical boundaries collapsing and the world becoming a global village, the finance profession has started picking mobility and glamour. 'Professional Accountancy' as a function encompasses finance, commerce, accounting and treasury management. It can be undoubtedly said that the professional accountant, along with technology whiz, will lead the resurgent economy through the 21st century.

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Accountancy and Emerging Technology -a Critical Review

The days of traditional functions of 'accountancy' are over. Rapid strides in technology and invasion of personal computers, with their enormous capabilities and speed have changed the way of data analysis through accounting. Today, PCs are an intergral part of an accountant's functioning and compact Disc (CD) ROMS have now hit the market. An entire series of encyclopaedia can be put into it. In the years ahead there is a possibility of CDs replacing text books. Satellite television will have its impact on education. Video conferencing can be taken as an example in this regard. Professors of modern times can now interact with students thousands of miles away, live through video conferencing. Tomorrows students will be in a position to have easy access to a 'Harvard Lecture' sitting at Delhi or Mumbai in India. Advent of INTERNET has made access to international date easy. Education is becoming hi-tech, it is obvious. But it does not mean that technology will replace the accountant. Rather it is the accountant with fair knowledge and acquintance with technology that will replace the accountant with outdated techniques.

Creation and Exploration of Opportunities

Accounting of modern - times is an activity of four-pillars viz., finance, audit, consultancy and tax (FACT). With organisations growing bigger by the day and getting into more global alliances audit will assume a tremendous significance. Audits will go hi-tech. The profession will evolve newer strategies for tackling many of the white collar crimes that would be part of computerised society. In this way the auditor is going to face the greatest professional challenge.

If audit is going to assume importance so will consultancy. Increasing consulting opportunities will bring in their wake increasing fees. The gap between academics and practicing professionals will get more and more narrowed down, and switching over of people from industry to academics and vice-versa will become a routine.

In a market economy resources get allocated to the most productive uses. Allocation of resources to the most profitable channels and in innumerable opportunities will lead to 'Management by Economic Results', where market forces will prevail over the decisions of planning commissions and other advisory bodies. The significance of capital market will grow. The governments' public expenditure will rise and newer avenues of raising revenue will be explored.

In a market economy there will be no room for inefficiency. The forces of market would ensure that inefficiency is ousted. Thus more and more institutions would go in for mergers and acquisitions. Many colleges may be closed down and the Universities may get merged. Institutes of accounting education and bodies of professional accountants might amalgamate to provide quality service.

Present Status of Accounting Education in India - a Brief Review

In India accounting education forms part of Commerce education at school as well as at college level.

(1) **School Level** : Till seventies and during early part of eighties the pattern of education in many states was such that just after class eight clear cut specialisation was made in three main streams viz, Arts, Science and Commerce and students used to choose and persue their studies in these three different streams as per their choice. However, it seems that from the last decade this system has totally been given up almost all over the country in favour of general subjects like Mathematics, Social Studies, General Science, English, Modern Indian Languages etc., in education upto Class X. Thus now the students go for specialisation courses after class X. In the earlier system, the students were fairly well oriented towards the subjects of specialised streams by the time they entered colleges. This shift of permitting specialisation courses at a later stage in schools have made it difficult for the students to cope up with the college-level standards of accounting education.

(2) **College and University Level** : After the introduction of ten plus two plus three scheme in the country, specialisation in different streams is now allowed only from Class XI onwards. Accountancy is one of the subjects to be chosen amongst other subjects such as Economics, Business Administration etc. However, in some universities such as Delhi University, study of accountancy along with some other subjects is compulsory in Commerce stream. Accountancy education in India at college level is clubbed with Commerce. There are no separate colleges of accounting as such in the country. B.Com (Hons.) and B.Com. degree is awarded to successful students after first degree. After postgraduation in Commerce including accountancy M.Com. degree is awarded to successful students.

Syllabus

With regard to the syllabus a reference to M.Com. Course in accountancy specialisation in the Gauhati University, Assam, India, can be made. Though the syllabus is an extensive one but in reality many problems are faced. There is avoidable duplication of topics among different subjects and it becomes confusing for the students. Though topics like Human Resource Accounting, Project Feasibility etc. are included in the Syllabus, it is very difficult to get study material. There is general lack of teaching aids like computers in the faculty. Excessive number of students in the Accounting specialisation destroys class room decorum. There is no practical project work for students and evaluation is only through year end examinations. Absence of case study method of teaching and internal assessment pose problems while assessing the merit of the students. In view of all these, the Faculty has started restructuring the courses and the new proposals have already been prepared.

The 21st Century Accounting Professionals

The finance professionals are expected to take the economy by storm. There is a sea of activity before them. They must build up expertise to deal with the emerging issues in accounting. Besides the financial services and audit services, they will have to be engaged in cousultancy, taxation matters, business reporting, equity research, manufacturing, investment advice etc. With the opening up of outlets for Multinational Corporations in India, the demand for the finance and accounting professionals in industry would also rise. Financial services cannot take-off on a sustained basis unless manufacturing too kicks off in a big way. Expansion and

diversification of entity functions will need accountants to build the financial system. The demand for the management accountants will go up as cost reduction, value analysis, cost engineering etc. become crucial. Enlargement of manufacturing activity will also lead to mergers and acquisitions and the accountants shall be required to provide these services. Accounting education need therefore, be made comprehensive and dynamic to fulfill the future need of corporations.

Accounting education in changing economic environment should therefore, take care of the following aspects.

1. Separate Departments for Accounting and Finance Studies should be established in all universities. The University Grants Commission (UGC) should take initiative and sanction necessary grants for the purpose. Employment of faculty having specialisation in accounting discipline should be made on priority, so that effective accounting education may be imparted to students.
2. Centres of Advanced Research in Accounting and Finance should be established at selected universities. Initiative for such a project should come from the Institute of Chartered Accountants of India and the Institute of Cost and Works Accountants of India. Research may be done at these centres on International and National Accounting Standards, simplification and rationalisation of accounting practices and for evolving new accounting practices.
3. Effective Human Resources Development (HRD) programme should be undertaken by business organisations in collaboration with professional bodies and universities through various HRD techniques to enable employees to equip themselves with the latest developments in the field of accounting. Business organisations should allow students that come to them through institutions to undergo on the job training for a short-term, say 4 weeks to 6 weeks. The institutions should take-up the matter with concerned organisations and make arrangement for the students.
4. A close interaction between the universities on the one hand and the industry on the other is much desirable to formulate and revise the curriculum in accounting education as per professional and industry need. Continuous discussion through a common forum is needed for this purpose.
5. In order to meet the requirement of business and industry and the professional world, job-oriented degree and diploma programmes should be started in the universities. Post-graduate Diploma in Cost and Management Accounting, Diploma in Taxation and Tax-Management, Diploma in Internal Audit and Post-graduat-Degree in Financial Control can be started in tune with the changing pattern in India.

Some Indian universities have already started such courses. The Banaras Hindu University and Delhi University have successfully launched Master of Finance and Control (MFC). In the context of emerging requirement of corporate finance and control in India, the MFC course is expected to find employment as finance and investment executives in financial institutions, commercial and development banks, leasing companies, merchant banking organisations, consultancy firms, investment counselling firms, and stock brokerage firms. The programme can be run as semester programme on self-financing basis.

The Department of Commerce, Gauhati University, Assam, have finalised the draft plans for launching the "Master of Financial Control" from 2000-2001. The Papers will be as follows :

1st and 2nd Semester (10 papers - 5 in each semester)

1. Managerial Economics, 2.General Management, 3. Regulatory Environment of Business, 4. Financial Accounting and Reporting, 5. Quantitative Methods, 6. Financial Management, 7. Cost Analysis, Planning and Control, 8. Tax Accounting, 9. Computer Application, and 10. Indian Financial System.

3rd and 4th Semester (10 papers - 5 in each semester)

1. Strategic Management, 2. International Finance, 3. Advanced Financial Management, 4. Accounting for Decision-Making, 5. Marketing of Financial Services, 6. Multinational Financial Management 7. Security Analysis and Portfolio Management, 8. Security Markets and Institutions, 9. Project Study.

The 10th Paper will be optional one. The candidate can select any one out of 1. Financial Management of Small Business, 2. Management of Bank Funds, and 3. Insurance Management.

Conclusion

Finance and accounting are the professions of 21st century. Keeping this in mind accounting education and training should be developed in such a way that it can fulfill the need of the time. A systematics and scientific approach by Indian Universities is required for this purpose. Professional institutes like the ICAI and the ICWAI should also co-ordinate their efforts with academic world and draft a comprehensive perspective plan for accounting education. Separate post-graduate degree course in 'accounting' should be started so that students with accounting specialisation can find careers as accountants in business and other organisations. Separate institutes of 'Accounting and Finance', recognised by the Government of India, can be set-up to provide education and award diploma.

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Basic Issues in Accounting Education for New Millennium

Dr. G.Y. Shitole

Introduction

Accountancy has emerged as an important discipline today. It is now no more looked upon as a mere mechanical exercise to be based on the supply of data with a view to taking stock of the resultant profit and financial standing of an enterprise. Accounting discipline was for a long time considered as the base for the preparation of basic books of accounts and finally preparing annual accounts, highlighting the performance of an organisation. This view is changing with the passage of time and as the scale as well as the nature of commercial activities have undergone tremendous changes, like the growth of small scale sector, popularity of corporate sector, growth of co-operatives and public sector. Multi-faceted growth of these activities has necessitated phenomenal uplift of accounting discipline. New innovations are taking place in accounting theory and practice at global level. At the threshold of 21st century accounting education has to develop to meet the challenge of fast changing global environment. In this direction efforts are to be made to make accounting discipline more sound in curriculum and increase the depth of knowledge.

Objective of the Study

In this paper an attempt is made to identify some of the gaps in accounting education and considering its scope suggest corrective action needed to overcome these gaps.

Hypothesis

Accounting education needs to be improved by undertaking research and change curriculum at U.G. & P.G. levels, considering the phenomenal growth of business and global concept of business with emphasis on transparency in accounting and following International Accounting Standards.

Significance of the Study

Indian economy accepted liberalization and globalisation of business since 1991. As a result the changing international scene, legal and economic legislation and social demands have enhanced the scope of accounting, whereby it has been developed as a tool of planning as well as control. Consequently, changes are required in the accounting education system.

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Accounting Education

At present the Accounting education at graduate and postgraduate level deals with issues like measuring profitability and financial position, developing an information base for decision-making, information for minimising risk and maximizing returns, controlling productivity and investment, guiding the projected pattern of activities, reporting to various segments of society etc.

The traditional accounting practies had certain limitations. Hence, along with the development of accounting education there was a need for development of new areas of accounting. Some of these new areas are Price Level Accounting, Human Resource Accounting, Value Added Accounting, Social Accounting, Lease Accounting, Tax Accounting, Computerised Accounting etc.

The above areas are included as part of accounting education at undergraduate level and at postgraduate level and also for the examinations of the membership of the Institute of Chartered Accountants of India (ICAI), the Institute of Cost & Works Accountants of India (ICWA) and other professional bodies. However, it is observed that the curriculum is more theoretical in its approach. It is argued that a student at B.Com. level should concentrate on conceptual aspects, and for the operational part, postgraduate courses or professional courses like CA, ICWA or ACS will take care. This pattern has been continued for a long period of time. We hardly come across a University incorporating in graduate and post graduate accounting courses essential material from accounting theory, such as Accounting Standards, International Accounting Practices, accounting treatment of new items like leasing etc.

Challenges Ahead

In the present age of computerization, the computer knowledge based courses have been introduced at school level. But the universities hesitate to introduce such courses at graduation level, whereby computer knowledge gained at school level goes waste since interaction with computer is totally off. Introduction of computer based courses at college level, at least in accounting discipline, will enable the students to meet the real need of business world applications. Futher, the curriculum has to ensure that teaching is not done in isolation i.e. it is to be ensured that what is being done in practice should be taught in class room. The accounting curriculum should ensure proper understanding of accounting concepts, applications, relevant quantitative methods, management information system through computers etc. There is a need for attempting to make accounting curricula to enter the information age, for improvement in the standard of accounting education.

There are Schools of Economics and Schools of Commerce and Management. Similarly there is a need to establish Schools of Accounting providing specialized bachelor degree and master degree in accounting. Actually accounting education has greater amount of potential to develop in areas like auditing. taxation, costing, legal practices etc. This may be possible if there are Departments of Accountancy at University level. For this purpose it may require constant efforts at the U.G.C. level, State Government level and University level. The U.G.C. may not sanction additional posts, such as Professors and Readers in Accountancy etc. In case the U.G.C. does not give posts to a University then efforts should be made to collect

donations to create endowment chair for accounting subjects. Such donations may be expected from banks, corporate bodies etc. Even the I.C.A.I. may be approached to give endowment funds for at least five chairs in different Universities in India. This would create suitable framework in the universities for improving accounting education.

Accounting Standards

The I.C.A.I. being the premier accounting body in India, has tried to improve accounting and auditing practices for healthy and coordinated development of the country as well as of the accountancy profession. To maintain uniformity in accounting principles and practices throughout the would, the International Accounting Standards Committe was set up on 29th June 1973. This lays down International Accounting Standards. In 1977 the I.C.A.I. had established an Accounting Standards Board to formulate accounting standards and place the same before the Council of the ICAI, which in turn establishes them as recommendatory or mandatory. The mandatory status of accounting standards implies that while discharging their attest function it will be the duty of the members of the ICAI to examine whether the firm has complied with the Accounting Standards in the preparation and presentation of financial statements covered by their audit. In the event of deviation it will have to be disclosed in the audit report, so that the users of financial statements may be aware of such deviations.

The rationale of Accounting Standards is to present reliable accounting information with good quality and maintain uniformity. Still we find a variety of accounting methods, such as Receipt Basis, Mercantile Basis and Hybrid Basis. Whatever the method there must be a note at the end of final accounts in this respect.

The Indian Accounting Standards and International Accounting Standards should form part of curriculum at undergraduate level. At present, these are only found in Chartered Accountants examinations.

Role of Teachers

Teachers of accounting are expected to develop standard accounting education by undertaking research projects, revising curriculum from time to time and providing working knowledge of computerised management information system to students at undergraduate and post graduate level. The professional bodies of accountants should arrange orientation programmes, workshops and seminars for these teachers, so that they can give project work to their students as an assignment in practical work in accountancy.

It is also recommended that an accounting lab should be set up at each educational institution for providing practical training in accounting, covering various documents like bank pay-in-slip, debit and credit vouchers, cheques, various types of agreements, receipts, income tax return etc. It should also cover practical training on computers with latest developments. If possible an electronic presentation system should be used, which may include combination of computer and video output on a large screen.

Conclusion

There has been a gap in the development of accounting education in India, as compared to international standards. There is a need to fill up this gap by dynamic and frequent updating of the accounting courses. The Institute of Chartered Accountants of India, who are in accounting education for profession, should develop accounting education by contributing to the research activity and the teachers of accountancy should update the curriculum from time to time. This will help improve the standard of accounting education at college level.

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Book Reviews

Accounting Theory - An Introduction, L.S. Porwal,
Tata McGraw-Hill Publishing Company Ltd., Third Edition, 2001, pp. x +510.

This is the revised version of a widely used book. While revising, the author has retained the basic structure but added in it the chapter objectives, summary, accounting vocabulary, recommended sources of readings to make the book user-friendly. The contents are divided into three parts - Theoretical Framework, Elements of Financial Statements and Contemporary Issues in Accounting - consisting of fourteen well-designed chapters. Starting with several approaches to the formulation of accounting theory, it has dealt with in a logical sequence a number of challenging issues like the role of accounting in a changing environment, history of accounting thought, conceptual framework for accounting, disclosure in financial statements, accounting for price-level changes, cash flow accounting, corporate social performance, human resource management, to mention a few.

The language is lucid, arrangement is logical and contents cover the contemporary developments on the subject. The fact that the book has undergone three editions, apart from numerous reprints, speaks volume in favour of popularity and usefulness of the book. Appendices to several chapters will serve the requirement of researchers and professionals. The linking of questions of each chapter, instead of putting them at the end of the book, has increased its usefulness to the students.

It was refreshing to the present reviewer to see many interesting changes in the present book over the earlier editions. The book is recommended for the students appearing for undergraduate and post graduate commerce and management courses, and those appearing at the professional and competitive examinations. The quality of paper, printing and layout is good and internationally competitive.

Bhabatosh Banerjee Professor of Commerce, University of Calcutta

Cost Accounting (Eleventh Revised Edition 2001) , Bhabatosh Banerjee,
The World Press Pvt. Ltd., 37 A College Street, Kolkata - 700 073, pp xiii + 1035 Price Rs. 225

The present volume is eleventh, thoroughly revised and up dated edition of the book first published in 1972. Eleven editions and nine reprints speak volumes of the popularity of the book. The subject matter has been logically distributed over 22 chapters. Lucid description of concepts, logical arrangement of the text, illustrations supported with charts and graded solved numerical problems, multiple choice questions and exercises based on professional examinations' requirement are some of the unique features of the book. Inclusion of terminology, bibliography and index at the end of the book have greatly enhanced its utility for the readers.

Written as a text-book and covering practically all topics on the subject, it is expected to meet the requirement of the students of undergraduate and post graduate courses in Commerce and Management as well as the examinations of professional courses like CA, ICWA etc. comprehensively. This will also be a useful reference book for the practitioners.

The printing of the book is of good quality and the price is reasonable, looking to the size of the volume.

K.R. Sharma, Former, Professor of Accounting & Dean, Sukhadia University, Udaipur

Social Accounting (2001) Dr. G.L. Dave
Renuka Publishers, Taparia Bera, Jodhpur pp vii + 150, Price Rs. 250

'Social accounting' has received increasing greater attention from researchers in India in recent years, like some other developed countries. It is a welcome development. The present work is a useful contribution to existing literature on the subject. Giving conceptual framework at the outset author has covered the aspects like social cost benefit techniques and models, human resource accounting, environmental accounting, corporate social accounting and reporting and some country studies. The work is expected to serve as useful reference for scholars as well as practitioners.

K.R. Sharma, Former, Professor of Accounting & Dean, Sukhadia University, Udaipur

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